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**THE RELATION BETWEEN ACHIEVEMENT
MOTIVATION AND LEISURE MOTIVATION
AMONGST MIDDLE PRODUCTION SUPERVISORS WORKING AT
A SOUTH AFRICAN GOLD MINE**

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DECLARATION

I declare that "**The Relation Between Achievement Motivation and Leisure Motivation amongst middle production supervisors working at a South African gold mine**", is my own work. It is submitted to the Potchefstroom University for Christian Higher Education for the MAGISTER ARTIUM degree. It has not been submitted before for any other degree or examination at any other University.

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1999

THE RELATION BETWEEN ACHIEVEMENT MOTIVATION AND LEISURE MOTIVATION AMONGST MIDDLE PRODUCTION SUPERVISORS WORKING AT A SOUTH AFRICAN GOLD MINE

The need to improve individual and team performance was identified by AngloGold, the biggest South African gold mining company. The challenge is to remain profitable and to develop an adequate supply of quality managerial and supervisory material. It was concluded that a relatively high level of achievement motivation is needed to succeed as a manager or supervisor. Murry (1938) defines achievement motivation as "the desire to do things as rapidly and well as possible to accomplish something difficult. To master, manipulate and organize physical objects, human beings or ideas, to overcome obstacles and attain a high standard. To excel oneself. To increase self-regard by the successful exercise of talent." Using the multi-factorial achievement motivation questionnaire of Cassidy & Lynn (1989), the empirical investigation indicates that middle production managers working at a South African gold mine have average achievement motivation levels. The most dominant values driving achievement are dominance and excellence. The human element needs unconditional consideration almost regardless of what aspect of productivity is being researched. The human element therefore needs to be researched in a holistic manner. Following the statement made by Freud (1930), that to be human is to "work and to love", the relationship between achievement motivation and leisure motivation, the research also included the Beard and Ragheb (1983) leisure motivation questionnaire. A positive relationship was found between achievement motivation and leisure motivation. Due to the influence of culture, and specifically organisational culture, in the development of values, these achievement and leisure values can be developed through appropriate developmental inputs.

KEYWORDS: **Productivity, supervisors, leisure motivation**
achievement motivation (nAch) , gold mining.

DIE VERBAND TUSSEN PRESTASIEMOTIVERING EN VRYETYDS- MOTIVERING ONDER MIDDEL PRODUKSIE TOESIGHOUERS WERKSAAM BY 'N SUID-AFRIKAANSE GOUDMYN

Die behoefte om individuele en span werksverrigting te verbeter is deur Anglogold geïdentifiseer, as 'n belangrike faktor in produktiwiteitsverbetering. Bestuur- en toesighoudende personeel benodig hoë prestasiemotiveringsvlakke aangesien hierdie persoonlikheidskenmerk nodig is om suksesvol te kan bestuur in 'n produksie-georiënteerde omgewing. Murry(1938) toon dat individue verskil in die behoefte om te presteer. Hierdie behoefte om te presteer is gemeet op 'n Suid-Afrikaanse goudmyn, spesifiek die vlak van prestasiemotivering van die middel-produksietoesighouer. Die Cassidy en Lynn (1989) prestasie-motiveringsvraelys is gebruik om die prestasie waardedimensies onderliggend aan prestasiemotivering te meet. Die resultate toon dat hierdie teikenpopulasie gemiddelde prestasiemotiveringsvlakke het. Die mees dominante waardes wat prestasie dryf is die behoefte aan dominansie en uitnemendheid. Die menslike aspek in produktiwiteit moet op 'n holistiese wyse nagevors en Freud (1930), se aanname dat menslikheid is om "te werk en lief te hê", het betrekking. Die verwantskap tussen prestasiemotivering en vryetydsmotivering is dus bepaal. Die Beard en Ragheb vryetydsmotiveringsvraelys (1983), is afgeneem en vergelyk met die resultate van prestasiemotiveringsvlakke. Die navorsing het bevind dat daar wel 'n positiewe verwantskap is tussen die twee motiveringsdimensies. Die invloed van kultuur in hierdie twee dimensies is uit 'n ontwikkelingsperspektief van groot waarde, aangesien hierdie motiverings-waardes gestimuleer en ontwikkel kan word in organisasies.

SLEUTELWOORDE: **Produktiwiteit, toesighouers, vryetyds-motivering, prestasiemotivering(nAch) , goudmyn industrie.**

INDEX

Chapter One _____ **1**

BACKGROUND AND PROBLEM STATEMENT _____ **1**

1. Introduction and statement of the problem	1
1.1 Objective and Hypothesis	5
1.1.1 Main Objective	5
1.1.2 Sub Objectives	5
1.1.3 Hypothesis	6
1.2 Method of research	6
1.2.1 Literature Study	6
1.2.2 Empirical Investigation	6
1.3 Concepts defined	8
1.3.1 Motivation	8
1.3.2 Achievement	9
1.3.3 Achievement motivation (nAch)	9
1.3.4 Achievement behaviour	9
1.3.5 Productivity	10
1.3.6 Leisure motivation	10
1.3.7 Values	10
1.4 Nature of study	11

Chapter Two _____ **12**

ACHIEVEMENT AND LEISURE MOTIVATION: a literature study _____ **12**

2.1. Introduction	12
2.2 The concept of motivation	12
2.3 Achievement Motivation	13
2.3.1 Achievement Motivation Defined	13
2.3.2 Achievement (Direction or goal of behaviour)	15
2.3.3 Achievement Behaviour (How the Goal is achieved)	17
2.3.4 Achievement Values (Why the behaviour occurs)	20

2.4 Development of achievement motivation	28
2.4.1 Culture	30
2.5 Impact of achievement motivation on economic success	39
2.5.1 Improve Productivity in Organisations	40
2.6 Leisure motivation	43
2.6.1 Concept of leisure	43
2.6.2 Direction of leisure (goal)	44
2.6.3 Reasons for participating in leisure	45
2.6.4 Leisure behaviour	49

Chapter Three 52

METHOD OF RESEARCH 52

3.1 Purpose of the study	52
3.2 Identification of Literature	52
3.3 Procedures for conducting research	53
3.3.1 Target Population	53
3.3.2 Statistical analysis	54
3.4 Measuring instruments	55
3.4.1 Demographic Information	55
3.4.2 Achievement Motivation Questionnaire	55
3.4.3 Leisure Motivation Questionnaire	57
3.5 Limitations of empirical research	58
3.6 Summary	59

Chapter Four 60

RESULTS OF STATISTICAL PROCEDURE AND EMPIRICAL INVESTIGATION 60

4.1 Introduction	60
4.2 Statistical procedures	61
4.2.1 Item analysis	61
4.2.2 Reliability study	65
4.2.3 Factor analysis	66
4.2.4 Regression analysis	67

4.3	Demographic information	69
4.3.1	Sex	69
4.3.2	Language	70
4.3.3	Occupation	70
4.3.4	Marital Status	71
4.3.5	Age	71
4.3.6	Years experience in mining industry	72
4.3.7	Income per year	72
4.3.8	Qualification	73
4.4	Relationship between achievement and leisure motivation	74
4.4.1	nAch levels of middle production supervisors	77
4.4.2	Level of leisure motivation of middle production supervisors	82
4.5	Summary	84

Chapter Five 85

SUMMARY, IMPLICATIONS, LIMITATIONS AND

RECOMMENDATIONS 85

5.1	Summary	85
5.2	Implications	88
5.3	Limitations of research	89
5.4	Recommendations	90

REFERENCES 91

LIST OF TABLES

Table 2.1: Terminal and instrumental values	21
Table 2.2: Features of culture	30
Table 2.3: Characteristics of power distance	32
Table 2.4: Motivational needs and the role of the supervisors	42
Table 4.1: Item total correlation - achievement motivation	61
Table 4.2: Item total correlation - leisure motivation	63
Table 4.3: Cronbach alpha coefficient- achievement motivation	65
Table 4.4: Item total correlation - leisure motivation	66
Table 4.5: Factor analysis	67
Table 4.6: Regression analysis	68
Table 4.7: Sex	69
Table 4.8: Language	70
Table 4.9: Present occupation	70
Table 4.10: Marital status	71
Table 4.11: Age	71
Table 4.12: Number of years experience in mining industry	72
Table 4.13: Income per year	72
Table 4.14: Qualification	73
Table 4.15: Nach levels	78
Table 4.16: Level of leisure motivation	82

LIST OF FIGURES

Figure 2.1: Three levels of uniqueness of human mental programming	31
Figure 2.2: Power distance position in south africa	33
Figure 2.3: Relation of power distance, individualism and collectivism	35
Figure 2.4: Relation of power distance, masculinity and femininty	36
Figure 2.5: Relation between uncertainty avoidance and mascilinity	37
Figure 2.6: Levels of causality of leisure behaviour	49
Figure 4.1: Relationship between achievement motivation and leisure motivation	75
Figure 4.2: Achievement and leisure motivation values	76
Figure 4.3: Achievement motivation levels per occupation	78
Figure 4.4: Achievement motivation levels per language group	79
Figure 4.5: Achievement values	80
Figure 4.6: Leisure motivation per occupation	83

ANNEXURE

Annexure 1: Questionairre to asses achievement motivation and leisure motivation	100
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Chapter One

BACKGROUND AND PROBLEM STATEMENT

1. INTRODUCTION AND STATEMENT OF THE PROBLEM

One of the most crucial challenges facing the South African Gold Mining Industry in the 21st century, is the development of an adequate supply of quality managerial and supervisory material. The objectives of AngloGold's CEO Bobby Godsell focus on the improvement of productivity and operational excellence and the development of AngloGold's 21st century managers and workers (Godsell, 1998:1). The question to be answered is which human attributes impact productivity levels? Biesheuvel (1988:1) states that it is generally recognised that productivity level is the outcome of numerous interacting conditions varying with time, place and circumstances. Biesheuvel therefore suggested that productivity studies require a systems approach and any specific variable must always be seen in its dynamic relationship with others on which it is dependent or which it may dominate (Biesheuvel, 1988:2).

One element that needs unconditional consideration almost regardless of what aspect of productivity is being researched, is the human element (Biesheuvel, 1988:1; Nasser, 1981:2). This element needs to be seen in context, as not the sole factor of productivity improvement but as its heart. In this light, the chairman of the Coca-Cola Company stated in 1997 that "we obviously have little control over global economic trends, currency fluctuations and devaluation's, natural disasters, political upheavals, social

unrest, bad weather or schizophrenic stock markets. We do, however, have complete control over our own behaviour”(Manning, 1997:9). When looking at the human factor in productivity, we need to understand what is meant by the human factor. Freud (1930:50) proposed that to be human is to work and to love. It can be argued that a person therefore needs to work in order to be fully human. How you must work is further described by Kelly & Kelly (1994:4): “ To be human is to work in productive and worthwhile engagement, to love in the relationship of sharing and intimacy, to learn in developmental action and to be free in expressive activity”. Therefore in order to understand the human element in productivity, the systems approach suggested by Biesheuvel(1988:1) needs to be followed and should include not only the work part of being human, but also the freedom of activity which is closely associated with leisure. For the purposes of analyses, the human factor in productivity will be researched in terms of the motivational attribute needed to be productive and the possible relationship with the other side of being human, namely the freedom or leisure motivation.

Motivational theories focus on the reason behind behaviour and Murray (1938:60) attributes behaviour to personality, which is conceived as a series of needs that influence behaviour. One of the needs of an individual is the need to achieve or to be successful, referred to as nAch. Given that people have different personalities, the assumption can be made that their needs will differ and that they will therefore behave differently. Murray (1938:164) supports this assumption as he recognises that people vary in the desire to overcome obstacles, to exercise power or strive to do something difficult as well as possible. Motivation and the resultant behaviour can be identified in a variety of settings.

Achievement motivation (nAch) as a human attribute was researched in contexts such as sport (Nicholls, 1992:31; Scholtz, 1976:3), academic achievement (Weiner, 1988:93; Eccles, 1983:75; Wigfield, 1994:49) and industrial psychology focussing on productivity (Cassidy & Lynn, 1989:301; Durand, 1983: 907; Furnham, 1997: 197). The behavioural scientist McClelland (1965: as referred to in Mahadea, 1994:43) stimulated the focus on nAch and productivity. McClelland observed that large amounts of capital were transferred into the war torn economies of Europe and the developing nations. Such aid was successful in Western Europe but to a large extent a failure in the developing world. McClelland then argued that the missing link for development was not the capital, but a lack of people with achievement motivation. McClelland (1961:205) also explored the relation between the success of nations and the achievement drive of their people, and found that high nAch levels are associated with above average economic growth. On an individual level, McClelland (1961:205) found a positive relation between people's nAch levels and their entrepreneurial success, which is seen as " a person who organises a firm or increases its productive capacity and translates nAch levels into economic development".

The above-mentioned research has stimulated researchers in South Africa due to the wide application of the theory. Morsbach (1969:267) focussed on different cultures and nAch and studies like Erwee (1986:8) and Boshoff *et al.* (1987:22) focussed on actual behaviours resulting from nAch and variables influencing it. Elliott's research (1991), however focussed on the value-related variables of nAch, amongst the South African business population. Elliott (1991:12) argues that values are more permanent frameworks than the other variables. Values influence behaviour from the intrapersonal level to the interpersonal level and also influence the organisational and community value system.

Witterbottom (1953: as referred to in Franken, 1988:265), stated that the value system of an individual is the result of culture, home environment and previous experience. It can be argued that different value systems will influence the motivation in different situations and therefore also the behaviour.

Since achievement (and therefore achievement values) is the function of the environment, the implication is that they can be stimulated in people through appropriate developmental inputs. McClelland (1961:293) found that child-rearing practices have the biggest impact in the development process of achievement values. Mahadea (1994:43) also stressed that nAch is instilled early in life, and nAch levels are influenced by a family climate without excessive interference, but where parents encourage children to attain a high standard of excellence. Developmental inputs for example must focus on work, as a critical form of achievement or value to reduce possible current perceptions such as crime as a form of achievement. Studies done in Africa and India (McClelland, 1987; Durand, 1983), confirm that latent nAch in adults can be developed through training interventions. The significant positive effect that training can have on improving the human element in productivity provides AngloGold with the opportunity to increase the achievement values of workers and supervisors through appropriate training interventions. The research of Boshoff & Boer (1988:2) confirmed that not only can nAch training improve individual performance and achievement values, it also can have a positive impact on labour efficiency.

The need to improve individual and team performance was identified by the mining industry, which is one of the largest employers in South Africa. The challenge is to remain profitable through the development and motivation of employees (Walker, 1997:5). The responsibility of middle production

supervisors are to mobilise themselves and subordinates to display achievement behaviours such as working hard, achieving targets and ensuring improvement. The importance of performance-oriented managers and workers encourages the researcher to determine their level of achievement motivation and the relationship of this achievement motivation to leisure motivation. The level of achievement motivation can indicate the extent to which this motive needs to be developed amongst middle production supervisors. The relationship to leisure motivation will indicate which leisure needs are dominant and can be positively reinforced to enhance achievement values. Based on the above, the following research question will be answered by this study: Is there any relationship between achievement motivation and leisure motivation? The purpose of this study is to determine this relationship.

1.1 OBJECTIVE AND HYPOTHESIS

This study aims at reaching the following objectives and to test the following hypothesis:

1.1.1 Main Objective

The main objective of this study is to determine whether there is a relationship between achievement motivation and leisure motivation amongst middle production supervisors at a South African Gold Mine.

1.1.2 Sub Objectives

1. To determine the level of achievement motivation amongst middle production supervisors at a South African Gold Mine.

2. To determine the level of leisure motivation amongst middle production supervisors working at a South African Gold mine.
3. To identify the most dominant value or values, driving achievement.

1.1.3 Hypothesis

To achieve these objectives, the following hypothesis will be tested:

1. There is a positive relationship between achievement motivation and leisure motivation.

1.2 METHOD OF RESEARCH

To achieve the set study objectives, the study will be conducted by means of a literature study and an empirical investigation.

1.2.1 Literature Study

The concept of achievement motivation will be investigated, with specific focus on definitions, achievement values, the development of achievement motivation and its relationship to productivity. Leisure motivation will be discussed in the rest of the chapter focussing on leisure needs as the central theme of leisure motivation.

1.2.2 Empirical Investigation

To measure the possible relationship between achievement motivation and leisure motivation, participants will complete a questionnaire including demographic information and two structured questionnaires:

The multifactorial questionnaire of Cassidy and Lynn (1989:301) measures seven value-related factors that influence achievement motivation. It measures achievement motivation as a multidimensional construct. The factors included in the measurement are:

- ! **Work ethic (WE)**
- ! **Pursuit of excellence (Exc)**
- ! **Status aspiration (SA)**
- ! **Competitiveness (Com)**
- ! **Acquisitiveness for money and material wealth (Acq)**
- ! **Mastery**

The Beard and Ragheb (1983:219) Leisure Motivation Scale measures the psychological and sociological reasons for participating in leisure activities through measuring the following leisure needs or leisure components:

- ! **Intellectual component**
- ! **Social component**
- ! **Competence-mastery component**
- ! **Stimulus avoidance component**

The statistical procedures that will be followed on the above-mentioned questionnaires include item analysis, reliability study, factor analysis and regression analysis. All statistical procedures will be done with support of the Statistical Consultation Services at the PU for CHE.

1.3 CONCEPTS DEFINED

The following concepts will be used on a continuous basis during this research: motivation, achievement, achievement motivation, achievement behaviour, productivity, leisure motivation and values. These concepts are defined to ensure congruency and understanding throughout the study:

1.3.1 Motivation

This term is derived from the Latin word "movere" that means to move (Pintrich & Shunk, 1996:4). Motivation has been conceived by Freud (1930), as involving inner forces including psychical energy, instincts, and will. As an enduring trait as reflected in the achievement motive of Murry (1938) and Atkinson (1957). Motivation was also viewed as an increased or continual level of behavioural responses to stimuli brought about by reinforcement or reward (Skinner, 1968) and the cognitive theory of motivation stresses the influence of thought, beliefs and emotion as reflected in the attributional theory of motivation (Weiner, 1983).

Taking these motivational definitions into account, Pintrich & Shunk (1996:4) define motivation as: "the process whereby goal-directed activity is instigated and sustained". Roberts (1992:7) further describes the study of motivation as "the investigation of the energisation and direction of behaviour". This definition is relevant to the current study as its purpose is to research the driving force of achievement, namely the values that energise behaviour.

1.3.2 Achievement

Spence & Helmreich (1983:12) define achievement as "Task oriented behaviour that allows the individual's performance to be evaluated according to some internally or externally imposed criterions that involve the individual in competing with others, or that otherwise involves some standard of excellence." Achievement is further described as performing a task for its own sake and the reward of this behaviour is intrinsic (Spence, 1983:13).

1.3.3 Achievement motivation (nAch)

Murray (1938:164) defines nAch as "the desire to do things as rapidly and as well as possible to accomplish something difficult. To master, manipulate and organise physical objects, human beings or ideas, to overcome obstacles and attain a high standard. To excel oneself. To increase self-regard by the successful exercise of talent". Achievement motivation was further described by McClelland (1951: as referred to by Spence & Helmreich, 1983:73) as tendencies that are learned and that both energize and direct behaviour toward specific goals. Cassidy & Lynn (1989:301) explain nAch, as a term used in psychology to describe the personal striving of individuals to attain goals within their social environment.

1.3.4 Achievement behaviour

Weiner (1985:169), refers to the following behaviour as resultant nAch behaviours: "To make intense, prolonged and repeated efforts to accomplish something difficult. To work with singleness of purpose towards a high and distant goal. To have the determination to win. To try to do everything well. To be stimulated to excel by the presence of others, to enjoy competition".

Roberts (1991:6) further defined achievement behaviour as behavioural intensity (trying hard), persistence (continuing to try hard), choice of action possibilities, and performance (outcomes).

1.3.5 Productivity

Productivity is commonly defined as input divided by output and labour productivity measures the amount of output per employee per hour (Hamermesh & Rees, 1988:106). Biesheuvel (1988:3) therefore emphasises that the quality of achievement motivation (goals, standard, persistence, and responsibility) as an input, significantly influences the output.

1.3.6 Leisure motivation

People engage in leisure activities for different reasons and the study of those different reasons, their origins and etiology are central to the understanding of leisure motivation (Beard & Ragheb, 1983:227). Leisure motivation therefore refers to the psychological and sociological reasons for participating in leisure activities, the understanding of the "why" of behaviour. These reasons are classified as "needs or motives" and leisure needs provide the best theoretical framework for understanding the motivational basis of leisure behaviour (Iso-Ahola, 1980:248).

1.3.7 Values

The word "values" come from the French work "valoir", meaning "to be worth" (Senge et al. 1994:302) and describe how we intend to operate or behave. Rokeach (1979:2) describes human values as follows: "Values are core conceptions of the desirable within every individual and society. They serve as standards or criteria to guide action but also judgement, choice,

attitude, evaluation, argument, exhortation, rationalisation, and one might add, attribution of causality". Values are suggested to be stable frameworks and are closely related to one's culture (Wigfield & Eccles, 1992:274).

1.4 NATURE OF STUDY

The objective of this study is to determine the relationship between achievement motivation and leisure motivation. For this purpose research will be done by means of a literature study and empirical investigation. The literature study in chapter two will focus on the achievement motivation theory and leisure motivation. An empirical investigation will be completed to determine the relationship between achievement motivation and leisure motivation. This empirical investigation will be conducted with the aid of two structured questionnaires and data of the two questionnaires will be compared to determine this relationship. Chapter three indicates the method of research and in chapter four, the results will be presented, analysed and interpreted. Chapter five will provide a summary of the research project, the implications, limitations and recommendations.

Chapter Two

ACHIEVEMENT AND LEISURE MOTIVATION: A LITERATURE STUDY

2.1. INTRODUCTION

Spence & Helmreich (1983:8) emphasise that "ambition and the drive to achieve excellence are widely recognised as crucial ingredients in successful attainment". The question that flows from this, is what human attribute can make a difference to productivity levels? What is the driving force behind individuals who strive towards excellence and demonstrate achievement behaviours? This chapter focuses on the theory behind these and other similar questions. The focus is on achievement motivation as the human side of productivity and on leisure in respect of leisure motivation.

2.2 THE CONCEPT OF MOTIVATION

Many early psychologists drew on the views of philosophers such as Plato and Aristotle, and conceived of the mind as comprising knowing (cognition), feeling (emotion), and willing (motivation). Various terms were used to explain the concept of willing referred to as motivation, including drives and needs (Pintrich & Schunk, 1996:27). Motivation is derived from the Latin word "movere" which means to move, and therefore indicates action (Roberts, 1992:7). This action or behaviour can be attributed to certain drives or needs and motivation theorists have been concerned mainly with the question of what arouses and energises specific behaviours. The factor that arouses and energises behaviour, also gives direction to behaviour, and motivational theorists need to deal with the direction of behaviour as well

(Franken, 1988:3). Roberts (1992:5) supports this statement as he describes the study of motivation as the "investigation of the energisation and direction of behaviour". Roberts (1992:5) also argues that theories are not motivational unless the theory addresses both aspects of behaviour: the direction of the behaviour and why the behaviour was energised with reference to the intrinsic needs.

2.3 ACHIEVEMENT MOTIVATION

Achievement motivation is a motivational theory that researches behaviour, through focussing on the direction (goal) and the reason (why) the behaviour occurs. The theory of achievement motivation will therefore be discussed by focussing on the direction (goal) of achievement motivation, the actual behaviours (how) these goals are being achieved, the driving force (why) this behaviour occurs. The development of this driving force and its effect on economic development, including productivity and supervisory skills, will be referred to.

2.3.1 Achievement Motivation Defined

Research indicates that Murray (1938:60) formulated the concept of achievement motivation. Murray conceived personality, as a series of needs, amongst these is the need to achieve or to be successful. Murray (1938:80) recognised that people vary in their desire or tendency to "overcome obstacles, to exercise power and to strive to do something difficult as well as possible", he called this tendency "the need to achieve". Due to differences in personalities, the prediction can be made that people will also differ in their level of achievement motivation.

Murray (1938:164) then defined achievement motivation, as:

- “The desire to do things as rapidly and as well as possible.
- To accomplish something difficult.
- To master, manipulate and organise physical objects, human beings or ideas.
- To overcome obstacles and attain a high standard.
- To excel oneself.
- To increase self-regard by the successful exercise of talent”.

The main elements of this definition can be summarised as the need to accomplish difficult tasks, to overcome obstacles, to master and attain a high standard, to increase self-regard and use God given talents. A number of researchers built on the above-mentioned elements, and focussed on the intrinsic activity of achievement motivation. McClelland (1985:228) argues that achievement motivation grows out of a basic incentive to “do something better and for its own sake” and also identified the important role of the social environment, such as feedback from peers, in developing this incentive. Atkinson (1957: as referred to in Weiner, 1992:168), made the important contribution with his suggestion that the need to achieve is always tempered by another fundamental need, “ the need to avoid failure”. That is, one cannot set out to achieve a goal without considering the consequences of failure.

Spence and Helmreich (1983:12) define achievement motivation as “task-orientated behaviour that allows the individual’s performance to be evaluated according to some internally or externally imposed criteria that involve the individual in competing with another, or otherwise involves some standard of excellence”. Excellence as the central focus in these definitions also implies that a person with high nAch levels wants to accomplish high

standards of excellence. These standards of excellence can be interpreted as already set standards. Pottas *et al.* (1980:2) provide support that a person with high achievement needs, has an inclination to formulate high standards for himself. It can be argued that these standards are set when the individual interprets the task or activity as challenging. The other elements of Murray's definition, pride in performance and self-reliance are included in the definitions of Pottas (1980:2), who states "that people with high achievement motivation have the belief that reliance on own skills and abilities is decisive in achieving success". These people can be seen as independent people who have accepted the responsibility for their own life and success. Maehr (1989:300) put a strong emphasis on the behavioural dimension of achievement motivation and refers to achievement motivation as: "All behaviour, which occurs in reference to a standard of excellence, and this can be evaluated in terms of success and failure". The individual is responsible in some sense for the outcomes and there is some level of challenge and some sense of certainty involved.

These definitions of nAch focus on the direction of achievement motivation, the reason for this motivation as well as the behavioural dimension. These concepts will be further discussed in the following paragraphs.

2.3.2 Achievement (Direction or goal of behaviour)

Spence & Helmreich (1983:12) define achievement as "task-oriented behaviour that allows the individual's performance to be evaluated according to some internally or externally imposed criterion that involves the individual in competing with others, or that otherwise involves some standard of excellence". The goal is to attain a high standard of excellence with respect to tasks and also involves evaluation according to some internally or

externally imposed criteria. This can be an already set criterion or one the individual developed for himself. "Excellence" can be interpreted as doing a task quickly and efficiently or better than someone else. Spence (1983:13) states that the reward for performing is inherent in the performance itself, and the pleasure that develops out of mastering the task, is intrinsic. When the goal is more specifically to meet some standard of excellence in performance and the behaviour is directed towards achieving this, it is referred to as intrinsic goals (Spence,1983:14).

The person then evaluates himself against a set of standards of excellence or set standards for himself. These standards need to be realistic and the research study done by Mahone (1960: as referred to by Franken, 1988:389), indicates that the goal of vocational achievement is set at a more realistic level when a person measures high on nAch. High achievers select jobs and set achievement targets that are consistent with their ability and their excellence criterion is therefore achievable. Low achievers on the other hand are more likely to select either overly easily or an overly difficult job. The goal or direction of behaviour, called achievement is therefore an individual experience. Individuals can set high standards in the work environment and in extracurricular contexts such as hobbies, sport, participation in community service , child rearing or voluntary work. Although achievement-oriented individuals often express their achievement motives in conventional job or education related activities, they may find an outlet for their achievement striving in other activities in which they voluntarily engage, meaning leisure (Spence, 1983:63). One of the leisure needs measured through the Beard and Ragheb (1983) leisure motivation questionnaire includes the need to achieve.

2.3.3 Achievement Behaviour (How the Goal is achieved)

The direction (goal) is achievement, which can in turn be defined, as some set standard of excellence. The behaviour (how), refers to the behavioural characteristics or attributes of individuals with high nAch levels. Weiner (1985:169) states that high achievers possess the following characteristics:

- “To make intense, prolonged and repeated efforts to accomplish something difficult.
- To work with singleness of purpose towards a high and distant goal.
- To have the determination to win.
- To try to do everything well.
- To be stimulated to excel by the presence of others, to enjoy competition.”

The major concepts of achievement motivation such as winning, excellence, goal achievement and persistence are evident in the above characteristics. Dinsdale (1986:3) also focused on the inner forces and include behaviours such as:

- Self-motivation.
- Positive attitude.
- Searching for information and alternative ways of doing things.

Roberts (1991:6) focussed most of his research in the sport arenas and specifically highlighted behaviours such as:

- Behavioural intensity (trying hard).
- Persistence (continue to try hard).
- Choice of action possibilities.
- Performance (outcomes).

For the purpose of this study, persistence, moderate risk taking and time utilisation will be briefly discussed in the process of understanding the human attribute that possibly influences productivity levels:

The target group in the empirical investigation includes supervisors in the mining industry. The behaviours mentioned above are important due to the constrained mining environment. The mining process depends on people who can persist in difficult work conditions: high temperatures averaging 30,5`C, working areas only 95 cm high and between 2700m to 3500 metres underground. The challenge is to achieve production and safety targets, within the set time frame and in these environmental conditions, without risking your own life or the lives of others (Mdaka, E. 1999).

2.3.3.1 Persistence

Persistence means to persevere in striving to achieve success in a task, despite problems which arise. Such a person relies on his own skills when carrying out tasks and setbacks are seen as challenges rather than stumbling- blocks (Thompson, 1985:58). Persistence can be learned in specific situations and tends to generalise to other situations that share certain common properties. Amsel's learning theory (1958:as referred to by Franken, 1988:408), suggests that persistence is acquired over a period of time and the difficulty level of an activity, is an important variable of persistent behaviour. It was found that people with high nAch levels, would rather select and persist in the activity that is more consistent with ability than easy activities (Franken 1988 :389). That this is one reason why managers often switch jobs so often. Once they have mastered one operation they may be motivated by the new challenges offered by another job.

2.3.3.2 Moderate Risk Taking

Taking moderate risks is probably the single most descriptive characteristic of the person possessing high nAch. The ring-toss game study of McClelland (1961:200), can be used as an example. It has been shown that when ring tossers are told that they may stand anywhere they want to when they toss the ring at the peg, high achievers and low achievers differ in the way they behave. Low achievers either stand very close or very far away and toss the rings at the peg wildly. High achievers will carefully calculate the exact distance from the peg that will challenge their own abilities. The assumption can be made that individuals with high nAch levels will also take calculated risks, this can make the difference between success and failure in a work environment and in individual and social environments (Weiner, 1992:194). This attribute relies on the individual's ability to evaluate himself and his environment.

2.3.3.3 Time orientation

Productivity and the optimal usage of time are closely related to each other as labour productivity is defined as the amount of output per employee per hour (Hammermesh & Rees, 1988:106). Van Rensburg & Raubenheimer (1990:9) support this as they indicate that a person with high nAch levels, views time as a unique and a personal responsibility. They use time optimally in order to complete tasks or meet deadlines. The way the future is planned and viewed are strongly influenced by the level of nAch and the time orientation style. It seems that a systemic approach to time is closely related to high nAch levels (Van Rensburg et al. 1990:9). Time is also linked to action, these people are active and energetic and dislike idleness (Pottas et al.1980:26).

2.3.4 Achievement Values (Why the behaviour occurs)

The energisation or why these achievement behaviours occur, can be attributed to achievement needs or values such as status aspiration, mastery, acquisitiveness for money and material wealth, competitiveness, dominance and work ethic (Cassidy & Lynn, 1989). Focussing on values, Rokeach (1979:2) describes human values as "core conceptions of the desirable within every individual and society. They serve as standards or criteria to guide action but also judgement, choice, attitude, evaluation, argument, exhortation, rationalisation, and one might add, attribution of causality". Values are regarded as being relatively stable and most importantly, influence behaviour by providing meaning to that behaviour. Cultures differ by the way they endorse a given value, or can have different values (Wigfield & Eccles ,1992:274). Culture as a variable of achievement values, is thus most important in predicting achievement behaviour and therefore nAch.

Rokeach (1979:2) distinguishes between terminal and instrumental values. Terminal values are the beliefs about life's ultimate goals or desired end-states, it can in the context of this study be described as the goal or direction of behaviour, stated in terms of "achievement". An example of a terminal value is productivity or supervisory ability. The instrumental values are the desirable modes of behaviour needed to reach the terminal values. This refers to achievement behaviour such as persistence and time orientation. The manifestations of the instrumental values are what we normally observe within an individual and his specific way of operating. These values identified by Rokeach (1979:3) are mentioned in Table 2.1 specifying terminal values and instrumental values.

TABLE 2.1 TERMINAL AND INSTRUMENTAL VALUES	
TERMINAL	INSTRUMENTAL
Wisdom	Intellectual
Freedom	Capable
Self-respect	Honest
Sense of accomplishment	Responsible
World at peace	Imaginative
Equality	Independent
World of beauty	Broadminded
Inner harmony	Logical
Family security	Ambitious
Social recognition	Helpful
Happiness	Courageous
An exciting life	Self-controlled
A comfortable life	Loving
True friendship	Forgiving
Mature	Cheerful
Love	Polite
National security	Clean
Pleasure	Obedient
Salvation	

Table 2.1 shows that several of these values, such as sense of accomplishment, ambition and competence refer to achievement while values such as love, freedom and pleasure refer to leisure. The definition of Kelly & Kelly (1994:4) "to be human is to work in productive and worthwhile engagement, to love in the relationships of sharing and intimacy, to learn in developmental action and to be free in expressive activity" consists of terminal and instrumental values. Human values as indicated in Table 2.1, clearly support each other as to what people value in their endeavour to be human.

In the empirical work of Feather (1982:263), Rokeach's terminal and instrumental values were researched to determine how they influence people's willingness to undertake certain activities related to those values. It was found that people's values do influence their choice of work and, it can be argued, all other activities they involve themselves in. A value system drives the individual to obtain success and is the most important variable in developing high nAch levels. The questionnaire of Cassidy and Lynn (1989:301) measures the achievement value system of the individual. This value system represents the individual's work ethic, acquisitiveness, dominance, excellence, competitiveness, status aspiration and need for mastery. In the following section, these values will be explained further.

2.3.4.1 Work Ethic

Students in western societies have traditionally been socialised into the Max Weber 1940's Protestant work ethic (Weber, 1952). The adherence to this work ethic can be seen as a personality trait (Elliot, 1991:6). This work ethic encouraged people to work hard and become prosperous through this focus on hard work. The Calvinists encouraged this attitude and prosperity and success was seen as a sign that God was pleased with the individual (Franken, 1988:395). McClelland (1961) also found Protestant countries to be more productive than Catholic countries. Work ethic is therefore seen as a motivational attribute of individuals functioning within a certain work ethic. This motivational attribute influences attitudes, values and behaviour (Spence & Helmreich, 1980:30). Furnham (1984:92) reported that individuals with a high attribute of work ethic are more conservative, attribute success and failure to internal factors, value self control. This can be seen as a western personality trait (Elliott, 1991:16). There is however no evidence to support this ethic in terms of African cultures.

Furnham (1982:280) did extensive research to determine individual characteristics related to work ethic scales. Individuals measuring high on the work ethic scales had the following characteristics:

- Value ambition and self-control.
- Less value placed on openness, equality, pleasure and a comfortable life style.
- Believe it is worth working hard.
- Believe to be poor is the result of bad financial management or idleness and prosperity is the result of hard work and honesty.
- Do not show sympathy to less fortunate people.
- Perform better after receiving negative feedback.
- Value remuneration more if it is linked to personal effort rather than external factors.

This conservative attribute may have implications for an individual's leisure motivation and preferred activities. One would expect that the two ethics, work and leisure are strongly related to each other. According to Iso-Ahola and Buttner (1982:430), the protestant work ethic glorifies work and demeans leisure. The relationship between work ethic and leisure ethic has not yet been tested in the multicultural situation of South Africa and needs further research.

2.3.4.2 Pursuit of Excellence (Exc)

This value is defined by McClelland (1953: as referred to by Cassidy & Lynn, 1989:302), as "competition with a standard of excellence" and can be described as motivation that finds reward in performing to the best of one's ability. Murray (1938:164) defines excellence as follows: "To overcome obstacles and attain a high standard. To excel one's self, to rival and

surpass others, to have the determination to win, to try to do everything well". Excellence is really about improving oneself. Hickman and Silva (1985:23) state that "The real race for excellence is the one you run against yourself". Jackson *et al.* (1976:10) also indicates that excellence correlates strongly with status and achievement. Elliott (1991:25) also confirms that the literature states that standards of excellence is an individual choice and that the skills to achieve this, can be learned and developed.

People, who strive towards excellence in organisations, demonstrate the following characteristics (Hickman and Silva ,1985:24):

- *Vision*: The individual understands the organisation and can reason into the future. These people can facilitate improvement and accept it.
- *Creativeness and understanding*: These people identify the root cause of problems by analysing information correctly.
- *Versatile*: The ability to adapt to changes and change behaviour accordingly.
- *Focus*: Use resources and energy to achieve goals in a persistent way.
- *Control*: "Developing the ability to control one's desire for instance, short term results; committing oneself to long-term perspectives for the organisation that bring future visions into reality with care and high involvement".

2.3.4.3 Status Aspiration (SA)

This is the value one places on climbing the social ladder and the desire to be seen as a leader. The person evaluates himself in terms of significance to others (Cassidy & Lynn, 1989:302). Jackson *et al.* (1976: 15) identified two status dimensions, the first is as an expert in a certain job and the second is status amongst peers. Both dimensions facilitate behaviour

towards achieving goals and then enjoying the respect and status received. Elliott (1991:33) states that status aspiration can be influenced by factors such as opportunities, vocational choice and personality type. The A personality type is closely related to status and includes characteristics such as a strong work orientation, optimal use of time and need for achievement and ambition.

2.3.4.4 Competitiveness (Com)

These people value competition, enjoy it and their ultimate goal is that of winning. They compete with other people and not with their own standards or with a standard of excellence. Jackson et al. (1976:19) proved that the need for competition is a valid achievement dimension, and it correlates with acquisitiveness or material wealth. People with the need to compete can be characterised by:

- Having a need to win: To lose is an attack on a person's self-image and status, the individual will do anything to win and this sometimes impacts negatively on their relationships with others.
- Have an A personality type: This personality type can be described as "An action-emotion complex that can be observed in any person who is aggressively involved in a chronic struggle to achieve more and more in less and less time, and if required to do so, against the opposing efforts of other things or other persons" (Luthans, 1985:136).

2.3.4.5 Dominance

Dominance refers to the individual's need to be the leader and to be acknowledged as such. The following characteristics are associated with the need for dominance and manifests as a personality trait (Gouws et al. 1979:59).

- A tendency to excel in interpersonal relationships.
- A preference to control other individuals.

Murry (1938) describes dominance as a tendency to control the environment and other individuals by making suggestions and convincing them to behave according to his set standards. The person prefers to evaluate and determine standards, rules and regulations. The individual further wants to be acknowledged as an important person who has valid opinions and who is a leader. McClelland et al., (1989) confirms that individuals who have a strong need for dominance, are successful as managers due to their ability to make use of opportunities to influence others. According to Bergh et al. (1989: as referred to by Elliott, 1991: 21) individuals with high levels of dominance are aware of their dominance and the feelings of dissatisfaction it creates amongst others. They are however willing to accept this resentment. Other people can experience them as difficult and stubborn. It is important to note that dominance is a personality trait and is not related to the position the person has in any situation or organization.

2.3.4.6 Acquisitiveness for Money and Material Wealth

This means that a person is motivated by rewarded with money or some other form of material reward and is the first step in Maslow's (1954:370) hierarchy of needs. Work is therefore not an option, freely undertaken, but a necessity. Motivational theorists differ as to the specific role that money and extrinsic rewards play in actual performance. Extrinsic and intrinsic rewards however operate in parallel. Cassidy and Lynn (1989:307) suggested that the need for financial security facilitates behaviour when it is acquired. Salary increases are therefore a form of feedback of achievement and have symbolic value. Biesheuvel (1981:10) states that

pay in the form of money can confer both power and status and places a market value on an individual. Lawler (1971: 283) states that "for managers pay is one of the most significant and meaningful informations they receive". It is however important to note that the "motive to achieve" and to "achieve wealth" is not the same if wealth is the only motive for achievement.

2.3.4.7 Mastery

Mastery is seen as the ability to solve problems, perform difficult tasks and to manipulate barriers. It seems that individuals with a high achievement motivation follow a problem-solving centred approach. McClelland (1961) suggests that these individuals also prefer to solve problems themselves and are committed to the completion of tasks. It is however interesting that the persons with high nAch levels prefer difficult to moderate problems to solve. The ability factor plays an important role in choosing problems, choosing too difficult problems forces the individual to rely on luck and not on competence. Mastery is also a form of competitiveness, not with other individuals but against a standard of excellence. Pottas (1980:253) notes that the following two sub-factors contribute to mastery:

Aspiration level

High scoring persons tend to take calculated risks and take on challenging tasks despite the risk of failure. They expect high standards of performance from themselves and from others and prefer to work alone on complex tasks.

Personal Causation

Individuals with high scores have the tendency to believe that they have control over life events and the environment. They also know and trust their skills and abilities. They enjoy taking personal initiative and strive to achieve success in tasks.

The concept achievement motivation can be summarized as:

The goal (direction) of achievement motivation is to achieve some standard of excellence, the drive (why) is to satisfy the need for mastery, power, affiliation, status or money through the appropriate achievement behavior (how) including persistence, moderate risk taking and optimal usage of time. The theoretical analysis indicates that achievement values are an important determinant or driving force to facilitate achievement outcomes or behaviour.

2.4 DEVELOPMENT OF ACHIEVEMENT MOTIVATION

Achievement motivation levels are instilled early in life (Weiner, 1985:228), it is however difficult to determine the exact age at which nAch develops. Thompson (1985:20) identifies three stages in the development of achievement motivation:

1. Autonomous stage occurs between 1½ and 7 years. During this stage the standard of excellence are based on self-comparisons against past performance. Risk taking behaviors develop and the influence of the mother's reaction affect the child's later risk taking preferences. The level of nAch at the age of 3 remains relatively stable into adulthood.
2. Social stage occurs between ages 7 and 12 years. The standard is based on comparisons of self and others. At the age of 10, a relative accurate prediction of the future strength of nAch in adulthood can be made.
3. The integrated stage, after 12 years into adulthood.

Factors influencing the development of nAch in children include early experiences and socialization practices. McClelland (1985:228) indicates that the seeds of achievement motivation are planted very early in life and early demands produce a sense of mastery in very young children. McClelland (1985:228) also states that parents of children with high nAch levels, tend to construct an environment that is both strict and permissive. In such environments the child has limits, but within those limits the child has many opportunities to make choices. The child develops a sense of mastery or control without being overwhelmed by unlimited freedom. It has been argued that too much freedom can so overwhelm a child that he or she becomes anxious or may even feel insecure. This could undermine the tendency to develop mastery. Independence training suggested by Witterbottom (1958: as referred to by Thompson, 1985:24) showed that children with high nAch levels receive earlier exposure to making choices. McClelland & Pilon (1983:564) found that parents who put their children on a feeding schedule, demand early toilet training, and had high standards of neatness were more likely to produce children with strong achievement motivation which can be summarized under the concept, discipline.

Research done by Eccles & Wigfield, (1992:274) and Rokeach (1979:2) identified culture as one of the variables influencing the development of achievement values. This influence occurs in the sense that one culture may emphasize achievement values while the other may not. Culture and the underlying values form a stable framework that significantly influences behaviour. Further focus on culture is given in paragraph 2.4.1 to enhance our understanding of this concept.

2.4.1 Culture

Based on the work of Brislin (1993), Gross (1995:160) developed a checklist of fundamental features of culture, as follows:

TABLE 2.2 FEATURES OF CULTURE	
1.	Culture consists of ideas, values and assumptions about life that guide specific behaviour.
2.	Culture consists of those aspects of the environment that people make and also the way they respond to natural environmental issues.
3.	Culture is transmitted from one generation to the next generation.
4.	Adults do not commonly discuss aspects of their culture, since culture is widely shared and accepted, there is little reason to.
5.	Cultural values are seen to be constant and continuous to guide specific behaviours.
6.	One person can accept or reject cultural values at different times.
7.	When comparing proper and expected behaviour across cultures, it is possible to observe certain sharply contrasting beliefs or orientations for example, time and achievement.

Culture is therefore not exclusively the home environment but any environment where given values are endorsed. This includes organizational culture and therefore achievement values can be influenced by the working environment.

Hofstede (1980:1) defines culture as “the collective programming of the mind which distinguishes the members of one group from another”, culture is therefore learned and not inherited. The three levels of uniqueness in human mental programming, can be explained by referring to the following figure:

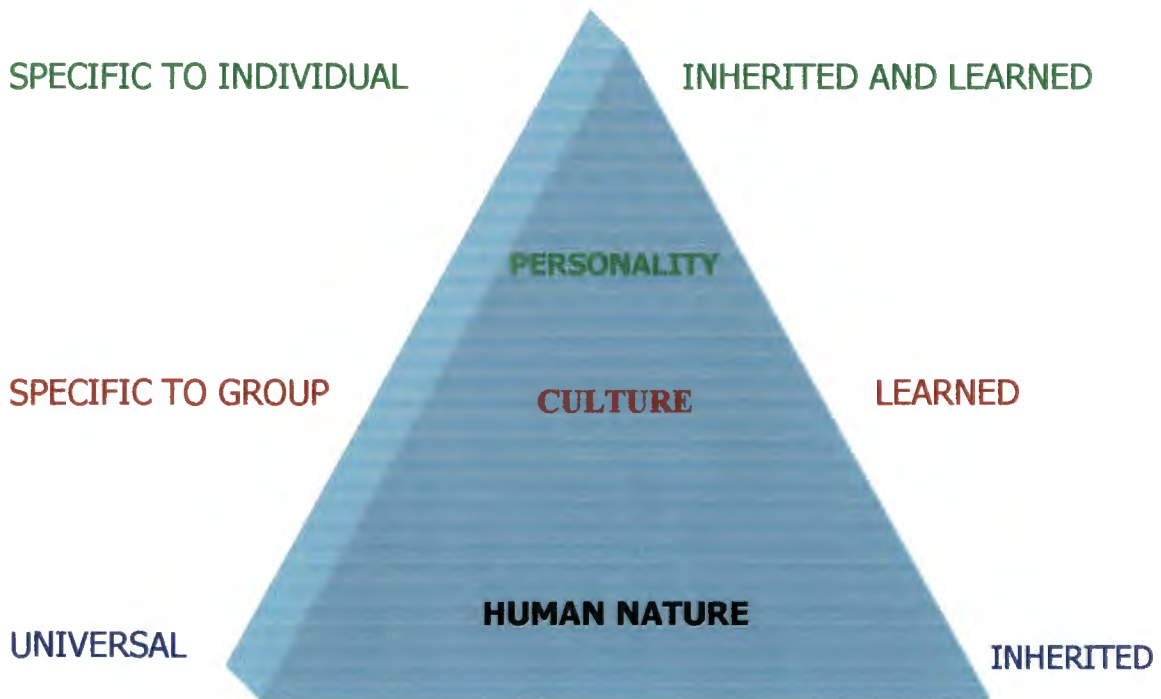


FIGURE 2.1
THREE LEVELS OF UNIQUENESS OF HUMAN MENTAL PROGRAMMING
(HOFSTEDE, 1994:4)

Personality is the behavioural part of human mental programming and is therefore observable. The personality of an individual is the unique set of mental programs, which is not shared with any other human being. Achievement motivation is defined as a personality trait and the most important variables influencing this include human nature that is inherited and culture, a learned variable. Based on research done at IBM including several thousand employees, Hofstede identified four dimensions of culture (Hofstede: 1980:23). These dimensions include:

- Power Distance.
- Individualism vs Collectivism.
- Masculine vs Feminine.
- Uncertainty avoidance.

2.4.1.1 Power Distance

According to Hofstede and Bond (1984:419), power distance is defined as “the extent to which the less powerful members of institutions and organizations accept that the power is distributed unequally”. High power distant cultures are much more comfortable with a larger status differentiation which determines the amount of respect shown. In such cultures, you will also have different levels or ranks. The power-distance dimension can be closely related to the dominance (dom) and status aspiration (SA) value in the Cassidy and Lynn (1989:307), achievement motivation scale. This statement is not confirmed or tested yet but when considering the characteristics of large power distance cultures and small power distance countries, in general and in the workplace, some correlation is evident:

TABLE 2.3 CHARACTERISTICS OF POWER DISTANCE	
SMALL POWER DISTANCE	LARGE POWER DISTANCE
Inequalities among people should be minimized.	Inequalities among people are both expected and desired.
There should be, and is interdependence between less powerful people.	Less powerful people should be dependent on the more powerful.
Parents treat children as equals.	Parents teach children obedience.
More educated people hold less authoritarian values than less	Both more and less educated persons show almost equally authoritarian

educated people. Hierarchy in organizations means an inequality of roles, established for convenience. Decentralization is popular. Narrow salary range between top and bottom of organization. Subordinates expect to be consulted. The ideal boss is resourceful and a democrat. Privileges and status symbols are frowned upon.	values. Hierarchy in organizations reflects the inequality between higher-ups and lower-downs. Centralization is popular. Wide salary range between top and bottom of organization. Subordinates expect to be told what to do. The ideal boss is a benevolent autocrat or good father. Privileges and status symbols for managers are both expected and popular.
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Table 2.3 indicates the characteristics of small and large power distance cultures.

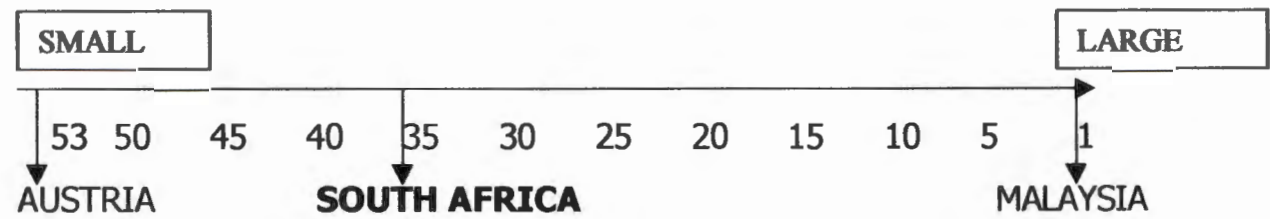


FIGURE 2.2
POWER DISTANCE POSITION OF SOUTH AFRICA

Figure 2.2 shows that the results of the study of Hofstede (1991:26) and indicates that amongst fifty countries and three regions, South Africa was ranked number thirty six in terms of power distance indicating that we operate within a large power distance (Hofstede:1991:26). Specific organizations or industries, such as the mining industry, need to determine whether this large power distance culture applies to them.

2.4.1.2 Individualism and Collectivism:

This dimension considers whether one's identity is defined by personal choices and achievements (individualism) or by characteristics of the collective groups to which one is more or less permanently attached (collectivism). In a high individualism culture, the following tendencies are very strong:

- Individual achievement is the basis for social standing.
- There are strong social and legal concepts involving individual rights.
- People are expected to act on their own behalf.
- Individualized decision-making is preferred to consensus decision-making.
- People seek variety and interest in work.

In a high collectivism culture, these following tendencies are very strong:

- Attributes such as birth, ethnicity and gender are the basis for social standing.
- Legal structures protect group and community interest.
- People are expected to defer to the interest of the group and powerful others.
- Individuals cannot express unpopular opinions without risk.
- Consensus decision making is preferred; individualism is seen as dangerous.

Collectivism and power-distance tend to be negatively related, large power distance countries are likely to be more collectivist and small power distance countries tend to be more individualists. The South African relation between power-distance and individualism/collectivism is diagrammatically explained in Figure 2.3:

INDIVIDUALISM

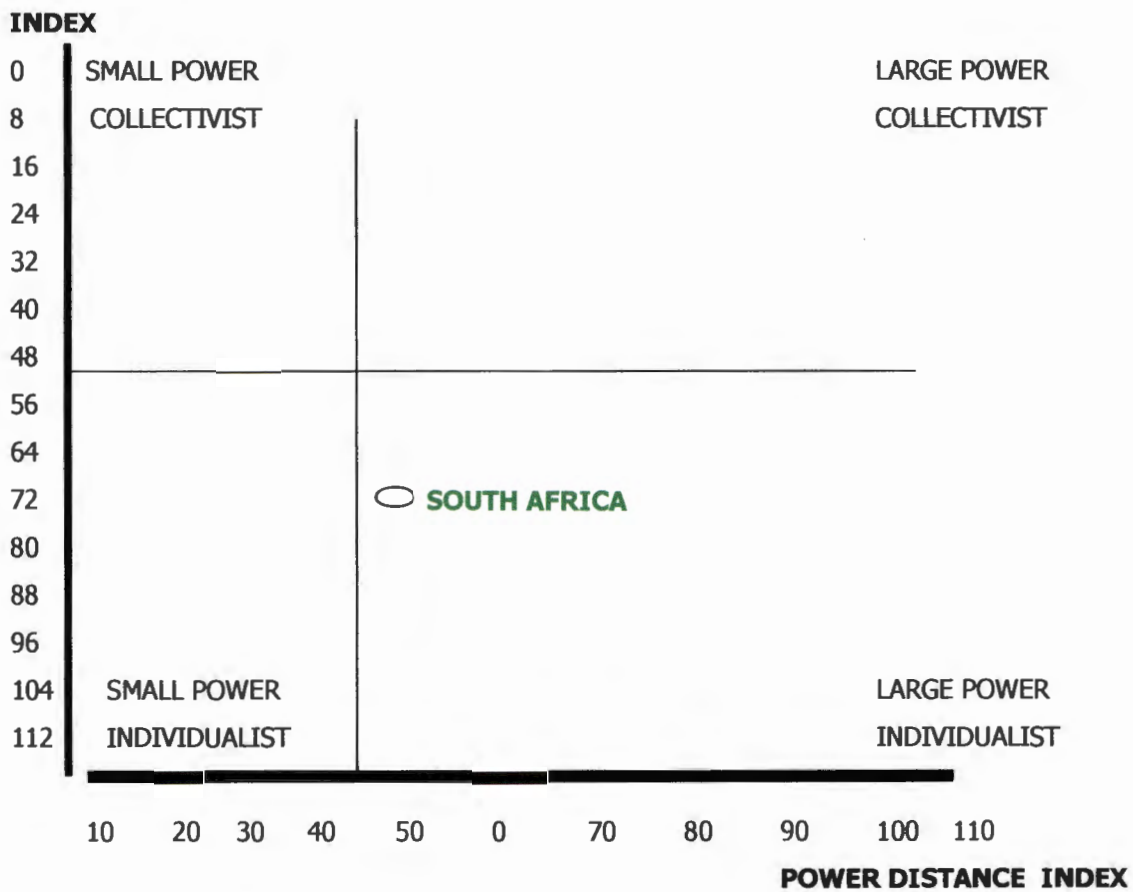


FIGURE 2.3
RELATION OF POWER-DISTANCE, INDIVIDUALISM AND COLLECTIVISM

Figure 2.3 indicates that South Africa falls within the spectrum of large power distance and individualistic culture. The prediction can be made that the majority of our population will measure high on nAch due to the close relationship between individualistic characteristics and achievement motivation values. This prediction however needs to be researched in terms of the mining culture where employees come from a variety of different home cultures. The extent to which this variety of home cultures manifests itself within the working environment of the mine employees needs to be determined.

2.4.1.3 Masculinity – Femininity

This dimension refers to the expected gender roles in a culture. The cultures that score high on masculinity tend to have very strict expectations of the male and female roles in society. The more feminine cultures have greater ambiguity in what is expected of each gender. It also indicates the relative emphasis on achievement (masculinity) or interpersonal harmony (femininity).

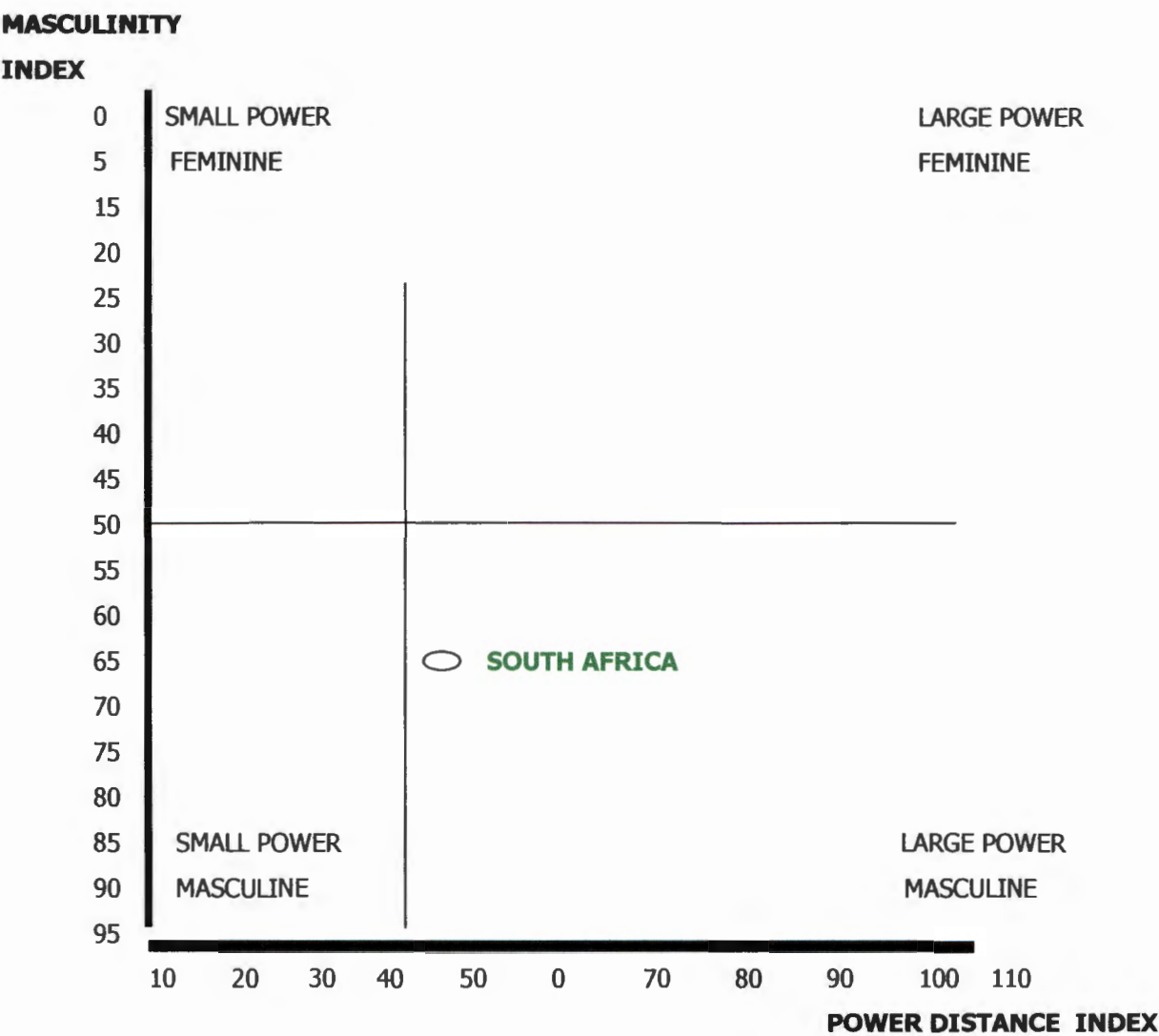


FIGURE 2.4
RELATION OF POWER-DISTANCE AND MASCULINITY AND FEMININITY

In Figure 2.4, Hofstede(1991:87) illustrates that South Africa falls in the masculine culture. This culture is closely related to achievement and value individual accomplishments and the important role of the male. This culture may be evident in the majority of organizations but needs to be confirmed.

2.4.1.4 Uncertainty avoidance

This dimension refers to how comfortable people feel towards ambiguity. Cultures, which ranked low (compared to other cultures), feel much more comfortable with the unknown. As a result, high uncertainty avoidance cultures prefer formal rules and any uncertainty can express itself in higher anxiety than those from low uncertainty avoidance cultures.

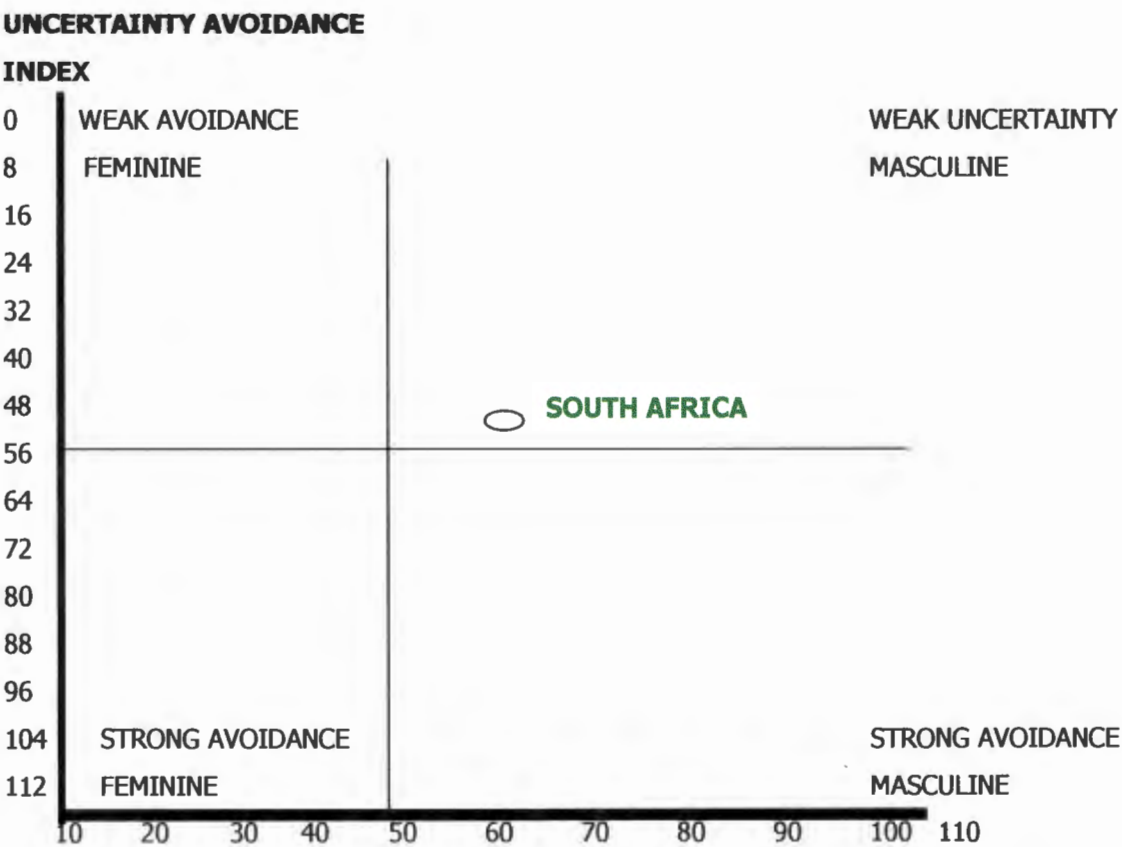


FIGURE 2.5
RELATION BETWEEN UNCERTAINTY AVOIDANCE AND MASCULINITY AND FEMININITY.

Figure 2.5 indicates that South Africans prefer not to avoid uncertainty, but their score is not abnormal high or low. The assumption can be made, that calculated risks are preferred rather than uncalculated risk taking (Hofstede, 1991:123).

These statements represent key values and belief systems which members of cultures adopt. The strong relationship between these cultural values and achievement values is evident, however no research was found which compares the Hofstede's classification and achievement motivation as developed by Cassidy and Lynn (1989) in the multicultural situation of South Africa.

Holpp (1989:53-63) investigated the influence of culture on improvements in the business context. It is claimed that Japan's competitive advantage lies in a cultural phenomenon called Kaizen or constant improvement. Kaizen is defined as "Continuing improvement in personal life, home life, social life and working life". When applied to the work life, it means continuing improvement, involving everyone, workers and managers. The underlying value is improvement, achievement or striving towards excellence. Maybe this is a cultural phenomenon that can or needs to be developed in South Africa.

The discussion of achievement motivation makes us aware of the value we place on performance, competence and success. It is also evident in the behaviour of people, acknowledgements through the media and the amount of focus given to successful individuals. The assumption can be made that we live in an achievement oriented society and the way we act towards performance can indicate a positive value system towards achievement (Scholtz, 1979; Roberts, 1992).

The results of achievement motivation can be seen in sport, economy, education, science, research and industry, but the opposite is also evident. The lack of individual performance and striving towards excellence in the work, education and personal environments, has become a matter of concern to South African society as a whole. The repeated failure rates in education, the ongoing violence, social imbalances and constraint environments, cause people to lose faith in the possibility of improving the economy and their quality of life (Manning, 1997:10). Given the productivity figures and living conditions in South Africa, the need to improve the performance of South Africans and to develop the attributes as stipulated by Murray (1938) is evident. Manning (1997:10) states that South Africa falls lower, year after year, in the global rankings of competitiveness. The World Competitiveness Report placed South Africa, 44th among 46 nations in 1996. Mahadea (1994:41) shows that South Africa's productivity declined with 5% since the 1970's and Beukes (1990: 618) indicates a 2% productivity decline per year. When considering the input/output ratio of productivity, it seems that individual motivation and specifically achievement motivation is an important variable of productivity.

2.5 IMPACT OF ACHIEVEMENT MOTIVATION ON ECONOMIC SUCCESS

McClelland (1961) explored the relation between the success of nations and the achievement drive of their people. It was found that high nAch levels are associated with above average economic growth. McClelland (1961:205) states that a society with generally high nAch level will produce more energetic entrepreneurs whom, in turn, produce more rapid economic development. An entrepreneur is a person who organizes a firm or increases its productive capacity and translates nAch into economic development

(Oosthuizen et al. 1998). Research undertaken in Transkei (Mahadea, 1994:43), indicates that nAch is a significant predictor of entrepreneurial success. This study found that hard work, education and migratory experience, are closely associated with high nAch levels. Intrapreneurship on the other hand, is corporate entrepreneurship and means that a corporation can foster profit-making innovations by encouraging employees to think like entrepreneurs, and then giving them the freedom and flexibility to pursue their projects (Oosthuizen et al. 1998). The generalization can be made that we need intrapreneurs with high nAch levels in Anglogold to be successful in the new millennium.

2.5.1 Improve Productivity in Organisations

Productivity is defined as the ratio that exists between the output and input of any endeavor. Therefore the equation:

$$\text{PRODUCTIVITY} = \frac{\text{OUTPUT}}{\text{INPUT}}$$

Biesheuvel (1988:2) stresses the fact that the output in goods and services is often used to measure productivity, its decline or increase indicates the ambiguity of the human element in determining the wealth of nations. What is important, is to acknowledge that human effort is the source of wealth, either directly or indirectly. Biesheuvel (1988:1) states that: **"Gold ore has only one potential value, the imagination, ingenuity, skills and hard work of man are needed to find it, get it out, process and beneficiate it to make this value real"**.

Boshoff & Boer (1988:73) investigated the impact of nAch training on productivity with reference to the participants' perceptions of organizational climate, labour turnover, absenteeism and levels of labour productivity. This study was done amongst supervisors working in clothing factories in South Africa. The study reported that no difference was measured after training on organizational climate. The experimental group's supervisor received nAch training and reported a significant improvement in labour productivity. No positive results were reported in terms of labour absenteeism and labour turnover.

2.5.1.1 Supervisory skills

The most valuable members of the labour force are probably those who have the ability and drive to perform well and achieve success within their occupational fields. If the supervisory component of this labour force is highly skilled and drives the production process, together with a well-designed work process or environment, the organization will improve its productive capacity (Huysamen, 1997:31). Boshoff *et al.*, (1987) concluded as a result of a study amongst supervisors in a construction firm in South Africa, that a relatively high nAch is important for success as a manager or supervisor working in an organization not owned by himself. It is however important to follow a systems approach when looking at nAch as suggested by Biesheuvel (1988:1), therefore nAch alone can not ensure supervisory performance. Huysamen (1997:32) indicates that organisational performance is determined by supervisory skills (plan, organize, lead and control), the desire of the supervisor to perform (nAch) and the work environment's effectiveness (work processes).

McClelland (1968) developed a three band theory and classifies human motivational needs according to need for affiliation (nAff), need for achievement (nAch) and need for power (nPow). Nasser (1981:3) define these needs in the business system to the role of the supervisor as follows:

TABLE 2.4 MOTIVATIONAL NEEDS AND THE ROLE OF THE SUPERVISOR		
NAFF	NACH	NPOW
Group minded	Individualist	Manipulative
Dependent	Independent	Lack conscience
High on support	Self starter	Own goals are those
Goals dictated by others	Moderate risk taker	of the corporation
Follower behavior	Problem solver	Want to control
Lacks tenacity	High on decision making	
	Leader Behavior	
	High tenacity	

In Table 2.4 the role of the supervisor and nAch were integrated. By examining the characteristics of nAch in supervisors, it is apparent that to succeed as a supervisor, nAch levels are critical. The research done by Nasser (1981:5) also indicated that economically more prosperous nations have averaged a 15% nAch: 85% nAff mix. This will means 15% leaders/innovators and 85% followers. The core supervisors or managers therefore need to have high nAch levels to ensure proper leadership. What is critical in the study of Nasser (1981:5) is that the supervisory material in South Africa in 1981 comprised of white men. These supervisors measured high on nAch. In this new millennium we need answers to questions related to the composition of production supervisors and their nAch levels.

2.6 LEISURE MOTIVATION

When we review what it means to be human and we consider "to work and to love", Freud (1930) we become aware of our non-vocational activities or leisure. Beard and Ragheb (1983:219), note that of the variety of behaviours studied by researchers those classified as leisure behaviour are among the most interesting. The reason can be because there are no obvious external forces compelling individuals to engage in particular leisure activities. When looking at the amount of time and money people spend on leisure, it is worthwhile to understand this activity and to determine its relationship with other motivational theories, for example achievement motivation.

Motivation as the central concept in this study implies that the direction (goal) in this case is leisure, the behaviour (how) is participation in a variety of activities and the reason (why) is the underlying values driving this behaviour. Due to the scope of this specific study, the concept of leisure motivation needs to be understood as well as the underlying values and the reasons why people engage in leisure activities.

2.6.1 CONCEPT OF LEISURE

Definitions of leisure have been generally categorised into three groups referring to time, activity and state of mind (Witt & Ellis, 1985:20). The definition and conceptualisation of leisure however is a central concern amongst leisure researchers and the concepts used to explain leisure, includes perceived freedom (state of mind), leisure as an activity, leisure as an experience; intrinsic motivation and leisure as free time (Iso-Ahola, 1980:7; Ellis & Witt, 1985:20; Csikszentmihalyi & Kleiber, 1991:91).

Kelly & Kelly (1994:250) states that leisure has been defined in ways that suggest that its properties are unique and it has often been separated from work. One premise is that work and leisure can each be identified respectively by the central dimension of *productivity* and *freedom*. The two domains of being human, namely work and love, stimulated research between work and leisure and developed into a separate study field. These studies include topics such as work-leisure linkages, leisure compensation for work and work constraints on leisure (Wade, 1985:113; Wagner, et al., 1989:155; Jackson & Witt, 1994:322). A prominent orientation in leisure-work research, is the investigation into attitudes, values, attributes and actions of individuals, linking it to work activities, and making comparative analyses (Wagner et al., 1989:155; Iso-Ahola & Buttner, 1982:429; Kelly & Kelly, 1994:250). The benefits of these comparative analyses are that the overlapping attributes needed in work and leisure, can be identified and developed in work and leisure settings.

2.6.2 DIRECTION OF LEISURE (Goal)

There is no final goal or achievement in leisure, but the direction is towards becoming human (Kelly, 1987:442). Being human has no final state and Kelly (1987: 443) further states that it is a developmental process. This development occurs in work and in leisure and there are many actions that create and develop humans. Leisure is such an integral part of being human, and must not be viewed as leftover time or a reward for doing something well in work settings. When looking at the role of work independently in this process of being human, Kelly and Kelly (1994:252) dealt with the question whether work is central to life? It was found that employment is instrumental and supportive of life areas, especially home, family and leisure.

Mills (1951:237) made the following statement: "Each day men sell little pieces of themselves in order to buy them back each night and weekend with the coin of fun". An important possible relationship with achievement motivation can be that individuals are motivated to perform in work situations in order to fulfil their leisure needs, as work is partly instrumental to become fully human. In terms of values it can be stated that leisure can be a terminal value and work a instrumental value. The direction or goal of leisure therefore depends on the underlying value driving specific leisure behaviours.

2.6.3 REASONS FOR PARTICIPATING IN LEISURE

Murphy and Howard (1977:18) state that most of the theoretical explanations used to describe leisure behaviour in the 1970's, dealt with demographic variables including sex, education, social class and occupation. These variables offer only a partial explanation of the components affecting leisure. The most realistic approach to understand leisure behaviour lies in the psychological domain (personality needs). This refers to the reasons why people participate in leisure activities, referred to as leisure motivation. A social analysis approach is followed on why people do what they do and this approach allows researchers to more definitively answer questions related to leisure behaviour.

Ellis (1973) was one of the first researchers to follow a social analysis approach to behaviour in defining "why people play" (Witt & Ellis, 1985:20). In this research Ellis (1973) reviewed theories such as recapitulation theory, relaxation theory, surplus energy theory, learning theory and compensation theory. Ellis stated that play is caused by a constant psychological need for individuals to maintain an optimal level of arousal.

This can explain why individuals will change their leisure behaviour to ensure a constant level of arousal. Csikszentmihalyi (1982) further describes the reasons for participating in leisure by means of the "flow model". The flow experience is described by a rock climber as follows:

"Your concentration is very complete. Your mind isn't wandering, you are not thinking of something else, you are totally involved in what you are doing. Your body feels good, your energy is flowing very smoothly, you feel relaxed, comfortable and energetic".

This flow state is assumed to result from a balance between the challenges of the activity and the skills of the participants. When the activity is too easy, it bores the individual or when it is too difficult, it leads to anxiety. The characteristics identified by this research include (Witt & Ellis, 1985:20):

- A merging of action and awareness
- A centring of attention
- Loss of self consciousness
- Perception of great power and control
- The absence of the need for external rewards
- Non-contradicting demands for action and clear, unambiguous feedback concerning the person's actions.

Neulinger (1974) conceptualise leisure and the reasons for participating under "leisure is state of mind" and describes it as perceived freedom where the person feels that what he is doing is done by choice and because one wants to do it. This also includes a motivational aspect and it is stated that this can either be intrinsic or extrinsic.

Crandall (1980:45-54) indicates that the research of leisure needs started with Lundberg et al. (1934), who developed a list of reasons why high school children enjoy their favourite activity. Some of the answers include competence development, social contact and novelty. Tinsley and Kass (1979) factor analysed undergraduate college student's leisure needs and identified 10 leisure need factors which include:

- Self-actualisation.
- Companionship.
- Power.
- Compensation.
- Security.
- Social Service.
- Exercise.
- Self-esteem.
- Self-control.

Iso-Ahola & Allen (1982:22) researched the leisure needs of students before and after participation in basketball games. The study indicated seven leisure needs, including:

- Interpersonal diversion and control.
- Personal competence.
- Escape from daily routine.
- Positive interpersonal relationship.
- Diversionary relaxation.
- Interpersonal competence.
- Meeting and being with the opposite sex.

Based on the research done, Beard and Ragheb (1983:225) identified the need to develop a leisure motivation scale which measures the psychological and sociological reasons for participating in leisure activities. Needs were clustered into four dimensions the following motives or needs are measured:

! **Intellectual**

This component assesses the extent to which individuals are motivated to engage in leisure activities, which involve mental activities such as learning, exploring, discovering and creating.

! **Social**

The extents to which individuals engage in leisure activities for social reasons are measured in this component. It includes two basic needs, the need for friendship and the need for esteem from others.

! **Competence-Mastery**

This component assesses the extent to which individuals engage in leisure activities in order too achieve, master, challenge and compete.

! **Stimulus avoidance**

Measures the drive to escape and get away for over-stimulating life conditions. It is the need for some individuals to avoid social contacts, to seek rest and unwind themselves.

This measurement tool supports leisure researchers to investigate in an empirical way, the most important motivations for leisure behavior. These motivations form part of the leisure value system or ethics of the individual and can also be seen as a personality trait or disposition.

2.6.4 LEISURE BEHAVIOUR

Leisure behaviour is directly influenced by the reason for participating. The underlying need will determine the leisure preference, activities and leisure participation patterns. An individual's leisure behaviour can be described in terms of an inherited background, biological dispositions and social influences. Iso Ahola (1980:228) ascribes leisure needs to personality, need for optimal arousal and perceived freedom and competence as indicated in Figure 2.6.

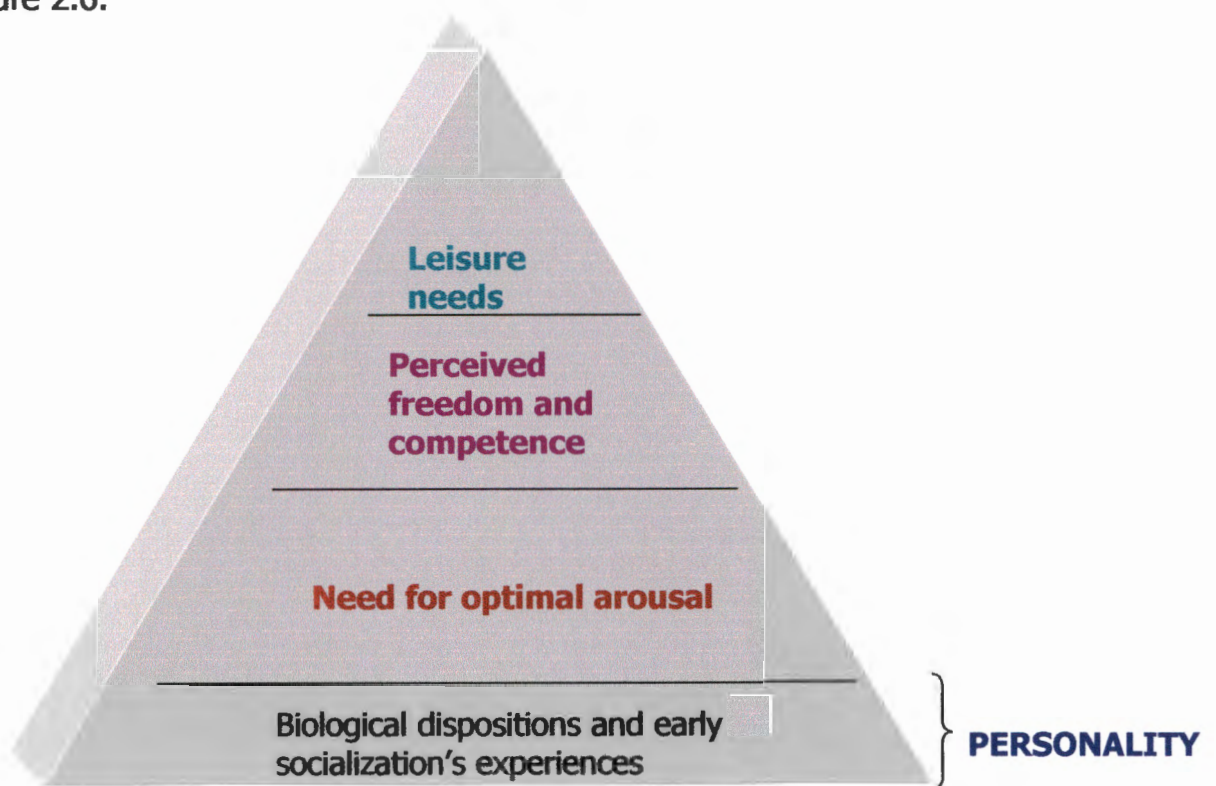


FIGURE 2.6
LEVELS OF CAUSALITY OF LEISURE BEHAVIOUR

Figure 2.6 indicates that leisure behaviour is influenced during early child years by a person's biological make-up and socialization practices. This can be classified as a specific culture where parents may or may not enhance the value of leisure, or where they create a specific leisure ethic in relation to work ethic.

The need for optimal arousal or alertness (Ellis, 1973) is socially developed but is also inherited. Therefore only some and not all individuals have the need for stimulation. Perceived freedom as a motivational attribute (Neulinger, 1974) further influences leisure behaviour. The most popular way of explaining the leisure behaviour as stated in paragraph 2.6.3 is a social approach where the question is directly posed to the individual. The above figure emphasizes that leisure behaviour needs to be analyzed in the different levels of casualty. The scope of the current study however only researches the tip of the iceberg as it only refers to leisure needs in the concept of leisure motivation - the other levels of casualty as independent variables are not measured in this study.

2.6.4.1 Combining Income and Leisure

Achievement oriented employees strive for a high income as it is a form of status, excellence and satisfies the need for acquisitiveness (Beard & Ragheb, 1989:301). Individuals with high nAch levels value time as indicated by (van Rensburg & Raubenheimer, 1990:19). This has very interesting implications for a person's leisure behaviour. The more salary increases, the more achievement levels improve and the value of time increases. Higher and higher earned incomes may provide more command over more goods but without more time to spend incomes. In this situation, high achievers will cut corners on the consumption of time-intensive commodities. They are likely to pay people for arranging parties or preparing for camping (Hamermesh & Rees, 1988:33). The work environment seems to have a influence on leisure behaviour, the relationship between work and leisure needs to be understood to provide leisure that will fulfil the needs of specific working communities.

The literature study referred to the importance of achievement motivation and understanding the concept of leisure. To achieve the set objectives as stated in chapter one, chapter three will focus on the empirical investigation referring to the method of research.

Chapter Three

METHOD OF RESEARCH

3.1 PURPOSE OF THE STUDY

The thinking behind this study revolves around the question: What is the driving force or motivation for individuals to achieve? A related question is whether there is any relationship between this driving force and leisure motivation? To answer these questions it is necessary to determine if there is any relationship between achievement motivation and leisure motivation. The study therefore takes a two-tier approach. The first part involves a literature study on achievement motivation as a personality attribute and the theory of leisure motivation. The second part of this research involves an empirical investigation which measures the achievement motivation levels (referred to as nAch) of middle production supervisors at a South African Gold Mine. The empirical investigation will also measure the leisure motivation levels of the same target group. The results of the two questionnaires will be compared to identify any relationships between achievement motivation and leisure motivation.

3.2 IDENTIFICATION OF LITERATURE

Computer searches are time consuming but deliver excellent results in identifying related books, articles, dissertations, reports and research findings. The Ferdinand Postma Library at the Potchefstroom University for CHE was used with specific reference to the following databasis: Library Databasis; SA Repertorium; GKPV -SA Dissertations; Social Science Index;

Humanitas Index; PsycLIT (ERIC II) – Psychology databasis and the Sport Discuss. The Information Center of ANGLO AMERICAN was also used to identify related articles. Internet searchers using the search engine Metacrawler, delivered important reference material information related to the areas of values and culture.

3.3 PROCEDURES FOR CONDUCTING RESEARCH

The research was conducted at a South African gold mine. The Manager at the mine and the Human Recourses Manager were consulted as to the implications and value of the study. Permission was granted to notify the target population by means of a letter. The Training Center at the mine was allocated for the purpose and a shiftboss volunteered to assist. Respondents were requested to complete the questionnaires at the Training Center after their working hours, which ranged from 15h00 to 17h30. The demographic, achievement motivation and leisure motivation questionnaires were all bound in a booklet form. Each participant received one booklet to complete in the center in presence of the researcher. The respondents marked their names, completed the questionnaires and placed them in the closed box provided. The questionnaire was anonymous, confidentiality was respected and all statistics were reported collectively. The estimated time to complete this questionnaire is 20 minutes.

3.3.1 Target Population

The target population consists of 120 middle production supervisors working underground at Western Deep Levels East Mine (TauTona Mine) in the Gauteng area, South Africa. This target population includes the total population of mine overseers, shift bosses and miners (stoppers and developers), responsible for the production process. A list of names with the company numbers and occupation were provided by the mine.

3.3.2 Statistical analysis

All the statistical data was coded by the Statistical Consultancy Services of the Potchefstroom University for Christian Higher Education. The following procedures was followed:

- **Item analysis**

This analysis investigates if the items used in the achievement motivation questionnaire and leisure motivation questionnaire are homogeneous. The results of this procedure will indicate if all items in the questionnaires can be used to measure the specific construct of achievement motivation and leisure motivation amongst middle production supervisors at a South African Gold mine.

- **Reliability study**

The reliability study indicates the accuracy and consistency of the measuring instruments (Scholtz,1988:1). The Alpha Cronbach reliability study provides the statistical method to determine reliability (Nunnally, 1978).

- **Factor analysis**

The factor analysis using the varimax rotation determines the validity of the achievement motivation questionnaire of Cassidy and Lynn (1989) and the leisure motivation questionnaire of Beard and Ragheb (1983). The purpose of this procedure is to ensure that these questionnaires will measure what they are supposed to measure to achieve the objectives of this study (Nunnally, 1978).

- **Regression analysis**

This statistical technique, investigates the cause-and effect relationships between independent variables and dependent variables (Elliott, 1991).

3.4 MEASURING INSTRUMENTS

The measuring instruments consist of questionnaires measuring demographic information, achievement motivation (nAch levels) and the level of leisure motivation. The same respondents complete the demographic information, achievement motivation and leisure motivation questionnaires.

3.4.1 Demographic Information

The first part of the questionnaire includes the relevant demographic information of all the respondents. The respondent indicates the statement relevant to his situation by making a cross in the space next to or underneath the statement. The demographic information included gender or sex, language, marital status, occupation, age, years experience in the mining industry, qualifications and salary.

3.4.2 Achievement Motivation Questionnaire

Cassidy and Lynn (1989:301) identified the need to develop a measurement instrument that incorporates all factors influencing achievement motivation. Achievement motivation questionnaires that were previously developed including the scale of Jackson *et al.* (1976) and Sperice & Helmreich (1983) all measured achievement motivation as a unitary construct. Cassidy and Lynn (1989:302) argued that nAch is regarded as a multifactoral construct but measurements were available to measure all the dimensions or values

of nAch. The research project led to the development of a multifactoral scale of achievement motivation and measures the following dimensions:

3.4.2.1 Work ethic (WE)

Work ethic is measured by item number 1 to 7. The item is based on Spence and Helmeich's (1983) attribute referring to "the desire to work hard". Work ethic is seen as a motivational attribute of the individual, which influences attitudes, values and behaviour (Cassidy & Lynn, 1989:302).

3.4.2.2 Acquisitiveness for money and material wealth (Acq)

Items number 8 to 14 measures this dimension and refer to the reinforcing properties of material reward. This dimension is part of the questionnaire of Jackson et al. (1976) as it was suggested that this dimension is related to socio-economic status.

3.4.2.3 Dominance (Dom)

Items number 15 to 21 measure this dimension and refer to the need to be a leader. This factor is included in the measurement due to the face validity of the item analysis done by Cassidy and Lynn (1989).

3.4.2.4 Pursuit of excellence (Exc)

Items number 22 to 28 measure the dimension of competition with a standard of excellence. Murray (1938) introduces this dimension as the basis for all intrinsic achievement motivation. This dimension is part of Jackson et al. (1976) and McClelland (1961) achievement motivation questionnaires.

3.4.2.5 Competitiveness (Com)

Items number 29 to 35 measure this dimension which can be described as the enjoyment of competition with others with the ultimate goal of winning. This dimension is based on the research of Jackson et al., (1976) and Helmreich (1983).

3.4.2.6 Status aspiration (SA)

This dimension is based on the research of Jackson et al. (1976) Items number 36 to 42 therefore measure the need to climb the social ladder and to be seen as a leader.

3.4.2.7 Mastery

Items number 43 to 49 measure the need to tackle difficult tasks and to succeed in the face of difficulty. Spence and Helmreich (1983) are the only researchers who use this concept as a factor of achievement motivation. The inclusion of this dimension in this scale is therefore based on their research.

3.4.3 Leisure Motivation Questionnaire

Beard and Ragheb (1983:219) identified the need for a comprehensive leisure motivation scale by examining the basic psychological and sociological reasons for engaging in leisure activities. The motivation behind this research was to develop a measurement tool that measures the major leisure motivation dimensions. The literature and scales used for developing a comprehensive measurement tool include Tinsley et al. (1979); Crandall (1980) and Beard and Ragheb (1980).

A pool of 150 items was subjected to a critical analysis and 48 best items were retained and a four-factor solution was identified:

3.4.3.1 Intellectual component

Items number 1 to 12 assess the extent to which individuals are motivated to engage in leisure activities which involve mental activities such as learning, exploring, discovering, creating or imagining.

3.4.3.2 Social component

Items number 13 to 24 measure the extent to which individuals engage in leisure activities for social reasons. It includes two basic needs, the need for friendship and the need for esteem from others.

3.4.3.3 Competence-mastery component

This component is measure with items number 25 to 36 and assesses the extent to which individuals engage in leisure activities in order to achieve, master, challenge and compete.

3.4.3.4 Stimulus avoidance component

Finally, items 27 to 48 measure the drive to escape and get away from over-stimulating life conditions. This item is based on the stimulus seeking and stimulus avoidance theory of Ellis (1973).

3.5 LIMITATIONS OF EMPIRICAL RESEARCH

The limitations experienced with the research are mostly due to the working hours of the respondents. The respondents participated in the research voluntary and had to complete the questionnaires after working hours at the

training center. The following difficulties were experienced:

- Respondents being on leave.
- Respondents do not have sufficient understanding of the English language and could not participate in the research.
- Respondents not arriving at the venue during the research time.

However 95 of the 120 candidates completed the questionnaires voluntary and after hours.

3.6 SUMMARY

The method of research indicates that two structured questionnaires need to be used for leisure motivation (Beard & Ragheb,1983) and achievement motivation (Cassidy and Lynn,1989). The statistical procedures needs to include an item analysis, factor analysis, reliability study and regression analysis. The results of statistical procedure needs to be analyzed and interpreted together with the results of the empirical investigation in Chapter 4, to achieve the following objectives:

- To determine whether there is a relationship between achievement motivation and leisure motivation amongst middle production supervisors at a South African Gold Mine.
- To determine the level of achievement motivation amongst middle production supervisors at a South African Gold Mine.
- To determine the level of leisure motivation amongst middle production supervisors at a South African Gold mine.
- To identify the most dominant value or values, driving achievement.

Chapter Four

RESULTS OF STATISTICAL PROCEDURE AND EMPIRICAL INVESTIGATION

4.1 INTRODUCTION

The purpose of this chapter is to present and interpret the test results of the statistical procedure followed and the empirical investigation.

The results will be discussed in three categories:

1. The statistical procedures followed.
2. Demographic information of the respondents.
3. The relationship between achievement motivation and leisure motivation.

The statistical procedure analyses the item homogeneity, validity and reliability of the two structured questionnaires used, and possible cause and effect results, by means of regression analyses. The empirical investigation reveals the demographic information of the middle production supervisors working at Tautona Gold Mine. This information is valuable in the process of developing a profile of the respondents. The relationship between achievement motivation and leisure motivation is identified through the comparison of statistics. The achievement motivation statistics indicates the level of achievement motivation of these supervisors and the specific values which influence nAch levels the most. The leisure motivation statistics indicate that leisure needs can be classified into four leisure need components.

4.2 STATISTICAL PROCEDURES

The statistical procedures followed include an item analysis, reliability study, and factor analysis. The results of the regression analysis are also presented.

4.2.1 Item analysis

The item analysis investigates the items used in the achievement motivation questionnaire of Cassidy and Lynn (1989) and the leisure motivation questionnaire of Beard and Ragheb (1983). The analysis determines if the specific items or questions are adequate to be used as a measuring instrument to determine the construct of achievement motivation and leisure motivation. The value of the analysis can range from 0 to 1. The results of the item-total correlation are tabled in Table 4.1.

TABLE 4.1
ITEM TOTAL CORRELATION
ACHIEVEMENT MOTIVATION QUESTIONNAIRE (CASSIDY & LYNN,1989)

ITEM NUMBER	DESCRIPTION ACHIEVEMENT STATEMENTS	CORRELATION WITH TOTAL
Work ethic 1	The preference to avoid hard work	0.44
Work ethic 2	Sitting for long times doing nothing	0.56
Work ethic 3	Do as little as possible	0.60
Work ethic 4	Being lazy	0.53
Work ethic 5	Wait for next day to complete tasks	0.62
Work ethic 6	Getting bored easily	0.16
Work ethic 7	Prefer to work hard	0.40
Acquisitiveness 1	Taking opportunities to make more money	0.50
Acquisitiveness 2	Earn less for pleasant work	-0.16
Acquisitiveness 3	Top salary for top performance	0.34
Acquisitiveness 4	Willing to work if paid well	0.50
Acquisitiveness 5	Thinking of money making opportunities	0.64
Acquisitiveness 6	Importance of money	0.66

Acquisitiveness 7	Money is the most important thing in work	0.27
Dominance 1	Like authority over people	0.49
Dominance 2	Good leader if given a chance	0.55
Dominance 3	Usually a leader in group	0.64
Dominance 4	Planning and delegating	0.69
Dominance 5	Give orders and get things done	0.55
Dominance 6	People take note of what I say	0.51
Dominance 7	Prefer to lead own group without others	0.35
Excellence 1	Hate to see bad workmanship	0.33
Excellence 2	Satisfaction in seeing a finished product	0.52
Excellence 3	Prefer to compete with people better than myself	-0.05
Excellence 4	Satisfaction in saying I did a good job	0.50
Excellence 5	Want to work as well as I can	0.54
Excellence 6	Exceeding my previous performance	0.45
Excellence 7	Satisfaction in a job well done	0.59
Competitiveness 1	Try harder when in competition	0.49
Competitiveness 2	Wants to perform better than others	0.49
Competitiveness 3	Measure performance based on others not results	0.42
Competitiveness 4	Results is important not only others performance	0.10
Competitiveness 5	Not allowing others to get my credit	0.22
Competitiveness 6	Must do better than everyone else	0.58
Competitiveness 7	Important to do tasks better than others	0.58
Status Aspiration 1	Want an important job	0.41
Status Aspiration 2	Like talking to important people	0.42
Status Aspiration 3	Want to be important in community	0.57
Status Aspiration 4	Admire people who fight to the top	0.41
Status Aspiration 5	Will not work if having enough money	-0.07
Status Aspiration 6	Will continue working if winning a lot of money	0.36
Status Aspiration 7	Will work even if unemployment benefits is high	0.27
Status Aspiration 8	Like to be admired	0.40
Status Aspiration 9	Dislike being the center of attention	0.14
Status Aspiration 10	Like people asking me for advice	0.39
Status Aspiration 11	Satisfaction in having influence because of position	0.28
Mastery 1	Prefer activities that feel confident and relaxed	0.44
Mastery 2	Prefer easy games than difficult ones	0.44

Mastery 3	Will rather struggle to master a new game	0.29
Mastery 4	Prefer to work in situations requiring high skill level	0.27
Mastery 5	Prefer to undertake unsure tasks	0.38
Mastery 6	Being busy all the time	0.26
Mastery 7	Feel like giving up	0.47

In Table 4.1, negative values are reported for three (3) out of the forty nine (49) items. These items refer to acquisitiveness 2 with a value of -0.16 , excellence 3 with a value of -0.05 and status aspiration 5 with a value of -0.07 . These items with the lowest item to total correlation, were omitted and therefor not used to assess the level of achievement motivation amongst middle production supervisors at a South African gold mine. Only the items with a positive value are included.

TABLE 4.2
ITEM TOTAL CORRELATION:
LEISURE MOTIVATION QUESTIONNAIRE (BEARD & RAGHEB, 1983)

ITEM NUMBER	DESCRIPTION REASONS FOR PARTICIPATING IN LEISURE	CORRELATION WITH TOTAL
Cognitive 1	To expand interests	0.48
Cognitive 2	Seek stimulation	0.45
Cognitive 3	Make things meaningful	0.77
Cognitive 4	Learn about things around me	0.68
Cognitive 5	Satisfy curiosity	0.55
Cognitive 6	Explore new ideas	0.71
Cognitive 7	Learn about myself	0.60
Cognitive 8	Expand knowledge	0.68
Cognitive 9	Discover new things	0.60
Cognitive 10	Be creative	0.71
Cognitive 11	Be original	0.52
Cognitive 12	Use imagination	0.64
Social 1	Be with others	0.61
Social 2	Build friendships	0.64
Social 3	Interact with others	0.62

Social 4	Develop close friendships	0.75
Social 5	Meet new and different people	0.71
Social 6	Help others	0.61
Social 7	Others think well of me	0.51
Social 8	Reveal thoughts, feelings or physical skills	0.65
Social 9	Influence others	0.38
Social 10	Socially competent and skilled	0.63
Social 11	Feeling of belonging	0.74
Social 12	Gain others respect	0.75
Achieving 1	Get a feeling of achievement	0.82
Achieving 2	See my abilities	0.79
Achieving 3	Challenge my abilities	0.84
Achieving 4	Enjoy mastering things	0.80
Achieving 5	Be good in doing things	0.87
Achieving 6	Improve skills and abilities	0.67
Achieving 7	Compete against others	0.59
Achieving 8	Be active	0.83
Achieving 9	Develop physical skills and abilities	0.85
Achieving 10	Be in shape	0.80
Achieving 11	Use physical abilities	0.84
Achieving 12	Stay in shape	0.77
Stimulus Avoid 1	To be in calm atmosphere	0.45
Stimulus Avoid 2	To avoid crowded areas	0.38
Stimulus Avoid 3	Slow down	0.50
Stimulus Avoid 4	Like to be alone	0.50
Stimulus Avoid 5	Relax physically	0.48
Stimulus Avoid 6	Relax mentally	0.35
Stimulus Avoid 7	Avoid daily hustle and bustle	0.45
Stimulus Avoid 8	To rest	0.39
Stimulus Avoid 9	To relieve stress and tension	0.43
Stimulus Avoid 10	Do something simple and easy	0.38
Stimulus Avoid 11	To unstructured time	0.46
Stimulus Avoid 12	Get away from responsibilities	0.40

The item analysis done as indicated in Table 4.2 on the Leisure motivation questionnaire reported positive and relatively high values on all 48 items.

All items will therefore be used in the empirical investigation to assess the level of leisure motivation amongst middle production managers at a South African gold mine.

4.2.2 Reliability study

Scholtz (1988:19) states that a good measurement instrument delivers reliable information as close as possible to the reality in the same conditions. The reliability study is therefore important to ensure that the questionnaires proposed, are consistent in measuring of the level of achievement motivation and leisure motivation. The statistical technique used is the Cronbach Alpha Coefficient. Nunnally (1978) states that, reliability is adequate if it is 0.70 or higher. Table 4.3 indicates the alpha values obtained in the study of Cassidy and Lynn (1989) and the of the present study.

TABLE 4.3 CRONBACH ALPHA COEFFICIENT: ACHIEVEMENT MOTIVATION		
FACTOR	ALPHA VALUE	ALPHA VALUE CASSIDY & LYNN(1989)
Factor 1: Work Ethic	0.70	0.76
Factor 2: Acquisitiveness	0.73	0.66
Factor 3: Dominance	0.79	0.77
Factor 4: Excellence	0.72	0.55
Factor 5: Competitiveness	0.69	0.67
Factor 6: Status Aspiration	0.69	0.76
Factor 7: Mastery	0.66	0.60

The results in Table 4.3 indicate that factors 1 to 4 of the present study are above the criterion of 0.70. Factor 4 and 6 measures 0.69 and factor 7 is 0.66. The results obtained when compared with the results obtained by Cassidy and Lynn (1989), indicate an average trend in reliability and are therefore acceptable according to Nunnally (1978), who suggested that an average alpha coefficient is acceptable for research of a developing nature.

TABLE 4.4 CRONBACH ALPHA COEFFICIENT: LEISURE MOTIVATION		
FACTOR	ALPHA VALUE	ALPHA VALUE BEARD & RAGHEB (1983)
Factor 1: Cognitive component	0.89	0.90
Factor 2: Social Need	0.90	0.91
Factor 3: Competence-mastery	0.96	0.90
Factor 4: Stimulus Avoidance	0.71	0.89

The leisure motivation alpha coefficient values as indicated in Table 4.4, range between 0.71 and 0.90. The alpha coefficient values reported by Beard and Ragheb (1983) range between 0.89 and 0.91. These values fall above the appropriate value of 0.70 prescribed by Nunnally (1978). The reliability study therefore reports that the leisure motivation questionnaire of Beard and Ragheb (1983), is reliable and can be used to measure the set objectives within the present study.

4.2.3 Factor analysis

This analysis will determine if the achievement motivation questionnaire of Cassidy and Lynn (1989) and the leisure motivation questionnaire of Beard and Ragheb (1983), are valid. This factor analysis using varimax rotation will clarify the dimensions or factors and will indicate if these factors will measure achievement motivation and leisure motivation as constructs.

TABLE 4.5 FACTOR ANALYSIS		
FACTOR ANALYSIS	ACHIEVEMENT MOTIVATION	LEISURE MOTIVATION
Variation of model	74%	73%
Factors identified	16	8
Commonalties	Min 0.61 Max 0.84	Min 0.56 Max 0.86

Table 4.5 indicates that on the achievement motivation questionnaire, the verimax rotation yielded 16 interpretable factors which explained 74% of the variance. As suggested by Nunnally (1978), only those variables with factor loadings of 0.30 or greater were retained for interpretation. The minimum factor loading is 0.61 and all factors were therefore interpretable. The verimax rotation yielded 8 interpretable factors which explained 73% of the variance on the leisure motivation questionnaire. The minimum factor reading is 0.56. Both questionnaires are valid according to the criteria set out by Nunnally (1978).

4.2.4 Regression analysis

The purpose of this analysis is to investigate the cause-and-effect relationships between achievement motivation values as the dependent variable and specific demographic information as the independent variable. In addition, the relationship between leisure motivation as the dependant variable and demographic information as the independent variable is investigated. The purpose is to determine if the independent variable can project achievement motivation or leisure motivation.

TABLE 4.6 REGRESSION ANALYSIS		
INDEPENDENT VARIABLE	DEPENDANT VARIABLE	
	ACHIEVEMENT MOTIVATION	LEISURE MOTIVATION
Language	0.00	-
Age	0.00	0.02
Experience	0.00	0.01
Qualifications	0.09	0.06
Salary	0.01	0.02

Table 4.6 indicates that the regression analyses did not identify any significant cause and effect relationship between the independent variables and the dependent variables. The minimum value indicating relationships is:

$f^2 = 0.02$ - small

$f^2 = 0.15$ - medium

$f^2 = 0.35$ - large

$f^2 \geq 0.35$ - practical significant

The regression values obtained range between 0.00 to 0.09. This indicates that the relationships between achievement motivation and qualification and achievement motivation and salary is not practical or significant at all (Nunnally, 1978). Only small relationships were indicated between leisure motivation and age, experience, qualification and salary.

4.3 DEMOGRAPHIC INFORMATION

The demographic statistics of the respondents include their gender or sex, language, marital status, occupation, age, years experience in mining industry, qualification and salary. The results are presented in the following tables:

4.3.1 Sex

TABLE 4.7 SEX		
Sex	Total	%
Male	95	100
Female	0	0
TOTAL	95	100

The first question requests the respondent to indicate if he/she is male or female. This information is important because there is a definite relationship between nAch levels and gender. Spence and Helmreich (1983) found that males have higher nAch levels than females, possibly due to the influence of the Protestant work ethic specifically in western societies. The results in Table 4.7 indicate that the respondents (95), consist of males as underground mineworking is traditionally performed by males.

4.3.2 Language

TABLE 4.8
LANGUAGE

Language	Total	%
Afrikaans	46	48.9
English	9	9.6
English/Afrikaans	13	13.8
African Language	26	27.7
TOTAL	94	100.0

The second question on the demographic questionnaire requests the respondent to indicate his home language. The options of Afrikaans, English, Bilingual or African are important due to the relationship between culture or language and achievement as indicated by Hofstede (1991:23). The results in Table 4.8 indicates that 48.9% of the respondents are Afrikaans speaking, 9.6% are English speaking, 13.8% are Bilingual and 27.7% speak an African language which includes Zulu, Tswana, Sotho, Swazi, Xhosa.

4.3.3 Occupation

TABLE 4.9
PRESENT OCCUPATION

Occupation	O	%
Mine Overseer	7	7.4
Shift Boss	40	42.6
Miner	47	50
TOTAL	94	100.0

Question number three is used to confirm the different respondents occupations or levels in the mine. The mine overseer is the highest level of supervisor in the production process following by shiftbosses and miners. Table 4.9 indicates that the miners are the largest amount consisting of 50% of respondents. Shiftbosses are the second largest group, being 42.6% of the respondents followed by mine overseers who comprise 7.4% of the total respondents.

4.3.4 Marital Status

TABLE 4.10 MARITAL STATUS		
Status	Total	%
Married	82	86.31
Unmarried/Never been	7	7.37
Divorced/Widower/Seperated	6	6.32
TOTAL	95	100

Question four requests the individual to indicate his martial status. Table 4.10 indicates that the largest number of respondents, namely 86.31%, are married while only 7.37% have never been married and 6.32% of respondents are either divorced, separated or are widowers.

4.3.5 Age

TABLE 4.11 AGE		
Age	Total	%
20 – 30 Years	23	24.2
31 – 40 Years	51	53.7
41 – 50 Years	21	22.1
TOTAL	95	100.0

Question five requests the respondent to indicate his age. The information in Table 4.11 indicates that the largest amount of supervisors are between 31 and 40 years old , followed by respondents falling in the 20 to 30 year age group and then the 41-50 year group.

4.3.6 Years experience in mining industry

TABLE 4.12 NUMBER OR YEARS EXPERIENCE IN MINING INDUSTRY		
Years	Total	%
0-5	10	10.5
6-10	23	24.2
11-15	29	30.5
16 +	33	34.7
TOTAL	95	100.0

In question six, the respondents had to indicate how many years they have been working in the mining industry. Table 4.12 indicates that 34.7% have more than 16 years experience, 30.5% have 11 to 15 years experience, 24.2% of the respondents have worked between 6 to 10 years in the mining industry. The balance of 10.5% of the respondents has only been working between 0 to 5 years in this industry.

4.3.7 Income per year

TABLE 4.13 INCOME PER YEAR		
Scale	Total	%
R 60 000 – R 100 00	47	50
R 100 001 – R 150 000	40	42.6
R 150 000 and more	7	7.4
TOTAL	94	100.00

This question refers to the demographic information of the respondents concerning their annual income. Table 4.13 indicates that the largest amount (50%) of respondents earn between R 60 001 to R 100 00 per month. Due to differences in bonus earnings, the amount varies within this wide range. The second number of respondents (42.6%) earn between R 100 001 to R 150 000 and the rest (7.4%) earn from R 15 001 and more.

4.3.8 Qualification

TABLE 4.14 QUALIFICATION		
Level	Total	%
Std 8 or lower	34	34
St 10/National High School Certificate	46	48.4
NTC 1; NTC 11; NTC 111	11	11.6
Std 10 + 3 Years Tertiary training	2	2.1
Std 10 + 4 Years Tertiary training	2	2.1
	95	100.0

This question requests the respondents to indicate their educational level. Table 4.14 indicates that the largest amount of respondents have a matriculation certificate (62). There are 34 respondents without a matriculation certificate while 15 respondents have a diploma or tertiary training.

4.4 RELATIONSHIP BETWEEN ACHIEVEMENT MOTIVATION AND LEISURE MOTIVATION

The main objective of this study is to determine if there is any relationship between achievement motivation and leisure motivation. The Pearson Correlation Coefficient was used as a statistical method to determine the relationship between nAch levels and leisure motivation with the results obtained from the empirical investigation. Cohen (1977:79-80) clarifies the meaning of the Pearson values as follows where r is the Pearson value:

- $r \leq .1$ Small relationship
- $r \leq .3$ Medium relationship
- $r \leq .5$ Large Relationship
- $r \geq .5$ Large, practical and significant relationship.

The Pearson value reported on the relationship between achievement motivation and leisure motivation is $r = 0.52$.

This value confirms that there is a positive relationship between achievement motivation and leisure motivation. The value of $r = 0.52$ also indicates that this relationship is practical and significant.

HYPOTHESIS 1

The hypotheses set in Chapter 1 states that there is a positive relationship between achievement motivation and leisure motivation

RESEARCH FINDINGS:

The research confirmed that there is a positive relationship between achievement motivation and leisure motivation. The research further identified this relationship to be specific and significant.

The relationship can visually be shown in Figure 4.1.

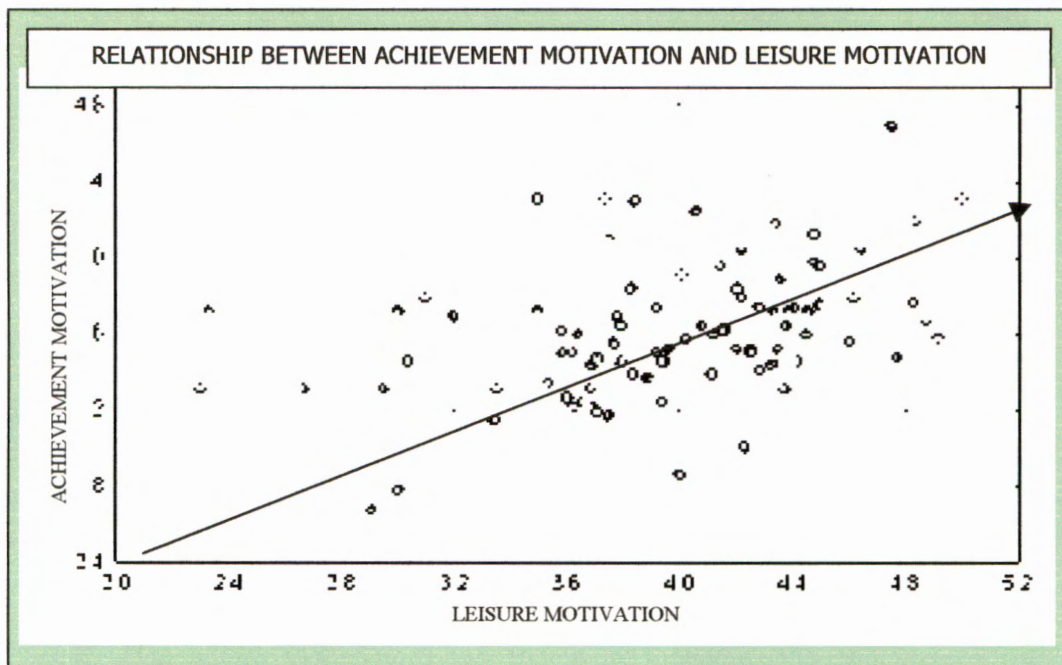


FIGURE 4.1
THE RELATIONSHIP BETWEEN ACHIEVEMENT MOTIVATION AND
LEISURE MOTIVATION

The relationship can be identified by the amount of dots in the central area of Figure 4.1 which relates achievement motivation to leisure motivation. The implication of this relationship can be that a person with high nAch levels also possesses high leisure motivation levels. The opposite is also assumed, namely that if a person possesses a low nAch level, he will also measure low in leisure motivation.

The achievement values identified by Cassidy and Lynn (1989), which refer to work ethic, acquisitiveness, dominance, status aspiration, competitiveness and mastery, therefore have a relationship with the leisure motivation components (Beard & Ragheb, 1983), which refer to cognitive component, social component, achievement and stimulus avoidance. The following relationship can be interpreted with the statistics available.

The red indicates the leisure motivation values and the blue the achievement motivation values obtained.

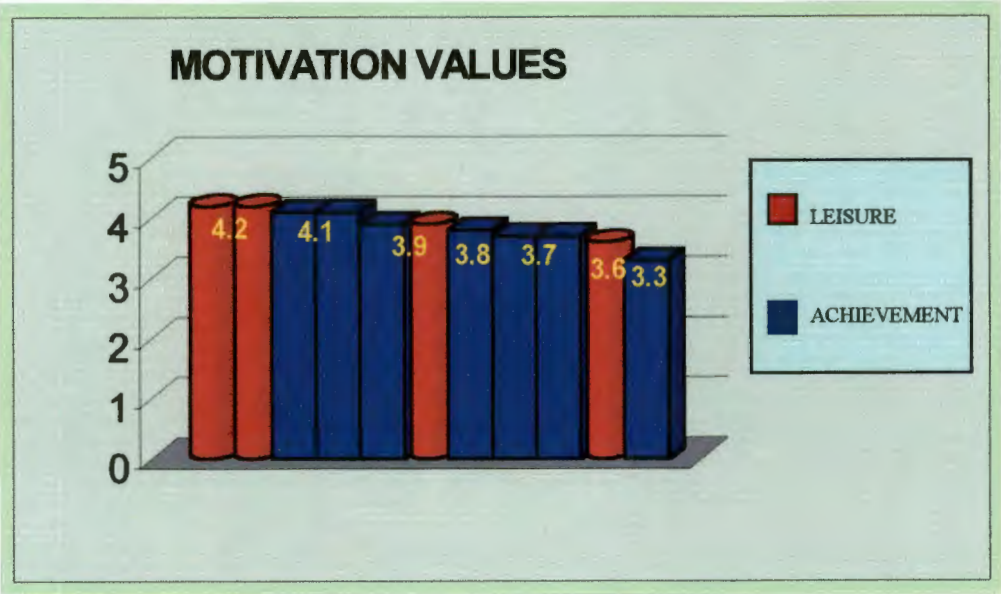


FIGURE 4.2
ACHIEVEMENT MOTIVATION AND LEISURE MOTIVATION VALUES

Figure 4.2 indicates that there is a correlation between achievement values and leisure motivation components in the following factors: cognitive and achievement needs in leisure and excellence and dominance in nAch levels; social needs in leisure and acquisitiveness, status aspiration, work ethic and competitiveness in nAch levels. The least dominant value in leisure motivation is stimulus avoidance and in achievement motivation, the value of mastery is the least dominant. The following assumptions can be made:

- Individuals, who are motivated to participate in leisure activities, are mainly driven by the need to be stimulated cognitively and by the need to achieve. The relationship to achievement is found in the need for excellence and be dominant as a leader.

- Individuals will be motivated to participate in leisure activities to fulfil their social needs. The relationship with work is that they will be driven by the values of money or acquisitiveness, status aspiration, their work ethic and competitiveness in order to achieve.
- The individual will to a lesser extent be motivated to participate in leisure to escape or avoid stimulus. Mastery is also valued low in achievement contexts.

4.4.1 nAch levels of middle production supervisors

The variable nAch was tested amongst 95 respondents. The questionnaire makes statements relating to achievement and measures the level of achievement motivation on a five point scale. The scale includes the following values and has the following meaning:

- 1 Strongly disagree
- 2 Disagree
- 3 Neither agree or disagree
- 4 Agree
- 5 Strongly Agree

A choice of 1 indicates that the respondent strongly disagrees with the statement and indicates a low nAch level pertaining to the specific item. A choice of 5 indicates that the respondent strongly agrees with the statement and indicates a high nAch level pertaining to the specific item. The statistics show the following values on the nAch levels amongst middle production supervisors at Tautona gold mine:

TABLE 4.15 NACH LEVELS						
VARIABLE	N	MEANING	STD DEVIATION	SUM	MIN	MAX
nAch	95	3.8	0.32	362.25	2.67	4.4

Table 4.15 indicates that the average choice on the statements made in the achievement motivation questionnaire is 3.8. This choice falls into the category of neither agree or disagree which indicates an average level of nAch.

4.4.1.1 Achievement motivation as per occupation

The results obtained in the achievement motivation questionnaire were analysed in terms of the different levels of occupation, referring to mine overseer, shiftbosses and miners. The following results were obtained:

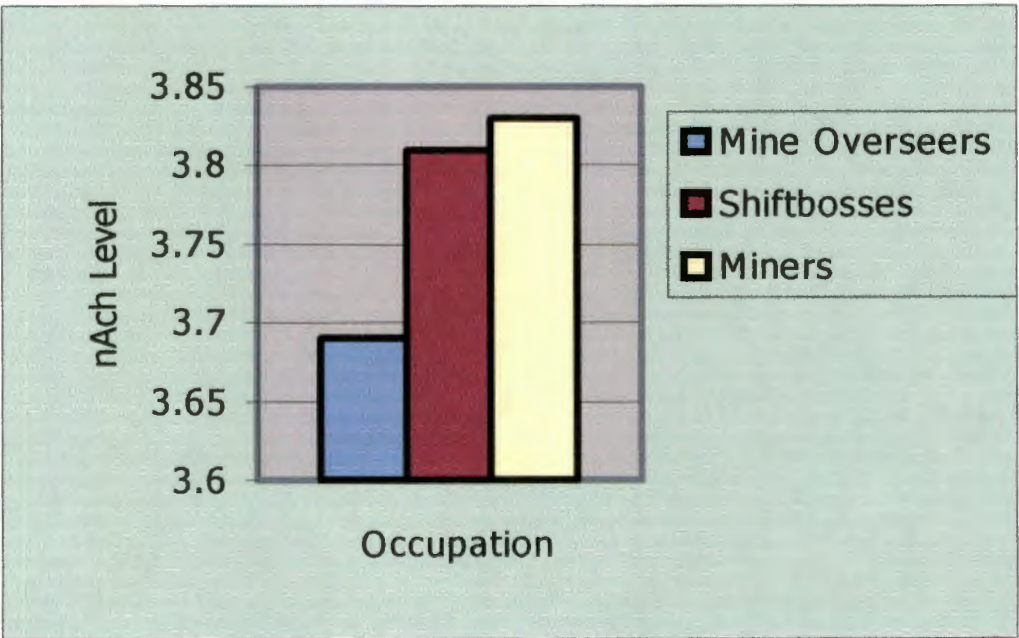


FIGURE 4.3
ACHIEVEMENT MOTIVATION LEVELS PER OCCUPATION

Figure 4.3 indicates that all three occupational levels attain an average measure on nAch levels. The miners however measure $r= 3.83$, the shiftbosses $r= 3.81$ and mine overseers $r=3.69$. This indicates the trend that the lower level employees are more achievement motivated than the higher level employees.

4.4.1.2 Achievement motivation per language group

The results obtained on the achievement motivation questionnaire were then analysed in terms of the different language or cultural groups. This refers to Afrikaans, English, Bilingual (English and Afrikaans) and African languages including Tswana, Xhosa, Sotho, Swazi, Zulu. The following results were reported:

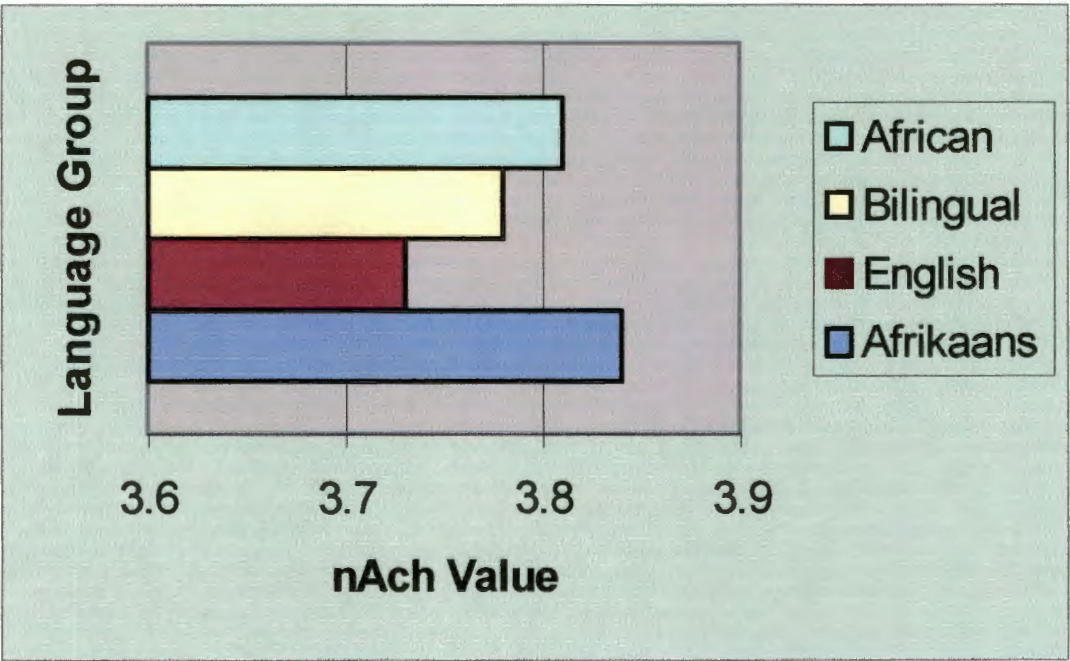


FIGURE 4.4
ACHIEVEMENT MOTIVATION LEVELS PER LANGUAGE GROUP

The analysis in Figure 4.4 indicates that the Afrikaans speaking respondents possess the highest nAch levels (3.84) followed by the respondents

speaking an African home language (3.81)population. The bilingual group referring to Afrikaans and English, scored third (3.78) and the English speaking respondents measured the lowest in nAch levels (3.73).

4.4.1.3 Dominant value/values driving achievement

The most dominant value driving or motivating the respondents to achieve was identified by comparing the averages obtained from the different factors.

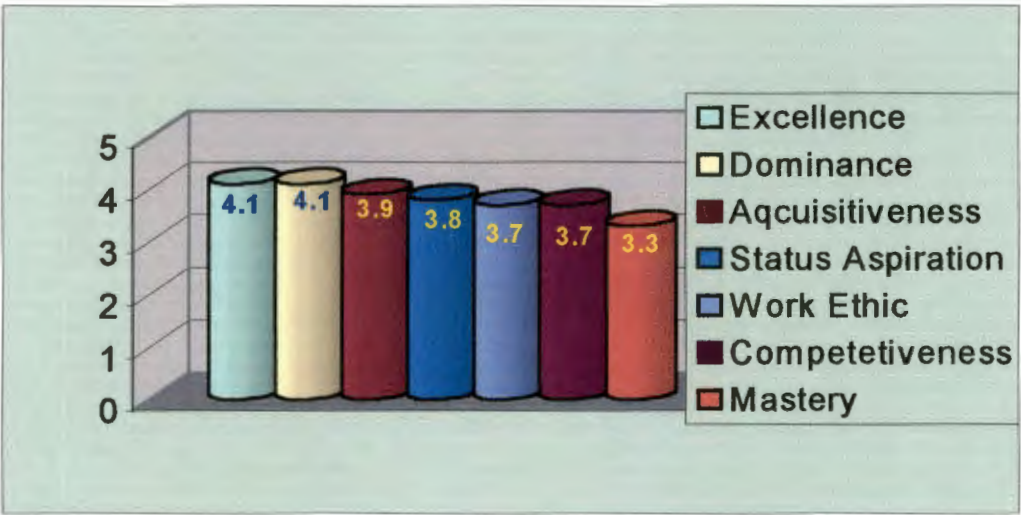


FIGURE 4.5
ACHIEVEMENT VALUES

Figure 4.5 shows the values driving achievement. These values are excellence and dominance followed by acquisitiveness, status aspiration, work ethic, competitiveness and mastery. The most important values driving achievement are excellence (4.1) and dominance (4.1). This implies that the middle production supervisor is driven by the need to be dominant as a leader. Referring to paragraph 2.3.4.5, it means he wants to be acknowledged as a leader and this is a personality trait (Gouws *et al.* 1979:59). The individual wants to control his environment and other people and tend to be experienced as difficult and stubborn. This can be related to a large power distance culture where less powerful people are dependent

on the more powerful and where the ideal supervisor is seen as a autocrat or good father (Hofstede, 1991:26).

Excellence (4.1) as an equal value driving achievement refers to the motivation that finds reward in performing to the best of one's ability. Paragraph 2.3.4.2 indicates that this value refers to competition with a standard of excellence. The real competition is against self and we can assume that these supervisors set high standards for themselves and measure themselves according to these set standards. Both dominance and excellence indicate above average scores and which strongly indicates that these values or achievement needs drive current performance.

Figure 4.5 indicates that acquisitiveness (3.9) is the second dominant value and refers to the need for money or material reward. Status aspiration (3.9) is the third value referring to the need to climb the social ladder. The fourth value refers to work ethic (3.7) and also competitiveness (3.7). This refers to the Protestant work ethic of valuing hard work and becoming prosperous and focussed through hard work (Franken, 1988:395). Competitiveness refers to the value the individual places on competition against others. This includes the need to win and can influence relationships negatively with others if not balanced. The achievement value that drives achievement the least is mastery (3.3). This refers to the way in which problems are solved. The respondents measure average on this value with a tendency to move below average. Individuals that measure high follow a problem centered approach and take calculated risks despite the risk of failure. Individuals scoring high tend to believe that they have control over life events and the environment. They also know their skills and abilities and enjoy taking the initiative. Since this value is the lowest driving force of achievement, it indicates that middle production supervisors need to value or practice

mastery. The variables influencing the low score related to mastery need to be identified and either be eliminated or be used to develop a problem centered approach in achievement contexts.

4.4.2 Level of leisure motivation of middle production supervisors

The variable leisure motivation was tested amongst 95 respondents. The questionnaire contains statements relating to leisure needs and measures the level of leisure motivation on a five-point scale. These are the same values used to test individuals on the leisure motivation questionnaire. The scale includes the following values and has the following meaning:

- 1 - Strongly disagree
- 2 - Disagree
- 3 - Neither agree or disagree
- 4 - Agree
- 6 - Strongly Agree

A choice of 1 indicates that the respondent strongly disagrees with the statement and indicates a low nAch level pertaining to the specific item. A choice of 5 indicates that the respondent strongly agrees with the statement and indicates a high leisure motivation level pertaining to the specific item. The results obtained are mentioned in Table 4.16.

TABLE 4.16 LEVEL OF LEISURE MOTIVATION						
VARIABLE	N	MEAN	STD DEVIATION	SUM	MIN	MAX
Leisure Motivation	95	3.97	0.55	377.31	2.3	5.0

The research findings in Table 4.16 indicate that the respondents have an average to above average level of leisure motivation $r = 3.97$. This trend to be above average means that individuals are motivated to satisfy their needs through leisure activities.

4.4.2.1 Leisure Motivation as per occupation

The results of leisure motivation were analyzed in the different occupational levels referring to mine overseers, shiftbosses and miners. The results are shown in Figure 4.6.

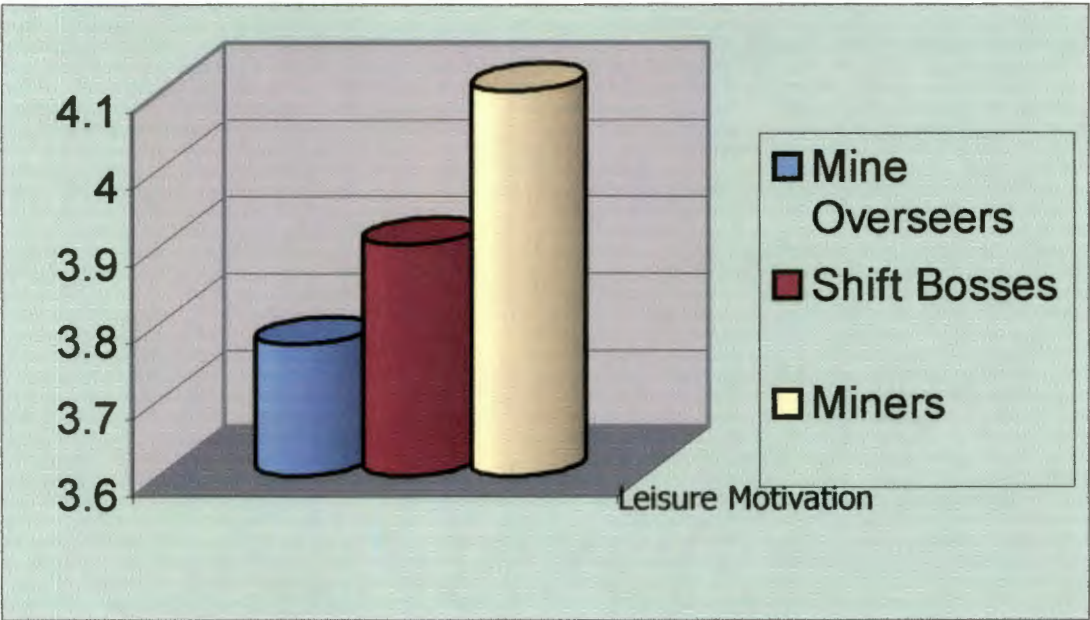


FIGURE 4.6
LEISURE MOTIVATION PER OCCUPATION

The results in Figure 4.6 indicate that the miners possess the highest level of leisure motivation(4.1), followed by the shiftbosses (3.9) and the mine overseers (3.77). The middle production supervisors on all three occupational levels are motivated by their achievement and cognitive stimulation needs followed by social needs and the need to avoid any stimulus.

4.5 SUMMARY

The following are the main conclusions pertaining to the empirical investigation:

1. There is a positive, practical significant relationship between achievement motivation and leisure motivation.
2. Middle production supervisors working at Tautona gold mine have average achievement motivation levels.
3. Middle production supervisors working at Tautona gold mine have average leisure motivation levels.
4. Miners are the most achievement oriented followed by shiftbosses and mine overseers.
5. The most dominant values driving achievement are dominance and excellence and the least dominant value is mastery.

CHAPTER FIVE

SUMMARY, IMPLICATIONS, LIMITATIONS AND RECOMMENDATIONS

5.1 SUMMARY

The purpose of this study was to determine the relationship between achievement motivation and leisure motivation. The study also had the objective to determine the level of achievement motivation of middle production supervisors working at a South African gold mine and to identify the most dominant value or values driving achievement. The final objective was to determine the level of leisure motivation of the same population.

Biesheuvel (1988:2) states that the level of achievement motivation can be directly related to higher human productivity which is measured as input divided by output. The quality of the input will therefore influence the output significantly. In order to achieve the objectives set by AngloGold, the largest South African based mining company, the individual goldmines need to develop their workers, supervisors and managers to improve productivity. Huysamen (1997:31) indicates that organisational performance is determined by supervisory skill, the desire of supervisors to perform (nAch) and the work environment's effectiveness. The achievement behaviours that can make a difference in productivity levels include persistence, time utilisation and moderate risk taking. Due to the diverse cultures at the mines, the influence of culture on the development of achievement values needs to be understood. Hofstede (1980) states that culture is learned and

therefore to create a culture of achievement, the work environment can stimulate this through appropriate developmental inputs. Cassidy and Lynn (1989:301) identified seven value-related factors that influence achievement motivation. These factors include the individual's need or value regarding:

- ! **Work ethic (WE)**
- ! **Pursuit of excellence (Exc)**
- ! **Status Aspiration (SA)**
- ! **Competitiveness (Com)**
- ! **Acquisitiveness for money and material wealth (Acq)**
- ! **Mastery**

The measurement of these achievement values indicates the level of achievement motivation. But achievement motivation as a construct does not address the full human component of employees, working at the gold mines. Biesheuvel (1988:1) states that "Gold ore has only one potential value, the imagination, ingenuity, skills and hard work of man are needed to find it, get it out, process and beneficiate it to make this value real". Humans drive this process and the human factor in productivity does not only include work. Freud (1930:50) states to be human is to work and to love. Kelly and Kelly (1994:4) extend this by stating "to be human is to work in productive and worthwhile engagement, to love in the relationship of sharing and intimacy, to learn in developmental action and to be free in expressive activity. Therefore the other side of being human, the leisure or love component needs also to be understood.

Beard and Ragheb (1983:219) identified the need to measure the psychological and sociological reasons for participating in leisure activities through developing a measuring instrument based on the following leisure needs or components:

- ! **Intellectual Component**
- ! **Social Component**
- ! **Competence-Mastery Component**
- ! **Stimulus avoidance Component**

The results of an empirical study (see Chapter 4) involving 95 middle production supervisors at Tautona gold mine in South Africa confirmed the following hypothesis:

There is a positive relationship between achievement motivation and leisure motivation.

The following objectives were determined in Chapter 1 and achieved:

- The main objective was to determine the relationship between achievement motivation and leisure motivation.

The research found that there is a positive, practical significant relationship.

- The first sub-objective in Chapter 1 was to determine the level of achievement motivation amongst middle production supervisors working at a South African gold mine.

The research found that the average level of achievement motivation is 3.8 out of a five-point scale. This means an average to an above average level of achievement motivation.

- The second sub-objective was to determine the most important value or values driving achievement amongst middle production supervisors working at a South African gold mine.

The most dominant values driving achievement are dominance and excellence and the least dominant value is mastery.

- The third sub-objective was to determine the level of leisure motivation amongst middle production supervisors working at a South African gold mine.

The research found that the level is average to above average and the most dominant needs driving leisure are cognitive stimulation and need for achievement.

5.2 IMPLICATIONS

- The implications of the results obtained during this research revolve around the concept of developmental inputs. The literature states that values can be developed through appropriate developmental inputs (Elliott, 1991). Eccles and Wigfield (1992:274) and Rokeach (1979:2) state that the development of values is greatly influenced by culture as one culture will emphasize a given value and the other will not. In the process of developing productive organizational cultures, achievement values need to be reinforced to serve as instrumental values to reach the terminal values such as success and productivity.
- The implications for leisure services serving the mine population are the relationship between nAch levels and leisure motivation. Leisure activities can stimulate the development of achievement values (such as mastery and excellence) during leisure activities. The importance of balancing leisure and work in the process of being human is an important

consideration when delivering services to employees.

- The dominant values driving achievement are dominance and excellence. The middle production supervisors therefore need to be given the opportunity to satisfy this need. Standards of excellence that are set need to be acknowledged as satisfying this need will lead to higher levels of excellence. Mastery was the least dominant value driving achievement need and this needs to be stimulated to improve the overall level of achievement motivation.
- Leisure is strongly motivated by the need to be cognitively stimulated. This opportunity can be used to create leisure activities that are not only social in nature but stimulate, challenge and require innovation. The need to be competent and to master, which is related to achievement as a second dominant need, can have a positive impact in developing a human attribute of achieving. This attribute can be the missing link in productivity levels.

5.3 LIMITATIONS OF RESEARCH

- The biggest limitation of the research is the fact that this study did not measure the relationship between achievement motivation and leisure motivation amongst middle production supervisors belonging to specific cultural groups. The use of Afrikaans, English and African languages to segment the respondents is too broad. The African languages need to be divided into specific cultural groups. This will however require the identification of a far larger target population.

- The statistical procedure relating to the regression analysis, did not deliver any valuable results and could have been extended to more or other independent variables.

Overall the study achieved the set objective and was a good experience in understanding the reasons why people behave as they do in their work and their leisure contexts. The importance of this research must not be underestimated in our efforts to develop a more productive South Africa with the diverse human element as our strongest asset.

5.4 RECOMMENDATIONS

The following recommendations are made referring to the relationship between achievement motivation and leisure motivation.

RECOMMENDATION 1

The Cassidy & Lynn (1989) achievement motivation questionnaire and Beard and Ragheb (1983) leisure motivation questionnaires need to be adapted to measure individuals that are not literate. This adaptation is required in order to determine the achievement levels of the total workforce.

RECOMMENDATION 2

A follow-up study, which focuses on different home cultures and achievement motivation, is recommended. This will identify possible differences in the way specific values are endorsed amongst African cultures.

RECOMMENDATION 3

The leisure activities preferred by high achievers and low achievers need to be identified to determine the relationship between nAch and preferred leisure activities.

RECOMMENDATION 4

The possibility of including achievement motivation questionnaires as part of a fair process in the selection and placement of supervisors needs to be investigated.

RECOMMENDATION 5

Developmental inputs that enhance achievement values need to be developed and incorporated into current training programs or be implemented as an organisational development initiative.

RECOMMENDATION 6

Achievement motivation training needs to be included in the training program of leisure providers. This provides the opportunity to develop or enhance achievement values during leisure activities.

RECOMMENDATION 7

The influence of organisational culture on achievement values needs to be researched. This can assist managers and provide guidelines on how to create an achievement oriented working culture focussing on developing all the achievement values.

REFERENCES

- ATKINSON, J.W. 1957. Motivational determinants of risk-taking behaviour. *Psychological Review*, 64: 359-372.
- BEARD, J.G. & RAGHEB, M.G. 1980. Measuring leisure satisfaction. *Journal of leisure research*, 12(1):20-33.
- BEARD, J.G. & RAGHEB, M.G. 1983. Measuring leisure motivation. *Journal of leisure research*, 15(3):219-228.
- BEUKES, E.P. 1990. Thoughts on development in the new South Africa. *Development Southern Africa*, 7(4):617 - 628.
- BERGH, Z.C., FLOWERS, J., CILLIERS, F van N., KRIEK, H.J. & VIVIERS, A.M. 1989. *Bedryfsielkunde Honneurs: Enigste studiegids vir BEDEVL-J*. Pretoria:Unisa.
- BIESHEUVEL, 1988. The improvement of South African productivity. Centre for Business Studies: Wits. 19p.
- BOSHOFF, A. B. & BOER, J. H. 1988. nAch Training, organizational climate and organizational performance. *Development Southern Africa*, 5(1):73-87.
- BOSHOFF, A. B. , CRONJE, H.J. & LANGE, D.K. 1987. Motivation training as development strategy for South Africa. *Development Southern Africa*, 4(1):22-27.
- BRILSLIN, R. 1993. Understanding culture's influence on behaviour. Orlando, Fla: Harcourt Brace Janavich.
- CASSIDY, T. & LYNN, R. 1989. A multifactoral approach to achievement motivation: The development of a comprehensive measure. *Journal of occupational psychology*, 63:301-312.
- COHEN, 1977. Statistical power analysis for behavioural sciences. Orlando: Academic Press.
- CRANDALL, R. 1980. Motivations for leisure. *Journal of leisure research*, 12(1):45-54.

- CSIKSZENTMIHALYI, M. 1982. Toward a psychology of optimal experience. (In Wheller, C. *Annual review of personality and social psychology*, 3:13-36.)
- CSIKSZENTMIHALYI, M. & KLEIBER, D. A. 1991. Leisure and self-actualization. (in Driver, B.L. , Brown, P.J. & Peterson, G.L. Benefits of leisure. Pennsylvania: Venture Publishing. p. 91-102.)
- DE CHARMS, R. 1968. Personal Causation: The internal affective determinants of behaviour. NJ: Academic Press.
- DINSDALE, R. The need for achievement is a driving force for success. *Human resources management*, 1-11. July.
- DURAND, D.E. 1983. Modified achievement motivation training: A longitudinal study of effects of a condensed training design for entrepreneurs. *Psychological Reports*, 52:907-911.
- DWECK, C.S. 1986. Motivational processes affecting learning. *American Psychologist*, 41(10):1040-1048.
- ECCLES, J. 1983. Expectancies, values and academic behaviours. (In Spence, J. T. Achievement and achievement motives: Psychological and sociological approaches. San Francisco: WH Freeman and Co. p. 75-146.)
- ELLIOTT, A. 1991. Die dimensionaliteit van prestasiewaardes by blanke werknemers in Suid-Afrika. Pretoria: UNISA. (Verhandeling - M. Admin.) 93p.
- ELLIS, M. 1973. Why people play. Englewood Cliffs, NJ: Prentice Hall, Inc.
- ELLIS, G.D. & WITT, P.A. 1985. Perceived freedom in leisure: Implications for research and practise. *World leisure and recreation*, 20-24. August.
- ERWEE, R. 1986. An attempt to arouse the achievement motivation of young women by experimental intervention. *South African Journal of Psychology*, 16(1) 8-14.
- FEATHER, N.T. 1982. Human values and the prediction of action: An expectancy-value analysis. (In Feather, N.T. Expectations and actions: Expectancy-value models in psychology. Hillsdale, New York: Erlbaum. p. 263-289.)

- FRANKEN, R.E. 1988. Human Motivation. California: Wadsworth. 543p.
- FREUD, S. 1930. A general introduction to psychoanalysis. New York: Washington Square Press.
- FURNHAM, A. 1982. The protestant work ethic and attitudes towards unemployment. *Journal of occupational psychology*, 55:277-285.
- FURNHAM, A. 1984. The protestant work ethic: A review of the psychological literature. *European journal of social psychology*, 14: 87-104.
- FURNHAM, A. 1997. The half full or half empty glass: The views of the economic optimist vs pessimist. *Human Relations*. 50(2) 197-209.
- GODSELL, B. 1998. Anglogold Strategic Objectives (Presentation delivered on 10 August 1989, Denver).
- GOUWS, L.A. , LOUW, D.A. , MEYER, W.F. & PLUG, C. 1979. Psigologie woordeboek. Johannesburg: McGraw-Hill. 484p.
- GROSS, R. 1995. Themes, issues and debates in psychology. Great Britain: Hodder & Stoughton Educational. 334p.
- HAMMERMESH, D.S. & REES, A. 1988. The economics of work and pay. New York: Harper and Row. 452p.
- HICKMAN, C.R. & SILVA, M.A. 1985. Creating excellence. London: Unwin Paperbacks.
- HOFSTEDE, G. 1980. Culture's consequences. : International differences in work related values. Beverly Hills, CA: Sage Publications.
- HOFSTEDE, G 1991. Cultures and organisations. London: Mac-Graww Hill. 279p.
- HOFSTEDE, G. & BOND, M.H. 1984. Hofstede's culture dimensions: an independent validation using Rokeach's value survey. *Journal of cross-cultural psychology*, 15(4):417-433
- HOLLP, L. 1989. Achievement motivation and kaizen. *Thinking and development journal*, 53-63. October.

- HUYSAMEN, D. 1997. The desire to perform. *People dynamics*, 32-37. June.
- INTERNATIONAL INSTITUTE OF MANAGEMENT DEVELOPMENT. 1996. The world Competitiveness Report, 1992-6.
- ISO-AHOLA, S.E. 1980. The social psychology of leisure and recreation. Dubuque, IA : WC Brown. 436p.
- ISO-AHOLA, S.E. & BUTTIMER, K. J. 1982. On the Measurement of work and leisure ethics and resultant interrelations. *Educational and psychological measurement*, 42:429-435.
- JACKSON, D.N. , AHMED, S.A. & HEAPY, N.A. 1976. Is achievement a unitary construct? *Journal of research in personality*, 10:1-21.
- JACKSON, E. L. & WITT, P. A. 1994. Change and stability in leisure constraints: A comparison of two surveys conducted four years apart. *Journal of leisure research*, 26(4) 322-336.
- KELLY, J. R. & KELLY, J. R. 1994. Multiple dimensions of meaning in the domains of work, family and leisure. *Journal of Leisure Research*, 26(3):250-274.
- KELLY, J. 1987. Freedom to be: A new sociology of leisure. New York: MacMillan.
- LUNDBERG, G.A. , KAMROVSKI, M. & McINERNEY, M.A. 1934. Leisure, a suburban study. New York: Columbia University Press.
- LUTHANS, F. 1985. Organisational behaviour. New York: McGraw-Hill.
- LAWLER, E. E. 1973. Motivation in work organisations. Pacific Grove, California: Brooks.
- MAEHR, M. L. 1989. Thoughts about motivation. *Research on motivation in education* , 3:299-315.
- MAHADEA, D. 1994. On economic growth and entrepreneurship in South Africa: Some economic and management challenges. *SATEB*, 14:40-49.
- MANNING, T. 1997. Radical Strategy: How South African companies can win against global competition. Sandton, RSA : Struik Publishing. 284p.

- MASLOW, A.H. 1954. *Motivation and Prsonality*. New York: Harper & Row.
- McCLELLAND, D. C. 1961. *The achieving society*. Princenton, NJ: Van Nostrand. 293p.
- McCLELLAND, D. C. 1968. *The achievement motive*. NJ: Appleton Century Croft.
- McCLELLAND, D.C. 1985. *Human Motivation*. Glenview, IL: Scott, Foresman.
- McCLELLAND, D. C. , KOESTNER, R. & WEINBERGER, J. 1989. How do self-attributed and implicit motives differ. (In: Haliş, F. *Achievement and task motivation*. Amsterdam:Swets & Zeitlinger. p. 270-274.)
- McClelland, D. & PILON, D. Sources of adult motives in patterns of parent behaviour in early childhood. *Journal of personality and social psychology*, 44: 564-574.
- MDAKA, E. 1999. *Verbal information to researcher*. Tautona Mine: Carletonville.
- MURPHY, J. F. & HOWARD, D. R. 1977. *Delivery of community leisure services: An holistic approach*. Philidelphia: Lea Febiger. 215p.
- MORSBACH, H. 1969. Cross-Cultural Study of achievement motivation and achievement values in two South African groups. *Journal of Social psychology*, 71: 266-269.
- MURRAY, H. A. 1938. *Explorations in personality*. New York: Oxford University Press.
- NASSER, M. E. 1981. *Need for Achievement: The base for effective managerial development*. Unisa: Pretoria. 10p.
- NEULINGER,J. 1974. *The psychology of leisure*. Springfield,IL: CCThomas.
- NICHOLLS, J. G. 1992. The general and specific in the development and expression of achievement motivation. (In Roberts, G. C. *Motivation in sport and exercise*. IL: Human Kinetics Publishers. p. 31-57.)
- NUNALLY,J.C. 1978. *Psychometric theory*. New York: McGraw-Hill.
- PATRIC, G. 1916. *The psychology of relaxation*. Boston: Houghton-Mifflin.

PINTRICH, P. R. & SCHUNK, D.H. 1996. Motivation in education: Theory, research and applications. New Jersey: Prentice Hall. 434p.

POTTAS, C. D. , ERWEE, R. , BOSHOF, A. B & LESSING, B. C. 1980. Manual for the achievement motivation questionnaire. Pretoria: University of Pretoria.

POTTAS, C. D. 1980. Entrepreneurspotensiaal onder swart studente. *Ontwikkelingstudies Suider-Afrika*, 3(3):343-260.

ROBERTS, G. C. 1991. Motivation in sport and exercise: Conceptual constraints and conceptual convergence. Champaign, IL: Human Kinetics.

ROBERTS, G.C. 1992. Motivation in sport and exercise. IL: Human Kinetics Publishers.

ROKEACH, M. 1973. The nature of human values. New York: Free Press.

ROKEACH, M. 1979. From individual to institutional values with special reference to the values of science. (In Rokeach, M. 1978. Understanding human values, New York: Free Press. p. 47-70.)

SCHOLTZ, G. J. L. 1976. Die prestasie-motief: Toegepas op spel en sport. (Inougurele rede gehou by die aanvaarding van 'n professoraat in die Fakultet van Opvoedkunde op 2 April 1976 PU vir CHO. Potchefstroom, 107p.

SCHOLTZ, G. J. L. 1988. Wetenskaplike meting van vryetydsgedrag. Potchefstroom: PU vir CHO. 50p. (Instituut vir vryetystudies. Studeestuk nr. 13.)

SENGE, P. , ROBERTS, C. , ROSS, R. B. , SMITH, B.J. & KLEINER, A. 1994. The fifth discipline: Fieldbook. London: Nicholas Brealey Publishing.

SHUNK, D.H. 1983. Ability versus effort attributional feedback on childrens perceived self-efficacy and achievement. *Journal of educational psychology*, 75: 80-100

SKINNER, B.F. 1968. The technology of teaching. New York: Appleton-Century-Crofts.

SPENCE, J. T. 1983. Achievement and achievement motives: Psychological and sociological approaches. San Francisco : W.H. Freeman and Co.

- SPENCE, J. T. & HELMREICH, R. L. 1983. Achievement related motives and behaviours. San Francisco: WH Freeman and Co.
- OOSTHUIZEN, P , KOSTNER, M & DE LA REY, P. 1988. Goodbye MBA. South Africa; International Thompson Publishing.172p.
- THOMPSON, G.M. 1985. The development of achievement motivation. Johannesburg: RAU. (Verhandeling-M.Sos.)
- TINSLEY, H. , BARRETT, T. & KASS, R. 1977. Leisure activities and need satisfaction: a replication and extension. *Journal of leisure research*, 10:91-202.
- TINSLEY, H. & KASS, R. 1979. The latent structure of need satisfying properties of leisure activities. *Journal of leisure research*, 11(4)278-291.
- VAN RENSBURG, C. & RAUBENHEIMER, I van W. 1990. Die verband tussen tydsorientasie en prestsiemotivering. *Bedryfsielkunde* 16(3): 6-10.
- WADE, M.G. 1985. Constraints on leisure. IL: Charles Thomas.
- WAGNER, S. L., LOUNSBURY, J. W. & FITZGERALD, L. G. 1989. Attribute factors associated with work/leisure perceptions. *Journal of leisure research*, 21(2): 155-166.
- WALKER, J. 1997. Anglo's formula for putting the glow back in the gold industry. *Business Time* 8(25). November.
- WEBER, M. 1952. The protestant ethic and the spirit of capitalism. New York: Scribner's.
- WEINER, B. 1983. Some methodological pitfalls in attributional research. *Journal of educational psychology*, 75(530-543).
- WEINER, B. 1985. An attributional theory of achievement motivation and emotion. *Psychological review*, 92:548-573.
- WEINER, B. 1988. Attributional theory and attributional therapy: Some theoretical observations and suggestions. *British journal of psychology*, 27:93-104.
- WEINER, B. 1992. Human motivation: Metaphors, theories and research. London: Sage.

WHITE, R. 1959. Motivation reconsidered: the concept of competence. *Psychological Review*, 66: 313-324.

WITT, P. A. & ELLIS, G. D. 1985. Perceived freedom in leisure: Implications for research and practice. *World leisure and recreation*, 20-24. August.

WIGFIELD, A. 1994. An expectancy-value theory of achievement motivation: A development perspective. *Educational psychology review*, 6(1) 49-79.

WIGFIELD, A. & ECCLES. 1992. The development of achievement task values: A theoretical analysis. *Developmental Review*, 12:265-310.

ANNEXURE 1

QUESTIONNAIRE TO ASSESS ACHIEVEMENT MOTIVATION AND LEISURE MOTIVATION



WEST WITS OPERATION

**QUESTIONNAIRE TO ASSESS
ACHIEVEMENT AND LEISURE MOTIVATION**

1999

GENERAL INSTRUCTIONS

Please note the following instructions :

1. You are kindly requested to answer all the questions. It should take approximately 20 minutes of your time.
2. Indicate your choice by putting a cross (X) in the corresponding block.
3. Please complete the questionnaire personally. Thank you.
4. All information you supply will be treated confidentially. Only the researcher will handle the information. All results will be reported collectively.

**Your co-operation in this very important research is
highly appreciated.**

A. GENERAL INFORMATION

1. What is your sex

Male 1	Female 2	
-----------	-------------	--

(4)

2. What is your home language?

Afrikaans	English	Afrikaans & English	Other	
1	2	3	4	

(5)

3. What is your present occupation?

Mine Over seer	Shift boss	Miner	Stop er	
1	2	3	4	

(6)

4. What is your marital status?

Married	1
Unmarried/never been married	2
Divorced widow/widower, living apart etc.	3

(7)

5. Your age is?

20 - 30 years	1
31 - 40 years	2
41 - 50 years	3
51 - 60 years	4

(8)

6. Number of year's experience, in the Mining Industry.

0 - 5 years	1
6 - 10 years	2
11 - 15 years	3
16 + years	4

(9)

7. The highest education qualifications you acquired.

HIGHEST EDUCATIONAL QUALIFICATION	
Std 8 or lower or ABE 4	1
Std 10/National High School Certificate	2
NTC I or NTC II or NTC 111	3
Std 10 + 3 years additional tertiary training, (eg. B.A., B.Sc., National Diploma)	5
Std 10 + 4 years or more additional tertiary training (eg. B Comm + B.Arch., BA Hon)	6
Masters Degree, Doctorate or other equivalent qualification	7

(10)

8. What is your present annual income?

You are earnestly requested to reply because the questionnaire will be incomplete without this information. The necessary precautions were taken to ensure total confidentiality. Please mark the applicable block.

Less than R 10 000p/a	1
R 10 001 - R 20 000p/a	2
R 20 001 - R 30 000p/a	3
R 30 001 - R 40 000p/a	4
R 40 001 - R 50 000p/a	5
R 50 001 - R 60 000p/a	6
R 60 001 - R 75 000p/a	7
R 75 001 - R100 000p/a	8
R100 001 - R150 000p/a	9

B. ACHIEVEMENT MOTIVATION

Factor 1 :	5 - Strongly Agree	4 - Agree	3 - Neither Agree nor Disagree	2 - Disagree	1 - Strongly Disagree	
A. Hard work is something I like to avoid.	1	2	3	4	5	(12)
b. I can easily sit for a long time doing nothing.	1	2	3	4	5	(13)
c. I must admit I often do as little work as I can get away with.	1	2	3	4	5	(14)
d. I am basically a lazy person.	1	2	3	4	5	(15)
e. I often put off until tomorrow things I know I should do today.	1	2	3	4	5	(16)
f. I easily get bored if I don't have something to do.	1	2	3	4	5	(17)
g. I like to work hard.	1	2	3	4	5	(18)

Factor 2 :	5 - Strongly Agree	4 - Agree	3 - Neither Agree nor Disagree	2 - Disagree	1 - Strongly Disagree	
a. If there is an opportunity to earn money, I am usually there.	1	2	3	4	5	(19)
b. I would be willing to work for a salary that was below average if the job was pleasant.	1	2	3	4	5	(20)
c. The kind of work I like is the one that pays top salary for top performance.	1	2	3	4	5	(21)
d. As long as I am paid for my work, I don't mind working while others are having fun.	1	2	3	4	5	(22)
e. I frequently think about what I might do to earn a great deal of money.	1	2	3	4	5	(23)
f. It is important for me to make lots of money.	1	2	3	4	5	(24)
g. The most important thing about a job is the pay.	1	2	3	4	5	(25)

Factor 3 :	5	- Strongly Agree					
	4	- Agree					
	3	- Neither Agree or Disagree					
	2	- Disagree					
	1	- Strongly disagree					

a. I think I would enjoy having authority over other people.

1	2	3	4	5
---	---	---	---	---

 (26)

b. If given the chance I would make a good leader of people.

1	2	3	4	5
---	---	---	---	---

 (27)

c. I think I am usually a leader in my group.

1	2	3	4	5
---	---	---	---	---

 (28)

d. I enjoy planning things and deciding what other people should do.

1	2	3	4	5
---	---	---	---	---

 (29)

e. I like to give orders and gets things done.

1	2	3	4	5
---	---	---	---	---

 (30)

f. People take notice of what I say.

1	2	3	4	5
---	---	---	---	---

 (31)

g. When a group I belong to plans an activity I would rather direct it myself than just help out and have someone else organize it.

1	2	3	4	5
---	---	---	---	---

 (32)

Factor 4	5.	- Strongly Agree					
	4.	- Agree					
	3.	- Neither Agree or Disagree					
	2.	- Disagree					
	1.	- Strongly Disagree					

a. I hate to see bad workmanship.

1	2	3	4	5
---	---	---	---	---

 (33)

b. Part of the satisfaction in doing something comes from seeing how good the finished product looks.

1	2	3	4	5
---	---	---	---	---

 (34)

c. It is no use playing a game when you are playing with someone as good as yourself.

1	2	3	4	5
---	---	---	---	---

 (35)

d. I get a sense of satisfaction out of being able to say I have done a very good job on a project.

1	2	3	4	5
---	---	---	---	---

 (36)

e. I find satisfaction in working as well as I can.

1	2	3	4	5
---	---	---	---	---

 (37)

f. I find satisfaction in exceeding my previous performance even if I don't out perform others.

1	2	3	4	5
---	---	---	---	---

 (38)

g. There is satisfaction in a job well done.

1	2	3	4	5
---	---	---	---	---

 (39)

Factor 5 :	5 - Strongly Agree				
	4 - Agree				
	3 - Neither Agree or Disagree				
	2 - Disagree				
	1 - Strongly Agree				

a. I try harder when I am in competition with other people.

1	2	3	4	5
---	---	---	---	---

 (40)

b. It annoys me when other people perform better than I do.

1	2	3	4	5
---	---	---	---	---

 (41)

c. I judge my performance on whether I do better than others rather than on just getting a good result.

1	2	3	4	5
---	---	---	---	---

 (42)

d. If I get a good result, it doesn't matter if others do better.

1	2	3	4	5
---	---	---	---	---

 (43)

e. I would never allow others to get the credit for what I have done.

1	2	3	4	5
---	---	---	---	---

 (44)

f. To be a real success I feel I have to do better than everyone I does come up against.

1	2	3	4	5
---	---	---	---	---

 (45)

g. It is important to me to perform better than others on a task.

1	2	3	4	5
---	---	---	---	---

 (46)

FACTOR 6	5 - Strongly Agree				
	4 - Agree				
	3 - Neither Agree nor Disagree				
	2 - Disagree				
	1 - Strongly Disagree				

a. I would like an important job where people looked up to me.

1	2	3	4	5
---	---	---	---	---

 (47)

b. I like talking to people whom are important.

1	2	3	4	5
---	---	---	---	---

 (48)

c. I want to be an important person in the community.

1	2	3	4	5
---	---	---	---	---

 (49)

d. I really admire people who have fought their way to the top.

1	2	3	4	5
---	---	---	---	---

 (50)

e. If I had enough money I would not work.

1	2	3	4	5
---	---	---	---	---

 (51)

f. Even if I won a great deal of money on the pools, I would prefer to work.

1	2	3	4	5
---	---	---	---	---

 (52)

g. If unemployment benefit were really high I would still prefer to work.

1	2	3	4	5
---	---	---	---	---

 (53)

h. I like to be admired for my achievements.

1	2	3	4	5
---	---	---	---	---

 (54)

i. I dislike being the center of attention.

1	2	3	4	5
---	---	---	---	---

 (55)

j. I like to have people come to me for advice.

1	2	3	4	5
---	---	---	---	---

 (56)

k. I find satisfaction in having influence over others because of my position in the community.

1	2	3	4	5
---	---	---	---	---

 (57)

Factor 7 :		5	- Strongly Agree
		4	- Agree
		3	- Neither Agree or Disagree
		2	- Disagree
		1	- Strongly Disagree

a. I would rather do something at which I feel confident and relaxed than something which challenging and difficult.

1	2	3	4	5
---	---	---	---	---

 (58)

b. I would rather learn easy fun games than difficult thought games.

1	2	3	4	5
---	---	---	---	---

 (59)

c. If I am not good at something I would rather keep struggling to master it than move on to something I may good at.

1	2	3	4	5
---	---	---	---	---

 (60)

d. I prefer to work in situations that require a high level of skill.

1	2	3	4	5
---	---	---	---	---

 (61)

e. I more often attempt tasks that I am not sure I can do than tasks I know I can do.

1	2	3	4	5
---	---	---	---	---

 (62)

f. I like to be busy all the time.

1	2	3	4	5
---	---	---	---	---

 (63)

g. I feel like giving up quickly when things go wrong.

1	2	3	4	5
---	---	---	---	---

 (64)

C. LEISURE MOTIVATION

Factor 1 :		5	- Always True
		4	- Often True
		3	- Somewhat True
		2	- Seldom True
		1	- Never True

ONE OF MY REASONS FOR ENGAGING IN LEISURE ACTIVITIES IS

a. To expand my interests

1	2	3	4	5
---	---	---	---	---

 (65)

b. To seek stimulation

1	2	3	4	5
---	---	---	---	---

 (66)

c. To make things more meaningful to me

1	2	3	4	5
---	---	---	---	---

 (67)

d. To learn about things around me

1	2	3	4	5
---	---	---	---	---

 (68)

e. To satisfy my curiosity

1	2	3	4	5
---	---	---	---	---

 (69)

f. To explore new ideas

1	2	3	4	5
---	---	---	---	---

 (70)

g. To learn about myself

1	2	3	4	5
---	---	---	---	---

 (71)

h. To expand my knowledge

1	2	3	4	5
---	---	---	---	---

 (72)

i. To be creative

1	2	3	4	5
---	---	---	---	---

 (73)

j. To be original

1	2	3	4	5
---	---	---	---	---

 (74)

k. To use my imagination

1	2	3	4	5
---	---	---	---	---

 (75)

Factor 2 : 5 - Always True
4 - Often True
3 - Somewhat True
2 - Seldom True
1 - Never True

ONE OF MY REASONS FOR ENGAGING IN LEISURE ACTIVITIES IS

a. To be with others	1	2	3	4	5	(76)
b. To build friendships with others	1	2	3	4	5	(77)
c. To interact with others	1	2	3	4	5	(78)
d. To develop close friendships	1	2	3	4	5	(79)
e. To meet new and different people	1	2	3	4	5	(80)
f. To help others	1	2	3	4	5	(1)
g. So others would think well of me for doing it	1	2	3	4	5	(2)
h. To reveal my thoughts, feelings, or physical skills to others	1	2	3	4	5	(3)
i. To influence others	1	2	3	4	5	(4)
j. To be socially competent and skillful	1	2	3	4	5	(5)
k. To gain a feeling of belonging	1	2	3	4	5	(6)
l. To gain other's respect	1	2	3	4	5	(7)

Factor 3 : 5 - Always True
4 - Often True
3 - Somewhat True
2 - Seldom True
1 - Never True

ONE OF MY REASONS FOR ENGAGING IN LEISURE ACTIVITIES IS

a. To get a feeling of achievement	1	2	3	4	5	(8)
b. To see what my abilities are	1	2	3	4	5	(9)
c. To challenge my abilities	1	2	3	4	5	(10)
d. Because I enjoy mastering things	1	2	3	4	5	(11)
e. To be good in doing them	1	2	3	4	5	(12)
f. To improve my skill and ability in doing them	1	2	3	4	5	(13)
g. To compete against others	1	2	3	4	5	(14)
h. To be active	1	2	3	4	5	(15)
i. To develop physical skills and abilities	1	2	3	4	5	(16)
j. To keep in shape physically	1	2	3	4	5	(17)
k. To use my physical abilities	1	2	3	4	5	(18)
l. To develop physical fitness	1	2	3	4	5	(19)

Factor 4 :	5	- Always True
	4	- Often True
	3	- Somewhat True
	2	- Seldom True
	1	- Never True

ONE OF MY REASONS FOR ENGAGING IN
LEISURE ACTIVITIES IS

- a. To be in a calm atmosphere

1	2	3	4	5
---	---	---	---	---

 (20)
- b. To avoid crowded areas

1	2	3	4	5
---	---	---	---	---

 (21)
- c. To slow down

1	2	3	4	5
---	---	---	---	---

 (22)
- d. Because I sometimes like to be alone

1	2	3	4	5
---	---	---	---	---

 (23)
- e. To relax physically

1	2	3	4	5
---	---	---	---	---

 (24)
- f. To relax mentally

1	2	3	4	5
---	---	---	---	---

 (25)

THANK YOU !!!