CHAPTER 1

AIM AND RATIONALE OF THE RESEARCH

1.1 Introduction

This study is an investigation into the perceptions and attitudes held by different stakeholders about the Academic Development Programme in the Engineering Faculty at the Tshwane University of Technology (TUT). Through semi-structured interviews with lecturers in mainstream Engineering courses, Academic Development Practitioners who teach academic development and students at first and second year levels - who have attended the Academic Development Programme - it seeks to describe and analyse the different perceptions, attitudes and understandings that participants have of what is called "academic development". These perceptions and attitudes have important implications for the future of the Academic Development Programme in the Engineering Faculty at TUT.

1.2 Background to the study

The Tshwane University of Technology, Soshanguve Campus, is a historically disadvantaged institution situated north of Pretoria in the Soshanguve Township. It was born out of a merger of Technikon Northern Gauteng, Pretoria Technikon and Technikon North West. TUT provides access to education for students who come from underdeveloped and less privileged communities. The bulk of the student body comprises students from the North West, Limpopo, Mpumalanga, and Gauteng provinces. These communities are mostly rural. There is a scarcity of facilities in these areas, including running water, electricity, properly equipped classrooms, well-qualified teachers and other facilities which are conducive to sustained and supportive learning.

The need for academic development at TUT was first identified by the Department of Electrical and Mechanical Engineering during the period 1980-1986 and this course was originally called the "Pre-Technician Course". It was introduced because most of

the students who registered for Electrical and Mechanical Engineering courses came to the institution with very low matriculation symbols. The low symbols were seen as a threat to the academic success of these students and, therefore, some means of intervention had to be introduced. It was in this context that the Department of Electrical and Mechanical Engineering offered the Pre-Technician Course (a type of bridging programme) as a means of curbing low pass rates. However, the course was terminated in 1986 due to financial constraints. As a result, the Faculty of Engineering was hard hit because their pass rate decreased dramatically. The institution was placed under pressure to improve the pass rate in the Engineering Faculty and, through outside funding from the Dutch government, an Academic Development Programme for the Faculty of Engineering was re-introduced in 1990. This programme was renamed a "Potential Development Programme" (PDP). According to Niezen and Soer (undated article) the programme was introduced as a full-time, single semester, bridging programme which served the following purposes:

- To enable students, who - due to inadequate matriculation symbols - did not qualify for the first level of the National Diploma, to upgrade their symbols.
- To address specific areas of expertise, such as Technical Drawing - required by students for their further studies.
- To enable students to make early - and well-informed - career choices.
- To develop students' natural abilities so that their chosen courses could be completed in the minimum time and so that they could become competent technicians after completing their studies.
- To cultivate the correct attitude to - and motivation for - study and a future career.
- To reduce the failure rate and develop necessary life skills (Niezen & Soer, undated article:11).

In 1999 the Teaching and Learning Working Group reviewed the institution's teaching and learning policy which stated that the Academic Development Programme had a responsibility to develop the generic cognitive skills and intellectual capacity of learners in order to narrow the articulation gap of learners from high school and the demands of higher education (*Teaching and Learning Policy*,

December 1999). It was during 1999 that a fully-fledged Academic Development Programme was introduced at TUT. According to Van Tonder (1996:1), the main aim of Academic Development Programmes for Engineering at South African universities is to identify academically talented - but unprepared - students who wish to pursue a career in Engineering and to help them develop skills and resources to obtain a tertiary qualification in that discipline. In the case of TUT, matriculation results and a psychometric test battery were used for selection and admission to the programme. Van Tonder (1996:3) asserts that selecting students on the grounds of psychometric testing is viewed with some criticism because the test is seen as biased and unacceptable for the type of students who wish to apply for a bridging course in Engineering. This question of selection is, however, the subject of another debate altogether. At TUT, psychometric testing has been used up to the present time and, with the introduction of the new Government policies on higher education, the Potential Development Programme has been renamed the Academic Development Programme.

As an Academic Development Practitioner in the Academic Development Programme of the Engineering Faculty at TUT, I have - over a period of time - noted a high rate of student absenteeism from academic development classes which has made me wonder why this is so. It has also surprised me that students who are in their second year of study frequently consult Academic Development Practitioners on various issues, like note-taking, study skills, reading and writing, time management and examination preparation. I have often wondered why students continue to need this support. Does it mean that academic support should continue into the second, third and fourth years of study? The fact that this institution is a University of Technology means that before students can be awarded their certificates or diplomas, they have to undergo experiential learning where they are exposed to the world of work. It is imperative that - at this stage - students should be equipped with workplace skills, such as communication skills, team-working abilities, writing and time management skills - to mention only a few. It is one of the aims of this research to establish - from the students themselves - why they feel the need for academic support beyond their first year of study and the extent to which Academic Development Practitioners are meeting this need.

In addition to focusing on the attitudes and perceptions of 1st and 2nd year Engineering students to academic development classes in the Engineering Faculty at TUT, I have found it relevant to explore the attitudes and perceptions of lecturers, Academic Development Practitioners and 1st and 2nd year Engineering students to the reading and writing classes of the Academic Development Programme. According to Lillis (2001:20), writing is a key assessment tool and students pass or fail courses depending on the ways in which they respond to - and engage in - academic tasks. It is further asserted that a particular type of academic writing continues to be the mainstay within many subject areas. My appointment as an Academic Development Practitioner for reading and writing development at TUT has enhanced my interest in this area. It has puzzled me that writing seems to receive minimal attention in the Academic Development Programme at TUT and, therefore, as a secondary interest I will also focus on students' attitudes to the reading and writing classes within the Academic Development Programme. An aim of this is to understand why writing is not given adequate attention in the institution's Academic Development Programme.

1.3 Research questions

This investigation into the perceptions and attitudes of different stakeholders in relation to the Academic Development Programme at TUT is guided by the following research questions:

- What are the attitudes and perceptions of Engineering lecturers and Academic Development Practitioners to the existing academic development classes?

- What are the attitudes and perceptions of 1st and 2nd year Engineering students to these classes?

- What reading and writing activities take place in these classes?

- Have these classes helped students with their academic literacy?

1.4 Outline of this research report

In **Chapter 1** the aim and background of the research into the attitudes of Engineering staff and students to academic development at TUT is given.

Chapter 2 consists of two sections: In the first section the literature underpinning academic development is presented and in the second section the focus is on academic literacy.

In **Chapter 3** the research method and data collection procedures are described.

Chapters 4 and 5 present and discuss interview data obtained from lecturers, Academic Development Practitioners and 1st and 2nd year Engineering students.

Chapter 6 concludes the research report and recommendations are made.

In order to answer the research questions that have been posed above, the next chapter provides a historical background – in terms of a literature review - to the concept of academic support and academic development in the South African context. It explores the idea of the under-preparedness of students who entered tertiary institutions in the 1980s as well as the different strategies which were used to tackle the issue at the time.