

## CHAPTER 1

### INTRODUCTION AND AIM

#### 1.1 Introduction

Tertiary institutions are confronted daily with issues relating to the *formulation of admission requirements for prospective students, in order to ensure academic success*. If a valid measure were to be found to predict academic success, this would not only prevent personal failure, but also bring about financial savings for both the student and the tertiary institution. A further advantage for the broader community would be a reduction in the financial burden and their contribution towards proper training in accordance with the demands of the labour market.

In a changing South Africa, with its increasing emphasis on individual rights, fair and equitable selection techniques are a priority. Mitchell and Fridjhon (1987:559) also mention that only a small percentage of students with matriculation exemption attend universities or other tertiary institutions, therefore it appears that examinations that hold additional advantages for future achievements assist a *minority of students rather than a majority*. The most persuasive argument is that problem-solving skills and the capacity to relate the general to the specific, are skills which should be inculcated in tertiary training. However, these skills are generally highly valued by those students who do not attend tertiary institutions.

Admission tests will always be controversial. However, tests which do not discriminate will be less controversial if they lead to accurate predictions.

## 1.2 Problem

In 1999 the Department of Human Resources Management received 1 625 applications for admission to the National Diploma in Human Resources Management and in 2000, 1 750. Only 70 students could be admitted. By comparison the Industrial Engineering Department which received only 331 applications in 1999 and 430 in 2000, could only admit 100 students. To date senior certificate results are rated (Swedish formula) and used as the only method of selection. Given the current problems in education and the environmental constraints of the majority of applicants, the Swedish formula can no longer be used as the sole selection instrument.

## 1.3 Aim of study

The purpose of this research, therefore, is to design a selection model which can be used to select prospective students for the abovementioned departments.

The study aims to create a selection model specifically for the Human Resources Management Department and the Industrial Engineering Department at the Technikon Pretoria's Economic Sciences Faculty.

A selection model will be of value to prospective Technikon students and the community at large.

## 1.4 Methodology

### 1.4.1 Theoretical research

During the theoretical investigation the concept of selection and the compilation of selection models was emphasised in all its forms, as well as validity strategies to determine validity. The problems relating to the criteria for success were also researched.

Three main categories of predictors were scrutinised, viz. –

- matric subjects,
- Swedish formula,
- traditional psychometric tests, and
- popular tests such as DISCUSS, Internal Locus of Control and Myers-Briggs Type Indicator.

### 1.4.1 Empirical research

The empirical research was limited to the following target groups:

- first-year Personnel Management students who were enrolled for the National Diploma in Human Resources Management,
- third-year Personnel Management students who were enrolled for the National Diploma in Human Resources Management,
- first-year Industrial Engineering students who were enrolled for the National Diploma in Industrial Engineering, and
- third-year Industrial Engineering students whom were enrolled for the National Diploma in Industrial Engineering.

The results of respondents were obtained arising from, viz:-

- matric subjects,
- the Swedish formula,
- Myers-Briggs Type Indicator,
- DISCUS, and

- Nowicki-Strickland & Lefcourt I/E scales.

These results were compared with the criterion of success i.e. academic success in major Technikon subjects.

## 1.5 Chapter outline

The relevant theoretical research is covered in chapters two to nine. Chapter two describes selection by a deviation from basic selection in an organisation and is focused on selection in tertiary institutions. Chapter three tries to establish the criteria for success and chapter four deals with matric results. Chapter five investigates traditional selection techniques and chapters six, seven and eight describe the instruments utilised in the research i.e. Nowicki-Strickland and Lefcourt I/E scales, the Discuss and the Myers-Briggs Type Indicator.

Chapter nine describes the method of investigation and chapter ten provides the results of the empirical study. Chapter eleven provides a differential model for selection, as well as conclusions and recommendations.