A Perceptional Study to Investigate Subject Failure as an Academic Reason for Delayed Qualification in Masters Degree in Technology: Homoeopathy at Durban Institute of Technology.

By

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Mini dissertation submitted in partial compliance with the requirements of the Master's Degree in Technology: Homoeopathy, in the Faculty of Health Sciences at the Durban Institute of Technology.

I, Michelle Courage, do declare that this mini dissertation is representative of my own work, both in conception and execution.

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APPROVED FOR FINAL SUBMISSION

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ABSTRACT

Technikon Natal introduced the first formal South African Homoeopathic education programme in 1989. Since its addition to the higher education degree choices offered by Technikon Natal, the course has produced some 10 years worth of homoeopathic graduates. In 2003, Technikon Natal merged with ML Sultan to become the Durban Institute of Technology, “A University of Technology”. The Homoeopathic qualification has also evolved from a Master’s Diploma to a Master’s Degree with much emphasis being placed on not only the academic aspect of education but also Master’s level research, and the course itself has been revised and re- curriculated numerous times (Ross, 2005).

It has been recognised that subject failure within Homoeopathic education delays qualification of students. The implications of this phenomenon may be far reaching and investigations of the factors that may contribute to it are important in order to determine ways and means of controlling this phenomenon (DeMong, Lindgren and Perry, 1994).

The study was limited to investigating the perceptions of subject failure by those individuals who had experienced subject failure but still proceeded to graduate from the course. This was done in an attempt to restrict the study to factors which were within the scope of the institution to change (i.e. eliminate life events etc. which are generally uncontrollable).

The data collection was done by means of a self administered questionnaire that was designed to investigate the demographics of each participant as well as his/her perception of subject failure. A pilot study was done to test the face validity of this new questionnaire before it was distributed to participants.

Graduates who had experienced subject failure were required to complete the entire questionnaire and resubmit it to the researcher, whilst those who had not experienced subject failure were required to simply fill in their name at the top of the questionnaire and submit it blank. The researcher then captured the data and the data was collectively analysed statistically using SPSS® for Windows version 9.05 and the results were interpreted.

The perceptions of graduates indicated that subject failure plays a significant role in delayed qualification in Master's Degree in Technology in Homoeopathy at Durban Institute of Technology, and that academic failure is a multi- factorial problem.

DEFINITIONS

Accreditation

Accreditation means the certification, usually for a particular period of time, of a person, a body or an institution as having the capacity to fulfill a particular function in the quality assurance system (Durban Institute of Technology, 2005).

Active Learners

Active learners process actively, they think out aloud, they jump in prematurely and work well in groups (Felder and Brent, 1999).

Allied Health Professions Council of South Africa (AHPCSA)

Allied Health Professions Council of South Africa is the statutory body which provides control of the practice of allied health professions, and provides for matters connected herewith (South Africa 2001: R127).

Amorphous Lecturer

The amorphous lecturer uses unstructured presentations which tend to be vague and nebulous (Entwistle, 1992).

B.Tech: Homoeopathy (B.Tech:Hom)

A Bachelor's Degree of Technology in Homoeopathy (Durban Institute of Technology, 2005).

Continuous Assessment

Continuous assessment/ evaluation is a system whereby the formal evaluation of a student's academic progress and performance comprises ongoing assessment feedback without a final summative examination (Durban Institute of Technology, 2005).

Critical Outcomes

Critical Outcomes means those generic outcomes that inform all teaching and learning (SAQA, 1998).

Deduction

Deduction starts with principles and conclusions are then derived and deduced (Felder and Brent, 1999).

Delayed Qualification

Delayed Qualification means a qualification which is not completed within the minimum formal time for qualification (Durban Institute of Technology, 2005).

Eclectic Lecturer

Eclectic lecturer uses a miscellaneous blend of visual and oral presentation (Entwistle, 1992).

Exemplary Lecturer

An exemplary lecturer uses an effective combination of both visual and oral modes of presentation (Entwistle, 1992).

Exit Level Outcomes

Exit Level Outcomes means the outcomes to be achieved by a qualifying learner at the point at which he or she leaves the programme leading to a qualification (SAQA, 1998).

Global Learner

Global learners need the big picture in order to function properly. They are initially slow to grasp a concept but then progress in major leaps (Felder and Brent, 1999).

Hahnemann

Samuel Hahnemann was the founder of Homoeopathy (De Scheeper, 2001).

Induction

Induction starts with observations and conclusions are inferred and explained (Felder and Brent, 1999).

Intuitive Learner

An intuitive learner focuses on subconscious information, is more imaginative, looks for meanings, desires variety and enjoys abstract theories and models (Felder and Brent, 1999).

M.Tech: Homoeopathy (M.Tech: Hom)

A Master's Degree in Technology in Homoeopathy (Durban Institute of Technology, 2005).

Minimum Formal Time

The minimum formal time is the shortest time in which completion of a qualification is possible (Durban Institute of Technology, 2005).

N. Dip: Homoeopathy (N.Dip:Hom)

A National Diploma of Technology in Homoeopathy (Durban Institute of Technology, 2005).

National Qualifications Framework (NQF)

The National Qualifications Framework is the set of principles and guidelines by which records of learner achievement are registered to enable national recognition of acquired skills and knowledge, thereby ensuring an integrated system that encourages life- long learning (SAQA, 1998).

National Standards Body (NSB)

National Standards Body refers to a body that is responsible for establishing education and training standards or qualifications, and to which specific functions relating to the registration of national standards and qualifications have been assigned (South Africa 1998: 18787).

Oral Presenter

An oral presenter is a lecturer who uses predominantly oral or verbal information as a mode of presentation (Entwistle, 1992).

Outcomes

Outcomes mean the contextually demonstrated end products of the learning process (SAQA, 1998).

Private Practice

Private Practice means a practice where a practitioner works for his or her own account (South Africa 2001: 22052).

Qualification

Qualification means any degree, diploma or certificate awarded after examination of a person's proficiency in a particular subject (South Africa 2001: R127).

Reflective Learners

Reflective learners process introspectively, they work quietly, delay starting and work well alone or in pairs (Felder and Brent, 1999).

Sensing Learner

A sensing learner focuses on sensory input, is practical and observant, requires repetition, and works best with concrete facts and data (Felder and Brent, 1999).

Sequential Learner

The sequential learner progresses steadily by functioning on partial understanding (Felder and Brent, 1999).

SERTEC

A Certification Council for Technikon Education (SERTEC, 1995).

South African Qualifications Authority (SAQA)

The South African Qualifications Authority is a body of 29 members appointed by the Ministers of Education and Labour. The members are nominated by identified national stakeholders in Education and Training (South Africa 1995: 1521).

Subject Failure

Subject Failure means the failure to successfully pass an examinable subject on the first attempt at the subject with the implication that the subject will have to be repeated the following year/ semester (Ditcher and Tetley, 1999).

Verbal Learner

The verbal learner needs explanation in spoken words or in written text (Felder and Brent, 1999).

Visual Information Giver

A visual information giver is a lecturer who uses predominantly visual information as a mode of presentation (Entwistle, 1992).

Visual Learner

The visual learner needs pictures, diagrams, sketches, flow charts, etc to learn (Felder and Brent, 1999).

CHAPTER 1: INTRODUCTION

An education and training system that is constructed through a process of participation and negotiation in order to meet the needs of all stakeholders enjoys greater legitimacy and credibility in the society within which it operates than would otherwise be the case (SAQA, 1998). An education and training system is largely responsible for determining the quality of individuals within any given profession, and the Homoeopathic Profession is certainly no exception to this.

Technikon Natal introduced the first formal South African Homoeopathic education programme in 1989. Since its addition to the higher education degree choices offered by Technikon Natal, the course has produced some 10 years worth of homoeopathic graduates (Ross, 2005).

According to Ditcher and Tetley (1999), academic success at university is usually described in terms of grades or degree completion. The converse can be assumed to be true regarding academic failure.

Perceptions of graduates who have experienced subject failure are valuable in determining factors which influence subject failure. Identification of possible problem areas within the academic aspect of homoeopathic education can facilitate changes and improvement to the curriculum in order to reduce subject failure, minimize delays in qualification and encourage growth of the profession as a whole (Hill, Perry and Stein, 1998).

1.2 PROBLEM STATEMENT

The Purpose of this study was to investigate the academic reasons for subject failure and subsequent delayed qualification in Masters Degree in Technology: Homoeopathy, and to conduct the investigation on the specific group of graduates who failed a subject(s) and determine their perceptions of factor(s) that may influence failure. From the data collected it was hoped that statistical analysis would be able to:

(1) To describe the demographic characteristics of individuals who have failed a subject at some point in their course.

(2) To describe distributions of the various factors associated with success or failure according to the literature review.

(3) To determine any statistically significant correlations between any of the demographic or other factors.

1.3 DELIMITATIONS

- The study was limited to investigating delayed qualification as a result of subject failure, as opposed to delayed qualification as a result of other reasons e.g. Research.
- The study was limited to investigating only those students who experienced subject failure but still proceeded to graduate.

- The study was limited to investigating the “academic factors” which contributed to subject failure as opposed to psychosocial or other factors which may contribute to subject failure.
- It was assumed that as all participants were assured confidentiality, that their responses would be sincere and honest.

1.4 HYPOTHESES

It was hypothesized that the perceptions offered by graduates who had experienced subject failure, would serve to identify academic factors or reasons which contributed to subject failure and subsequent delayed qualification.

Null hypothesis 1: There was no significant correlation between the demographic grouping of the respondents (as described by one of Gender, Ethnic Group, First language spoken, Year of First Registration and Age at first registration) and their reported academic history.

Alternative hypothesis 1: There was a significant correlation between the demographic grouping of the respondents (as described by one of Gender, Ethnic Group, First language spoken, Year of First Registration and Age at first registration) and their reported academic history.

Null hypothesis 2: There was no significant correlation between the academic records (as described by one of Gender, Ethnic Group, First language

spoken, Year of First Registration and Age at first registration) of the respondents and their responses to the survey questions.

Alternative hypothesis 2: There was a significant correlation between the demographic grouping (as described by one of Gender, Ethnic Group, First language spoken, Year of First Registration and Age at first registration) of the respondents and their responses to the survey questions.

Null hypothesis 3: There was no significant correlation between the academic records of the respondents (marks for Mathematics, Science, Biology and English First Language) and their responses to the survey questions in Section C (Appendix A).

Alternative hypothesis 3: There was a significant correlation between the academic records of the respondents (marks for Mathematics, Science, Biology and English First Language) and their responses to the survey questions in Section C (Appendix A).

Null hypothesis 4: There was no significant correlation between ratings of factors on Survey Question C2 and ratings of another factor (Appendix A).

Alternative hypothesis 4: There was a significant correlation between ratings of factors on Survey Question C2 and ratings of another factor (Appendix A).

Null hypothesis 5: There was no significant correlation between ratings of the relative success of a method of information delivery (in Survey Question C6) and ratings of another method (Appendix A).

Alternative hypothesis 5: There was a significant correlation between ratings of the relative success of a method of information delivery (in Survey Question C6) and ratings of another method (Appendix A).

Null hypothesis 6: There was no significant correlation between ratings of the problematic areas in the failed subjects (in Survey Question C11) and ratings of another area (Appendix A).

Alternative hypothesis 6: There was a significant correlation between ratings of the problematic areas in the failed subjects (in Survey Question C11) and ratings of another area (Appendix A).

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

Technikon Natal introduced the first formal South African Homoeopathic education programme in 1989. Since its addition to the higher education degree choices offered by Technikon Natal, the course has produced some 10 years worth of Homoeopathic graduates. On average, between 8 and 24 students graduate from it annually. In 2003, Technikon Natal merged with ML Sultan to become the Durban Institute of Technology, “A University of Technology”. The Homoeopathic qualification has also evolved from a Master’s Diploma to a Master’s Degree with much emphasis being placed on not only the academic aspect of education but also Master’s level research, and the course itself has been revised and re- curriculated numerous times. The Department of Homoeopathy has also seen many changes in academic staff, administrative staff and Heads’ of Department over the years. In 1994 the Technikon of Witwatersrand became the second tertiary institution in South Africa to offer Homoeopathy as a higher education course, which has since changed its name to the University of Johannesburg. Together, these two institutions account for the vast majority of South African Homoeopaths who have already achieved a Master’s Degree in Technology: Homoeopathy and numerous students who are currently attempting to do so (Ross, 2005).

2.2 DEFINITIONS OF ACADEMIC SUCCESS AND FAILURE

According to Ditcher and Tetley (1999), academic success at university is usually described in terms of grades or degree completion. The converse can be assumed to be true regarding academic failure. For the purposes of this research, subject failure is defined as: "*The failure to successfully pass an examinable subject on the first attempt at the subject with the implication that the subject will have to be repeated the following year/ semester. If a subject is passed after a supplementary examination, and the subject was not repeated, it will not be considered a "subject failure"* (Ditcher and Tetley, 1999). Therefore, this research focused on complete failure of a subject which causes the student to have to repeat the subject the following year/ semester. In most cases, this ultimately means that the student has "failed a year" and so cannot qualify from the course within the minimum formal time.

The minimum formal time for completion of a Master's Degree in Technology: Homoeopathy is 5 years, and the maximum time, without any subject failure is 6 years (Durban Institute of Technology, 2005). However, based on anecdotal evidence, a percentage of students are held back by individual subject failure in the course which causes them to essentially add an extra year at least, to the duration of the course. It has been identified that this has implications not only for the individual student but also for the department due to a backlog which affects the following year's group of students.

2.3 DEFINITION OF DELAYED QUALIFICATION

The focus of this research was to investigate the “academic factors” that may relate to subject failure. Subject failure ultimately delays the qualification process and so, although the other aspects which may also contribute to qualification delays (e.g. Research and Internship) are taken into consideration by the researcher, they were not specifically addressed in this project and it is recommended that subsequent investigation be done in these fields. For the purposes of this research, the researcher has defined the concept of ‘Delayed Qualification’ as: *A qualification which is not completed within the minimum formal time for qualification.* In the case of a Master’s Degree in Technology: Homoeopathy, the minimum formal time for completion is 5 years (Durban Institute of Technology, 2005).

2.4 THE NEED FOR ACCURATE REFLECTION

Because this research was primarily concerned with the delay in qualification rather than the complete failure to qualify, it investigated those people (graduates) who have directly experienced subject failure and a subsequent delay in qualification. This specific group is unique in that, although they experienced subject failure, they still proceeded to qualify and graduate and thereby remain within the profession. Their unique position makes their perceptions valuable, because, although it may be possible to guess what their perceptions may be, there is no substitute for the truth (Hill, Perry and Stein, 1998).

LeJeune (2002) states that, while the causes of failure may seem intuitively obvious, insight from students should provide a foundation to further focus predictions made by outsiders. Also, it is quite possible that this knowledge may offer interventions or techniques that go beyond predictions and have the ability to actually foster greater student success.

Based on anecdotal evidence, subjects that are within the National Diploma level of the Homoeopathic course have appeared to present major problems for students. This could lead one to assume that they are poorly taught, poorly understood or simply too difficult to pass. However, this does not allow for an accurate reflection of what the struggling student really experienced. Nor does it allow for appropriate adjustments to be made, to correct the underlying problem, if the underlying problem has not been accurately identified. Therefore, to investigate the problems, a qualitative approach is needed to either compliment or precede additional quantitative studies pertaining to subject failure and this is what this research aimed to do (LeJeune, 2000).

2.5 THE SCOPE OF HOMOEOPATHY

According to the European and International Councils for Classical Homoeopathy (ECCH & ICCC respectively) Core Curriculum Document (1993):

Homoeopathy is a system of medicine which is capable of offering effective restorative therapy for most known ‘dis-ease’ that arises in human and animal

systems. Where, in certain circumstances Homoeopathic treatment cannot directly offer a patient the possibility of restoration to health it always has the ability to assist in repair and recovery and finally offers the possibility of palliation and relief from suffering. As such, Homoeopathy offers the option of a primary therapy in all stages of most known 'dis-ease' conditions in any sphere of medical practice. It follows that the well- trained professional Homoeopath can potentially play a central role in the health care of each individual member of the population.

According to Milani (1995), a former Chairman of the Allied Health Professions Council of South Africa (AHPCSA), the Homoeopathic practitioner is like the medical practitioner. He/she is a primary contact practitioner using a different medicinal approach and not performing surgery. He/she makes a normal differential diagnosis based on physical and other examination methods… prescribes medication and other therapeutic procedures.

2.6. SOUTH AFRICAN LEGISLATION

In 1974 legislation was passed terminating the training of Homoeopaths in South Africa. After numerous consultations with the Department of Health; the Medical & Dental Council; and educators, during the 1985 Parliamentary session, further training possibilities were granted so that a five year academic training course, followed by a compulsory internship period, was established at tertiary level to provide a revised education for Homoeopaths in

South Africa. Students graduating from this course would then be eligible for registration with the relevant statutory body: The Allied Health Professions Council of South Africa (AHPCSA). Only practitioners registered with this council have the legal right to practice as Homoeopaths (South Africa 2001: R127). In South Africa Medical Aid Societies will only recognise registered Homoeopaths.

According to the South African Chiropractors, Homoeopaths & Allied Health Service Profession Second Amendment Act, 2000 (Act No. 50 of 2000)
"A Homoeopath shall be in possession of a five year Master Degree in Homoeopathy that has been obtained from an educational institution followed by an internship contemplated in regulations 25 and 26" (South Africa 2001: 22052).

2.7.1 INTERNATIONAL HOMOEOPATHIC EDUCATION PHILOSOPHY

The Homoeopathic educational training philosophy in South Africa corresponds with that which is suggested for international application by the European & International Councils for Classical Homoeopathy (1993). They state that the education and training of a Homoeopath should meet certain minimum requirements as to the quality and quantity of content so as to enable graduates to participate effectively and equally in the integrated systems of health care delivery that are the contemporary norm in all nations of the world. The trained Homoeopath should be able to work in a variety of roles ranging from an independent consultant in private practice through to

being an integrated member of a team of therapists and diagnosticians working in an institutionalised setting. The range of experiences should therefore prepare students for the full range of potential therapeutic experiences they are likely to meet in practice.

2.7.2 SOUTH AFRICAN HOMOEOPATHIC EDUCATION PHILOSOPHY

The Faculty of Health Sciences 2005 Department of Homoeopathy Rule Book gives the following Mission Statement:

"In accordance with Homoeopathic and naturopathic principles the vocational emphasis upon education and training of Homoeopaths upholds Hahnemann's statement:

"The physician's high and only mission is to restore the sick to health,

To cure as it is termed."

As primary contact practitioners the students are trained to serve the South African populations taking cognisance of the holistic nature of man within his environment. The Department of Homoeopathy will aim to improve interdisciplinary relations with all persons involved and to produce graduates who will demonstrate:

a) the highest regard for patient welfare and consideration of each patient as an individual;
b) competence in differential and holistic diagnosis in order to determine the cause of the patient's discomfort;

c) the ability to restore the patient to health by Homoeopathic and naturopathic therapeutics;
d) the knowledge to refer the patient to the appropriate health care professional in accordance with the patient's needs;
e) interest in continued educational updatement and research projects of benefit to the health of mankind;
f) self- motivation and the desire to cure the patient;
g) the willingness to become part of the community and health care team with the aim of improving health and relieving suffering of the sick;
h) the ability to question and arrive at an unbiased, logical reason for the cause and cure of the patient's malady" (Durban Institute of Technology, 2005).

2.8 STRUCTURE OF SOUTH AFRICAN TECHNIKON QUALIFICATIONS

In a document entitled *A Framework for the Introduction of Degrees at Technikon* by the Committee of Technikon Principles (1994), which pertained to all South African Technikons, the general structure for South African Technikon Degrees is suggested as follows:

1. Technikon Certificate (one year)
2. Technikon Higher Certificate (two year)
3. Technikon (National) Diploma (three year)
4. Technikon First Degree (four year).

Exit points will only be determined at each level in those cases where:

a) the curricula can be meaningfully structured to allow this, and

b) If suitable career opportunities exist for persons with such qualifications (Committee of Technikon Principles, 1994:16).

2.8.1 Exit Points in the Homoeopathic Course

In terms of Homoeopathic education, the only exit point is upon completion of the Master's Degree in Technology: Homoeopathy. Relevant status is awarded upon completion of N. Dip: Homoeopathy after the third study year and B.Tech: Homoeopathy after the fourth study year but no actual certificates are given as they do not fulfil the criteria for an exit point (Durban Institute of Technology, 2005).

2.9 COMPONENTS OF HOMOEOPATHIC COURSE

For the purposes of this study the Master's Degree in Technology: Homoeopathy was considered in the following areas:

1) Academic subjects 1^{st}- 5^{th} years;

2) Research and Dissertation 5^{th} year; and

3) Internship 5^{th} /6^{th} year.

In this study, only the academic subjects were specifically dealt with. Research is supposed to contribute at least 50% towards any Master's Degree. Due to the structure of the Homoeopathic curriculum which requires at least 5 years worth of tuition, the research component appears to have become neglected in terms of time allocation. Certain allowances have been made during the evolution of the Homoeopathic course which has seen the

research project change from a full dissertation to a mini- dissertation in order to better adjust to the time constraints (Ross, 2005).

2.9.1 Research and Internship

Research, however, is a complex process that requires a student to demonstrate a thorough understanding of the basic principles of the research process and follow the guidelines laid down to eventually conduct a research project and complete a mini-dissertation. Many students experience difficulties in this research aspect of the Homoeopathic course as it is a substantial deviation from the largely “academic- based” previous years of curriculum (Ross, 2005). It is hoped that this area of the course will be subsequently investigated as there is anecdotal evidence that it plays a key role in qualification delays. It was not included in this research due to its division from the purely “academic” difficulties which arise in the course already. Similarly, Internship was also not investigated in this research due to the multitude of “personal factors” and the difficulties which exist in terms of the governing regulations which impact on this aspect of the course.

2.9.2 Academic Subjects

Legally, the academic subjects have been identified according to the Chiropractors, Homoeopaths & Allied Health Service Professions Second Amendment Act, 2000, under Section 45:

“A person who wishes to register as a Homoeopath under the Act shall pass at an educational institution a Masters Degree in Technology: Homoeopathy which will consist of at least:-

a) *The major subjects of*:

- Anatomy;
- Biochemistry;
- Biology;
- Chemistry;
- Diagnostics;
- Epidemiology;
- General Pathology;
- Homoeopharmaceutics;
- Materia Medica, and
- Physiology.

b) *Ancillary subjects of*:

- Auxiliary Therapeutics;
- Medical Microbiology;
- Philosophy, Principles & History of Homoeopathy;
- Physics;
- Practice Management and Jurisprudence;
- Psychopathology;
- Social Studies; and
- Systemic Pathology” (South Africa 2001: 22052).

2.10 GOVERNMENT LEGISLATION *versus* TECHNIKON LEGISLATION

The one apparent discrepancy that was discerned by the researcher between the South African government legislation and the Technikon legislation are the extra subjects which are compulsory according to the Faculty of Health Sciences' Rule book of Durban Institute of Technology (2005). These subjects are of critical importance to the education of a Homoeopath. The subjects are Clinical Homoeopathy, which is taught in both fourth year and fifth year, and Research Methods and Techniques which is a fourth year subject. The implication here is that Clinical Homoeopathy which is considered a major subject by Durban Institute of Technology (DIT) is actually not recognised as a minimum requirement by the Government. Similarly, Research Methods and Techniques which one could assume to be of integral value to the Masters Research dissertation as required to complete the qualification, is also not worthy of note at Government level.

2.11 TECHNIKON PASS REQUIREMENTS

Generally, in order for a student to pass a subject, at least 50% is required. However, this does not apply to all subjects within the Homoeopathic course and certain variations apply at the N. Dip: Hom, B.Tech: Hom and M.Tech:

Hom levels. For a full explanation of the pass requirements please see Appendix F (Durban Institute of Technology, 2005).

2.12 PRESSURE ON EDUCATIONAL INSTITUTIONS

Richter and Ruebling (2003) state that pressure on educational institutions to show the effectiveness of their programmes has increased since the 1990's. State legislators, parents and students want assurances that students will obtain the education promised. Accreditation agencies also demand that institutions and programmes implement outcomes assessments to ensure that students have opportunities to achieve the educational goals and become competent in their chosen field.

The rapid technological advances of the twentieth century have placed education systems under extreme pressure as they try to adapt and incorporate these changes in an effort to produce more creative, effective, and adaptable people. Success, or even survival, in such a world demands that South Africa has a national education and training system that provides quality learning, is responsive to the ever changing influences of the external environment and promotes the development of a nation that is committed to life-long learning (SAQA, 1998).

2.12.1 Demands of Society

The Bedford Committee (1986) found that most of the institutions responsible for educating professionals fail to evolve as rapidly as professional practice itself. Hill, Perry and Stein (1998) further discuss that a substantial re-orientation of institutional programmes becomes necessary to assure that professional education meets the challenging needs of professional practice, just as practice evolves to meet the changing needs of the society it services. This is particularly relevant in the South African context where the demand for higher education is fuelled by the demands of employers who want proof of a potential employee's competence before employing them (SAQA, 1998).

2.12.1.1 Evaluation Techniques

Hill, Perry and Stein (1998) suggest that as programmes, curricula and individual courses are redesigned or revamped; issues of accountability and assessment arise. The form and content of these assessments can be wide ranging but baseline data is critical in providing meaningful feedback for curricula changes, and a single measurement technique cannot capture all aspects of a programme's reform. SERTEC and SAQA are the two significant bodies that have been, and are still responsible for the evaluating of the South African standards of education. Please see Appendix J for more details on their roles.

2.12.2 Demands of Private Practice

In the current South African context, there is little scope for a Homoeopathic practitioner other than private practice. Private practice is recognised as a demanding business for a newly graduated Homoeopath, as the nature of the profession relies on successful patient management and confidence in one's own ability in order to maintain adequate financial viability of the practice. Any weakness in the educational training could have potentially disastrous consequences for a newly graduated Homoeopath attempting to run a private practice. Similarly, in attempting more thorough integration with conventional South African health care practices, it is vital that the standard of Homoeopathic education remains high and relevant to the demands of the people who will make use of Homoeopathy as an alternative means of health care (Ross, 2005).

2.13 RE- CURRICULATION OF SOUTH AFRICAN QUALIFICATIONS

Currently there is a nation- wide movement which demands review of all South African qualifications to comply with SAQA/NQF (National Qualification Framework) registration requirements. The shift towards Outcomes Based Education and Training is essentially a shift towards "Learner Centred" education which focuses on three fundamental areas:

1. Knowledge
2. Skills (Competencies)
3. Values and attitudes (SAQA, 1998).

The Critical Cross- Field Education and Training Outcomes are an additional mechanism through which coherence is achieved in the education framework. The Critical Outcomes describe the qualities which the National Qualification Framework (NQF) identifies for development in students within the education and training system, regardless of the specific area or content of learning i.e. those outcomes that are deemed critical for the development of the capacity for life- long learning. These outcomes are intended to direct the thinking of policy makers, curriculum designers, facilitators of learning, as well as the learners themselves (SAQA, 1998). It is mandatory for standards setters to incorporate at least some of the critical outcomes in the standards that they recommend and proposers of qualifications must ensure that all critical outcomes have been addressed appropriately at the level concerned within the qualifications been proposed.

The Critical Outcomes adopted by SAQA are as follows:

1. Identify and solve problems in which responses display that responsible decisions using critical and creative thinking have been made;
2. Work effectively with others as member of a team, group, organisation, community;
3. Organise and manage oneself and one's activities responsibly and effectively;
4. Collect, analyse, organise and critically evaluate information;
5. Communicate effectively using visual, mathematical and/ or language skills in the modes of oral and/ or written presentation;

6. Use science and technology effectively and critically, showing responsibility towards the environment and health of others;
7. Demonstrate an understanding of the world as a set of related systems by recognising that problem- solving contexts do not exist in isolation (SAQA, 1998).

This now focuses the educational aims towards outcomes which are much broader in their context than previously. The implication is that there is a new emphasis placed on the students' responsibility to meet pre- determined outcomes. With the student playing the "central" role in the education process, his/her perceptions of his/her education becomes ever more important to the growth of Outcomes Based Education and subsequently a critical part of the re- curriculation procedure which was taking place during the time of this research.

2.13.1 Measurement Tools for Educational Outcomes

DeMong, Lindgren and Perry (1994) provide a matrix which illustrates how desired outcomes in an educational setting can be best measured and how the various measurements can capture specific characteristics of interest. For example, the authors suggest that standardized examinations may provide a valuable measure of information and core knowledge but little information on the development of critical thinking and analytical skills. Portfolios of student work may provide information on critical thinking or creativity, but may be difficult and time consuming to evaluate. Interviews allow for open-ended

questions, however, the potential for bias exists on the part of both parties. Student and alumni surveys are good assessment measurements for student's attitudes and satisfaction with the educational process, but provide little insight on the level of knowledge acquired during the educational process. It is important that assessments are made by using as many of the techniques that DeMong et al. (1994) suggests as possible.

However, little emphasis has been placed on investigating academic failure from a student's perspective in South Africa, particularly those students who then still proceed to complete their qualification. In addition to the assessment measurements discussed by DeMong et al. (1994), it is also stated that surveys, which focus on students' self-perceptions of their educational experience, can also provide insightful measurements. Students are in the unique position to assess their own education because they have had first-hand experience with their education and their emerging abilities. This type of assessment attempts to gauge whether experiences encountered by the students are actually internalised (Hill, Perry and Stein, 1998).

2.13.2 The Value of Students' Perception of Subject Failure

No such form of evaluation of students' perceptions was available at the time of commencing this research, to obtain any such feedback. And so, this research investigated students who had experienced failure of a subject(s), in the form of a survey and obtained information about their perceptions regarding academic factors which may have contributed to the subject(s)

failure. This form of perceptional study could also be used in a broader sense, and could be extended to survey other members of the Department, and other areas of the education process. Regular evaluations could be made regarding some of the difficulties which the Department faces. This could allow for meaningful comparisons between the perceptions held by all people associated with the Department of Homoeopathy to be made. This in turn, could allow for more appropriate interventions to be introduced rather than interventions which otherwise may be implemented based on assumptions.

2.14 CONSTRUCTION OF THE QUESTIONNAIRE

The 'academic factors' which were surveyed in this research have been derived from several sources.

2.14.1 LeJeune Three Dimensional Model

LeJeune (2000) describes a three dimensional model of factors in student attrition. Ultimately the three factors involved are: motivation, academic preparation, and working within the zone of proximal development. He describes the ideal formula for failure as a low motivated student, with low academic preparation, and having to work outside the zone of proximal development. But the very nature of this formula is even more intricate as high motivation and low academic preparation may too lead to failure, as will a student with high motivation who becomes bored because he is working below his/her zone of proximal development. LeJeune goes on to say that the

model does not incorporate one element that either influences the three factors or may totally supersede all of them. Traumatic life events may result in failure regardless of the other factors. These factors however, may vary from one individual to the next, so while very accurate reporting may be possible, resolutions will be more difficult to come by as, it is impossible to structure the course in such a way that each student's ideal matrix can be satisfied.

2.14.2 Ditcher and Tetley Research

Research by Ditcher and Tetley (1999) who conducted a survey on students and academics at the University of Canterbury determined the differences in perceptions between the two groups on items of academic success and failure. They showed that there was a definite relationship between the factors which may contribute to success and/or lead to failure. The researchers gave the example of attendance, which in one case, if attendance was good led to success, and in another case if it was poor, led to failure. These factors can then be further classified according to three broad groupings. Firstly, factors relating to the student, secondly, factors relating to the lecturer, and thirdly factors relating to the institution. In Killen's research (1994) he noted that lecturers were more inclined than students to attribute failure to factors that were within the control of students, or described student characteristics, while students were more likely than lecturers to attribute failure to factors controlled by lecturers. Similar factors can be found cited by McEvoy and Welker (2000) who go on to mention other factors including: availability of

extra help or tutoring; amount of instruction time and teachers' use of multiple learning styles. These studies provided various general perceptions which have been identified as problematic areas, which may or may not necessarily correlate to Homoeopathic students' perceptions.

2.14.3 Felder and Brent Research

2.14.3.1 Perception

Felder and Brent (1999) describe the apparent "mismatch" between learning styles and teaching styles. They say that perception is either sensing or intuitive. A sensing learner focuses on sensory input, is practical and observant, requires repetition, and works best with concrete facts and data. An intuitive learner, on the other hand, focuses on subconscious information, is more imaginative, looks for meanings, desires variety and enjoys abstract theories and models. According to Felder and Brent (1999), everyone is both sensing and intuitive; however, most people tend to have a preference for one. Undergraduates tend to be sensors while professors tend to be intuitors, this results in a mismatch between teaching and learning styles (Appendix G).

2.14.3.2 Input Modality

Felder and Brent (1999) discuss the preference for specific types of input modalities in terms of visual learners and verbal or oral learners. The visual learner needs pictures, diagrams, sketches, flow charts, etc to learn well,

while the verbal learner needs explanation in spoken words or in written text. The concept of bias dominance is also discussed in that a learner will learn more when the information is presented in the input modality that is preferred. However, most people are visual learners while 90- 95% of course content is verbal (Appendix G).

2.14.3.3 Organization

The organization of information which is presented is also critical to the learning process. Induction starts with observations and conclusions are inferred and explained. Deduction starts with principles and conclusions are then derived and deduced. Induction is generally the natural human learning style and is better for long term retention of information. Deduction is the natural tertiary education teaching style and may be better for short term retention of more information. Felder and Brent (1999) suggest that most students probably learn better inductively, whilst most lecturers teach deductively (Appendix G).

2.14.3.4 Processing

It has been recognised that students also process information differently. Felder and Brent (1999) identify two types of learners, namely, active learners and reflective learners. Active learners process actively, they think out aloud, they jump in prematurely and work well in groups. Conversely, reflective learners process introspectively, they work quietly, delay starting and work

well alone or in pairs. Most classes have both active and reflective learners, but most lecture environments are passive- active learners don't get to act and reflective learners don't get to reflect (Appendix G).

2.14.3.5 Understanding

Finally, in terms of understanding information, students are either sequential learners or global learners (Appendix G). Most students, lecturers and curricula are sequential in nature, meaning that they progress steadily by functioning on partial understanding. Global learners, however, need to see the big picture in order to function properly. They are initially slow to grasp a concept but then progress in major leaps. Global learning is definitely in the minority but is extremely valuable; unfortunately global learners are systematically weeded out as there is little support for this learning style (Felder and Brent, 1999).

2.14.4 The Factors

Ditcher and Tetley (1999) revealed that students rated the following factors in order of importance as reasons contributing to failure:

1. Lack of self motivation
2. Insufficient effort
3. Poor time management/ organisational skills
4. Inappropriate assessment procedures

5. Inability to manage stress
6. Poorly structured presentations by lecturers
7. Poor literacy skills
8. Lecturers who are out of touch with students' needs
9. Heavy course workload
10. Misunderstanding course requirements
11. Personal or family difficulties
12. Inability to balance study and social commitments
13. Irregular and insufficient feedback
14. Irregular attendance at lectures
15. Inadequate resources
16. Financial problems
17. Lack of academic ability
18. Lack of maturity
19. Insufficient learning support programmes

2.14.4.1 Factors relating to the Student

2.14.4.1.1 Low Motivation

Both LeJeune (2000) and Ditcher and Tetley (1999) identify Low Motivation as a factor which may contribute to academic failure. Pretorius and Lemmer (1998) state that, students differ both in their skills and capabilities to carry out tasks and in their will to do them; in other words, in the intensity and quality of their motivation. While intelligence may be a desirable quality among

students, motivation is even more so. Students, who are motivated, learn in accordance with their academic abilities. Moreover, motivated students make the lecturer's job easier; they tend not to disrupt the instructional environment; they listen and discuss topics when appropriate. When students are motivated, lecturers also report greater job satisfaction, thus motivation strengthens the whole education enterprise, establishing a healthy culture of teaching and learning (Pretorius and Lemmer, 1998).

Theorists indicate 2 types of motivation: extrinsic or intrinsic. Extrinsic motivation exists when students are motivated by an outcome that is external and unrelated to the learning activity. By contrast, intrinsic motivation exists when someone works because of an inner desire to accomplish a task successfully whether it has some external value or not. While both extrinsic and intrinsic motivations operate in most lecture halls, our systems tend to be designed primarily to promote extrinsic motivation (Pretorius and Lemmer, 1998).

Pretorius and Lemmer (1998) discuss 4 dimensions of student motivation which can help lecturers to design strategies to motivate learners to learn eagerly:

- Interest: the extent to which the student's curiosity is aroused by the lecture and sustained over time.
- Relevance: the extent to which the instruction is related to personal needs and goals which are perceived as meaningful.
- Expectancy: the students perceived likelihood in learning.

- Satisfaction: the student's intrinsic and extrinsic motivation.

2.14.4.1.2 Insufficient Effort

Low motivation as discussed previously may be linked to Insufficient Effort in a cause and effect relationship. Entwistle and Tait (1992) discuss the merits of responsible students. Invariably, such students follow through on a given task, complete it to the best of their ability, and often do so without direct or frequent supervision. It is questionable exactly how many students are really responsible though. When a task becomes too difficult for them, rather than seek help, they permit their attention to be diverted. When students cannot learn easily, they are likely to become discouraged or irritated (Entwistle and Tait, 1992).

2.14.4.1.3 Irregular Attendance at Lectures

Attendance at lectures may in itself have a multitude of variables which determine to what extend a student will or will not attend lectures. For example, transport problems to and from campus may prevent regular attendance. However, truancy is an issue which has been recognised as problematic across the board for many years. Enwistle (1992) discusses the value of lectures in terms of motivating students and transmitting of

information, as well as the social function of sharing ideas, leading to co-operative learning. One may assume that poor attendance may lead to the development of a significant gap in the process of learning. The reasons for why a student “bunks” lectures may vary from one individual to the next but Ditcher and Tetley (1999) claim that irregular attendance at lectures is a factor relating to the student which contributes to academic failure.

2.14.4.1.4 Skills in Studying and Learning

Recent research has indicated that students are generally rather dissatisfied with the help provided both in schools and in higher education institutions in preparing them for the study skills they need (Raaheim, Wankowski and Radford, 1991). Lack of such study skills has been identified as one of the reasons for drop- out or academic failure (Meyer, Dunne, and Sass, 1992). There is a need for an institution- wide policy on study skills training to ensure that every student is given the opportunity to develop the skills involved in time- management, as well as the technical aspects of studying (Entwistle and Tait, 1992).

2.14.4.1.5 Poor Time Management Skills

Time management can be described as the organising of activities to fit into the available time (Pretorius and Lemmer, 1998). Ditcher and Tetley (1999) cite Poor Time Management skills as a factor which was rated 3rd highest by both students and academics as a factor which contributes to academic

failure. As the adage goes, “Procrastination is the thief of time” and so Pretorius and Lemmer (1998) suggest some basic guidelines for time management:

- The point of departure of time management is the formulation of a time analysis that indicates exactly what a typical day looks like; evaluate the present use of time and identify time slots which may be used more effectively.
- Working smart not harder amounts to using time in such a way that maximum results for minimum effort are possible.
- Review the day’s tasks, rank them by importance and do central and essential tasks first.
- Group related task together and complete a series before starting the next series.
- Break down major tasks which may seem overwhelming into workable steps.
- Use a timetable on which realistic deadlines for projects are indicated; work backwards from the deadline and determine exactly which activities have to be done by which date to be able to reach the desired goal at the designated time.
- Concentrate on doing one thing at a time.

The Inability to Balance Study and Social Commitments as suggested by Ditcher and Tetley (1999) may also be as a result of Poor Time Management Skills, in particular, students entering higher education find it difficult to handle the amount of freedom they are given in higher education (Entwistle, Macaulay, Situnayake and Tait, 1989).

2.14.4.1.6 Inability to Manage Stress

It has been suggested that the Inability to Manage Stress may also be related to Poor Time Management Skills (Entwistle, 1992) but may also exist on its own. Pretorius and Lemmer (1998) offer some basic guidelines for managing stress as follows:

- Develop a support system.
- Living a healthy lifestyle through healthy eating habits and regular exercise.
- Respect your personal limits.
- Provide for healthy recreation time.
- Take time off during the day, after work, and over weekends.
- Ask for assistance from others.

From personal observation, many of the above points are in direct contrast to the “average” student’s lifestyle.

2.14.4.1.7 Other Factors Relating to the Student

In the South African context, Poor Literacy Skills may be significant as South Africa has a high rate of illiteracy and semi- literacy (Mda and Mothata, 2000).

Personal or Family difficulties or Traumatic life events, as pointed out by LeJeune (2000), may result in failure regardless of the other factors. Financial Problems as suggested by Ditcher and Tetley (1999) may also contribute to academic failure. Lack of Academic Ability may seem an obvious cause for academic failure however, as previously mentioned this may be influenced by motivational factors (Pretorius and Lemmer, 1998). Lack of Maturity may also play a role in academic failure according to Ditcher and Tetley (1998).

2.14.4.2 Factors relating to the Lecturer

Lectures if they are carefully planned and well- executed, have been found to be effective in presenting and transmitting information and ideas. The lecture provides the opportunity to arouse interest and motivation in students, a skilful lecturer provides ‘a known face’ and a person for whom subsequent independent work is being carried out. Such personalizing of the learning task is particularly important in the transition from school to higher education, and the social function of regular meetings of students in lectures should not be overlooked (Entwistle, 1992).

2.14.4.2.1 Poorly Structured Presentations by the Lecturers

The main criticism of lectures applied to those which are badly constructed or presented ineffectively (Entwistle, 1992). Teaching and Learning cannot occur

in an environment which is lackadaisical, unpredictable and not directed towards optimising quality classroom time (Taylor and Vinjevold, 1999).

From observations of lecturing, 5 styles of lecturing were identified, based on the predominant mode of presentation. Lectures were described as "exemplary" where they used an effective combination of both visual and oral modes of presentation. Other lecturers where however, much more limited. The "visual information giver" and the "oral presenter" concentrated on just one mode of presentation, while the "eclectic lecturer" was less successful in blending the visual and oral. Finally the "amorphous lecturer" was even less effective exhibiting both vagueness and arrogance (Entwistle, 1992).

Good lectures, as judged by students, have additional qualities. The material is presented at the right level, it is delivered at a pace which allows students both to take good notes and also to think about issues, and it has a clear, explicit structure (Entwistle, 1992). Ditcher and Tetley (1999) maintain that poorly structured presentations by lecturers contribute to subject failure.

2.14.4.2.2 Lecturers who are out of Touch with Students' Needs

Effective teaching and learning depends largely on the establishment of a sound relationship between students and lecturers (Pretorius and Lemmer, 1998). Lecturers may often complain about students who do not use their abilities and gifts wisely (Pretorius and Lemmer, 1998). Vally and Chisholm's (1996) recommendation regarding the improvement of lecturer- student

relationships is powerfully supported by a significant body of research which indicates that academic achievement is strongly influenced by the quality of lecturer- student relationships. Spaulding (1992) maintains that good teaching revolves around relationships. Many of the needs of students are non-academic and relate to a learner's attitudes, emotions, and sense of personal esteem. When these needs are met, learning is facilitated.

Students whose learning styles are compatible with the teaching style of a course instructor tend to retain information longer and apply it more effectively (Felder, 1993).

2.14.4.2.3 Irregular and Insufficient Feedback

Assessments should from part of the learning process according to Entwistle (1992). The Durban Institute of Technology Induction Manual for Academic Staff (2002) describes some techniques which, according to research, are practiced by effective teachers in higher education (Appendix H). This includes "critical reflective orientation to teaching including effective use of feedback to guide learning and improve teaching". According to Ditcher and Tetley (1999) Irregular or Insufficient Feedback is therefore another factor which may contribute to subject failure.

2.14.4.3 Factors relating to the Institution

In higher education at the moment, available resources of time and money form a substantial constraint on what is possible. Some of the more innovative methods of teaching are more demanding of staff time. A careful balancing of the various teaching methods is necessary to ensure that the cost efficiency is compatible with effectiveness in achieving the desired learning outcomes (Entwistle, 1992).

2.14.4.3.1 Inappropriate Assessment Procedures

Ditcher and Tetley (1999) identified Inappropriate Assessment Procedures as an important factor which contributes to subject failure. McEvoy and Welker (2000) stated that academic failure is strongly related to the assessment techniques used to ascertain what students know and how well they know it. Felder and Brent (1999) recognised that tests perceived by students as "unfair" may be the leading cause of poor student evaluations of teaching. Assessment which encourages the regurgitation of detailed facts or procedures induces a surface approach, while procedures which demand thorough conceptual understanding push students towards a deep approach (Entwistle, 1992). In light of Outcomes Based Education and Training in South Africa, substantial emphasis has been placed on standardized and objective assessment procedures (SAQA, 1998).

2.14.4.3.2 Heavy Course Workload

There is accumulating evidence that over- loaded syllabuses, particularly in the applied sciences, lead to coping strategies among students which inhibit high quality learning (Entwistle et al, 1989). Ditcher and Tetley (1999) identify this as a factor which contributed to academic failure.

2.14.4.3.3 Insufficient Learning Support Programmes

There has been much criticism of insufficient support programmes in higher education, particularly in aiding the transition from secondary to tertiary level study (Entwistle, 1992). Peer- teaching is inexpensive and also, potentially, extremely effective as it requires active participation and collaboration from both parties involved (Jacques, 1984; Goodlad and Hirst, 1989). It encourages a social exchange which may also aid in some of the problematic non- academic areas which students face. Ditcher and Tetley (1999) also suggest that Insufficient Learning Support Programmes play a role in academic failure.

2.14.4.3.4 Misunderstanding Course Requirements

Misunderstanding Course Requirements was identified by Ditcher and Tetley (1999) as a reason for academic failure. Durban Institute of Technology issues students with a comprehensive rule book on registration each year (Appendix F). It would therefore seem unlikely that respondents to this survey

should cite Misunderstanding Course Requirements as a reason for Subject Failure.

2.14.4.3.5 Inadequate Resources

Although Ditcher and Tetley (1999) mentions Inadequate Resources as a factor contributing to academic failure, it seems unlikely that in the context of this survey that it will be identified as a factor contributing to subject failure. There is unlimited access to a fully equipped library, internet, and numerous other learning facilities at Durban Institute of Technology, but clinical experience is limited to only seeing patients at the Homoeopathic Day Clinic.

2.14.5 The Questionnaire

Using these factors, the questionnaire was generated and piloted amongst a selected group of individuals. The results from the pilot questionnaire were analysed and the questionnaire was refined to better suit the target group. Certain questions were omitted and some new ones were introduced to make it more specific for the Homoeopathic graduates and the particular problems they were likely to have encountered, with allowances being made for those problems which may not have been identified during the pilot study.

2.15 FINANCIAL IMPLICATIONS OF ACADEMIC FAILURE

The actual implication of student performance and failure has been researched by Dobson and Sharma (1999) in terms of the financial cost of failure. The authors examined student performance and calculated the theoretical cost of academic failure by Australian undergraduates using factors implicit in government funding formulae. The demand for accountability has increased, and output- based funding is much discussed. In order to survive, higher education institutions have had to diversify their funding basis and at the same time the government appears now to perceive its contributions as a subsidy to university students, rather than as being an investment in society's broad human infrastructure. In the South African context, a government subsidy is afforded to the institution, half of which is paid on registration for first year and the other half is paid when a student has qualified (Ross, 2005). The ultimate university 'output' is student success, and governments could place monetary value on this in a very direct way.

2.16 CONCLUSION

In light of the suggestions made by Dobson and Sharma (1999), it seems beneficial for all parties that may be involved in tertiary education that research on subject failure be done. One of the key areas identified by Hill, Perry and Stein (1998) is to conduct this research on the students themselves, to provide information on the experience itself. And so, this research was a perceptional study to investigate academic reasons for

subject failure and delayed qualification in a Master’s Degree of Technology: Homoeopathy.

CHAPTER 3: METHODOLOGIES

3.1 STUDY TYPE DESIGN

The study took the form of a descriptive (observational) survey. In this type of study no new groups are created, as in this case, the group being surveyed was Durban Institute of Technology (formerly Natal Technikon) Homoeopathic graduates. More specifically, the survey was a cross sectional design, which is a portrait of the group at one point in time. In most cross sectional surveys the study population is representative of the group being studied (Fink 1995). However, in the case of this research project, the group was small enough for all members to be included in the study. The survey was done by means of a self- administered questionnaire (Appendix A).

The sample group consisted of all the graduates from DIT (134 graduates) (Appendix I). A maximum response was unlikely, so by contacting all possible participants, a statistically viable response was still achieved. Of the 134 graduates, only 4 proved to be untraceable and 70 responses in total were received. 16 of the respondents experienced subject failure and thus completed the entire questionnaire.

An attempt to negotiate access to throughput data from the Durban Institute of Technology Examination Department was made, but was not possible due to technical inaccuracies in the system records which may have rendered results unreliable.

3.2 RESEARCH PARTICIPANTS

Participants were all graduates of Durban Institute of Technology Homoeopathic Department, (formerly Technikon Natal), from the first year of graduates of the course in 1993 to mid year graduates of 2004.

Inclusion criteria: This research was designed to investigate specifically the failure of subjects and aimed to target only those students/graduates who completed the course from 1st year and who proceeded for the duration of the course at Durban Institute of Technology/ Technikon Natal.

The entire group of graduates up until 2004 were contacted so that personal academic records held by Durban Institute of Technology did not need to be accessed, out of respect for the possible participants. All participants were required to enter their name at the top of the questionnaire, thereafter, if they had not experienced subject failure, they were requested not to proceed any further with the questionnaire and to simply return it. Those who had failed a subject were requested to complete the questionnaire and then submit it.

All responses were received by an independent party at the Faculty of Health Sciences who has no association with the Homoeopathic profession. The names on the questionnaires were ticked off against a list of graduates so that a response rate could be determined. Thereafter the names were deleted

from the questionnaires. Only then, did the researcher and her supervisor have access to the questionnaires.

3.3 PRE- TESTING OF THE QUESTIONNAIRE

3.3.1 Statistician assessment of questionnaire

Once the questionnaire had been drawn up, it was sent to a statistician for review. This was to determine whether the way in which the questions were asked and answers given were optimally done for easy and applicable statistical analysis. The statistician's comments were taken into consideration and the researcher made the appropriate changes.

3.3.2 Pilot study

It was recommended that a pilot study be done to determine face validity as this questionnaire was constructed by the researcher and had not been used before.

3.3.2.1 Purpose of a pilot study

According to Fink and Kosecoff (1985), the purpose of a pilot study is to assess the following:

- Will the questionnaire provide the needed information?
- Are certain questions redundant or misleading?

- Are the questions appropriate for the people who will be surveyed?
- Will the information collectors be able to use the survey forms properly?
- Are the procedures standardized?
- How consistent is the information obtained by the survey?
- How accurate is the information obtained by the survey?

3.3.2.2 Pilot Study Participants

A group of 12 people completed the questionnaire. The group consisted of:

Three members of DIT Homoeopathic Department lecturing staff;

Three DIT Homoeopathic research students;

Three DIT qualified Chiropractors;

Three members of the public with a university degree;

Within these 12 participants, 3 were fluent in, but not first language English.

This group was selected because of the similarity to the respondents who eventually completed the survey with regards to education level, age and possible language barriers (Fink and Kosecoff, 1985).

The questionnaire was constructed and distributed to the 12 individuals for their comments and input on clarity, understandability and possible ambiguity of the questions. They were also asked to comment on the length of time it

took to complete the questionnaire as well as suggestions for improvements to the document (Appendix D). After the assessment was completed, the suggestions were correlated and re- viewed, and appropriate changes were then made to the questionnaire.

3.4 DATA COLLECTION

3.4.1 Telephonic Contact and Confirmation of Address

All graduates were first contacted telephonically, to introduce them to the researcher and the proposed research study. Originally, the names and contact details of graduates were obtained from the Head of Department of the Homoeopathic Department at Durban Institution of Technology and from the Faculty of Health Sciences who had the list of students who had graduated over the last 10 years.

The graduates' contact details were then confirmed as well as their willingness to participate in the study. Initial contact was also necessary to establish how they wanted to receive the questionnaire i.e. via e-mail, post, or hand delivery. All posted questionnaires were supplied with a return self-addressed envelope, and all participants received a consent form and information letter (Appendices B and C). It was anticipated that a number of graduates may be abroad during the time that this research was being conducted. Every effort was made to establish contact with these graduates

either telephonically or via e-mail. Only 4 graduates could not be traced (Appendix I).

3.4.2. Methods of Data Distribution and Collection

In this study the methods of data distribution and collection was one of the following:

- Post
- E-mail
- Hand delivered.

The following table shows the advantages and disadvantages of some the potential techniques which could have been used in data collection.

(Overleaf) Table 3.4 The advantages and disadvantages of various methods of data collection.

	Advantages	Disadvantages
In Person Interviewing	- Higher response rates - More personal interaction - Controllable process	- Time consuming - Requires good social skills from interviewer - Difficult to cover wide geographic distribution of participants
Postal / Mail Surveying	- Questionnaire can be completed at respondent's convenience - Greater assurance of confidentiality than personal inter- action methods - Standardized question format, reduces interviewing bias - Allows participants to have a widespread geographic distribution	- Lack of flexibility of questioning techniques - Low response rate - No control over quality of responses - No control over date of response - Inability to clarify any concerns the respondent may have
Telephonic Interviewing	- Quick -More anonymous than face to face interviews but still retains ability to resolve any concerns the participants may have	- May be assumed to be marketing ploy - Needs to have fairly simple and short questions - No visual materials can be used
Internet/ email Surveying	- Answers already in electronic format - Very rapid response rate - Quick and easy to complete	- Not all potential respondents have access to email

	- Allows participants to have a widespread geographic distribution	

(Babbie, 1994; Bailey, 1987; Dillman, 1978; Fowler, 1993)

3.4.3 Response Time

The researcher allowed for a 3 week time lapse, in case of posted questionnaires, for a response. After this time the participants were again contacted telephonically to confirm that they had received the questionnaire and as a reminder to complete and return the document. A further 6 weeks were allowed for return of questionnaires, after which time the non complying candidates were excluded from the study. The researcher then considered the data capture completed and proceeded with data analysis.

3.5 ACCOMPANING DOCUMENTS

All questionnaires were accompanied by an informed consent document (Appendix B) and an information letter (Appendix C) with the contact details of the researcher and the research supervisor should any difficulties or questions have arisen. A letter of thanks was also sent out for every questionnaire which was completed returned (Appendix E).

3.6 DATA STORAGE

All the answered questionnaires were confidential documents, so once the names had been deleted from the questionnaires they were stored in a locked

filing cabinet in the custody of the researcher. Only the researcher and the research supervisor have had access to the files. In case of e-mail replies, the e-mail was printed and then deleted, with no traceable address or name appearing on the printed copy. The hard copy was then stored in the locked filing cabinet. All responses were sent to and received by the same independent person at the Faculty of Health:

Postal address: The Faculty Assistant
Miss I Sukhu
DIT Faculty of Health
PO BOX 1334
Durban
4000

Or if hand delivered: Room MS 49
Mansfield School
Durban

Or email: sukhui@dit.ac.za

3.7 FOCUS GROUP

It was decided that a focus group would be held to discuss some of the findings of this study. The focus group took the form of a teleconference so that a variety of members of the Homoeopathic profession with many different opinions were heard.

The teleconference was held on 8 December 2005 by the Homoeopathic Association of South Africa (HSA). The National Board members of the Homoeopathic Association of South Africa 2005 made up the group of individuals who formed this focus group (Appendix L). Present at the discussion were Doctors Neil Gower, Brenda Saunders, Robert Moiloa, David Nye, Lance Giles, Attie Smit, and HSA student representative of University of Johannesburg, Leanne Scott.

This group included Homoeopathic graduates from Durban Institute of Technology (or formerly Natal Technikon), and University of Johannesburg (or formerly Technikon of Witwatersrand), as well as the Head of the Department of Homoeopathy of the University of Johannesburg. Their input gave a qualitative dimension to the findings, and input from the focus group discussion was recorded by the researcher and is discussed in Chapter 5.

3.8 DATA ANALYSIS

Raw data was entered into a computer using the SPSS® for Windows version 9.05 statistical package. The response was analysed statistically and the results appear in Chapter 4 and are discussed in Chapter 5.

3.9 CRITICAL PATHWAYS IN THIS SURVEY

3.9.1 Tracing potential participants

The ability to contact all the graduates and confirm their contact details correctly so that distribution and data collection ran smoothly was of vital importance to the success of this research. Some of the graduates' contact details had changes several times since they had qualified and the researcher experienced difficulties in tracing them. Similarly, a number of the female participants had married since graduation and their surnames had changed, which also presented the researcher with difficulty in establishing initial contact.

3.9.2 Bad or Non- responses

3.9.2.1 Role of the Information Letter

In trying to ensure compliance of participants, it was imperative to thoroughly inform graduates of the proposed research and to emphasize the importance of the information. Much care was taken in the presentation of the questionnaire to avoid the notion that the survey was simply a “marketing” ploy or that the information would be used against the respondent. A careful explanation of the intention of the study was laid out in the information letter which each potential participant received (Appendix C). The information letter also clearly explained the measures which were taken to ensure the confidentiality of the responses, to avoid responses which may have been given because they sounded proper, rather than truthful.

3.9.2.2 Time Constraints of Participants

Another serious concern was that, due to the nature of the sample group, participants may be reluctant to spend their valuable time on completing the questionnaire. So, the questionnaire was limited to only the essential questions revolving around pertinent areas which were identified by the researcher and confirmed by the pilot study. The questionnaire was structured so that there was a scattered distribution of questions which required writing of details. The intention of this was to avoid the completion of the questionnaire seeming laborious. Open- ended questions were left until last so that participants could add any further information that they felt had been omitted earlier in their answers. Each potential participant was also informed

of the estimated time taken to complete the questionnaire, which according to the pilot study was between 15 and 20 minutes.

3.9.2.3 Convenient Methods of Response

To encourage participation in the study, it was important to make the methods by which participants could respond as flexible and convenient as possible. Hence, each participant was offered 3 methods by which they could respond.

3.10 FLOW CHART OF PROCESS

Questionnaire was drawn up

↓

Pilot Study was done on questionnaire

↓

Adjustments were made to questionnaire

↓

Graduates were contacted telephonically to confirm:

a) their willingness to participate in the study

b) the method by which the would like to receive the questionnaire

↓

The questionnaires were sent out

↓

A 3 week time lapse was allowed for return of questionnaires

↓

Graduates who had not returned the questionnaires were telephoned and reminded to return questionnaires

↓

Data collection was completed

↓

Data was analysed

↓

Statistics were completed

↓

A focus group was held to discuss the findings of the study.

CHAPTER 4: RESULTS

4.1 INTRODUCTION

Following the methodology described in Chapter 3, the study produced raw data in the form of completed questionnaires. Individuals who met the inclusion criteria (Appendix I) completed sections A, B and C, while individuals who did not meet the criteria returned the questionnaire uncompleted.

The specific objectives of the analysis were as follows:

(1) To describe the demographic characteristics of individuals who have failed a subject at some point in their course.

(2) To describe distributions of the various factors associated with success or failure according to the literature review.

(3) To determine any statistically significant correlations between any of the demographic or other factors.

The analysis of the data was done using SPSS® Version 9.2 for Windows™ and Excel® XP™.

4.2 OVERVIEW OF CHAPTER RESULTS

4.2.1 Descriptive data

4.2.1.1 Demographics

These comprised mean values and distribution tables for the demographic data (Gender, Age Category, Ethnic Group, Marital Status and Language Preference).

4.2.1.2 Educational History

These comprised descriptions of central tendency and distribution frequencies for the data relating to educational history (calendar year of registration, Matriculation results, tertiary qualifications and exemptions during M.Tech: Hom).

4.2.1.3 Academic Progress

These comprised measures of central tendency, and frequency distributions for the data relating to academic progress during M.Tech: Hom (Subjects Failed and Factors contributing to Failure)

4.2.2 Analysis

The Phi Co-efficient and Kendall's Rank Correlation Co-efficient were calculated to determine the existence of correlations between demographic and educational variables and the responses given by individuals in the sample.

4.3 ABBREVIATIONS

Respondent = individual satisfying inclusion criteria who completed the questionnaire

M.Tech: Hom = Master's Degree in Technology: Homoeopathy

H_0 = null hypothesis

H_1 = alternative hypothesis

S.D. = Standard deviation

z = Standardised z value for statistical measurements

p = two tailed probability of equalling or exceeding z/2

N.S = No statistically significant difference

S = Statistically significant difference

If $p < 0.05$ then a significant difference was concluded

(5% level of significance)

If $p > 0.05$ then no significant difference was concluded

(5% level of significance)

4.4 DESCRIPTIVE STATISTICS

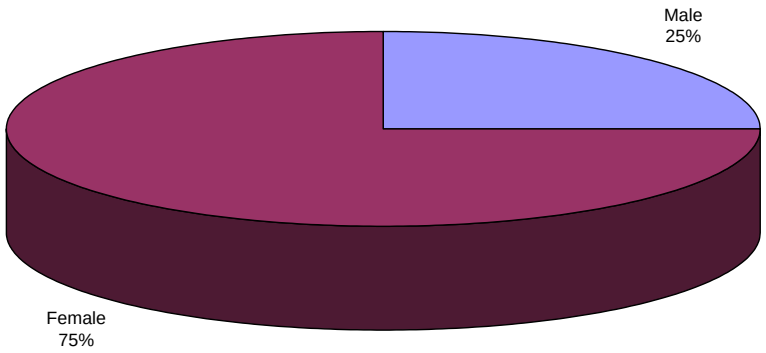
4.4.1 Demographics

In terms of Objective one described in the Introduction, the distributions of the demographic variables are described.

Table 4.1 Gender Distribution of Respondents

Gender	
Male	4
Female	12

Figure 4.1 Chart Showing Gender Proportions of the Sample



No historic data on the general student population were available. Thus it is impossible to assess whether the gender distribution is abnormal i.e. gender is or is not a factor in subject failure in M.Tech: Hom.

Table 4.2 Age Distribution of Respondents (by Category) at the time of completing the Questionnaire

Age Distribution	
21-25	1
26-30	4
31-35	8
36-40	1
>40	2

Figure 4.2 Graph Showing Age Distribution of Sample

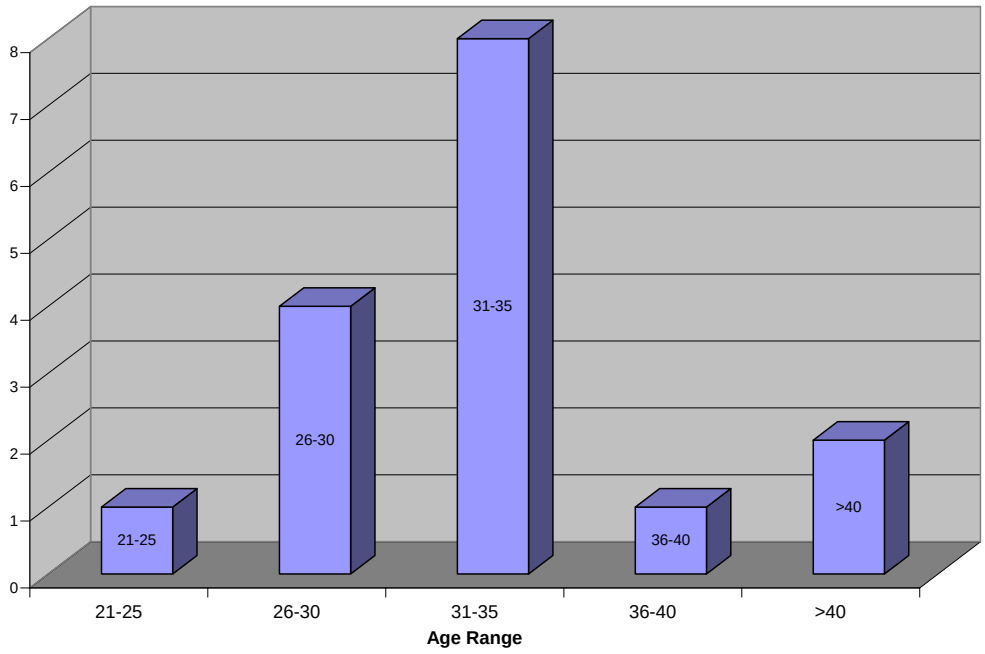


Table 4.3 Ethnic Composition of Sample

Ethnic Distribution	
Asian	0
Black	0
Coloured	1
Indian	5
White	10
Other	0

Figure 4.3 Graph Showing Ethnic Composition of Sample

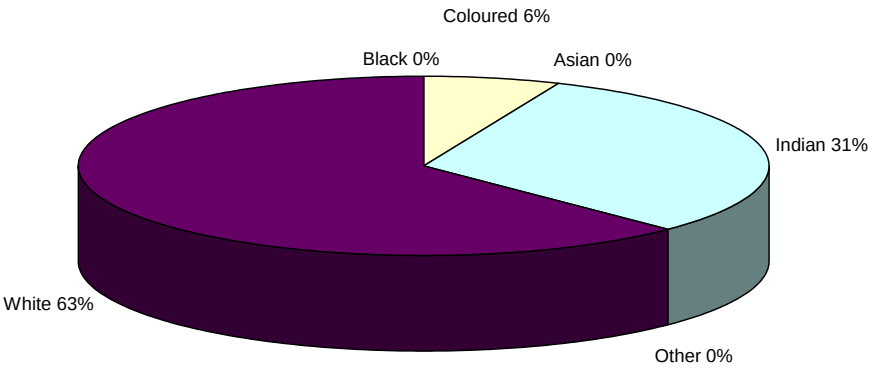
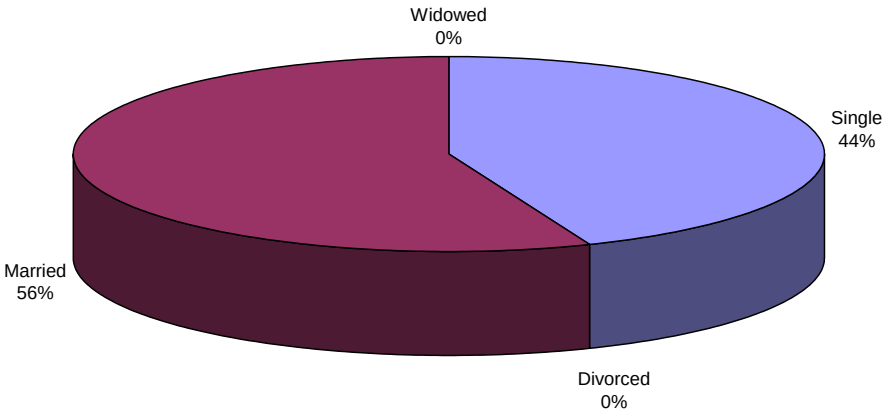


Table 4.4 Current Marital Status of Respondents

Marital Status	
Single	7
Married	9
Divorced	0
Widowed	0

Figure 4.4 Graph Showing Current Marital Status of Respondents



This population variable serves descriptive purpose only as the respondents may not have been married at the time of study. Further it is impossible to assess the difference in marital status of the sample to the general population of students. No data were collected from students who had not failed a subject.

Table 4.5 Language Preference of Respondents

1st Language		**2nd Language**	
Afrikaans	3	Afrikaans	8
English	12	English	5
isiNdebele	0	isiNdebele	0
isiSwazi	0	isiSwazi	0
XiTsonga	0	XiTsonga	0
seTswana	0	seTswana	0
TshiVenda	0	TshiVenda	0
isiXhosa	0	isiXhosa	0
isiZulu	0	isiZulu	0
Sepedi	0	Sepedi	0
SeSotho	0	SeSotho	0
Other	1	Other	1
		None	2

Figure 4.5 Graph Showing First Language Preferences of Respondents

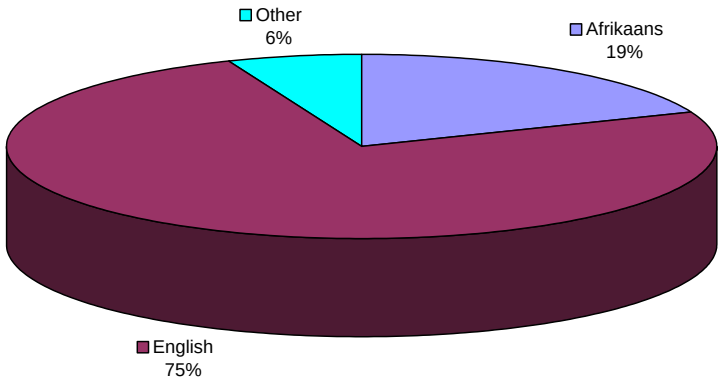
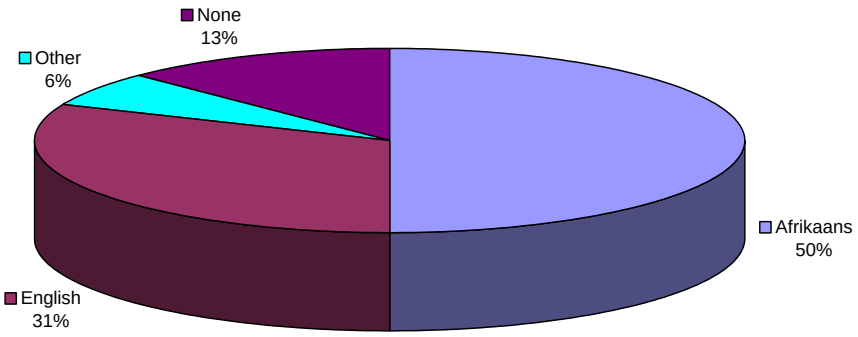


Figure 4.6 Graph Showing Second Language Preferences of Respondents



4.4.2 Education Records

The data used for the following analyses were derived from Section B of the completed questionnaires. In terms of Objective 2 in the introduction, the respondents' Academic history was described.

Table 4.6 Table showing Calendar Year of First Registration

First Registered	
1988	0
1989	1
1990	0
1991	7
1992	3
1993	1
1994	3
1995	1
1996	0
1997	0
1998	0
1999	0
2000	0
2001	0

This table shows a preponderance of respondents registering in the years 1991 – 1995 (15 out of 16). Possible reasons for this are discussed in Chapter 5.

Table 4.7 Table Showing Age of Respondents at First Registration

Age at First Registration		
16-20	11	68.75%
21-25	3	18.75%
26-30	1	6.25%
31-35	1	6.25%
>36	0	0%

The majority of the sample fell into the 16-20 category (effectively 18 -20). This indicates that the majority of students failing a subject at some point in their M.Tech: Hom had no prior tertiary experience. This is supported by Table 4.8. This sample variable was used in a number of the correlation tests to determine any significant correlations with other important variables.

Table 4.8 Table Showing Mean Time Taken to Complete Research, Qualify and Graduate after Completion of Final Academic Year.

Mean Time between completion of 5th year and completion of Research thesis	Mean Time between Completion of Research and Qualifying	Mean Time between Qualifying and Graduation	Mean time between completion of 5th year and graduation
1.875 years	0.375 years	0.375 years	2.6875 years

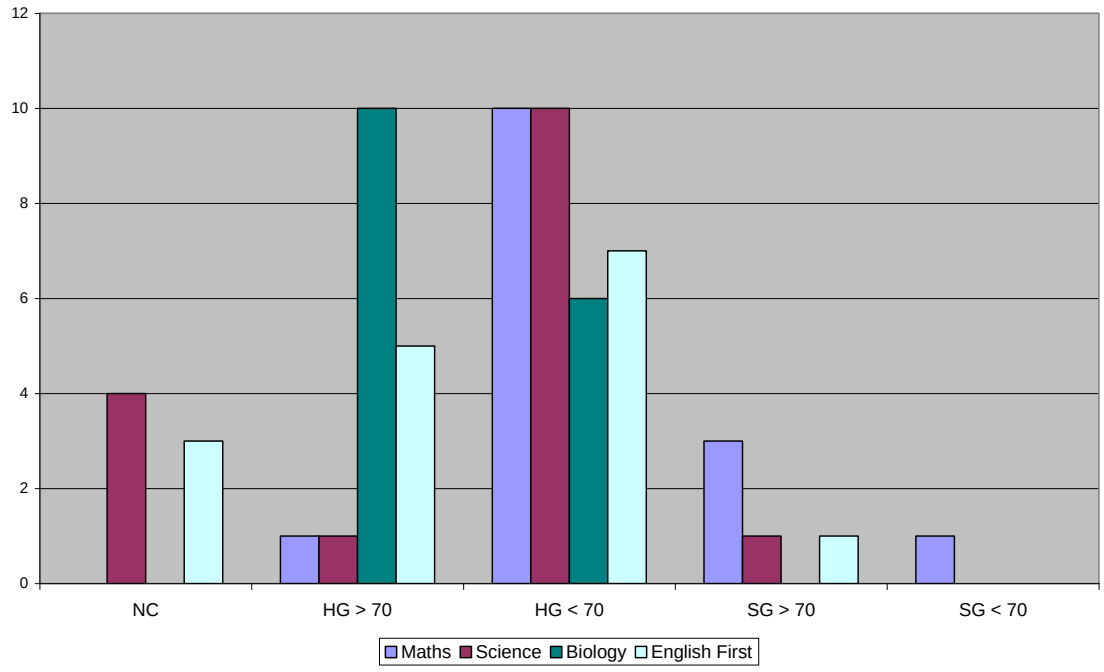
While the above table is suggestive of a definite trend, (i.e. long time period taken to complete research) the possible error in the calculation of the means makes quantification of this lag impossible. For ease of completion the respondents were asked to fill in the calendar year in which each of the above milestones was reached. Completion of 5th year in 1999 and research in 2000 would rate as 1 year difference whether in fact the research was completed in January (1 month elapsed time) or December (12 months elapsed time). In order to adjust the mean a year difference was subtracted from each answer where the difference was not already zero (i.e. completed 5th year and research in the same calendar year). The revised Mean time between completion of 5th year and completion of Research thesis is 0.9375 years and the revised mean time between completion of 5th year and graduation becomes 1.75 years. This still supports the conjecture that the research

component of the course is a major source of delay in graduation. Again the exact extent of the delay attributable to this component is impossible to assess due to inherent error.

Table 4.9 Table Showing Distribution of Matric Results

	Maths	Physical Science	Biology	English First Language	English Second Language	Accounting	Computer Science
Not Complete (NC)	0	4	0	3	13	12	14
HG > 70	1	1	10	5	1	2	1
HG < 70	10	10	6	7	1	2	0
SG > 70	3	1	0	1	0	0	1
SG < 70	2	0	0	0	1	0	0

Figure 4.7 Graph Showing Distribution of Marks in Major Matric Subjects



The above table and Figure represent the DIT entrance requirements for M.Tech: Hom. The majority of respondents had the major subjects on higher grade. Only 7 instances of non completion of a major subject (4 Science and 3 English first language) occurred. This represents an incidence in this sample of 10.9%.

Only 3 respondents had a prior tertiary qualification. In no case was more than 1 qualification recorded.

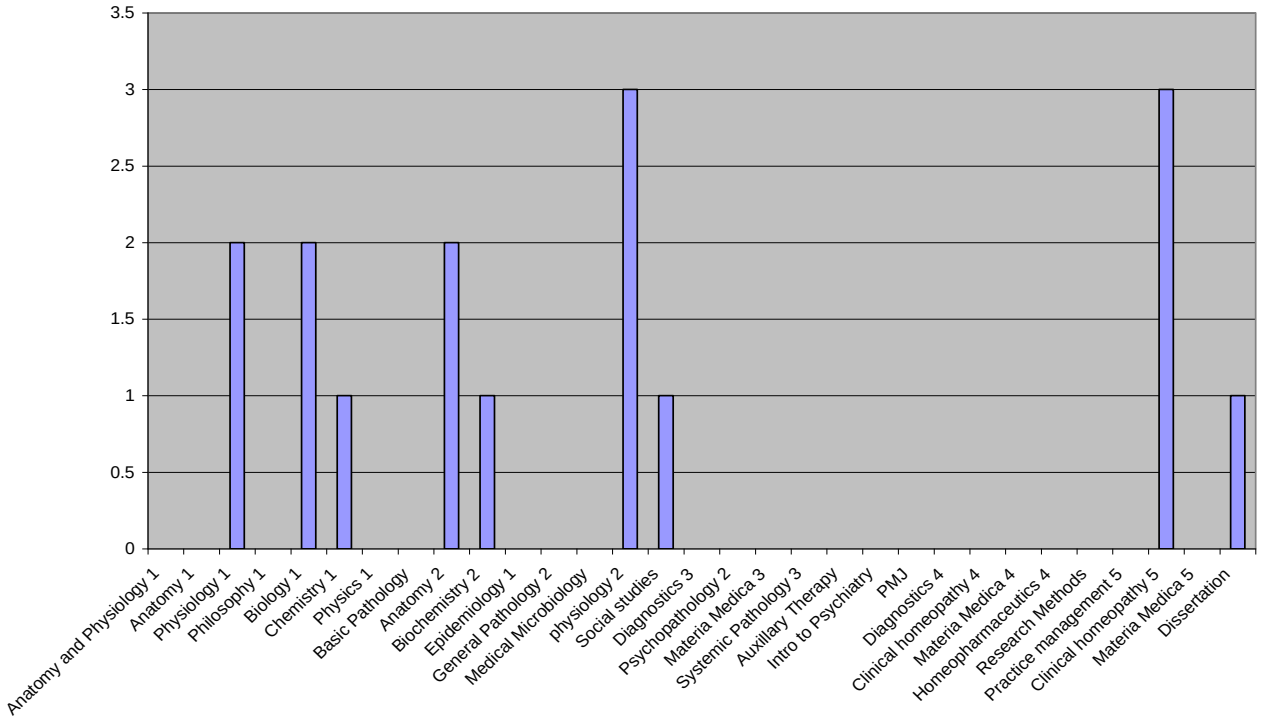
While it is tempting to draw inferences about the correlations between educational records (e.g. performance in Matric subjects) and failure or success at a tertiary level, this study does not allow any statistical treatment of this issue. No data were obtained from the population of students who did not fail any subjects at tertiary level, so no comparison of the two populations is possible. Correlations between academic record and the number and nature of subjects failed within the sample group (i.e. population of students failing a subject during their M.Tech: Hom) were possible. These are described in Section 4.5.

4.4.3 Academic Progress

4.4.3.1 Subject Failure

The following graph shows the subjects failed by the respondents.

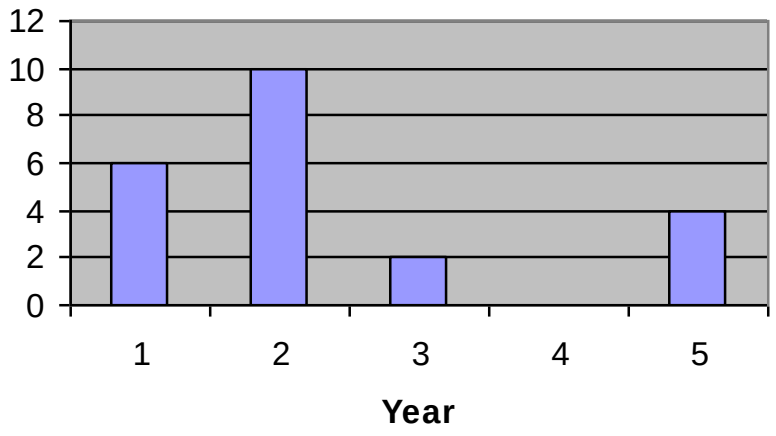
Figure 4.8 Graph showing the Subjects Failed



4.4.3.2 Subject Failure according to Year of Study

The following graph shows the failure of subjects according to year of study.

Figure 4.9 Graph showing Subject Failure according to Year of Study

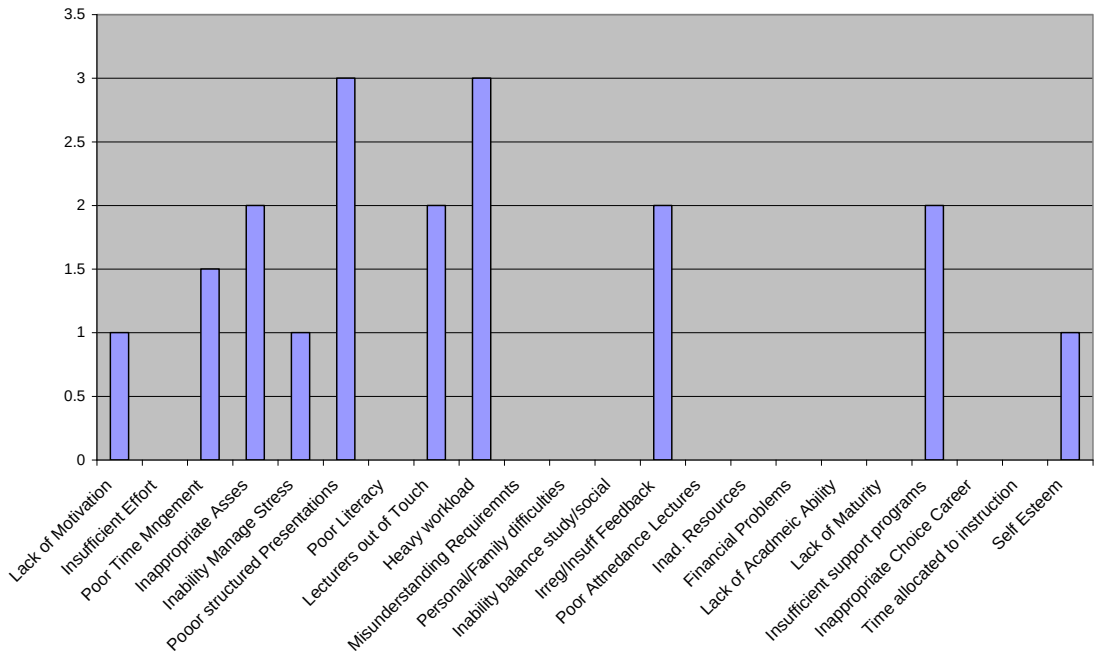


4.4.3.3 Descriptive Statistics

In terms of Objective 2 described in the introduction the data from Section C of the completed Questionnaires were analysed.

4.4.3.3.1 Factors Relating to Poor Academic Performance

Figure 4.10 Graph Showing Factors Related to Poor Academic Performance



The questionnaire design used a categorical variable to assess respondents rating of the importance of each factor. This makes these values ordinal type data. The measure of central tendency used in the above figure was thus the median (rather than the Mean) of each factor's values.

Detailed Responses to Specific Questions related to Factors influencing Academic Success

4.4.3.3.2 Lecture Time Allocated

All the respondents (100%) felt that the allocated lecture time was sufficient.

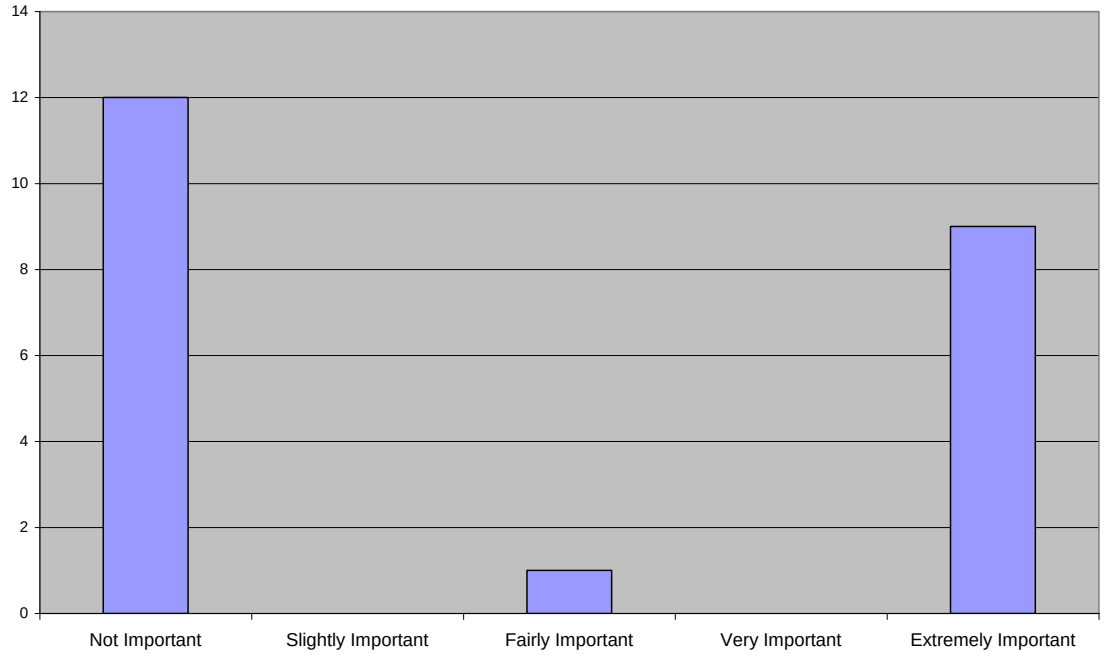
4.4.3.3.3 Personality Conflict

Due to a typographic error in the questionnaire, respondents were directed to an incorrect response frame for this question. Few completed this correctly. The results therefore are incomplete and too unreliable to include in the statistical analysis.

4.4.3.3.4 Methods of Examination

50% of the respondents felt this to be unimportant as a contributing cause of failure. 7 (43.75%) respondents felt the methods to be Extremely Important and 1 (6.25%) felt it to be Fairly Important. This is shown in Figure 4.11

Figure 4.11 Graph Showing Perceived Importance of Methods of Examination

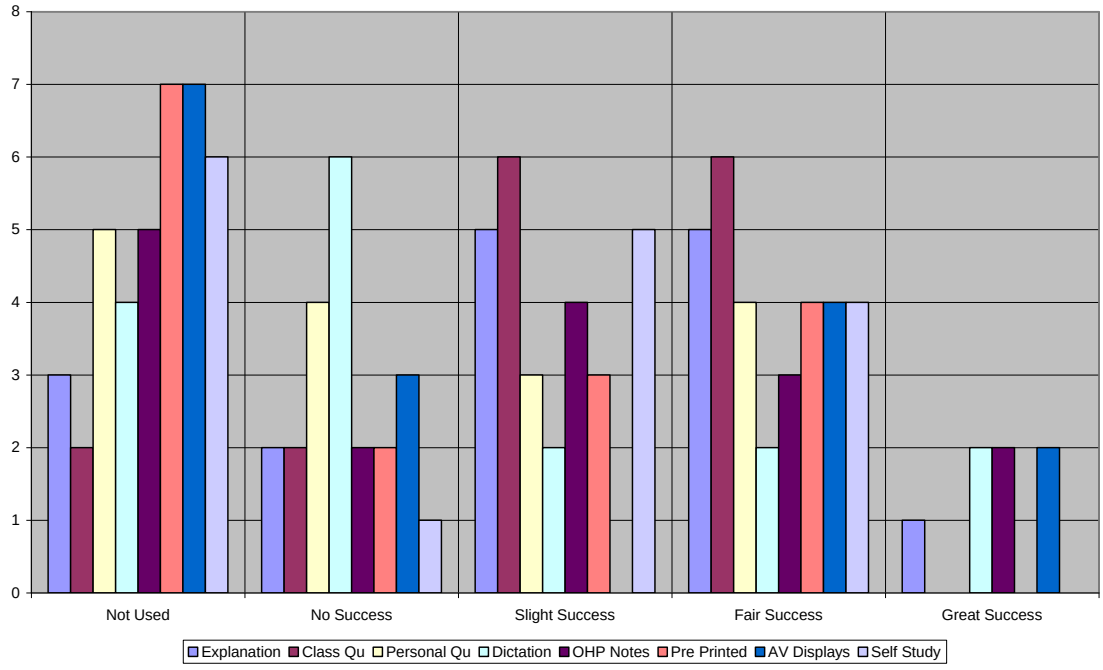


This distribution exhibits a bimodal pattern.

4.4.3.3.5 Methods of Information Delivery

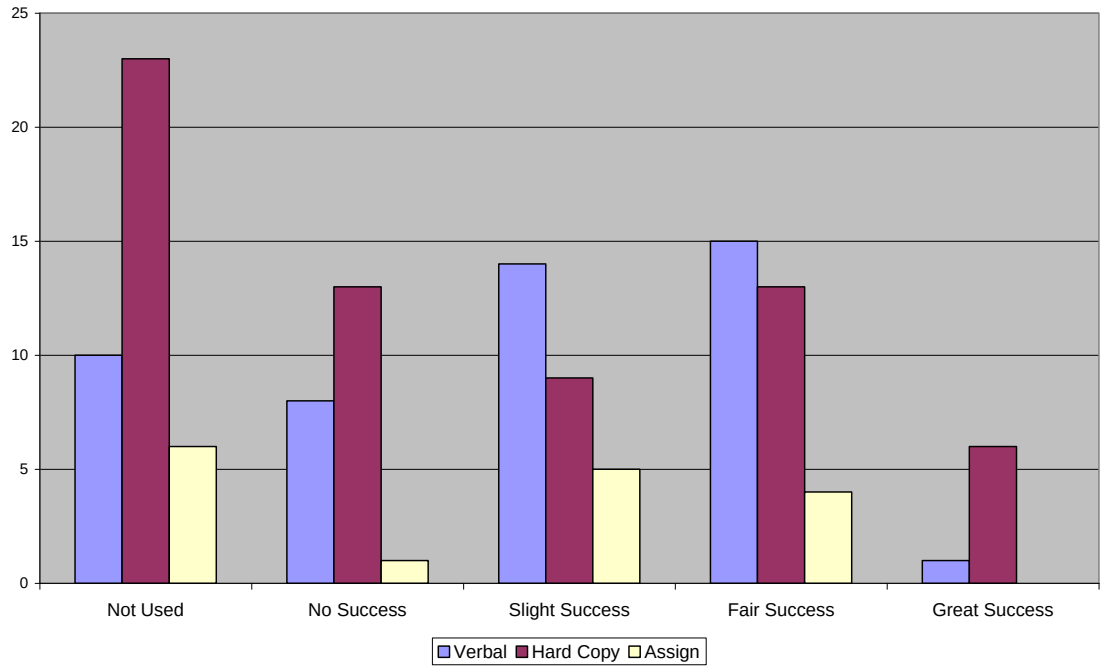
Figure 4.12 shows the perception of the relative success of different methods of information delivery used during the M.Tech: Hom.

Figure 4.12 Relative Success of Different Methods of Delivery



For ease of reference the information delivery methods were grouped into Verbal interaction based (Lecturer explaining concepts in class, Lecturer answering questions in class, lecturer answering personal questions), Hard copy based (Lecturer dictating notes, OHP notes, Lecturer providing pre-printed notes and Lecturer using AV displays) and Self directed assignments (assignments). These are contained in Figure 4.11.

Figure 4.13 Breakdown Showing Success of Delivery Methods by Super-category.



The large number of responses in the Not Used category indicates a possible misunderstanding of the question. Attendance in lectures and participation in the course of study indicates immediately some use being made of the lecture time and notes. The meaning of the term Not Used may have been taken to be synonymous with Not Useful i.e. No Success. Further supporting this conjecture is the low incidence of perceived success in the Great Success category.

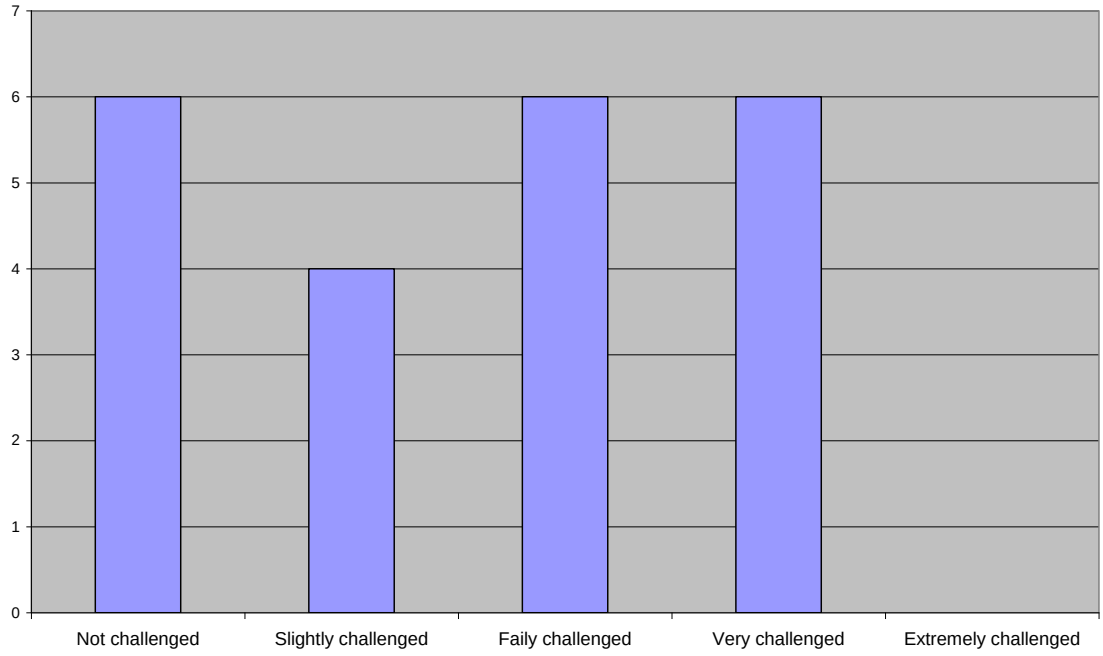
4.4.3.3.6 Language Barrier

Only 1 Respondent claimed to have experienced a language barrier and rated this as an Extremely Important Factor in contributing to failure.

4.4.3.3.7 Academic Challenge

The extent to which the Respondents were challenged academically is shown in Figure 4.14.

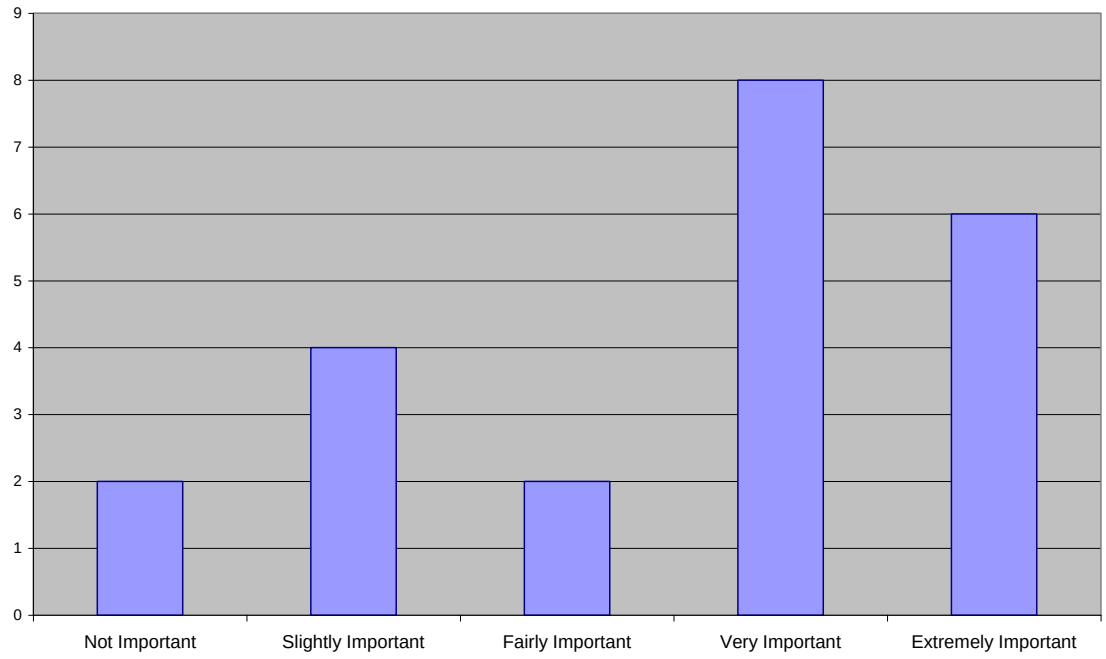
Figure 4.14 Perception of Level of Academic Challenge



4.4.3.3.8 Importance of Failed Subject to Profession

The perception of the importance of the Failed subject to the profession is shown in Figure 4.15.

Figure 4.15 Graph Showing Perception of the Importance of Failed Subject to the Profession

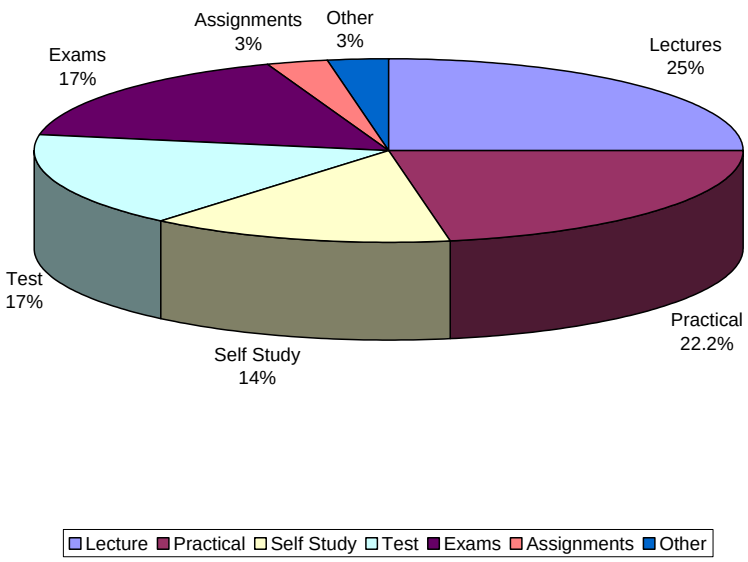


However all respondents felt that the relevance to the profession had no influence on their failure of that subject.

4.4.3.3.9 Educational Media

Perceptions of problems in the educational media of the failed subjects are shown in Figure 4.16.

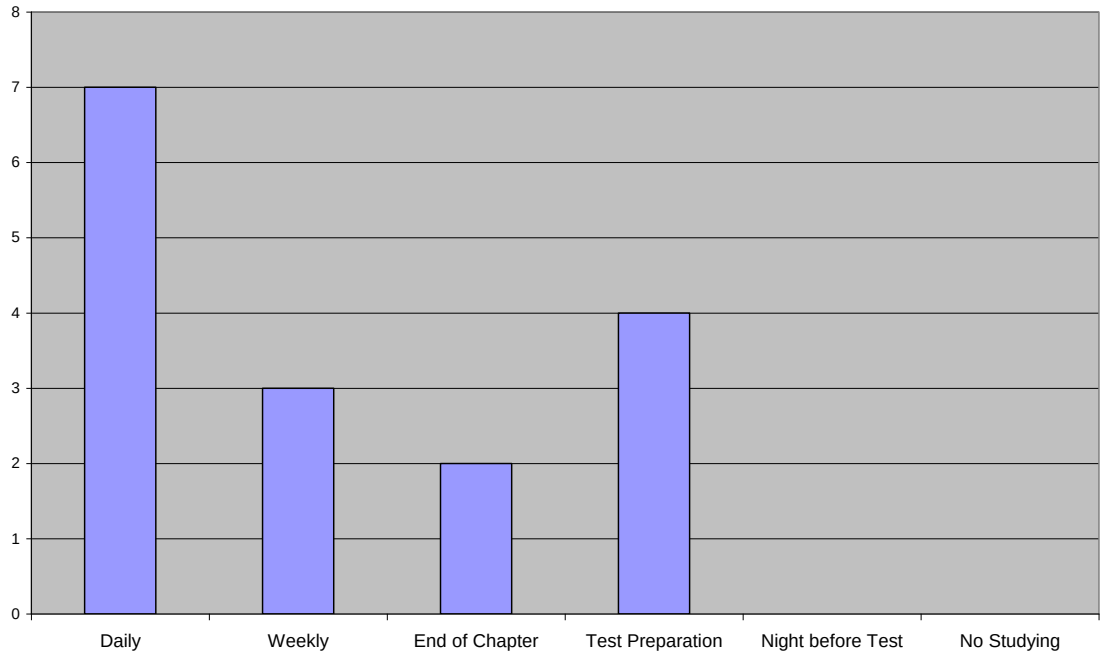
Figure 4.16 Perceptions of Problems in the Educational Media



4.4.3.3.10 Study Habits

Respondent's study habits are shown in Figure 4.17.

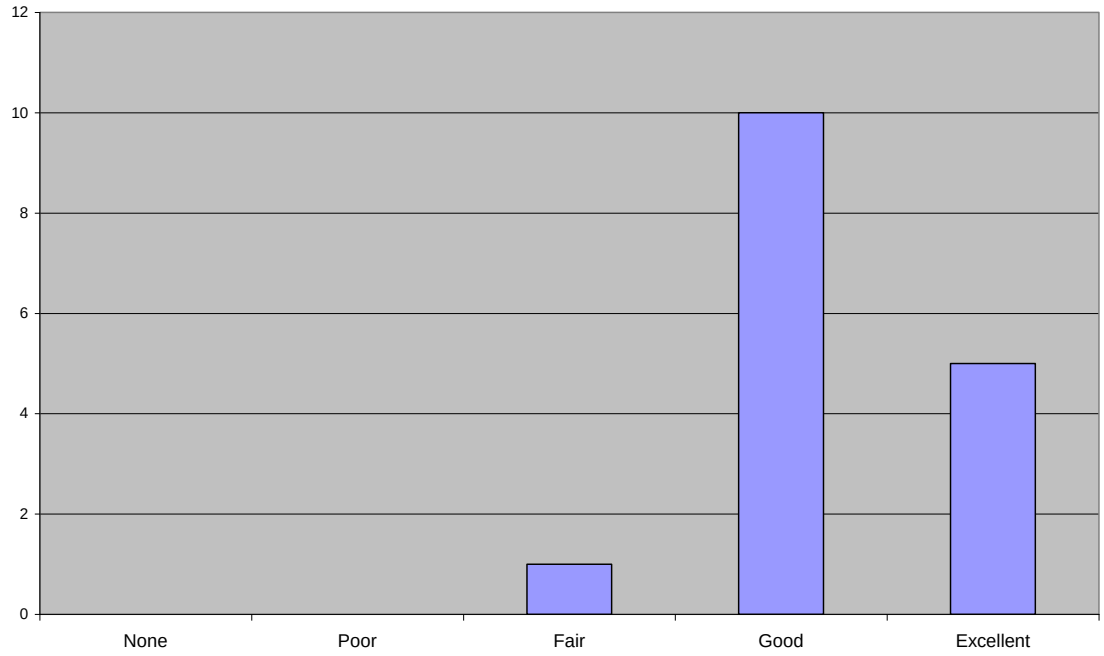
Figure 4.17 Graph Showing Respondents Study Habits



4.4.3.3.11 Level of Motivation

The respondent's general level of motivation is shown in Figure 4.18.

Figure 4.18 Graph Showing General Motivation Levels

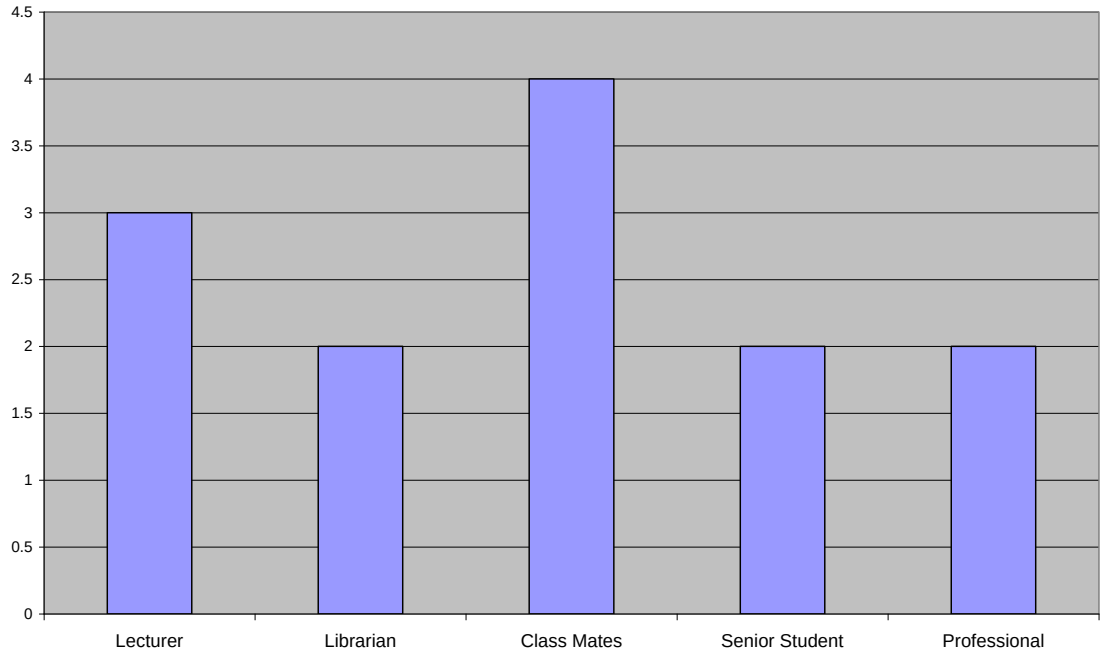


4.4.3.3.12 Help Seeking Behaviour

7 of the respondents (43.75%) sought help for difficulties relating to failed subjects. The general nature of the phrasing of this question makes it possible that this is an inaccurate reflection of help seeking behaviour. More specific phrasing and a broader sample size could also improve the accuracy of this figure.

Figure 4.19 demonstrates the distribution with which help was sought from different people.

Figure 4.19 Graph Showing Number of Respondents who Sought Help from Different People.



This graph does not reflect the number of times that help was sought from each of the people/functionaries. If a respondent sought help every day from the lecturer but only once from a senior student both categories would be ticked. This graph serves as a very broad measure describing who respondents could approach, but not how often. Of the 5 respondents who reported having approached a lecturer, 2 (40%) found the lecturer did not help, 1 (20%) found the help Not Useful, 1 (20%) found the help Fairly Useful and 1 (20%) found the help Extremely Useful.

4.5 CORRELATION ANALYSIS

In terms of the objective 3 described in the introduction, the relationship between the demographic and academic variables and the responses given was explored. This was done by hypothesis testing using the Phi Correlation Co-efficient and Kendall's Tau Correlation Co-efficient. The level of significance was set at 5% i.e. $p <= 0.05$.

4.5.1 Hypothesis testing- Demographic Variables

Null hypothesis 1: There was no significant correlation between the demographic grouping of the respondents (as described by one of Gender, Ethnic Group, First language spoken, Year of First Registration and Age at first registration) and their reported academic history.

Alternative hypothesis 1: There was a significant correlation between the demographic grouping of the respondents (as described by one of Gender, Ethnic Group, First language spoken, Year of First Registration and Age at first registration) and their reported academic history.

Correlations between Demographic variables (as described by one of Gender, Ethnic Group, First language spoken, Year of First Registration and Age at first registration) and the following variables/factors were assessed:

- Marks obtained for Maths, Science, Biology and English First Language. These were the only subjects that were taken by most of the respondents. They also form part of the entry requirement for the M.Tech: Hom course. As such any correlations between these factors and demographic variables in this population would be of particular interest.

Significant correlations were established i.e. H_0 was rejected for certain categories. The significant correlations are shown in Table 4.10.
The complete analysis is shown in Appendix K (pg 161- 170).

Table 4.10 Table Showing Test Statistics for Correlation of Demographic Variables and Academic Record.

	Chi Square			Phi	
	Value	Degrees of Freedom	Significance	Value	Significance
English 1st Language * Marks for English 1st Language	17.143	6	0.009	1.035	0.009
Year First Registered * Marks for Science	11.013	15	0.752	0.356	0.011
Age at First Registration*Marks for Maths	25.689	18	0.107	-0.522	0.005

Null hypothesis 2: There was no significant correlation between the academic records (as described by one of Gender, Ethnic Group, First language spoken, Year of First Registration and Age at first registration) of the respondents and their responses to the survey questions.

Alternative hypothesis 2: There was a significant correlation between the demographic grouping (as described by one of Gender, Ethnic Group, First language spoken, Year of First Registration and Age at first registration) of the respondents and their responses to the survey questions.

Correlations between demographic variables (as described by one of Gender, Ethnic Group, First language spoken, Year of First Registration and Age at first registration) and the responses to Survey Section C (as described by the following variables/factors) were assessed:

- Time taken to complete research (difference between completion of 5th year and completion of research)
- Time taken to qualify (difference between completion of 5th year and graduation)
- Relative importance of factors contributing to subject failure (Question C2)
- Respondents perception of Appropriateness of Examination methods (Question C5)
- Perceptions of Relative success of Methods of Information Delivery

- Perceptions of the degree to which the failed subject/s was/were academically challenging
- Perceptions of the relevance/importance of the failed subject/s to the profession.
- Perceptions of the problems in the educational medium in the failed subject/s
- Respondents reported study patterns
- Respondents reported motivation levels
- Whether the respondent sought help

Significant correlations were established i.e. H_0 was rejected for certain categories. The significant correlations are shown in Table 4.11.
The complete analysis is shown in Appendix K (pg 171- 173).

Table 4.11 Table Showing Test Statistics for Correlation of Demographic Variables and Responses to Survey Questions

	Chi Square			Phi	
	Value	Degrees of Freedom	Significance	Value	Significance
Gender*Time Taken	11.556	5	0.041	0.850	.001
Ethnic Group *C2.3	19.086	8	0.014	1.092	.014
Ethnic Group *C2.7	11.323	4	0.023	0.841	0.023

Ethnic Group *C2.10	27.733	8	0.001	1.317	0.001
Ethnic Group *C2.14	16.727	6	0.010	1.022	0.010
Ethnic Group *C2.20	20.945	6	0.002	1.144	0.002
Ethnic Group *C2.21	18.720	6	0.005	1.082	0.005
First Language * Marks for English	17.143	6	0.009	1.035	0.009

4.5.2 Hypothesis testing- Education Records

Null hypothesis 3: There was no significant correlation between the academic records of the respondents (marks for Mathematics, Science, Biology and English First Language) and their responses to the survey questions in Section C.

Alternative hypothesis 3: There was a significant correlation between the academic records of the respondents (marks for Mathematics, Science, Biology and English First Language) and their responses to the survey questions in Section C.

Correlations between the academic records of the respondents (marks for Mathematics, Science, Biology and English First Language) and the following variables/factors were assessed:

- Time taken to complete research (difference between completion of 5th year and completion of research)
- Time taken to qualify (difference between completion of 5th year and graduation)
- Relative importance of factors contributing to subject failure (Question C2)
- Respondents perception of Appropriateness of Examination methods (Question C5)
- Perceptions of Relative success of Methods of Information Delivery
- Perceptions of the degree to which the failed subject/s was/were academically challenging
- Perceptions of the relevance/importance of the failed subject/s to the profession
- Perceptions of the problems in the educational medium in the failed subject/s
- Respondents reported study patterns
- Respondents reported motivation levels
- Whether the respondent sought help

Significant correlations were established i.e. H_0 was rejected for certain categories. The significant correlations are shown in Table 4.12. The complete analysis is shown in Appendix K (pg 174- 176).

Table 4.12 Table Showing Test Statistics for Correlation of Academic Records and Responses to Survey Questions.

	Chi Square			Phi	
	Value	Degrees of Freedom	Significance	Value	Significance
Year First Registered * Time Taken to Qualify	33.393	20	0.031	1.445	0.031
Year First Registered * c2.1	28.390	15	0.019	1.332	0.019
Year First Registered * c2.2	27.767	15	0.023	1.317	0.023
Year First Registered * c2.11	34.709	20	0.022	1.473	0.022
Year First Registered * c6.6	28.227	15	0.020	1.328	0.020
Year First Registered * Study Patterns	27.955	15	0.022	1.322	0.022
Year First Registered * C11.6	16.000	5	0.007	1.000	0.007
Age at First Registration * C2.16	35.556	18	0.008	1.491	0.008
Age at First Registration * C11.6	16.000	6	0.014	1.000	0.014
Marks Maths *	11.437	12	0.492	-0.435	0.030

C2.11					
Marks Maths *C2.21	12.160	9	0.204	-0.310	0.029
Marks Maths*Relevance	10.667	12	0.558	0.475	0.002
Marks Maths*C11.1	5.435	3	0.143	-0.434	0.039
Marks Maths*c11.3	11.636	6	0.071	0.448	0.025
Marks Maths*Help Sought	3.132	3	0.372	0.529	0.003
Science Marks*c2.1	13.922	9	0.125	0.619	0.001
Science Marks*c2.2	8.242	9	0.510	0.529	0.003
Science Marks*c2.10	11.152	12	0.516	0.536	0.004
Science Marks*c2.11	11.152	12	0.516	0.423	0.001
Science Marks*c2.16	8.727	9	0.463	0.419	0.030
Science Marks*c2.20	6.479	9	0.691	0.403	0.006
Science Marks*c2.21	10.182	9	0.336	0.392	0.002
Science Marks*c6.3	15.127	9	0.087	0.508	0.012
Science Marks*c6.5	18.036	12	0.115	0.562	0.005
Science Marks*c6.6	14.545	9	0.104	0.512	0.007

Biology Marks* c2.5	4.8	4	0.308	0.504	0.003
Biology Marks*c2.6	6.756	4	0.149	0.435	0.032
Biology Marks*c2.8	10.311	4	0.036	0.503	0.013
Biology Marks*c2.10	6.519	4	0.164	-0.459	0.009
Biology Marks*c2.11	7.467	4	0.113	-0.602	0.000
Biology Marks*c2.16	3.200	3	0.362	-0.426	0.014
Biology Marks*c2.22	5.156	4	0.272	-0.512	0.002
English 1st Language Marks* c2.6	14.781	12	0.254	-0.330	0.046
English 1st Language Marks*c2.12	7.528	9	0.582	0.371	0.045
English 1st Language Marks*c11.3	18.286	6	0.006	0.491	0.027

4.5.3 Hypothesis testing- Survey Reponses

Null hypothesis 4: There was no significant correlation between ratings of factors on Survey Question C2 and ratings of another factor.

Alternative hypothesis 4: There was a significant correlation between ratings of factors on Survey Question C2 and ratings of another factor.

Significant correlations were established i.e. H_0 was rejected for certain categories. The significant correlations are shown in Table 4.13. Non-significant values are indicated by “N.S.”, while significant correlations are indicated by marking z- and p-values. The complete analysis is shown in Appendix K (pg 177- 186).

(overleaf) **Table 4.13 Table Showing Correlations between Ratings of Different Factors on Question C2 (Rating the Importance of Factors Contributing to Subject Failure).**

	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	2.12	2.13	2.14	2.15
2.1		R=0.751 P=0.001	R=0.453 P=0.038	NS	NS	NS	R=0.546 P=0.020	NS	NS	R=0.601 P=0.007	NS	NS	NS	NS	R=0.561 P=0.014
2.2	R=0.751 P=0.001		R=0.516 P=0.020	NS	NS	NS	R=0.633 P=0.008	NS	NS	R=0.475 P=0.034	NS	R=0.454 P=0.048	NS	R=0.539 P=0.020	NS
2.3	R=0.453 P=0.038	R=0.516 P=0.020		NS	R=0.554 P=0.012	NS	R=0.554 P=0.017	NS	R=0.766 P=0.000	R=0.649 P=0.003	NS	NS	NS	NS	NS
2.4	NS	NS	NS		NS	R=0.414 P=0.049	NS	NS	NS	NS	NS	NS	R=0.446 P=0.033	NS	NS
2.5	NS	NS	R=0.554 P=0.012	NS		NS	NS	NS	R=0.542 P=0.013	NS	NS	NS	NS	NS	NS
2.6	NS	NS	NS	R=0.414 P=0.049	NS		NS	R=0.607 P=0.005	NS	NS	R=0.488 P=0.025	NS	R=0.541 P=0.011	NS	NS
2.7	R=0.546 P=0.020	R=0.633 P=0.008	R=0.554 P=0.017	NS	NS	NS		NS	NS	R=0.469 P=0.046		NS	NS	R=0.689 P=0.004	R=0.526 P=0.030
2.8	NS	NS	NS	NS	NS	R=0.607 P=0.005	NS		NS	R=0.467 P=0.032	NS	NS	NS	NS	NS
2.9	NS	NS	R=0.766 P=0.000	NS	R=0.542 P=0.013	NS	NS	NS		R=0.635 P=0.004	NS	NS	NS	NS	NS
2.10	R=0.601 P=0.007	R=0.475 P=0.034	NS	NS	NS	NS	R=0.469 P=0.046	R=0.467 P=0.032	R=0.635 P=0.004		NS	NS	R=0.578 P=0.007	NS	R=0.629 P=0.006
2.11	NS	NS	NS	NS		R=0.488 P=0.025	NS	NS	NS	NS		NS	NS	NS	NS
2.12	NS	R=0.454 P=0.048		NS		NS	NS	NS	NS	NS	NS		NS	NS	NS
2.13	NS	NS	NS	R=0.446 P=0.033	NS	R=0.541 P=0.011	NS	NS	NS	R=0.578 P=0.007	NS	NS		NS	NS
2.14	NS	R=0.454 P=0.048	NS	NS	NS	NS	R=0.689 P=0.004	NS	NS	NS	NS	NS	NS		NS
2.15	R=0.561 P=0.014	NS	NS	NS	NS	NS	R=0.526 P=0.030	NS	NS	R=0.629 P=0.006	NS	NS	NS	NS	
2.16	R=0.466 P=0.043	NS	NS	NS	NS	NS	NS	NS	NS	NS	R=0.565 P=0.014	NS	NS	NS	R=0.513 P=0.031
2.17	NS		R=0.616 P=0.009	NS	NS	NS	R=0.815 P=0.001	NS	NS	NS	NS	NS	NS	R=0.779 P=0.001	NS
2.18		R=0.479 P=0.040	R=0.616 P=0.007	NS	NS	NS	R=0.858 P=0.000	NS	NS	NS	NS	NS	NS	R=0.779 P=0.001	NS
2.19	NS	NS	R=0.508 P=0.018	NS	NS	NS	NS	NS	R=0.497 P=0.020	R=0.575 P=0.008	NS	NS	R=0.548 P=0.010	NS	NS
2.20	R=0.619 P=0.007	R=0.619 P=0.007	R=0.556 P=0.014	NS	NS	NS	R=0.734 P=0.002	NS	NS	R=0.593 P=0.010	NS	NS	NS	NS	R=0.719 P=0.002
2.21	R=0.503 P=0.026	R=0.503 P=0.042	R=0.668 P=0.003	NS	R=0.476 P=0.036	NS	R=0.482 P=0.045	NS	R=0.618 P=0.006	R=0.712 P=0.002	R=0.462 P=0.042	NS	NS	NS	R=0.586 P=0.013
2.22	NS	NS	R=0.802 P=0.008	NS	NS	NS	NS	NS	R=0.602 P=0.005	R=0.488 P=0.027	NS	NS	NS	NS	NS

	2.16	2.17	2.18	2.19	2.20	2.21	2.22
2.1	R=0.466 P=0.043	NS	NS	NS	R=0.619 P=0.007	R=0.503 P=0.026	NS
2.2	NS	NS	R=0.479 P=0.040	NS	R=0.500 P=0.031	R=0.467 P=0.042	NS
2.3	NS	R=0.616 P=0.007	R=0.616 P=0.007	R=0.508 P=0.018	R=0.556 P=0.014	R=0.668 P=0.003	R=0.581 P=0.008
2.4	NS	NS	NS	NS	NS	NS	NS
2.5	NS	NS	NS	NS	NS	R=0.476 P=0.036	R=0.802 P=0.000
2.6	NS	NS	NS	NS	NS	NS	NS
2.7	NS	R=0.815 P=0.001	R=0.858 P=0.000	NS	R=0.734 P=0.002	R=0.482 P=0.045	NS
2.8	NS	NS	NS	NS	NS	NS	NS
2.9	NS	NS	NS	R=0.497 P=0.020	NS	R=0.618 P=0.006	R=0.602 P=0.005
2.10	NS	NS	NS	R=0.575 P=0.008	R=0.593 P=0.010	R=0.712 P=0.002	R=0.488 P=0.027
2.11	R=0.565 P=0.014	NS	NS	NS	NS	R=0.462 P=0.042	NS
2.12	NS	NS	NS	NS	NS	NS	NS
2.13	NS	NS	NS	R=0.548 P=0.010	NS	NS	NS
2.14	NS	R=0.779 P=0.001	R=0.779 P=0.001	NS	R=0.512 P=0.030	NS	NS
2.15	R=0.513 P=0.031	NS	NS	NS	R=0.719 P=0.002	R=0.586 P=0.013	NS
2.16		NS	NS	NS	R=0.488 P=0.041	NS	NS
2.17	NS		R=0.943 P=0.000	NS	R=0.541 P=0.023	NS	NS
2.18	NS	R=0.943 P=0.000		NS	R=0.576 P=0.016	NS	NS
2.19	NS	NS	NS		NS	R=0.615 P=0.006	R=0.425 P=0.050
2.20	R=0.488 P=0.041	R=0.541 P=0.023	R=0.576 P=0.016	NS		R=0.739 P=0.002	NS
2.21	NS	NS	NS	R=0.615 P=0.006	R=0.739 P=0.002		R=0.496 P=0.028
2.22	NS	NS	NS	R=0.425 P=0.050	NS	R=0.496 P=0.028	

Table 4.14 Table Showing Schematic Correlations between Ratings of Different Factors on Question C2 (Rating the Importance of Factors Contributing to Subject Failure)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1		X	X				X			X					X	X				X	X	
2	X		X				X			X		X		X				X		X	X	
3	X	X			X		X		X	X							X	X	X	X	X	X
4						X							X									
5			X						X												X	X
6				X				X			X		X									
7	X	X	X							X				X	X		X	X		X	X	
8						X				X												
9			X		X					X									X		X	X
10	X	X	X				X	X	X				X		X				X	X	X	X
11						X										X						X
12		X																				
13				X		X				X									X			
14		X					X										X	X		X		
15	X						X			X						X				X	X	
16	X										X				X					X		
17			X				X							X				X		X		
18		X	X				X							X			X			X		
19			X						X	X			X								X	X
20	X	X	X				X			X				X	X	X	X	X			X	
21	X	X	X		X		X		X	X	X				X				X	X		X
22			X		X				X	X									X		X	

Null hypothesis 5: There was no significant correlation between ratings of the relative success of a method of information delivery (in Survey Question C6) and ratings of another method.

Alternative hypothesis 5: There was a significant correlation between ratings of the relative success of a method of information delivery (in Survey Question C6) and ratings of another method.

Significant correlations were established i.e. H_0 was rejected for certain categories. The significant correlations are shown in Table 4.15.
Non-significant values are indicated by "N.S.", while significant correlations are indicated by marking tau (T)- and significance (p)-values.

Table 4.15 Table Showing Correlations between Ratings of the Relative Success of a Method of Information Delivery (in Survey Question C6) and Ratings of another Method.

	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8
6.1		T=0.783 S=0.000	Ns	T=0.625 S=0.003	T=0.472 S=0.026	T=0.476 S=0.029	T=0.433 S=0.047	T=0.465 S=0.033
6.2	T=0.783 S=0.000		Ns	T=0.522 S=0.017	Ns	Ns	T=0.441 S=0.047	T=0.452 S=0.043
6.3	Ns	Ns		T=0.534 S=0.013	T=0.670 S=0.002	T=0.533 S=0.015	T=0.457 S=0.037	T=0.587 S=0.008
6.4	T=0.625 S=0.003	T=0.522 S=0.017	T=0.534 S=0.013		T=0.670 S=0.002	T=0.563 S=0.010	T=0.487 S=0.025	T=0.498 S=0.023
6.5	T=0.472 S=0.026	Ns	T=0.670 S=0.002	T=0.698 S=0.010		T=0.884 S=0.000	T=0.820 S=0.000	T=0.714 S=0.001
6.6	T=0.476 S=0.029	Ns	T=0.533 S=0.15	T=0.563 S=0.010	T=0.884 S=0.000		T=0.820 S=0.000	T=0.719 S=0.001
6.7	T=0.433 S=0.047	T=0.441 S=0.047	T=0.457 S=0.037	T=0.487 S=0.025	T=0.767 S=0.000	T=0.820 S=0.000		T=0.888 S=0.000
6.8	T=0.465 S=0.033	T=0.452 S=0.043	T=0.587 S=0.008	T=0.498 S=0.023	T=0.714 S=0.001	T=0.719 S=0.001	T=0.888 S=0.000	

*T = Kendall's tau *S= Significance (2 tailed)

Null hypothesis 6: There was no significant correlation between ratings of the problematic areas in the failed subjects (in Survey Question C11) and ratings of another area.

Alternative hypothesis 6: There was a significant correlation between ratings of the problematic areas in the failed subjects (in Survey Question C11) and ratings of another area.

No Significant correlations were established i.e. H_0 was not rejected for areas. No Significant correlations were established i.e. Failure of different subjects, with different lecturers, methods of examination and assessment, academic demands etc. could be due to different reasons and the problematic areas would be subject dependent as well as individual dependent.

CHAPTER 5: DISCUSSION

5.1 RESPONDENTS

The total number of graduates over the 10 years that the course has been offered was 134, of which only 4 graduates proved to be untraceable. A total of 70 responses were received, of which 16 experienced subject failure and thus completed the entire questionnaire.

The questionnaire was designed to specifically investigate those students who had experienced a delay in qualification as a result of subject failure as it was hoped that this would serve to focus on the academic factors which played a role in this process. Whilst one cannot ignore that psychosocial factors may play a significant role in contributing to subject failure, it was recognised that very little could be done to control such events or situations which may inadvertently lead to subject failure. However, academic factors within the scope of the Institution may be re-orientated to improve throughput of students.

5.2 DEMOGRAPHICS

5.2.1 Gender

The statistical analysis of the demographic data revealed that 75% of the respondents who experienced a delay in qualification as a result of subject

failure were female. Due to the fact that no data was obtained from those graduates who did not fail a subject, it is impossible to compare this figure in order to gauge whether this figure is different to the percentage of females who did not experience subject failure. Traditionally, the course tends to have attracted more female students; 85 of the 134 graduates were female, the total female representation within this population is 65% which may account for the apparent statistical predominance of subject failure by females.

5.2.2 Ethnic Groups

Similarly, the analysis of the ethnic composition of the sample shows that the White and Indian groups predominated, making up 63% and 31% of the subject failures respectively, while there were no graduates from the Black or Asian groups who experienced subject failure. These figures may reflect the fact that during the last 10 years, the students who have applied for this course have largely been derived from two predominant groups and Black students, in particular, have been in the minority. Currently, however, there has been a substantial shift in this paradigm and there has been a noteworthy increase in the intake of Black students. Given the political history of South African Education, students from previously disadvantaged backgrounds may have an altogether different experience from the current population group, in completing a course of this nature. It will be valuable to re- assess this demographic in the future to see if, or what, changes occur in this statistic.

5.2.3 Language Preferences

As the course is instructed in English, it was interesting to note that despite the fact that 3 respondents did not complete English First Language as a subject in Matric and 4 respondents were not First Language English, only 1 of these respondents reported a language barrier as a significant factor which contributed to subject failure, and rated its significance as Extremely Important. In the formative years of the course, many of the subjects, due their scientific nature, are dependant on a student's ability to learn a significant amount of scientific and medical terminology. This is challenging enough for English speaking students, but one would expect it to be extremely difficult for students who are unfamiliar with English. Moreover, the majority of the textbooks which are available in these fields tend to be written in English. As previously mentioned, the intake of students has changed in recent years and with an increase in non- English students, it is possible that language barriers may become a more significant problem in the future.

5.3 EDUCATION RECORDS

5.3.1 Age

Students who were between the ages of 16 and 20 (effectively 18-20) made up 69% of the respondents who experienced subject failure. This suggests that it is likely that these students were coming directly from a secondary education environment into a tertiary education environment, or that they had

taken a gap year, or that they started but were not likely to have completed another higher education course. Only 3 respondents had a prior tertiary qualification and in no case was more than 1 qualification recorded. Ultimately, this indicates that the majority of students failing a subject at some point in their Master's Degree in Technology: Homoeopathy had little or no prior tertiary experience.

5.3.2 Matric

It seems reasonable in such cases to then examine High School, or more specifically Matric results, in relation to the success or failure at tertiary level. In this instance, no data was collected from those students who did not fail a subject and so meaningful statistical comparison between the 2 groups with this regard was not possible. However, as the admittance criteria for the course, as described in Chapter 2, is based on Matric results it seems logical that perhaps more attention needs to be paid to those subjects that form the necessary scientific basis for this course.

LeJeune's (2000) Three Dimensional Model of Factors in Student Attrition describes low academic preparation and working outside the zone of proximal development as 2 of the 3 major reasons for failure. It is important to correctly assess the calibre of applicants in these fields for the sake of both the applicant and the course, as inappropriate aptitude is likely to result in unnecessary failure in the formative years of the course. Such failure may result in low motivation, which is the third major factor which LeJeune (2000)

describes as a cause for student attrition. In such cases, the possibility of failure of multiple subjects or “drop out” from the course becomes a likelihood, which highlights the need for research to be done on those students who start but do not complete the course.

5.3.3 Calendar Year of First Registration

Students who first registered for the course between 1991 and 1995 made up 94% (15 out of 16) of the respondents who had failed a subject. Almost certainly these were not the only graduates who had experienced subject failure in the life of this course, however, it does indicate that this group of graduates clearly felt strongly enough about their experience to comment on subject failure and thus made up the majority of respondents. It is interesting to note, that during this time the entire country was undergoing a massive political transformation, which had a substantial effect on the Institution as a whole. One respondent commented: “1992 was pre-democratic South Africa so racism and poor cross cultural understanding was marked.” Whether or not this had any direct influence on the failure rate during this period remains to be seen but it does offer one possible explanation for the phenomenon.

The Department of Homoeopathy was also facing a volatile period during this time and was experiencing a particularly unstable phase within the ranks of leadership. There were several changes to the Head of Department and a number of active protests from the students regarding some of the members of the academic staff. One graduate, who requested not to be named,

described the situation as “pure hell! We had such unrest during that time that studying was almost impossible.”

Six of the respondents cited blatant discrimination as being rife during this period and suggested that this played a pivotal role in failure. “I feel that many people, who failed this subject, should not have. Black students didn’t get a year mark and Indian and Jewish students were discriminated against, as were any students who didn’t get on with the lecturer.” Another respondent commented, “There was unfair favouritism towards students. There was open discrimination against students that were not liked.”

5. 4. ACADEMIC FAILURE

5.4.1 Subjects with the Highest Incidence of Failure

Physiology II and Clinical Homoeopathy V were the subjects most failed according to the statistical analysis (5 and 3 failures respectively). From the respondents answers there were no unanimous reasons for why these two subjects in particular were failed the most.

5.4.2 The Year of Study in which Most Failures Occurred

It is interesting to note that the majority of subjects (82%) failed by the respondents were within the first 3 years of the course i.e. within the National Diploma part of the course and there were no subjects failed in the 4th year.

However, Clinical Homoeopathy V was one of the subjects with the highest incidence of failure which is in the 5th year.

5.4.3 Subjectivity and Inappropriate Assessment Procedures

The notion of “discrimination” was re- enforced by comments from some of the other respondents who described subjective procedures for examinations or tests as the source of their failure. One respondent commented “I was failed on a completely subjective practical exam along with another student with a year mark of over 80%. Although we did a supplementary examination, we were told before hand that he would fail us anyway. There was no academic justification!”

Two other respondents related similar stories of, as a result of illness, having to perform oral examinations which the respondents perceived as a disadvantage due the “subjective” nature of such an assessment procedure. In the past, marking memorandums lacked definition or were often poorly correlated with the intended objectives which were hoped to have been achieved. This opened the way for misinterpretation, bias, and ultimately subjectivity which gave the impression that this is just what was bound to happen. It protected neither the student nor the examiner from unjust allegations. With the outlook of preventing future failure of subjects, another respondent suggested that procedures should be in place to “prevent the abuse of power by examiners.” It is interesting to note that the statistical analysis revealed a bimodal pattern when graduates were asked to rate the

importance of methods of examination as a factor contributing to subject failure. 43, 75% felt that is was an Extremely Important factor, while 50% felt that it was of No Importance whatsoever. This distribution suggests that those respondents who had experienced difficulties with regards to inappropriate examination procedures felt that it was necessary to emphasize the importance of this factor, whilst those who experienced difficulties in other areas felt that methods of examination were immaterial to the outcome.

However, McEvoy and Welker (2000) state that academic failure is strongly related to the assessment techniques used to ascertain what students know and how well they know it. Felder and Brent (1999) recognised that tests perceived by students as “unfair” may be the leading cause of poor student evaluations of teaching. They go on to describe general tips for testing, including the reviewing of instructional objectives before and after each test. One respondent commented that the testing of the subject matter required “simply regurgitating” information presented in the textbook with very little room for assessing the understanding of the subject matter or the relevance of the matter to the profession.

With the introduction of Outcomes Based Education and Training (OBE) in South African Education in 1998, as discussed in Chapter 2, the need for clearly defined criteria has been identified. If this is transferred right the way through to the standards for assessment, evaluating criteria should be stringently defined in terms of “marking rubrics” rather than the outdated memorandums. Similarly, this should apply to all written, oral and practical

assessments. Following the principles of the Outcomes Based Education and Training system the “marking rubrics” should be made completely transparent to assure the students of fair objective assessment, avoid ambiguity, and give them the opportunity to accurately reflect what they know or have understood. Likewise, it will afford examiners clear and justifiable guidelines for assessing students and will eliminate the potential for false accusations regarding discrimination.

5.4.4 Learning styles vs. Teaching Styles

Felder and Brent (1999) identify 10 different learning styles (Appendix G) which are interrelated and observe that it is often a mismatch between learning styles and teaching styles which leads to poor results. The respondents were asked to rate the success with which various methods of delivering information was used. An apparent discrepancy in the response is discussed in Chapter 4. However, after classifying the methods into super-categories, statistical analysis revealed that the most successful means of delivering information, as perceived by the respondents, were hardcopy or “visual” techniques. This supports Felder and Brent’s (1999) statement that the majority of students’ learning styles are “visually based” rather than “verbally based”. And as Felder and Brent (1999) point out, 90- 95% of most course content is “verbally based”, which may account for the reason why hardcopy methods also appear highest on the graph depicting the Not Used column. There is an evident mismatch between the teaching styles and the predominant learning styles.

One respondent commented that: “We were taught straight from the textbook and required to recite parrot fashion; our lecturer did not explain anything… Lecturers should be evaluated on their ability to transfer knowledge to students”. This statement points to another learning and teaching style discrepancy namely, between inductive and deductive learning. As discussed in Chapter 2, the natural human learning style begins with observations and the learner then infers their own conclusions but in tertiary education, the principles are given and then conclusions deduced. This leads to the learners not being able to reach their own understandings.

5.4.5 Factors related to the Lecturer and Institution, or to the Individual Student

The respondents rated Heavy Course Workload and Poorly Structured Presentations by lecturers as the two most important factors which generally contributed to subject failure. In the research conducted by Ditcher and Tetley (1999) out of a possible 19 positions, these factors ranked 8 and 6 according to students, and 15 and 16 according to academic staff. The next highest rated factors by respondents of this study were: Inappropriate Assessment Procedures; Irregular or Insufficient Feedback from Lecturers; Lecturers who were out of Touch with Students’ Needs; and Insufficient Support Programmes. These findings show that the respondents emphasized the factors for which the lecturer or institution was responsible rather than the factors which place the blame on the individual student.

Factors which were perceived as having no significant role in contributing to subject failure included: Insufficient Effort; Poor Literacy; Misunderstanding Requirements; Family or Personal Difficulties; Inability to Balance Study and Social Life; Poor Lecture Attendance; Inadequate Resources; Financial Problems; Lack of Ability; Lack of Maturity; Inappropriate Career Choice; and Lack of Time Allocated to Instruction.

It is interesting that the factors which were perceived to have had no significance were those which related either to inner motivational factors relating to the student or external psychosocial factors. Yet when requested to comment on external pressures which may have contributed to subject failure, a number of the respondents cited some of these very factors as reasons contributing to subject failure. One respondent mentioned that "regrettably in hindsight, bunking lectures to go to movies" probably contributed to subject failure. Several respondents commented on the fact that being away from home during studying placed strain on them, and one respondent mentioned that travelling long distances to and from campus created difficulties in terms of time management.

One apparent discrepancy which arose was that, although the respondents rated Heavy Course Workload as one of the highest factors which contributed to subject failure, none of them perceived themselves to have been Extremely Challenged by the nature of the subject matter. The categories for No Challenge, Fairly Challenged, and Very Challenged all received equal ratings.

5.4.6 Motivation

Another factor which was regarded as significant by some of the respondents was Lack of Motivation. As previously mentioned this is one of the three main factors described by LeJeune (2000) as a reason for failure. While most respondents rated their level of motivation in studying in general as excellent, good or fair, 5 of the respondents went on to qualify this by saying that this however, did not apply to the subjects that they had difficulty with. One respondent commented: “The motivation or focus was not that good with the subjects that I did not enjoy.”

In response to the question of how to prevent future subject failure, 4 of the respondents suggested that motivating students was the key to success. 3 respondents suggested that the subject matter should be made more relevant by referring it to the reality of general practice. 5 respondents felt that a more even distribution of the workload over the years and more integrated approach within the curriculum was required, “The subjects need to be focused on details that we will actually need and use in practice” and “all irrelevant subject matter should be cut out”. These points formed the crux of the re- curriculation process which intends to orientate the Homoeopathic course towards a more practically directed outcome.

Outcomes Based Education strives towards “defining, organising, focusing and directing all aspects of an instructional and accrediting system in relation

to the things we want all learners to demonstrate successfully when they leave the system" (SAQA, 1998). During the Departmental meeting concerning re- curriculation which was held early in 2005, much of the discussion centred around the issue of how to re- distribute the workload of the course by concentrating on the integration of major subjects so as to attain clearly defined outcomes. Whereby an outcome is defined as, "a high quality *(thorough and complete)* culminating *(at or after the end*) demonstration *(performance)* of significant *(powerful or substantial)* learning in context *(important/ relevant settings)* " (Durban Institute of Technology, 2002).

Although this substantial change to the philosophy of education should provide a better framework for the future of South African Homoeopathic Education, a high quality lecturer remains invaluable to this process. In the words of one of the respondents: "I definitely would have been more motivated, and would have had a better understanding of the subject, with a lecturer that was more passionate about his field of expertise."

It is difficult to accurately describe or assess what makes a "good lecturer" but the Durban Institute of Technology Induction Manual for Academic Staff (2002) describes some techniques which, according to research, are practiced by effective teachers in higher education. These include: good organisation of subject matter including relevance and coherence of content; flexibility in approaches to teaching and learning; effective communication; and knowledge and enthusiasm for subject matter. The latter part of this statement very clearly supports the point to which the respondent alluded.

Another “good” technique which was suggested was “critical reflective orientation to teaching including effective use of feedback to guide learning and improve teaching.” Interestingly, Irregular or Insufficient Feedback from Lecturers was one of the factors which the respondents rated fairly highly as a factor contributing to subject failure. In the open ended questions, 2 respondents suggested that more frequent assessments were required to prevent future subject failure.

5.4.7 Study Methods

The majority of respondents claimed that their general study habit was daily revision. What was not stipulated was whether the time which they dedicated to studying was evenly distributed between numerous subjects or focused towards particular subjects. Therefore, it is difficult to assess what the relationship of study habits and subject failure might actually be. However, none of the respondents claimed to have only studied the Night before a Test or to have done No Studying at all.

5.4.8 Help Seeking Behaviour

When the respondents experienced difficulties with subject matter, the statistical analysis revealed that they were most likely to approach class mates for assistance. As discussed in Chapter 4, the results were able serve as a broad measure for describing who the respondents could approach, but not how often they would approach them. The fact that approaching a class

mate was preferable to approaching the lecturer suggests that perhaps this is an opportunity for providing a support system for students who are experiencing difficulties. Interestingly, Insufficient Support Programmes was one of the factors which respondents rated fairly highly as a factor contributing to subject failure. The concept of a mentorship programme run by students is not a new one, but in this context may provide a valuable service to students who may be struggling with certain aspects of this course.

5.4.9 Multiple Subject Failure

It was also noted that of the 16 respondents who experienced a delay in qualification as a result of subject failure, several of them failed more than one subject. Based on the fact that all these students then still proceeded to successfully graduate from the course, it seems unreasonable to suggest that it was simply a lack of ability that resulted in the subject failure. It is likely that in such cases, multiple factors may have played a role and so it is difficult to draw accurate conclusions regarding a general trend for the failure of more than one subject.

However, there is a possibility that these students may have shared a common problem, for example, if they had all lacked the studying techniques required generally for tertiary education. Several of the respondents identified this as the main reason for their subject failure. One respondent commented, “The motivation was there but the skill of how to study was lacking.” In order to prevent future failure of subjects one respondent strongly suggested that

students need to be taught how to study. This is an area which the Department of Homoeopathy has recognised as an opportunity to improve upon and during the re- curriculation process has suggested that a module on studying techniques be covered before the commencement of formal lectures at first year level.

Linked to the notion that students may have lacked the studying techniques required for success, is poor time management and organisational skills. This factor was rated moderately high as a factor contributing to subject failure. One respondent suggested that at first year level, time management skills should be incorporated to address this problem and assist those students who may be battling to come to terms with the different approach required for tertiary education study as opposed to secondary education study. Another factor which was regarded as significant in contributing to subject failure was the Inability to Manage Stress. Perhaps if time management skills were addressed then students may find that their ability to cope with stress may improve.

The Critical Outcomes of the National Qualifications Framework (NQF) are those outcomes deemed critical for the development of the capacity for life long learning. One would think that skills in studying techniques and time management fall squarely into this category and the suggestion that these should be introduced early in the course is perhaps a very desirable decision which could be taken by the Institution to reduce failure and provide an education which is orientated towards successful graduates.

5.4.10 Research

The statistical analysis of the time taken to complete research, as discussed in Chapter 4, suggested a definite trend in that a major cause of delayed qualification is the research component of the course. This study did not focus on this aspect of the course but the findings suggest that this area in particular requires further investigation. A recent change to the Rules which apply to the M.Tech: Hom have already attempted to remedy this problem, in so as to limit a student to 2 years, after registering for the 5th year, in which to complete their research, after which re-registration will be denied. It will be interesting to see in the years to come if or what impact this may have on delays in qualification.

5.5 CORRELATION TESTS

Correlation tests were performed on all of the data which was collected from the respondents. Two things are interesting to note regarding Delivery of Information:

1. There is a high degree of inter- correlation among all the responses to Survey question C6 i.e. if a respondent rated a problem with delivery method A then he/she is more likely to rate a problem with delivery method B. As this question dealt with methods of information delivery used, a high level of difficulty with one method of delivery is significantly correlated with a high level of difficulty with other methods. This reflects either the nature of the

information being delivered (academically challenging), a general problem with information delivery or respondents' inability to receive information (leading to them rating the delivery method as a problem).

2. There were no negative correlations. This reflects the fact that the survey is questioning problem areas without necessarily highlighting areas of success. This further supports the contention that a general problem exists, either with the methods of delivery or with the students' inability to receive information irrespective of the method.

5.6 FOCUS GROUP

The focus group members were quick to express their "serious concerns" with the current Homoeopathic Education and Training. One member felt, as Hill, Perry and Stein (1998) had mentioned, that the course had failed to evolve to meet the needs of current practice. It was unanimous that re- curriculation was essential for ensuring the growth of the profession.

The role of Outcomes Based Education and Training (OBE) and the introduction of a formal module addressing Studying Skills was considered, by the members of the focus group, a vital step in correcting the problem of subject failure. One member also mentioned that "Computer Literacy" should also be considered as an extra module, in order for Homoeopathic students to make full use of information technology as an education tool.

In order to address subject failure within the formative years, the focus group suggested that more “Homoeopathic- specific” subjects should be introduced earlier in the course to keep students motivated and focused towards the objectives of why they chose to study the course. One member also suggested that the profession as a whole needs to be more active in taking responsibility for assisting the education process. This could be achieved by offering an “in service” support learning programme, whereby, students in the early years should be encouraged to spend time in private practice with various practitioners, to expand their understanding of the profession and gather valuable experience.

5.7 IN CONCLUSION

Numerous factors contributed to subject failure, and this study has shown that the students placed more emphasis on the factors relating to the lecturer or institution rather than on the factors relating to themselves as the main reasons for subject failure. This is accordance with Killen’s (1994) and Ditcher and Tetley’s (1999) findings. From this perspective, further studies could be undertaken to investigate lecturer’s perceptions of subject failure to see if the reverse is true- namely that the lecturers tend to place the blame on the students. The most striking factor in this research was the discrepancy between learning styles and teaching styles and this is where the focus of re-curriculation should be in order to prevent future subject failure.

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

In conclusion, subject failure and delayed qualification is a multi- factorial problem. One has to look at each individual factor in order to improve pass rates and reduce the delays in qualification. It is certainly, however, an area which requires further investigation in the future in order to obtain more conclusive results.

- A significant area of the demographic data collection which was unfortunately overlooked was those graduates who did not fail any subjects; this prevented making accurate comparisons so as to draw conclusions about so-called “high risk” or “low risk” candidates for subject failure. It is recommended that this should be investigated so that admittance criteria could be re- evaluated accordingly.

- This study should be repeated and should incorporate the perceptions of students who did not experience subject failure.

- Students who had not as yet completed their research were not considered graduates and so fell outside the inclusion criteria of this study. It may be significant to investigate if any of those students who had not completed their research are also students who failed subjects, and thus experienced a delay in qualification in both the academic aspect and the research aspect of the course.

- No data was collected from graduates who dropped out of the course. It is recommended that this population should be investigated in the future.

- It is recommended that this questionnaire be administered to academic staff, to investigate if any significant differences in perception exist from the graduates.

- This study should be repeated every 5 years to determine if any changes in trends occur.

- The psychosocial factors surrounding subject failure should be investigated in the future.

- Delays in qualification as a result of other components of the course, such as research and internship should be investigated in the future.

- It is recommended that a comparative study be done between Chiropractic graduates and Homoeopathic graduates with regards to subject failure in the formative years of the course.

- An institutional survey should be done to investigate how Homoeopathy graduates compare to graduates from other faculties/ departments.

- An inter- institutional comparison between Homoeopathy students at University of Johannesburg and Durban Institute of Technology should be done.

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APPENDIX A
Questionnaire

This questionnaire has been divided into 3 parts:
Part A is demographic data
Part B is data relating to education records
Part C is data relating to academic progress.

Participants are requested to complete ALL parts of the questionnaire, unless otherwise indicated!

Instructions:

- Please mark the appropriate block by either ticking, circling, or placing a cross in the appropriate block.
- All participants are requested to complete the questionnaire in pen.
- Where it is required that comments be made, please print all answers.
- Where it is required that a subject code be entered, please use the code allocated in question 4.0 of Part C of the questionnaire.

Definitions:

Subject Failure: *The failure to successfully pass an examinable subject on first attempt at the subject with the implication that the subject will have to be repeated the following year/ semester. (If a subject passed after a supplementary examination, and the subject will not be repeated, it will not be considered a "subject failure".)*

Delayed qualification: *A qualification which is not completed within the minimum formal time for qualification, in the case of M.Tech: Homoeopathy: 5 years*.

If there are any queries please do not hesitate to contact the researcher, your input is extremely valuable.
Many thanks for participating in this research.

Miss Michelle Courage
(Research student)
083 424 3287
(031) 466 2664

Dr I Couchman (M Tech Hom)
(Research Supervisor)
(031) 204 2041

Part A: Demographic Data

1.1 Name:

Full Name	

*** If you have not failed any subjects during your homoeopathic course please simply fill in your name and return this questionnaire. If you have failed any subjects during your homoeopathic course please complete the questionnaire and then return it.**

1.2 Gender:

Male	1
Female	2

1.3 Age Category:

21- 25 years	1
26- 30 years	2
31- 35 years	3
36- 40 years	4
> 40 years	5

1.4 Ethnic Group (for statistical purposes):

Asian	1
Black	2
Coloured	3
Indian	4
White	5
Other	6

1.5 Current Marital Status:

Single	1
Married	2
Divorced	3
Widowed	4

1.6.1 First Language

Afrikaans	1
English	2
isiNdebele	3
isiSwazi	4
XiTsonga	5
seTswana	6
TshiVenda	7
isiXhosa	8
isiZulu	9
Sepedi	10
SeSotho	11
Other: (Please specify):	

1.6.2 Second Language

Afrikaans	1
English	2
isiNdebele	3
isiSwazi	4
XiTsonga	5
seTswana	6
TshiVenda	7
isiXhosa	8
isiZulu	9
Sepedi	10
SeSotho	11
Other: (Please specify):	

Part B: Education Records

1.1 Calendar year of first registration at DIT/ Technikon Natal for Homoeopathy course:

1988	1
1989	2
1990	3
1991	4
1992	5
1993	6
1994	7

1995	8
1996	9
1997	10
1998	11
1999	12
2000	13
2001	14

1.2 Your age at the time of your first registration at DIT/ Technikon Natal for Homoeopathy course:

years

2.1 Calendar year when your fifth year was completed:

2.2 Calendar year when your research was completed:

2.3 Calendar year when you qualified:

2.4 Calendar year when you graduated:

3.1 Matriculation results:

Matric exemption	1
Senior certificate	2

3.2 Please indicate which of the following you completed as matric subjects and what your respective results were:

Subject	Did not complete as a matric subject	Higher Grade		Standard Grade	
		> 70%	< 70%	> 70%	< 70%
Mathematics					
Physical Science					
Biology					
English 1st language					
English 2nd language					
Accounting					
Computer Science					

---

4. Please list all <u>tertiary qualifications</u> that you have completed prior to registration for your homoeopathy course, please include the institution and year where you completed it.

	Qualification	Institution	Year of completion
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

---

5. Did you receive any credits or exemptions for any of the subjects in the homoeopathic course? Please specify which subjects.

	Subject
1	
2	
3	
4	
5	
6	
7	

Part C: Academic Progress

1. Which subject/s did you fail? (please indicate ALL relevant subjects)

Year 1

Anatomy I	A
Physiology I	B
Philosophy, Principles & History I	C
Biology I	D
Chemistry I	E
Physics I	F
Basic Pathology (Prior to 1996)	G

Year 2

Anatomy II	H
Biochemistry II	I
Epidemiology I	J
General Pathology II	K
Medical Microbiology I	L
Physiology II	M
Social Studies	N

Year 3

Diagnostics III	N
Psychopathology II	O
Materia Medica III	P
Systemic Pathology III	Q
Auxiliary Therapy	R
Introduction to Psychiatry (prior to 1995)	S
Practice Management & Jurisprudence (Prior to 1994)	T

Year 4

Diagnostics IV	U
Clinical Homoeopathy IV	V
Materia Medica IV	W
Homoeopharmaceutics IV	X
Research Methods & Techniques	Y

Year 5

Practice Management & Jurisprudence V	Z
Clinical Homoeopathy V	AA
Materia Medica V	BB
Research Project and Dissertation	CC

Other subject not previously listed

	DD

(*NB The alphabetical code given above will be used later when you are required to fill in subject codes***)**

2. Considering the subject failure/s overall, please rate the following factors according to their importance as contributing factors to subject failure.

Factors		0	1	2	3	4
		Not important	Slightly important	Fairly important	Very important	Extremely important
Lack of motivation	1					
Insufficient effort	2					
Poor time management	3					
Inappropriate assessment/ examination procedures	4					
Inability to manage stress	5					
Poorly structured presentations by lecturers	6					
Poor literacy skills	7					
Lecturers who are out of touch with students needs	8					
Heavy course workload	9					
Misunderstanding of course requirements	10					
Personal or family difficulties	11					
Inability to balance study & social commitments	12					
Irregular & insufficient feedback from lecturers	13					
Poor attendance of lectures	14					
Inadequate resources (libraries, textbooks, etc.)	15					
Financial problems	16					
Lack of academic ability	17					
Lack of maturity	18					
Insufficient learning support programmes	19					
Inappropriate choice of course/ career	20					
Time allocated to instruction of subject	21					
Self Esteem	22					

3.1 Was the allocated lecture time appropriate for the subject matter regarding the failed subject/s?

Subject	0	1
	Yes	No
1.		
2.		
3.		
4.		
5.		

3.2 If you answered "yes" in 4.1: proceed to 5.1.
If you answered "no" in 4.1: **Did this contribute to the subject failure?**

Subject	0	1
	Yes	No
1.		
2.		
3.		
4.		
5.		

4.1. Did any personal conflict with the subject lecturer exist?

Subject	0	1
	Yes	No
1.		
2.		
3.		
4.		
5.		

4.2 If you answered "No" in 4.1: proceed to 5.1
If you answered "Yes" in 4.1: **How important was this personal conflict in contributing to the subject failure?**

Subject code	0	1	2	3	4
	Not important	Slightly important	Fairly important	Very important	Extremely important
1.					
2.					
3.					
4.					
5.					

4.3 Please elaborate on your answer in 4.1.

1. Subject code:
Comment:
2. Subject code:
Comment:
3. Subject code:
Comment:
4. Subject code:
Comment:
5. Subject code:
Comment:

5.1 Were the methods of examination appropriate regarding the failed subject/s?

Subject	0	1
	Yes	No
1.		
2.		
3.		
4.		
5.		

5.2 If you answered "yes" to 5.1: Proceed to 6.1

If you answered "no" to 5.1**: Please indicate how important you consider this to be in contributing to your subject failure?**

Subject code	0	1	2	3	4
	Not important	Slightly important	Fairly important	Very important	Extremely important
1.					
2.					
3.					
4.					
5.					

6. Considering the methods used to "deliver information" in the subject/s failed, please rate the success of each method in helping your understanding of the subject matter:

Method	0	1	2	3	4
	Not used	Used with no success	Used with slight success	Used with fair success	Used with great success
Lecturer explaining concepts in class					
Lecturer answering questions during class					
Lecturer answering personal queries					
Lecturer dictating notes					
Lecturer using overhead projected notes					
Lecturer providing pre- printed notes					
Lecturer using audio/visual displays					
Self study assignments					

---

7. Please comment on the availability of other source material on the subject/s failed: *(e.g. in libraries, on the internet, textbooks etc)*

1. Subject code:
Comment:
2. Subject code:
Comment:
3. Subject code:
Comment:
4. Subject code:
Comment:
5. Subject code:
Comment:

8.1 Did you have any language barriers?

Subject Code	0	1
	Yes	No
1.		
2.		
3.		
4.		
5.		

8.2 If you answered "No" in 8.1: Proceed to 9

If you answered "Yes" in 8.1: **Please rate how important the language barriers were in contributing to the subject/s failure.**

Subject code	0	1	2	3	4
	Not important	Slightly important	Fairly important	Very important	Extremely important
1.					
2.					
3.					
4.					
5.					

9. Please rate the level to which you were academically challenged by the specific nature of the subject/s failed?

	Not challenged	Slightly challenged	Fairly challenged	Very challenged	Extremely challenged
Subject code	0	1	2	3	4
1.					
2.					
3.					
4.					
5.					

10.1 Please rate on the scale how relevant and/ or important you consider the failed subject(s) to be to the profession:

Subject code	0	1	2	3	4
	Not important	Slightly important	Fairly important	Very important	Extremely important
1.					
2.					
3.					
4.					
5.					

10.2 Did the relevance of the subject to the profession have an influence on your performance in the subject/s failed?

Subject	0	1
	Yes	No
1.		
2.		
3.		
4.		
5.		

10.3 If you answered "No" to 10.2: Proceed to 11

If you answered "Yes" to 10.2**: Please explain how it influenced your performance in the subject/s failed.**

1. Subject code:
Comment:
2. Subject code:
Comment:
3. Subject code:
Comment:
4. Subject code:
Comment:
5. Subject code:
Comment:

11. Please indicate which area(s) of the education medium you found to be problematic in the subject/s failed:

1. Subject code:	
Lecture component	1
Practical component	2
Self Study component	3
Tests	4
Exams	5
Assignments	6
Other	7
2. Subject code:	
Lecture component	1
Practical component	2
Self Study component	3
Tests	4
Exams	5
Assignments	6
Other	7
3. Subject code:	
Lecture component	1
Practical component	2
Self Study component	3
Tests	4
Exams	5
Assignments	6
Other	7
4. Subject code:	
Lecture component	1
Practical component	2
Self Study component	3
Tests	4
Exams	5
Assignments	6
Other	7
5. Subject code:	
Lecture component	1
Practical component	2
Self Study component	3
Tests	4
Exams	5
Assignments	6
Other	7

12.1.1 Studying was generally done…

On a daily basis	1
On a weekly basis	2
At the end of a chapter	3
Only in preparation for a test	4
The night before a test	5
No studying was done!	6

12.1.2 Please describe in detail your study methods in general:

12.1.3 Please indicate your level of motivation in studying in general:

None	Poor	Fair	Good	Excellent
0	1	2	3	4

12.2 Please comment on the answers you have given above:

13.1 When/ if you experienced difficulty with the failed subject(s), did you seek help?

Subject	0	1
	Yes	No
1.		
2.		
3.		
4.		
5.		

13.2 If you answered "No" in 13.1: Proceed to 14.
If you answered "Yes" in 13.1: **From whom did you seek help?**

Subject code	Lecturer	Librarian	Class mates	Student in higher year of study	Other professional
1.					
2.					
3.					
4.					
5.					

13.3 If you asked for help from the subject lecturer, how useful was his/her help?

Subject code	0	1	2	3	4
	Did not help	Helped but not useful	Helped, fairly useful	Helped, very useful	Helped, extremely useful
1.					
2.					
3.					
4.					
5.					

---

14. Please describe any external pressures not previously mentioned that may have led to subject failure:

15.1 With the outlook of preventing future failure of subjects, what areas do you think should be addressed?

15.2 What prevented you from giving up after failing a subject(s)?

16.1 What subjects do you feel that you did well in?

16.2 What made it possible for you to do well in these subjects?

Thank you for completing this questionnaire and for participating in this survey!

APPENDIX B

PRACTITIONER INFORMED CONSENT DOCUMENT

TITLE OF RESEARCH PROJECT:

A Perceptional Study to Investigate Subject Failure as an Academic Reason for Delayed Qualification in Masters Degree in Technology: Homoeopathy at Durban Institute of Technology.

NAME OF SUPERVISOR: Dr I.M.S Couchman (M Tech: Hom)

Date: _____

Please circle the appropriate answer

Have you read the research information sheet?	Yes	No
Have you had an opportunity to ask questions regarding this study?	Yes	No
Have you received satisfactory answers to your questions?	Yes	No
Have you had an opportunity to discuss this study?	Yes	No
Have you received enough information about this study?	Yes	No
Who have you spoken to?		
Do you understand the implications of your involvement in this study?	Yes	No
Do you understand that you may withdraw from the study? a) At any time b) Without having to give any reason for withdrawing	Yes	No
Do you agree to voluntarily participate in this study?	Yes	No

If you have answered "no" to any of the above, please obtain the necessary information before signing.

I, _____ hereby agree to participate in a study that will look at Homoeopathic graduate demographics, Subject Failure and my perceptions of homoeopathic education.

I am aware that this involves answering certain questions regarding my delayed qualification due to subject failure.

Please print in block letters:

Practitioner's name: _____ Signature: _____

Witness name: _____ Signature: _____

Research student name: Michelle Courage Signature: _____

APPENDIX C

25 Culbin Place
Bluff
Durban
4052

Dear Homoeopathic Graduate

I am currently conducting research for my M Tech: Homoeopathy Degree, and would greatly appreciate your participation in this project. The title of the research is: *A Perceptional Study to Investigate Subject failure as an Academic Reason for Delayed Qualification in Master Degree in Technology: Homoeopathy at Durban Institute of Technology*.

I am investigating various aspects of homoeopathic education from the commencement of the course until present graduation. My research objective is to investigate subject failure as a reason for delayed qualification in M.Tech: Homoeopathy from the perspective of the "students". Students are in the unique position to comment on their experience of subject failure and the subsequent delay it caused in their qualification. More importantly, I would like to investigate the "academic factors" which in some way contributed to failure. These factors have the potential to be altered in the future, whereas other "emotional" and "personal" factors are less controllable. I have chosen to investigate particularly those students who have experienced subject failure and then still proceeded to qualify, because these are the people whom the delay in qualification has an impact on.

Participation in this study has no potential risks, as you will remain anonymous and your answers will be used for statistical data. The questionnaire is sent to all graduates so that there is no need to identify only those graduates who have failed a subject in advance. You are requested to fill in your name at the top of the questionnaire, which will be deleted by the independent person who receives the questionnaires. The independent receiver HAS NO ASSOCIATION WITH THE HOMOEOPATHIC PROFESSION. Your name will then be ticked of the list of graduates so that a response rate can be determined. Thereafter, it will not be possible to identify which responses came from which graduates, and anonymity will be ensured.

There are no direct benefits to the participants of this research, nor to the researcher herself. However, ultimately the study hopes to lay the foundations for subsequent research and to facilitate improvement of homoeopathic education and development of the profession as a whole and the results will be published and made available for public viewing in the DIT library.

There will be no costs involved for the majority of participants of this study, as a self-addressed envelope will be provided and postage fees will be borne by the researcher. If however, the participants elect to receive and respond to the questionnaire via e-mail or fax then the participants will be liable for the costs involved in **responding** via e-mail or fax (i.e. the cost of a local call for e-mail or the cost to fax the response.)

Hand delivery of the questionnaire is also possible, at no foreseeable costs to the participants.

Attached you will find a questionnaire, which you are requested to complete and return after you have responded.

The information divulged in the questionnaire is strictly confidential, and will only be collectively published as statistics, which will be available in the DIT library after the completion of the research. The original questionnaires will be stored for 5 years in a locked cabinet, to which only the researcher and her supervisor will have access, and then shredded.

My contact details are included should you have any queries or require further information.

Please use the following return address: The Faculty Assistant
Miss I Sukhu
DIT Faculty of Health
PO BOX 1334
Durban
4000

Or if hand delivered: Miss I Sukhu
Room MS 49
Mansfield school
Durban
4001

Or email: sukhui@dit.ac.za
Please make the subject of the email: Michelle Courage, A Perceptional Study to Investigate Subject failure as an Academic Reason for Delayed Qualification in Master Degree in Technology: Homoeopathy at Durban Institute of Technology.

Many thanks for your participation in this research!

Yours sincerely

Michelle Courage
Cell: 083 424 3287
Tel: (031) 466 2664

Dr I.M.S Couchman (M Tech: Hom)
Research Supervisor
(031) 204 2041

APPENDIX D

Pilot assessment form

A Perceptional Study to Investigate Subject Failure as an Academic Reason for Delayed Qualification in Masters Degree in Technology:Homoeopathy at Durban Institute of Technology.

Once you have completed the questionnaire you are required to fill out the following assessment form. Comments can also be written on the questionnaire itself. All gathered information will be useful to us to ensure that the intended results of the survey are achieved.

Please answer and elaborate on the following:

1. Time taken to complete the questionnaire _____
2. Do you feel the time taken to complete the questionnaire was too long?
   _____
   _____
   _____
3. Is the presentation and layout of the questionnaire appropriate?
   _____
   _____
   _____
4. Were the instructions easy to follow?
   _____
   _____
   _____
5. Were the questions clear?
   _____
   _____
   _____
6. Did they follow a logical sequence?
   _____
   _____
   _____
7. Were any questions irrelevant?
   _____
   _____
   _____
8. Additional comments
   _____
   _____
   _____
   _____

_____
_____
_____
_____
_____
_____
_____
_____
_____

Thank You for your cooperation

Yours Sincerely

Michelle Courage
Research Student

Dr I.M Couchman
Supervisor

APPENDIX E

25 Culbin Place
Bluff
Durban
4052

Dear Homoeopathic Graduate

Thank you for your participation in the research study on subject failure as an academic reason for delayed qualification at Durban Institute of Technology (DIT).

The information supplied has been valuable to the ongoing education and training of South African homoeopaths. Please do not hesitate to contact us should you have any further questions. A copy of the research study will be available at the Durban Institute of Technology (DIT) library.

I wish you all the success in the future.

Sincerely

Michelle Courage
Research student
083 424 3287
(031) 466 2664

Dr I.M.S Couchman (M Tech: Hom)
Supervisor
(031) 204 2041

APPENDIX F

According to the Faculty of Health Sciences 2005 Department of Homoeopathy Rule Book, the following rules dictate the criteria for qualification:
"**NATIONAL DIPLOMA: HOMOEOPATHY**

LY.HN1 DEFINITIONS

"Approved" means approved by the Minister of Education.
"Council" means The Allied Health Professions Council of South Africa.
"Department" means the Department of Education
"Minister" means Minister of Education.
"Senate" means the Senate of the Durban Institute of Technology

LY.HN2 DURATION OF THE PROGRAMME

The minimum formal time is three years. A student must meet all the requirements of the programme in terms of the general policy for norms and standards as approved by the Minister and as stipulated by the Durban Institute of Technology and the Council. Successful completion allows national diploma status but no diploma is awarded or issued nor will the holder be able to register as a homoeopath.

LY HN3 ENTRANCE REQUIREMENTS

Persons applying must be in possession of a senior certificate with matriculation exemption. Subjects must include mathematics on higher grade, physical science on higher grade and/or biology on higher grade.

LY HN4 INSTRUCTIONAL PROGRAMME

The instructional programme consists of a minimum of eight (8) Level One subjects, six (6) Level Two subjects and four (4) Level Three subjects.

Course Code: NDHOMI

Sapse Code	Register Code	Subjects	*Periods Week	
			Theory	Prac
150311912	ANTY102	Anatomy I (Major subject)	2	8
150312712	PHSY101	Physiology I (Major subject)	5	4
180101612	PPHS111	Philosophy, Principles & History I (Module I)	3	
	PPHS121	Philosophy, Principles & History (Module II) (Minor Subject)	3	
150312712	BIOG102	Biology I (Major subject)	4	4
159417112	CHHC102	Chemistry I (Major subject)	5	4
150710512	PHHC101	Physics I (Minor subject	2	3
150314722	ANAT202	Anatomy I I (Major subject)	2	8
150411222	BCHE202	Biochemistry II (Major subject)	5	4
090106222	EPHC201	Epidemiology I (Major subject)	4	4
090107722	GPAT201	General Pathology II (Major subject)	5	4
150316122	MMIC201	Medical Microbiology II (Minor subject)	4	5
150309722	PHSI201	Physiology II (Major subject)	5	4
220601212	SSTU101	Social Studies I (Minor subject)	5	

090107903	DIAG301	Diagnostics III (Major subject)	8	4
090215822	PHYP201	Psychopathology II (Minor subject)	5	
090400103	MMED301	Materia Medica III (Major subject)	6	5
090110003	SYPA301	Systemic Pathology (Major subject)	6	4
090110003	ACTH302	Auxiliary Therapeutics (Minor subject	3	4

LY.HN5 EXAMINATIONS

1. Internal examinations are conducted by the Durban Institute of Technology in all subjects.
2. The nature, time and extent of each examination will be determined by the Durban Institute of Technology.

LY.HN6 PASS REQUIREMENTS

1. A student must obtain a minimum of 50% in a subject to pass that subject.
2. The examination mark contributes 60% and the year mark contributes 40% towards the final result.
3. A sub-minimum applies to each theory, oral and practical examination. Similarly, a sub-minimum applies to the year/semester mark. This sub minimum is 50% for Materia Medica 11 1, and 40% for all other subjects.
4. Subject successes may be accumulated, except in the case of Materia Medica III when Rule LY.HN6.8 applies.
5. A first-year student who fails three or more subjects with an average of less than 40% in the failed subjects during that year is not permitted to re-register in the Department of Homoeopathy or the Department of Chiropractic. De-registration from any subject is subject to the provisions of Rule G6.
6. A student is not allowed to register for the fourth year if he has not completed an accredited course in First Aid, as approved by the Head of Department, or its equivalent.
7. Notwithstanding Rule G12 (10) a year/semester mark obtained for any subject is only valid for the main examination in the year/semester in which the student is registered plus the supplementary examination in that subject if granted to the student in terms of Rule G13(3).
8. A student who fails any subject in the third year must re-register for that subject as well as for Materia Medica III and Diagnostics III, with any previously attained year marks for the failed subject/s and Materia Medica III and Diagnostics III falling away.
9. A student who fails any subject after two registrations for that subject, is not permitted to re-register in the Department of Homoeopathy. This applies regardless of whether the student was registered as a Chiropractic or Homoeopathic student when he first failed the subject.

Pre-requisite and complementary subjects:

SECOND YEAR		
Subject	**Pre-requisite subject(s)** which a student must pass before registering for the subjects specified n the extreme left hand column. (Rule G1 (m) refers)	**Complementary subject(s**) which a student must register and write all tests and examinations, but not necessarily pass, prior to, or simultaneously with, the subject(s) specified in the extreme left hand column. (Rule G1 (b) refers)
Biochemistry II	Chemistry I Physiology I	Physiology I

	Biology I	
General Pathology II	Biology I Anatomy I Physiology I	Physiology II Medical Microbiology II Epidemiology II
Epidemiology II	Biology I	Medical Microbiology II
Physiology II	Biology I Physiology I Chemistry I Physics I	Biochemistry II General Pathology II
THIRD YEAR		
Subject	**Pre-requisite subject(s)** which a student must pass before registering for the subjects specified n the extreme left hand column. (Rule G1 (m) refers)	**Complementary subject(s**) which a student must register and write all tests and examinations, but not necessarily pass, prior to, or simultaneously with, the subject(s) specified in the extreme left hand column. (Rule G1 (b) refers)
Auxiliary Therapeutics	Physiology II Anatomy II General Pathology II	Systemic Pathology II
Diagnostics III	All 1st year and 2nd year subjects	Systemic Pathology 11 Biochemistry II
Psychopathology II Materia Medica III	Social Studies II All 1st year and 2nd year subjects	Medical Microbiology II Biochemistry II General Pathology II
Systemic Pathology III	General Pathology II Anatomy II Physiology II	

BACHELOR'S DEGREE IN TECHNOLOGY: HOMOEOPATHY

LY.HB1 DEFINITIONS

"Approved" means approved by the Minister of Education.
"Minister" means Minister of Education
"Council" means The Allied Health Professions Council of South Africa.
"Institution" means the Durban Institution of Technology.
"Senate" means the Senate of Durban Institution of Technology

LY.HB2 DURATION OF THE PROGRAMME

The minimum formal time is one year. A student must meet all the requirements of the programme in terms of the general policy for norms and standards as approved by the Minister and as stipulated by the Durban Institute of Technology and the Council. Successful completion allows B.Tech degree status but no degree is awarded or issued nor can the holder register as a homoeopath.

LY.HB3 ENTRANCE REQUIREMENTS

1. National Diploma: Homoeopathy

2. The Head of Department may recommend to the Senate that certain appropriate overseas qualifications be considered to grant status of National Diploma: Homoeopathy.

LY.HB4 INSTRUCTIONAL PROGRAMME

Course Code: BTHOM1

Sapse Code	Register Code	Subject	Period /Week	
			Theory	Prac
090108006	DIAG401	Diagnostics IV	6	3
090400406	CHOM401	Clinical Homeopathy IV	4	20
090401106	HPHM401	Homoeopharmaceutics IV	4	4
090400306	MMED401	Materia Medica	6	
150308312	RMT0102	Research Methods and Techniques I	2	

LY.HB5 EXAMINATIONS

Internal examinations are conducted by the Durban Institute of Technology in all subjects.

LY.HB6 PASS REQUIREMENTS

1. A student must obtain a minimum of 50% in a subject to pass that subject.
2. The examination mark contributes 60% and the year mark contributes 40% towards the final result for all subjects except Clinical Homoeopathy IV and Homoeopharmaceutics IV. The examination mark for Clinical Homoeopathy IV and Homoeopharmaceutics IV contributes 40% and the year mark contributes 60% of the final result.
3. A sub-minimum of 50% applies to each component of respective theory, oral and practical examinations.

The following year marks and examination mark sub-minima apply to the subjects Diagnostics IV and Clinical Homoeopathy IV:

YEAR MARK		EXAMINATION MARK	
Theory	50%	Theory	50%
Practical	50%	Each Case Evaluation	50%
		OSCE	50%

4. Class attendance, class tests, practical laboratory work, practical clinic work and projects is taken into consideration to determine the year semester mark.
5. A student who fails any subject in the fourth year is required to reregister for all the subjects in the fourth year, with any previously attained year mark falling away. If a student achieves a year mark of 60% or more in a subject for which he has re-registered, but which he previously passed, he will be exempted from the examination in that subject. However, Research Methods & Techniques I and Homoeopharmaceutics IV need not be repeated if they have been passed.
6. A student who fails any subject when repeating the fourth year will not be permitted to re-register in the Department of Homoeopathy.
7. Notwithstanding Rule G12 (10) and Rule G13 (3) a year/semester mark obtained for any subject is only valid for the main examination in the year/semester in which the student is registered.
8. A student who does not commence his studies for the M.Tech: Homoeopathy in the year following his successful completion of the B.Tech: Homoeopathy must successfully repeat the B.Tech: Homoeopathy before being admitted to the M.Tech: Homoeopathy

MASTER'S DEGREE IN TECHNOLOGY: HOMOEOPATHY

LY.HM1 DEFINITIONS

`Approved' means approved by the Minister of Education.
`Council' means The Allied Health Service Professions Council of South Africa.
`Institution' means the (merged) Durban Institute of Technology.
`Minister' means Minister of Education.
'Intern' means a person who has completed all his fifth year requirements with the possible exception of the research project and dissertation, and who is involved with the year of clinical experience.

LY.HM2 DURATION OF THE PROGRAMME

The minimum formal time is one year. Notwithstanding Rule G24 (2) and (3), if a student fails to obtain the Master's Degree within two years after registering for the fifth year, re-registration will be denied. A student must meet all the requirements of the programme in terms of the norms and standards as approved by the minister and as stipulated by the Institution and the Council in order to qualify for the M.Tech: Homoeopathy and for registration as an intern with the Allied Health Professions Council of South Africa.

LY HM3 ENTRANCE REQUIREMENTS

B.Tech: Homoeopathy

LY.HM4 INSTRUCTIONAL PROGRAMME

Course Code: MTHOMI

Sapse Code	Register Code	Subject	Period / Week Theory	Prac
0904001070	CHOM502	Clinical Homoeopathy V	3	20
0904000070	MMED502	Materia Medica V	6	10
1308000070	PMJU501	Practice Management & Jurispudence V	6	
0904007080	RPLY502	Research Project and Dissertation I		

LY.HMS EXAMINATIONS

All examinations are internal examinations.

LY.HM6 PASS REQUIREMENTS

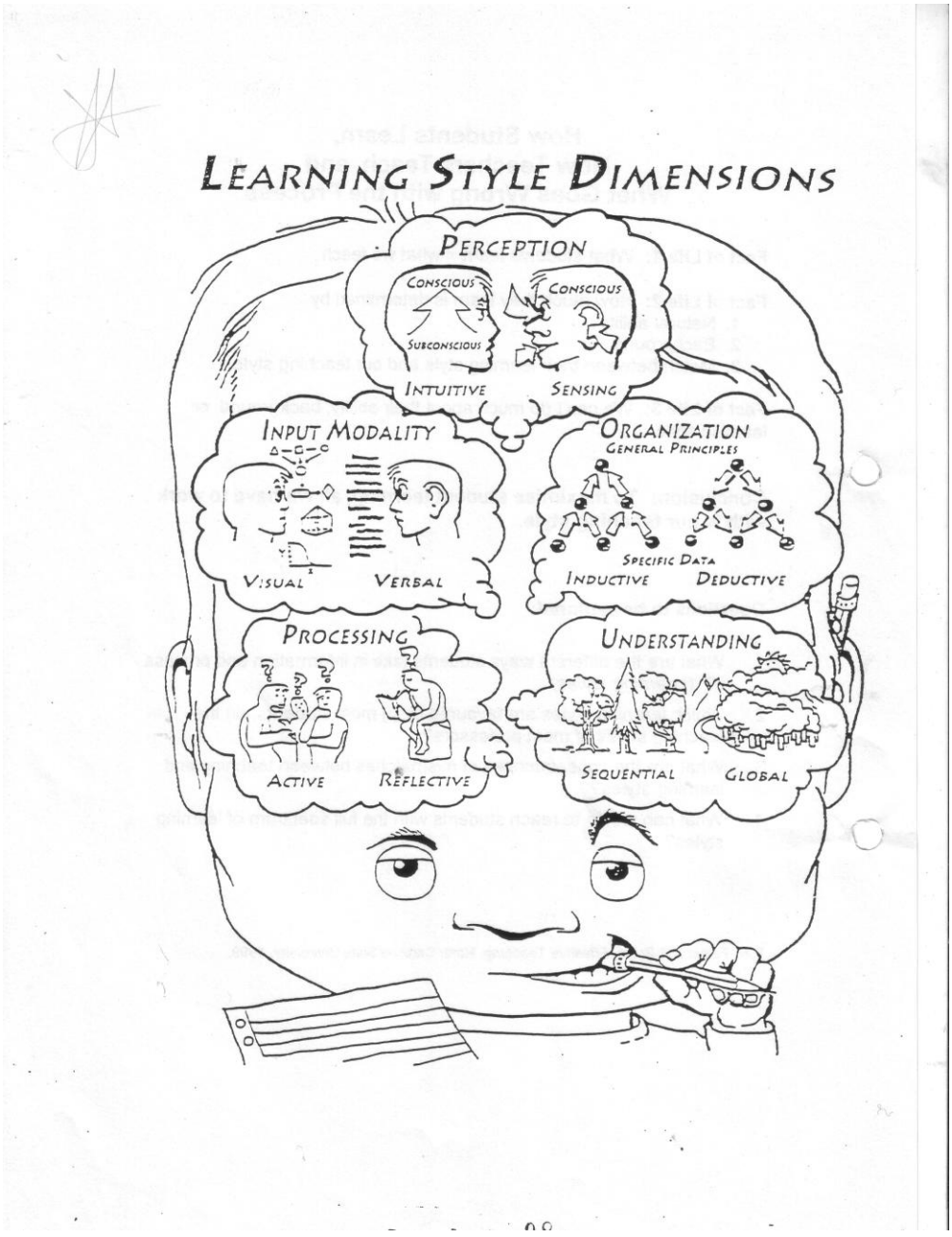
1. A student must obtain a minimum of 50% in a subject to pass that subject.
2. A student who fails any fifth year subject is allowed one chance to repeat the fifth year, but must re-register for Clinical Homoeopathy V, Materia Medica V and Research Project and Mini-Dissertation I with all
   the previously attained year marks falling away. Research minidissertations will not be credited until all fifth year subjects have been passed. This rule should be read in conjunction with Rule LY.HM2 stating, that if a student fails to obtain the Master's Degree within two years of first registering for the fifth year, re-registration will be denied.
3. The examination mark for Materia Medica V contributes 60% and the year mark contributes 40% towards the final result.
4. The examination mark for Clinical Homoeopathy V contributes 40% and the year mark contributes 60% towards the final result.
5. A sub-minimum of 50% applies to theory, oral and practical examinations, and year marks in both Clinical Homoeopathy V and Materia Medica V.

YEAR MARK	EXAMINATION MARK	
Theory 50%	Theory	50%

Practical 50%	Each Case Evaluation	50%
	OSCE	150%

6. Class attendance, class tests, practical laboratory work, practical clinic work and projects are taken into consideration to determine the year mark.
7. Notwithstanding Rule G12(10 and G13 (3) a year mark obtained for any subject is only valid for the main examination in the year in which the student is registered."

APPENDIX G



(Felder and Brent, 1999)

APPENDIX H

According to research in higher education effective teacher practice:

- Good organization of subject matter and course, including relevance and coherence of content and planned teaching/ learning activities.
- Flexibility in approaches to teaching and learning.
- Effective communication.
- Knowledge and enthusiasm for subject matter and teaching.
- Facilitation of learning through student interaction and active experience.
- Respect for and positive attitude towards students.
- Critically reflective orientation to teaching including effective use of feedback to guide learning and improve teaching.
- Appropriateness and fairness in assessment and grading (Durban Institute of Technology, 2002).

APPENDIX I

A List of Homoeopathic Graduates up until 2004

Aleotti, Claudia	98
Alexander, Karen	94
Balding, Tamara Jane	02
Barklie, Tanya Sharon	99
Basson, Jo-Anne	02
Bland, Colleen Margret	97
Bloch, Michael	03
Bolling, Birgit	98
Bondonno, Roberto Carlo	96
Botha, Okker Roelof	02
**Brammer, Ronel	95
Brandsch, Helga Michaela	97
Bresler, Saun Christiaan	94
Bruni, Rouen	01
Budree, Rohan Sewdayal	04
Carey, Angela Moira	00
Cason, Angela	03
Christie, Natalie Nowell	95
Clarke, Lindy Jane	02
Couchman, Ingrid M S	01
Cross, Andrew Peter	97
Curnow, Janine Margaret	
Daphne, Antoinette	98
Davies, Troy Murray	02
Dawson, Nicole	00
De La Rouviere, Alexandra Mary	97
De Smidt, Johannes Willem	01
De Waard, Anton Hans	96
Dhanraj, Pravith	01
Dlamini, Nomthandazo	04
Domleo, Sinden Jane	03
Dos Ramos, Antoinette	99
Dos Ramos, Maureen	01
Dummer, Karen	03
Eatwell, Allan Rowan	04
Ebrhim, Shera	04
Eldridge, Julia Kathrine	00
Farrow, Gregory Alan	98
Ferruci, Loretta	95
Freese, Lorette Elfriede	97
Giles, Lance Ferneaux	95
Gillespie, Nerena Beatrice	94
Govender, Nervashnee	04
Hagen, Siobhan Sarah Casey	96
Hall, Cornelia Maria	99

Harris, Bronwyn Claire	03
Harris, Matthew Gregory	01
Hellberg, Nicolette Liesel	01
**Hillermann, Roland Manfred	97
Himlok, Karen	02
Hopkins, Crofton Russel	98
Invernizzi, Jonathan Rai	03
Ismail, Shaida	04
Joseph, Jeanie Dorothy	94
**Kaufmann, Holton James	98
Kell, Colette Melissa	04
Kerschbaumer, Werner	04
Kirtland, Karen Andrea	95
La Grange, Colin David	99
Langford, Samantha Jane	02
Lee, Monique	98
Leong, Sao Lai	02
Lever, Yvette	98
Lilley, Dorian Lejan	98
Lockyear, Heather	04
Louw, Natasha	04
Low, Lisa	03
**Mabuza, Mbuso	03
Macquet, Maurel Louise	04
Maharaj, Madhueshwaree	00
Makris, Georgina Anne	
Malan, Johannes Francois	03
Mandel, Fritz Johan	99
Mcdavid, Gillies Malcome	94
Mcteer, Taryn Frances	04
Mistry, Raakhee Gunvant	99
Moolla, Farhana	95
Morris, Cathrine Anne	03
Mostert, Anna Johanna	03
Mostert, Ronelle	99
Motara, Farhad Essop	04
Moyal, Orley	02
Moys, Estelle Renee	99
Muller, Nadine Avril	97
Naude, David Francis	01
Naude, Wayne Stuart	97
Nell, Nicolas	04
Neumann, Jacqueline Watson	98
Opperman, Celia	98
Pautz, Joanne Elizabeth	99
Peckham, Allen	96
Pillay, Annette	03
Pillay, Bavani	94
Pillay, Danny	96

Pollock, Jacqueline	98
Poolman, Emmerentia Christina	94
Porter, Lindi	97
Power, Sean Michael	00
Puterman, David Joel	94
Rademan, Wim Marius	98
Ramlachan, Shavashni	03
Randeree, Aziza Muhammed	00
Reader, Hayley	02
Reid, Kim Louise	02
Rielly, Patricia Isabella	03
Ronander, Garnet Edgar	01
Ross, Ashley Hilton Adrian	98
Sarawan, Shanie Mohanlall	
Schultz, Myron	94
Sengpiehl, Monika	04
Sewsunker, Olica	01
Singh, Varuna	00
Smulders, Henriette	01
Spitze, Brigitte Henriette	95
Steele, Richard	00
Storey, Robert	
Stubbs, Claire	02
Sukdev, Reena	98
Swan, Carla	03
Tak, Eugene Lawrence	01
Taylor, Grant Cavill	00
Thomson, Bruce	04
Tsolakis, Natalie Christina	95
Van Der Hulst, Nicolette	03
Van Niekerk, Karin	00
Van Schalkwyk, Christian Johan	99
Verhoogt, Mariaan	03
Vosloo, Chiquita Louise	02
Vosloo, Werner	01
Webb, Kathleen Ann	98
Webster, Heather	03
White, Keryn Elizabeth	95
Williams, Dillon Christopher	03
Wright, Craig Douglas	00

** Denotes that these graduates were untraceable.

APPENDIX J

Evaluation by Certification Council

A Certification Council for Technikon Education (SERTEC) was established in South Africa in terms of Section 2 of the Certification Council for Technikon Education Act, 1986 (Act 88 of 1986). The purpose of the Council in terms of Section 3 of the Act was to ensure that corresponding Technikon certificates issued by the Council represent the same standard of education and examination. The Council decided that its *modus operandi* for evaluating standards at Technikons would be based on the system of visiting evaluation committees. During the visits a wide range of aspects of the Technikon were evaluated including, but not limited to: examination procedures, library services and research procedures. Each department was required to complete a self-evaluation questionnaire and comment on the infra-structure of the Technikon (SERTEC, 1995).

In 1995, new government legislation was passed introducing the South African Qualifications Authority (SAQA) which replaced SERTEC (South Africa 1995: 1521).

What is SAQA?

The South African Qualifications Authority is a body of 29 members appointed by the Ministers of Education and Labour. The members are nominated by identified national stakeholders in Education and Training (SAQA, 1998). The functions are essentially twofold:

1. To oversee the development of the National Qualification Framework (NQF), by formulating and publishing policies and criteria for the registration of bodies responsible for establishing education and training standards or qualifications and for the accreditation of bodies responsible for monitoring and auditing achievements in terms of such standards and qualifications.

2. To oversee the implementation of the National Qualification Framework (NQF) by ensuring the registration, accreditation and assignments of functions to the bodies referred to above, as well as to the registration of national standards and qualifications on the framework. It must also take steps to ensure that provisions for accreditation are complied with and where appropriate, that registered standards and qualifications are internationally comparable (South Africa 1995: 1521; 1998: 18787; 1998: 19231).

The Role of the National Qualifications Framework

The National Qualification Framework's (NQF) commitment to Outcomes- Based Education and Training is the means for bringing about systemic change in the nature of the education and training system in South Africa. By describing national standards and qualifications in terms of learning outcomes through a participatory process, the NQF is placing the national demands in respect of quality, before the citizens of the country. In short, the learning outcomes, standards and qualifications, must be clear so that there is no doubt as to what is expected of qualifying learners (SAQA, 1998).

When learners know that there are clear learning pathways which provide access to, and mobility and progression within education, training and career paths, they are more inclined to improve their skills and knowledge because such improvements increase their employment opportunities. The increased skills base of the work force has a wider implication namely the enhancement of the functional and intellectual capability of the nation, thereby increasing our chances for success in the global community (SAQA, 1998).

The shift in thinking is from education for employment- developing the ability to a specific job- to education for employability- developing the ability to adapt acquired skills to new working environments. The new education and training system must be able to support the notion of an adaptable workforce (Ball, 1996).

What do NQF Qualifications look like?

The National Standards Body (NSB) regulations indicate that a qualification shall:

1. Represent a planned combination of learning outcomes which has a defined purpose and which is intended to provide qualifying learners with applied competence and a basis for further learning;
2. Add value to the qualifying learner by providing status, recognition, enhancing marketability and employability;
3. Provide benefits to society and the economy;
4. Comply with the objectives of the NQF;
5. Include both specific and critical cross- field outcomes that provide life- long learning;
6. Where applicable, be internationally comparable;
7. Incorporate integrated assessment appropriately to ensure that the purpose of the qualification is achieved. Assessment should include a range of formative and summative assessment methods such as portfolios, simulations, workplace assessments and also written and oral examination;
8. Indicate in the rules governing the award of the qualification that the qualification may be achieved in whole or part through the recognition of prior learning, which concept includes but is not limited to learning outcomes achieved through formal, informal, and non- formal learning and work experience (South Africa: 1998: 18787).

APPENDIX L

Dear National Board

In light of the recent discussions regarding an Educational Subcommittee, I thought that perhaps you might be interested in some of the findings of my research and would have some thoughts of your own to add.

The title of my research is:
A Perceptional Study to Investigate Subject Failure as an Academic Reason for Delayed Qualification in Masters Degree in Technology: Homoeopathy at Durban Institute of Technology.

Basically, I limited the study to investigating the perceptions of subject failure by **those individuals who had experienced subject failure but still proceeded to graduate from the course**. This was done in an attempt to restrict the study to factors which were within the scope of the institution to change. (i.e. eliminate life events etc which are uncontrollable.)

I would like to hear your opinion on the following issues:

- 94% of the respondents were those graduates who had first registered for the course between 1991 and 1995, what was significant about this period of time which made these graduates so willing to discuss their perceptions of experiencing subject failure?

- Heavy course workload was rated the most important factor relating to poor academic performance. Is this a reasonable comment? And what could be done to improve it?

- Lack of studying techniques was frequently mentioned as a significant factor which related to poor academic performance, what could be done to correct this problem?

- 44% of respondents felt that subjective assessment procedures were extremely important as a factor contributing to subject failure. Is this a reasonable comment? And what could be done to prevent this in the future?

Many thanks! I look forward to hearing your comments!
Michelle Courage