

**THE STUDY OF THE IMPACT OF A  
PSYCHOLOGICAL SKILLS TRAINING  
PROGRAMME ON THE  
PERFORMANCE OF SPURTERS**

**SHAFEEKA YUSUF DOCKRAT**

**Submitted in fulfilment  
of the requirements for the degree of**

**MASTER OF ARTS**

**in The Faculty of Humanities,  
University Of Pretoria,  
PRETORIA.**

**Study Leader: Elizabeth du Preez**

**2003, February 4**

## ACKNOWLEDGEMENTS

- The financial assistance of National Research Foundation (NRF) towards this research is hereby acknowledged. Opinions expressed and conclusions arrived at, are those of the author and are not necessarily to be attributed to the National Research Foundation.

Furthermore, the following individuals are acknowledged:

- My husband, Ibraheem, for his patience and support.
- My aunt, Rashida Hassim, for all her assistance while the programme was conducted.
- Coach David van Heerden and all the athletes in his sprinting team.
- Piet Helberg and Chaka Croucamp from the Bureau for Sport Development at Technikon Pretoria for their assistance in getting the programme started.
- Elana Mauer and Gretel Crafford at the University of Pretoria for statistical support.
- Pat Scott and Geoff Miller for the 'Concentration and Personality Profile'.
- Kim Scott from Human Kinetics for the assessments.
- Luc G. Pelletier from the School of Psychology at the University of Ottawa for the Sport Motivation Scale.

## **The Study of the Impact of a Psychological Skills Training Programme on the Performance of Sprinters**

Name: Shafeeka Yusuf Dockrat  
Study Leader: Elizabeth du Preez  
Department: Psychology  
Degree: Master of Arts (Psychology)

### **ABSTRACT**

This thesis attempts to assess the impact of a psychological skills training (PST) programme on the athletic performance of sprinters at Technikon Pretoria, South Africa.

The structure of the PST programme was based on the structure outlined by Wann (1997), and Winter and Martin's (1993) Sport Psychology Basic Training Programme constitutes the content of the programme. The programme consisted of five stages: education, pretests of psychological skills, the PST programme per se, an implementation phase, and posttests. The specific psychological skills that the programme attempted to enhance were self-confidence, stress management, attention, intrinsic motivation and mental imagery.

Athletic performance was measured by the sprinters' personal best times on the one hundred metre event at the beginning and end of the PST programme.

Firstly, the data was analysed to determine if there was an improvement in psychological skills and athletic performance. Thereafter the difference in athletic performance

between the beginning and end of the programme was correlated with the difference between the pretest and posttest scores of the psychological skills measured.

The research findings indicated that there was a significant improvement in the reduction of stress levels, mental imagery skills, and a greater number of athletes had an internal focus of attention. No significant differences were found in self-confidence, intrinsic motivation and the number of athletes with a narrow focus of attention. The only significant correlation was between intrinsic motivation and athletic performance.

## **Die studie van die impak van 'n sielkundige vaardigheidsopleiding-program op die prestasie van naellopers**

Deur: Shafeeka Yusuf Dockrat  
Studieleier: Elizabeth du Preez  
Departement: Sielkunde  
Graad: Magister Artium (Sielkunde)

### **OPSOMMING**

Die doel van die tesis is om die impak van 'n sielkundige vaardigheidsopleidingsprogram op die atletiese prestasie van naellopers aan Technikon Pretoria, Suid-Afrika te bepaal.

Die struktuur van die program is gebaseer op die struktuur soos uiteengesit word deur Wann (1997), terwyl die inhoud van die program saamgestel is volgens Winter & Martin (1993) se 'Sport Psychology Basic Training Programme'. Die program bestaan uit vyf fases: opleiding, voortoetsing van sielkundige vaardighede, die sielkundige vaardigheidsopleidingsprogram per se, 'n implementeringsfase en die natoetsing. Die spesifieke sielkundige vaardighede wat die program gepoog het om te verbeter, was selfvertroue, streshantering, konsentrasie, intrinsieke motivering en visualisering.

Atletiese prestasie is gemeet aan die naellopers se persoonlike beste tye op die honderdmeter naelloop item aan die begin en aan die einde van die program.

Die data is eerstens geanaliseer om te bepaal of daar 'n verbetering in sielkundige vaardighede en atletiese prestasie was. Daarna is die verskil in atletiese prestasie aan die begin en einde van die program vergelyk met die verskil van die resultate wat tydens die voor- en natoetsing van die sielkundige vaardighede verkry is.

Die navorsingsresultaat toon 'n merkbare verbetering in die stresvlakke en visualiseringsvaardighede van die atlete. 'n Groter aantal atlete het ook 'n interne fokuspunt getoon. Daar is egter geen beduidende verskil in selfvertroue, intrinsieke motivering en die aantal atlete met 'n interne fokuspunt gevind nie. Die enigste merkbare opvallende korrelasie was tussen intrinsieke motivering en atletiese prestasie.

# TABLE OF CONTENTS

## Chapter 1

<b>INTRODUCTION</b>	<b>1</b>
<b>1.1 BACKGROUND</b>	<b>1</b>
<b>1.2 PROBLEM STATEMENT</b>	<b>3</b>
<b>1.3 OBJECTIVES OF THE STUDY</b>	<b>3</b>
<b>1.4 BRIEF OVERVIEW OF THESIS</b>	<b>3</b>

## Chapter 2

<b>LITERATURE STUDY</b>	<b>5</b>
<b>2.1 PSYCHOLOGICAL SKILLS TRAINING PROGRAMMES</b>	<b>5</b>
2.1.1 GENERAL STRUCTURES	5
2.1.2 EXISTING PSYCHOLOGICAL SKILLS TRAINING PROGRAMMES	11
<b>2.2 PSYCHOLOGICAL SKILLS</b>	<b>15</b>
2.2.1 SELF-CONFIDENCE	15
2.2.1.1 What is self-confidence?	16
2.2.1.2 Theories of self-confidence	21
2.2.1.3 Building self-confidence	24

2.2.2	STRESS MANAGEMENT	26
2.2.2.1	What are stress, arousal and anxiety	26
2.2.2.2	Theoretical views	30
2.2.2.3	Stress management techniques	35
2.2.3	ATTENTION	37
2.2.3.1	What is attention?	38
2.2.3.2	Models of attention	39
2.2.3.3	Enhancing attentional skills	42
2.2.4	MOTIVATION	45
2.2.4.1	What is motivation?	46
2.2.4.2	Theoretical views of motivation	48
2.2.4.3	Guidelines to build motivation	49
2.2.5	MENTAL IMAGERY	54
2.2.5.1	What is mental imagery?	55
2.2.5.2	Theoretical views	58
2.2.5.3	Basics of imagery training	59
<b>2.3</b>	<b>SPRINTING</b>	<b>61</b>
2.3.1	WHAT IS SPRINTING?	61
2.3.2	THE HUNDRED METRE SPRINT	61



## Chapter 3

<b>METHODOLOGY</b>	<b>63</b>
<b>3.1 HYPOTHESIS</b>	<b>63</b>
<b>3.2 RESEARCH DESIGN</b>	<b>67</b>
<b>3.3 RESEARCH POPULATION</b>	<b>69</b>
3.3.1 SAMPLING METHOD	69
3.3.2 DESCRIPTION OF THE SAMPLE	69
<b>3.4 THE PSYCHOLOGICAL SKILLS TRAINING PROGRAMME</b>	<b>72</b>
3.4.1 WHEN TO IMPLEMENT A PSYCHOLOGICAL SKILLS TRAINING PROGRAMME	72
3.4.2 IMPLEMENTATION OF THE PROGRAMME	73
<b>3.5 DATA COLLECTION</b>	<b>80</b>
<b>3.6 STATISTICAL PROCEDURES</b>	<b>80</b>

## Chapter 4

<b>RESULTS</b>	<b>82</b>
<b>4.1 ANALYSIS AND INTERPRETATION OF SCORES</b>	<b>82</b>
4.1.1 ANALYSIS AND INTERPRETATION OF TESTS FOR HYPOTHESIS 1	82
4.1.2 ANALYSIS AND INTERPRETATION OF TESTS FOR HYPOTHESIS 2	91
4.1.3 ANALYSIS AND INTERPRETATION OF TESTS FOR HYPOTHESIS 3	92

## Chapter 5

<b>CONCLUSION</b>	<b>99</b>
<b>5.1 STRENGTHS OF THE STUDY</b>	<b>99</b>
5.1.1 EFFECTIVENESS OF THE PST PROGRAMME	99
5.1.2 MULTIPLE SKILLS UNDER INVESTIGATION	100
<b>5.2 LIMITATIONS OF THE STUDY</b>	<b>100</b>
5.2.1 SAMPLE SIZE	100
5.2.2 DURATION OF THE PROGRAMME	101
5.2.3 ATTRITION	101
5.2.4 COMMITMENT TO THE PST PROGRAMME	102
5.2.5 LIMITATIONS OF THE RESEARCH DESIGN	102

5.2.6	LIMITATIONS OF THE PST PROGRAMME	103
<b>5.3</b>	<b>RECOMMENDATIONS</b>	<b>105</b>
5.3.1	LONGITUDINAL RESEARCH	105
5.3.2	CONSIDERATION OF MASLOW'S HIERARCHY OF NEEDS	105
5.3.3	NEEDS ANALYSIS AND FLEXIBILITY	106
<b>5.4</b>	<b>CONCLUSION</b>	<b>107</b>

## Chapter 6

<b>BIBLIOGRAPHY</b>	<b>108</b>
---------------------	------------

## SCHEDULE OF APPENDICES

### Appendix A

FIGURES

110

### Appendix B

TABLES

118

### Appendix C

ATHLETE'S HANDBOOK

122

## LIST OF FIGURES

Figure 1: Vicious circle	110
Figure 2: Optimal confidence	19
Figure 3: Bandura's self-efficacy theory	111
Figure 4: Vealey's (1986) sport confidence model	23
Figure 5: Stress process	28
Figure 6: Inverted-U hypothesis	31
Figure 7: Catastrophe model	34
Figure 8: Dimensions of attention	40
Figure 9: Relationship between direction and intensity	112
Figure 10: Energisation theory	113
Figure 11: Cognitive evaluation theory	114
Figure 12: Interactional view of motivation	115
Figure 13: Gender	70
Figure 14: Age	71
Figure 15: PST programme	74
Figure 16: Interrelationship between psychological skills	116
Figure 17: Maslow's hierarchy of needs	117

## LIST OF TABLES

Table 1: Overview of general structures	9
Table 2: Overview of existing PST programmes	13
Table 3: Motivational categories for sport participation	52
Table 4: Segments in the 100m event	118
Table 5: Hypothesis 1a	83
Table 6: Hypothesis 1b (Cognitive anxiety)	84
Table 7: Measures of central tendency – Cognitive Anxiety	84
Table 8: Hypothesis 1b (Somatic anxiety)	85
Table 9: Measures of central tendency – Somatic Anxiety	85
Table 10: Hypothesis 1b (Trait anxiety)	86
Table 11: Measures of central tendency – Somatic Anxiety	86
Table 12: Hypothesis 1c	87
Table 13: Hypothesis 1d	87
Table 14: Frequencies – Direction of attention	89
Table 15: Hypothesis 1d	88
Table 16: Hypothesis 1e	90
Table 17: Measures of central tendency – Imagery	90
Table 18: Hypothesis 2	91
Table 19: Measures of central tendency – Athletic performance	92
Table 20: Hypothesis 3a	93
Table 21: Hypothesis 3b (cognitive anxiety)	94
Table 22: Hypothesis 3b (somatic anxiety)	94
Table 23: Hypothesis 3b (trait anxiety)	95

Table 24: Hypothesis 3c (width)	96
Table 25: Hypothesis 3c (direction)	96
Table 26: Hypothesis 3d	97
Table 27: Hypothesis 3e	98