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**FACTORS ASSOCIATED WITH
STUDENTS' ASSESSMENT OF
TEACHING QUALITY IN A
MODULE IN THE MBCHB 1
PROGRAM**

by

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in the

**DIVISION OF EDUCATIONAL DEVELOPMENT
FACULTY OF HEALTH SCIENCES
UNIVERSITY OF THE FREE STATE**

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DECLARATION

I hereby declare that the work which is submitted here, is the result of my own independent investigation. Where help was sought, it was acknowledged. I further declare that this work is submitted for the first time at this university/faculty towards an M.HPE degree in Health Professions Education and that it has never been submitted to any other university / faculty for the purpose of obtaining a degree.


.....

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LIST OF ACRONYMS

CUP	Committee of University Principals
CHE	Council for Higher Education
ETOVS	Ethics Committee of the University of the Free State
ETQA	Education and Training Quality Assurance body
HEQC	Higher Education Quality Committee
HPCSA	Health Professions Council of South Africa
M.B.,Ch.B.	Medicinae Baccalaureus and Chirurgiae Baccalaureus
MED 113	Concepts of Health and Disease module
NCHE	National Commission on Higher Education
NQF	National Qualifications Framework
QPU	Quality Promotion Unit
RSA	Republic of South Africa
SAQA	South African Qualification Authority
SAUVCA	South African Universities' Vice-chancellors' Association
SERTEC	Certification Council for Technikon Education
SPICES	Student-centred, problem-based, integrated, community-based, elective, systematic teaching model

FACTORS ASSOCIATED WITH STUDENTS' ASSESSMENT OF TEACHING QUALITY IN A MODULE IN THE M.B.,Ch.B. 1 PROGRAM

CHAPTER 1 ORIENTATION

1.1 INTRODUCTION

"How can you possibly award prizes when everyone missed the target?" said Alice.

"Well," said the Queen, "Some missed more than others and we have a fine normal distribution of misses, which means we can forget about the target." [Alice's Adventures in Wonderland] Carroll (1896: s.p.).

During the past few years, quality control has become an essential part of teaching. According to the Health Professions Council of South Africa's undergraduate medical education and training guidelines (HPCSA 1999:12), *Education and Training of Doctors in South Africa:*

- Structures should be established for the internal evaluation of programs with a view to quality assurance and in preparation for external evaluation and accreditation.
- Criteria should be laid down for the evaluation of curricula and programs in faculties/ medical schools in order to facilitate continuing evaluation with a view to improvement.
- Research, including research in medical education and community-based research, should be encouraged to the advantage of intellectual creativity, health care provision and development, as well as to form a basis for teaching and learning in the undergraduate curriculum.

Singh P. (2000:7) remarked that the fundamental questions that quality assurance asks everyone to make part of their daily lives in higher education, are:

- "What am I trying to do or achieve?"
- "Why am I doing it in that way?"
- "What is the context in which I am doing it?"
- "How do I know that it is effective and that I am doing a good job?"
- "Is this the best possible way of doing it?"

Although these might be very simple questions, it is what quality assurance is all about.

According to Mclean (2001:6), the recognition of 'teaching excellence' is either non-existent or vague, despite teaching being one of the fundamental functions of the university. Standard criteria for judging teaching quality seem to be difficult to determine, because the lecturers' perceptions and student perceptions seem to be so different. The lecturer of the 21st century is supposed to be a 'role model' where different facets need to be judged, for example, knowledge, skills and attitudes (difficult to measure).

Quality assurance in higher education is still one of the most critical points of discussion among educationists worldwide - even more so in South Africa, where the democratisation of education, demands for transformation, equality and equity in universities, socio-political changes and financial constraints are increasingly compelling universities to give priority attention to the issue of quality (Singh M. 2000:6; Strydom & Labuschagne 1989:292).

Quality assurance remains the responsibility of the academic staff and administrators of an institution and the maintenance and improvement of that quality largely rest on internal procedures for discovering and correcting weaknesses (self-evaluation) (*cf.* Fourie, Strydom & Stetar 1999). The process of quality assurance in medical education is intended to ensure that future physicians attain adequate standards of education and professional training (Boelen, Bandaranayake, Bouhuijs, Page & Rothmann 1992:5).

The health and education systems in South Africa, as is the case in the rest of the world, have undergone major changes in recent times. According to the SAQA Act (Act 58 of 1995) and the related regulations and guidelines, education and training programs should be outcome-based; critical, specific and professional outcomes are to be set, and there should be a shift in emphasis from lecturer-centered to directed, student-based education (RSA 1995). Other important shifts in emphasis entail those to more resource-based instruction, integrated presentations, an approach which would foster independent and life-long learning, and more emphasis on team and group work. It became essential to adapt the education and training of undergraduate students at the School of Medicine, University of the Free State accordingly.

A new curriculum for the undergraduate medical education and training program, delivering an M.B.,Ch.B. degree at the University of the Free State (Faculty of Health Sciences, University of the Free State, Yearbook, 2000:163) was implemented in 2000. New, worldwide trends in medical education as described by Harden's (2000:436) so-called SPICES model were implemented, e.g. student-centred, problem-based, integrated, community-based, elective and systematic teaching. Innovative teaching and learning strategies and approaches feature strongly in this curriculum; however, the instruction in such a new program needs to be monitored to ensure quality. In order to have a reliable monitoring system of the program, certain additional variables need to be taken into consideration.

Apart from the changes in the curriculum, certain changes were also made to the selection and admission requirements of students. Transformation principles were applied and students from previously disadvantaged backgrounds, older students and students with other degrees were also given a chance to study medicine at the University of the Free State. Because of these changes, all instruction has to be given according to a parallel-medium modus (English and Afrikaans).

1.2 STATEMENT OF THE PROBLEM

With transformation principles falling into place at the University of the Free State, the composition of classes has changed dramatically, compared to previous years. Instead of one class for each year group, two classes now exist. Because of much fewer Afrikaans-speaking students being admitted, the academic standard of the Afrikaans class seems to be much higher than before. On the other hand, the English class comprises students from several language groups where the majority of this class consists of first generation students, training in their second language. (First generation student, meaning the first opportunity in that family's history that a member is receiving tertiary education.)

In the light of a changed student body and a new curriculum for undergraduate medical education introduced in 2000 in the Medical School of the University of the Free State, the obvious thing to do, is to take steps to ensure that the quality of the education and training students receive, is maintained at a high level. One way of ensuring quality was by having the modules in the program assessed by students.

The assessments of modules in the M.B.,Ch.B. program that are in place (*cf.* Bezuidenhout 2000-2002), show big discrepancies between different classes, different language groups, different ages, etc. in their assessment of teaching and the curriculum in general. The questions that came to the fore and needed to be answered were:

- What is causing the discrepancies?
- What factors could be associated with the discrepancies between classes in the same year group in their evaluation of a module in the M.B.,Ch.B. program?

The problem addressed in this study thus dealt with factors coming into play when students in the M.B.,Ch.B. program evaluated a module. This particular problem was identified by studying the results of an action-based research

project currently running in the School of Medicine of the Free State (Bezuidenhout 2000-2002).

Against this background, the following research questions were addressed:

- How did the composition of the student body and the new curriculum affect the evaluation of modules?
- Were there any student-related factors that might have influenced the students' way of evaluating the MED113 module's quality of instruction?
- Were there specific groups of students with similar characteristics in the undergraduate medical education classes that needed special attention regarding certain aspects of teaching and training?

The MED 113 module deals with *Concepts of Health and Disease*. It is an inter-disciplinary module presented to first-year medical students by the Department of Sociology and the Department of Community Health of the University of the Free State. (See Appendix E for module guide and timetable of MED 113.)

1.3 GOAL, AIM AND OBJECTIVES OF THE STUDY

1.3.1 GOAL

The goal of this study was to contribute to the quality of education in the M.B.,Ch.B. program of the School of Medicine, University of the Free State.

1.3.2 AIMS

The aims of this study were:

1. To gain a better understanding of the results of the evaluation by students of the MED 113 module and to identify factors that might be associated with their evaluations.
2. To determine students' assessments of the weaknesses and strengths in the MED 113 module.

1.3.3 OBJECTIVES

In order to achieve the above aims, the following objectives were pursued:

- To obtain an overview of existing knowledge and research methods, an extensive literature survey on quality assurance and factors influencing students' evaluation of teaching was conducted
- To develop a research instrument (questionnaire) for gathering data on students' perceptions of teaching quality in the MED113 module for 2002, based on the information gathered from the literature review.
- To identify the weaknesses and strengths, according to students' perception, in the MED 113 module by means of the questionnaire.
- To identify factors influencing students' evaluation of teaching.
- To make recommendations regarding possible ways of addressing these factors that influence a student's perceptions .
- To make recommendations to improve the teaching in the module based on the findings (the so-called "action research").
- To examine whether students' evaluations of the course and other personal characteristics, predicted their final result.

Information gained through this study will be used in the planning process for the MED113 module for 2004 and in future quality control strategies, with a view to improve the quality of teaching and learning in the School of Medicine at the University of the Free State.

1.4 SCOPE OF THE STUDY

- **Field:** This study was conducted in the field of Health Professions Education.
- **Topic:** The aspect of Quality Assurance in Medical Education was addressed in this study, more specifically looking at the factors associated with students' assessment of teaching quality.

- **Geographic and demographic demarcation:** The study was conducted on the first-year medical students taking the MED113 module at the Medical School of the Faculty of Health Sciences at the University of the Free State in South Africa during January 2002 until June 2002.
- **Population:** The population group involved was the first-year medical students in the MED113 module in the first year of the M.B.,Ch.B. program of the University of the Free State.

1.5 SIGNIFICANCE AND VALUE OF STUDY

The students, the lecturers and the Medical School of the Faculty of Health Sciences at the University of the Free State will benefit from this study because:

- The findings will be implemented in the planning process for MED 113 for 2004 and in future quality control strategies, with a view to improve the quality of teaching and learning in the undergraduate medical program at the University of the Free State.
- The identified problem areas in certain people groups, were reported to the Division of Student Learning Development in the School of Medicine to assist the students in developing certain skills.
- Lecturers in the MED113 module were made more aware of weaknesses and strengths in their teaching. Quality of teaching and training will be improved.

See more about the significance and value of the study in Chapter 5 (Discussion and recommendations).

1.6 METHODS OF INVESTIGATION

A distinctive function of statistics is this: it enables the scientist to make a numerical evaluation of the uncertainty of his conclusion (Snedecor 1950:792).

1.6.1 TYPE OF STUDY

A literature study and an empirical investigation were done. The investigation was a repeated cross-sectional analytical study.

1.6.2 METHOD:

1. Measuring instruments in the form of two questionnaires were developed, based on literature and existing questionnaires from other studies presently being used in the Faculty of Health Sciences (Bezuidenhout 2000-2002). With the help of the questionnaires, personal data as well as perceptions on the teaching in the module were collected. The questionnaires were developed in Afrikaans and English (instructional media used in the School of Medicine) and were tested for reliability and validity by a translator and a statistician. (See more about the reliability and validity in Chapter 3 on methodology.)
2. Copies of questionnaire A were given to the class representative of each class with every session, who gave the forms out in the class and ensured that all the forms were collected again and taken to the researcher's office the next day.
3. Questionnaire B was completed by each student during the first session of the module. This questionnaire collected personal information of each student.

1.6.3 MEASUREMENTS

The following factors regarding students that might influence their assessment of the program were investigated:

- Age of student
- Afrikaans / English class
- Home language
- Socio-economic background (reflected by the occupations of the parents)
- Tertiary education of student's parents

- If the student is repeating the year
- If student has received any other tertiary education before
- The student's marks obtained from the MED 113 test
- The student's grade 12 (final school year) results
- Language medium in grade 12

The following variables and codes were used in the questionnaire:

- Session goals and outcomes (A1-A4)
- Study material (B1-B2)
- Attitude and skills of lecturer (C1-C6)
- General variables (D1-D4)

1.6.4 STATISTICAL ANALYSIS

Data were entered by the researcher using Excel. Statistical analysis was done using Stata software (see more in Chapters 3 and 4).

1.7 DEFINING TERMINOLOGY

- **CONFIDENCE INTERVAL:** According to Last (1988:28) this is a range of values for a variable of interest, for example a rate, constructed so that this range has a specified probability of including the true value of the variable. The specified probability is called the confidence level and the end points of the confidence interval are called the confidence limits.
- **INTER-QUARTILE RANGE:** "This is a measure of variability - one that is not as easily influenced by the extreme values. The inter-quartile range is calculated by subtracting the 25th percentile of the data from the 75th percentile; consequently, it encompasses the middle 50% of the observations" (Pagano & Gauvreau, 2000:44).
- **LIKERT SCALE:** Wilken, Hallam and Doggett (1992:25) suggested that this is one of the most popular psychometric rating techniques. All items in the pool are given the same graded responses (e.g. strongly agree to strongly disagree, very important to not important, frequently to never),

usually on a five-point scale. They are then administered to a population and the responses analysed for internal consistency. Items which correlate well with total scores (high, low, average, etc.) are retained and those which are inconsistent are discarded. Likert scales are suitable for measuring a single dimension, but there is no provision for different weighting of items.

- **MEAN:** "The mean is calculated by summing all the observations in a set of data and dividing it by the total number of measurements" (Pagano & Gauvreau 2000:38).
- **MEDIAN:** "The median can be used as a summary measure for ordinal observations as well as for discrete and continuous data. The median is defined as the 50th percentile of a set of measurements; if a list of observations is ranked from smallest to largest, half the values are greater than or equal to the median, whereas the other half are less than or equal to it" (Pagano & Gauvreau, 2000:41).
- **MED 113:** A module called *Concepts of Health and Disease*, presented to medical students at the University of the Free State during the first year of study (see Appendix E for timetable and module guide).
- **MULTIPLE LINEAR REGRESSION:** According to Pagano and Gauvreau (2000:449), multiple regression is a statistical way to investigate the more complicated relationship among a number of different variables. The following formula is used: $Y = \alpha + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \dots + \beta_q x_q$ where $x_1, x_2, x_3, \dots, x_q$ are the outcomes of q distinct variables. The parameters $\alpha, \beta_1, \beta_2, \dots, \beta_q$ are constants that are called the coefficients of the equation. The intercept α is the mean value of the response y when all explanatory variables take the value of 0.
- **R- SQUARED VALUE:** According to Pagano and Gauvreau (2000:454), this can be interpreted as the proportion of the variability among observed values of y that is explained by the linear regression model.

1.8 ARRANGEMENT OF THE REPORT

The course of the research, carried out to solve the problem referred to, the methods used to find solutions and the final outcome of the study will be reported on as follows:

- In this chapter, **Chapter 1**, a brief **introduction and background** to the study was given.
- **Chapter 2, Quality assurance in an education program**, contains a report on the literature study. Different aspects of quality assurance *per se* are discussed, and factors that might be associated with students' assessments of teaching quality, which have received special attention, are explained in detail.
- **Chapter 3, Research design and methods**, provides a description of the research methodology applied in the study. Theoretical aspects of the design are discussed, the reasons for using the particular methods are put forward, and the course of the study is explained.
- In **Chapter 4, Results and findings**, the results of the empirical study are presented. The final outcome of the study is given, namely:
 1. To gain a better understanding of the results of the evaluation by students of the MED 113 module and to identify factors that may be associated with their evaluations.
 2. To determine from students' assessments, the weaknesses and strengths in the MED 113 module.
- **Chapter 5, Discussion and recommendations**, is devoted to a discussion of the study and in particular the outcome, recommendations are made regarding the interpretation of quality assurance questionnaires, the changes in the MED113 module that need to be investigated, and possibilities for future research are pointed out.

1.9 CONCLUSION

Literature has shown that structures should be established for the internal evaluation of programs with a view to quality assurance. With transformation principles being implemented at the University of the Free State, the composition of classes has changed dramatically, compared to previous years, resulting in big discrepancies in their experience of the instruction they receive among different classes, different language groups, different ages of the students, etc.

When students in the same year-group, receiving the same instruction but in two class groups, that is, an Afrikaans and an English group, differ significantly in their perceptions of the instruction they receive, the causes of the varying opinions and perceptions must be determined.

To ensure the reliability and validity (see chapter 2) of quality assurance questionnaires and programs, one must take into consideration certain factors that may be associated with students' assessments of teaching quality.

CHAPTER 2

QUALITY ASSURANCE IN AN EDUCATION PROGRAM

2.1 INTRODUCTION

The process of quality assurance in medical education is intended to ensure that future physicians attain adequate standards of education and professional training (Boelen *et al.* 1992:1). The effective application of the process of evaluation of medical education requires clear understanding of the goals of university-based professional education, as well as of the context of its application in each instance.

No similar studies to this research project were found when the literature survey was done. The mere fact that no similar studies could be found was one of the motivators of this study. Reviews and theoretical papers were therefore used to obtain an overview of existing information on the topic.

2.2 QUALITY ASSURANCE

2.2.1 WHAT IS MEANT BY QUALITY ASSURANCE IN A LEARNING PROGRAM?

According to Matiru, Mwangi and Schlette (1995:3), quality assurance is the evaluation, with the purpose of determining the value, worth, goodness, effectiveness and impact of a performance, a process, an event or a product, with the view to maintaining and enhancing quality.

Collecting and analysing data with the purpose of improving the quality level of a program is not a once-off process, but can be seen as an integral part of the curriculum development cycle. After certain problems have been identified,

changes are made, which will have to be evaluated again, and the cyclic process will continue (Matiru *et al.* 1995:3).

2.2.2 BACKGROUND TO QUALITY ASSURANCE IN HIGHER (INCLUDING HEALTH PROFESSIONS) EDUCATION

Up to about ten years ago, very few attempts were made to have a central quality assurance system for higher education in South Africa. Even at this moment, the quality assurance process is still very fragmented.

An attempt to start some form of quality assurance in higher education was made by the Committee of University Principals (CUP) in 1987. An important quality issue that was emphasized in their report, was the fact that the academic quality of universities varied greatly - some comparing with the world's best and others scarcely acceptable at university level (Strydom & Lategan 1996:18).

To some extent the Certification Council for Technikon Education (SERTEC) was a leader in focusing the attention on quality assurance at tertiary level. By 1994 (after SERTEC already had completed one full cycle of accreditation), universities started investigating the matters and a body responsible for the co-ordination of quality assurance at universities, the so-called Quality Promotion Unit (QPU) was eventually created in 1995. The QPU had three objectives in mind (Strydom & Lategan 1996:19):

- Assisting universities in establishing internal quality assurance systems by means of self-evaluation.
- Undertaking external quality audits for improvement, and at a later stage, for accountability purposes.
- The preparation of the system for future program assessments for accreditation purposes.

The National Commission on Higher Education (NCHE) took a leading role in research campaigns to analyse the existing higher education situation. To co-ordinate quality assurance in higher education, the Higher Education Quality Committee (HEQC) was formed. Its main priority was to develop quality

assurance procedures for programs offered by universities, colleges and private providers (NCHE 1996:108).

The South African Qualifications Authority Act (Act No. 58 of 1995) provided for the establishment of bodies responsible for registering and monitoring the achievements of education providers in offering programs that meet the standards and qualifications on the National Qualification Framework (NQF) (RSA 1995).

The Higher Education Act (No. 101 of 1997) makes provision for:

- Guidelines, structures and quality operations for the co-ordination of quality assurance in higher education.
- The establishment for the Higher Education Quality Committee (HEQC), a committee of the Council for Higher Education (CHE) (RSA 1997).

Some problems and confusions arose, however, with the stipulations of the Green Paper with a view to the Higher Education Act. At first the HEQC is referred to as a committee, while in the following paragraph it is proposed that the HEQC should be established to act as an umbrella body for quality in higher education, linking it to SERTEC, which functioned as a statutory body. At this stage it might have created a big problem if SERTEC was seen as the nucleus of this body, in the sense that SERTEC did not necessarily fit the philosophies of university programs (Lategan, Strydom & Muller 1998:8).

Closely linked to quality assurance, is the matter of accountability. Accountability in higher education (regarding quality assurance) and more specific in medical schools, has become a challenging issue. According to Frazer (1991:17), higher education is accountable to three different groups, namely society (government), the clients (students, employers) and the subject (professions, colleagues).

In endeavours to ensure quality and accountability, accreditation processes are used increasingly. Program accreditation is a quality assurance process based on program review. It is a means to verify the quality of academic programs and institutions to external stakeholders. In South Africa, in contrast with countries such as the USA, accreditation has up to the 1990s not received

much attention. In 1995 the then Interim National Medical and Dental Council of South Africa launched an investigation with a view to establishing an accreditation process for undergraduate medical and dental education and training in South Africa, which culminated in a report, *Accreditation in higher education with special reference to medical education* (Labuscagné 1995).

In efforts to ensure quality, especially for education programs for the professions, certain guidelines, such as *Education and training of doctors in South Africa*, were issued by the South African Health Professions Council (HPCSA 1999:12,13). Aspects that were discussed regarding the evaluation of programs were:

- Medical education units should be established in every medical school and mechanisms put in place for promoting, co-ordinating and evaluating the necessary educational reforms.
- Recommendations relating to the evaluation of curricula / programs.
- Structures should be established for the internal evaluation of programs with a view to quality assurance and in preparation for external evaluation and accreditation.
- Criteria should be laid down for the evaluation of curricula and programs, the teaching, training and learning processes and approaches in faculties/ medical schools in order to facilitate continuing evaluation with a view to improvement.

In the meantime a task team with Prof. Mala Singh as the conveyer was established to advise the Commission on Higher Education (CHE) to fulfil its quality assurance responsibilities. There were some interactions between this team and the South African Universities' Vice-chancellors' Association (SAUVCA). A large amount of international documentation on this topic was summarized and compared in order to keep up with international trends (van der Westhuizen 1999:2).

By the end of 1999, SAUVCA decided to terminate the work of the Quality Promotion Unit (QPU), creating a major setback for the universities. This decision had definite implications for universities. By terminating the work of the QPU the official auditing program of the remaining universities listed for

auditing was also abolished. The permanent HEQC, according to a final founding document, does exist now and started functioning as from May 2001. The CHE took over the accreditation activities for private higher education institutions from SAQA in July 2000 and is now accredited as an Education and Training Quality Assurance body (ETQA) for higher education (van der Westhuizen 1999:1-8).

There is little doubt that South African higher education has a complex regulatory environment, with very uneven levels of experience and capacity for quality assurance and management in the current system (van der Westhuizen 1999: 1-8).

2.2.3 WHY IS QUALITY ASSURANCE IMPORTANT?

While the final word has not been spoken yet as to the quality assurance system for higher education in South Africa, it is of pertinent importance that schools and programs should conduct self-evaluations to ensure the maintenance of high quality in education and to promote development.

Quality assurance has a dual purpose, namely to "assure the quality of the institution or program, and to assist in the improvement of the institution or program" (Hamilton & Vanderwerdt 1990: 541).

Quality assurance is an essential part of teaching in order to:

- Find the cause of a specific problem
- Obtain feedback on new educational strategies / other innovations
- Identify good features and / or problems,

and furthermore for:

- Planning
- Decision-making
- Motivation of learners (Forsyth, Jolliffe & Stevens 1999).

The above objectives of quality assurance fit in with the objectives of this study, which deals with evaluation of a module as part of the instructional program.

2.2.4 ASPECTS OF A MODULE THAT MUST BE EVALUATED FOR QUALITY ASSURANCE OF A PROGRAM

The different aspects of a module on which information should be gathered are very wide and it is almost impossible to do it in one attempt. According to Bezuidenhout (2000), a number of aspects should be investigated as part of a thorough quality assurance program. These aspects can be covered by asking the following questions about a program or module:

2.2.4.1 Rationale for the module

- What target group of learners?
- Needs of learners?
- Reasons for offering this module?
- Is there overlapping? Repetition of content?
- Grounds for justifying this module?

2.2.4.2 Background and current status

- Where, when and by whom was this module decided on?
- Which problems were experienced in the past and how were they solved?
- To what extent does the module / session demand specialised subject knowledge of the lecturer?
- Is the module plan available in writing? In which documents?
- Does the module differ from what was offered in the past? Why?

2.2.4.3 Credits and curriculum implications

- How many credits are obtained on successful completion of this module? How was the number determined and how was it justified?
- Does the module fit into the remainder of the phase / program? Is it essential?
- Does horizontal and vertical integration take place?
- Are similar modules offered? Why?
- What are the prerequisites? Why?
- Problems of learners that do not satisfy the prerequisites?

2.2.4.4 Module objectives and outcomes

- Does the theme / session / module, etc. have clearly formulated objectives and outcomes?
- Are they available to the students in writing?
- Are they realistic and feasible in terms of the abilities of the learners, the time available, facilities and resources?
- Are the outcomes clearly related to the learners' academic program and professional goals? Has the relationship been pointed out?
- Are the generic (critical cross-field) outcomes incorporated in these outcomes?
- Has the selection of content been based on the outcomes?
- Has the selection of educational strategies and methods been directed by the outcomes?
- Is the evaluation based on the outcomes?

2.2.4.5 Content

- Are the knowledge, skills and attitudes set forth in the outcomes addressed in the content?
- Is the content directed at the achievement of the outcomes? Has the relationship between the outcome and the content been pointed out to the learners?
- Is the content that is emphasised in the instructional and directed learning sessions the same content that is emphasised in the evaluations?
- Does the content contribute to the development of life-long learning skills?
- Is the content reliable, valid and topical?
- Is the content that learners use in resource-based learning checked for reliability, validity and being up to date?
- Is there a balance between scope and depth?
- Can the content be mastered in the time available?
- Is the content suitable for the development level of the learners?
- Is it available in a language/ idiom that is suitable for this group of learners?
- Is it clear and ordered logically (from simple to complex; from concrete to abstract, etc.)?
- Do the divisions and sub-divisions form an integrated whole?
- Do the learners receive an overview of the content?
- Is the content interesting and stimulating?

2.2.4.6 Materials (guides, manuals, notes, text books, etc.)

- Is the material suitable in terms of learners' language preference, development level, needs, prerequisites, the cost thereof, and the amount of material?
- Is the material ordered in manageable amounts?

- Is the material suitable in terms of the content and the outcomes?
- Is it user-friendly, well bound, physically manageable?
- Does it arouse interest?
- Is it easily available / accessible?

2.2.4.7 Educational methods, strategies, techniques and media

- Is the content made available to students in a meaningful way? Do the methods / techniques / media lead to interaction?
- Are the methods / techniques / media suitable for the learners, outcomes to be achieved, the lecturer, facilities, class size, development level of learners, motivation of learners, etc.?
- Do the methods contribute to student-centred learning, or are they lecturer-centred?
- Do the methods contribute to the development of students into life-long learners?
- Do the methods contribute to developing skills in group work, problem solving, communication, the utilisation of information technology, teamwork, etc.?
- Is provision made for the utilisation of a variety of methods and resources (resource-based learning)?
- Are the methods / techniques / media used effectively and efficiently? Is the lecturer comfortable in using them?
- Are the lecturer and the students informed about / trained in using the methods / techniques, etc. (e.g. group work, resource-based learning, etc.)?
- Are the methods / techniques / strategies / media stimulating? Do they enhance student interest and contribute to effective learning?
- Why are specific methods / strategies / media / techniques used?

2.2.4.8 Assessment of student learning

- How is student learning assessed (orally, written tests, open book exams, practicals, etc.)?
- Continuous as well as end assessments?
- Are end results (outcomes) as well as processes emphasised?
- Which test items are used most often (essay type, pairing, multiple choice, etc.)?
- Do the questions indicate exactly what is expected of the students (e.g. *describe, name, explain, compare, etc.*), and what the answers will be worth (is there a correlation between the number of facts expected and the marks)?
- Correlation between the time allowed, the number of facts, and the marks?
- Are assessments based on set outcomes?
- Are assessments balanced and fair in terms of content, degree of difficulty, marks, own interpretations and memorisation of facts?
- Memorandum with full answers and marks?
- Criterion-based evaluation? Are learners informed of criteria?
- Complete feedback (based on memorandum and point scale)?
- Are learners informed of the method of assessment at the beginning of the module?
- Are assessments learning opportunities?

2.2.4.9 Organisation of module

- Is the organisation of lectures, group work and directed learning (self-study) suitable and effective with a view to content and outcomes?
- Is the time for contact sessions sufficient / too much?

- Is the division of work within a module clear and fair?
- Do learners gain a total picture (or is the work fragmented)?
- Is the load of the learners spread fairly?
- Are the facilities, equipment and materials available and in working order when required?
- Are the resources for resource-based learning available / affordable?
- Does the module guide contain all the information required by students?

2.2.4.10 Lecturer skills

According to Schwenk and Whitman (1987:71), the role of the teacher has expanded dramatically over the past few years. The teacher is no more only a person standing in front of a class lecturing. Questions should be asked regarding the lecturer in the role of:

- Lecturer
- Group leader
- Facilitator of learning
- Demonstrator
- Seminar leader
- Learning evaluator
- Module leader
- Student advisor (supporting role)
- Material designer
- Research advisor (contribution to development of skills for life-long learning)
- Member of the team (phase / module)
- Other

Harden and Crosby (2000:336-337) divided the roles of the teacher into six areas of activity. Each activity was then subdivided into two roles, making a total of twelve roles. These can be summarised as:

1. Information provider
 - Lecturer in classroom setting
 - Teacher in clinical or practical class setting
2. Role model
 - On-the-job role model
 - Role model in the teaching setting
3. Facilitator
 - Mentor, personal adviser or tutor
 - Learning facilitator
4. Examiner
 - Planning or participating in formal examinations of students
 - Curriculum evaluator
5. Planner
 - Curriculum planner
 - Course organiser
6. Resource developer
 - Production of study guides
 - Developing learning resource materials in the form of computer programs, videotape or print which can be used as adjuncts to the lecturers and other sessions.

Does the lecturer know what each of these roles entails? Has the lecturer been trained in these roles? Has the lecturer's performance in these roles been assessed (e.g. by students, colleagues, educational developers) with a view to development?

2.2.4.10 Results of the module

Once a module has been completed, the following questions should be asked (cf. Bezuidenhout 2000):

- What percentage of learners was successful in the last assessment?
- How does this correlate with other modules?

- Which percentage has dropped out or does not attend classes? Why?
- Are learners enthusiastic? Satisfied?
- Are learners sufficiently prepared for the next module / phase?
- Are the learners in the module / phase enthusiastic / satisfied?

As can be inferred from the questions, numerous aspects of a program or module need to be considered to determine its quality level. For the purposes of this study, only a few of the above aspects were addressed.

2.2.5 INFORMATION SOURCES FOR QUALITY ASSURANCE

According to Bezuidenhout (2000:5), various sources of information can be used for quality assurance purposes, depending on the type of information needed, as depicted in table 2.1:

Table 2.1 Sources for quality assurance in a learning program, and the types of information gained from these sources.

SOURCE	INFORMATION ON
<ul style="list-style-type: none"> ▪ Lecturer 	<ul style="list-style-type: none"> ▪ Achievement of outcomes ▪ Reactions to methods ▪ Techniques ▪ Micro-teaching
<ul style="list-style-type: none"> ▪ Learners 	<ul style="list-style-type: none"> ▪ Effectiveness of lecturing skills ▪ Degree of difficulty of content ▪ Efficiency of feedback ▪ Fairness and effectiveness of assessments ▪ Learner performance
<ul style="list-style-type: none"> ▪ Colleagues 	<ul style="list-style-type: none"> ▪ Suitability of content and resources ▪ Organization ▪ Feasibility of outcomes ▪ Academic context and integration ▪ Skills in various roles
<ul style="list-style-type: none"> ▪ Educational 	<ul style="list-style-type: none"> ▪ Formulation of outcomes

<p>developers</p>	<ul style="list-style-type: none"> ▪ Suitability of methods and techniques ▪ Use of media ▪ Evaluation procedures and techniques ▪ Compilation of materials ▪ Skills in various roles ▪ Educational requirements
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For the purpose of this study, the students (learners) were used as sources to obtain the required information.

Responses to questionnaires which seek feedback on teacher-centred models of education, seem to favour more traditional (conservative) approaches to teaching. With regard to innovative educational approaches, students initially may be resistant to forms of learning that make them think and work more independently, requiring of them to gather knowledge for themselves before presenting it to class discussions. Feedback ratings during the initial phase are usually low; however, as students adapt to a new curriculum (new method of learning) they start to feel more positive about it and by the end of a semester, ratings are higher (Kember & Wong 2000:69).

2.2.6 TECHNIQUES TO COLLECT INFORMATION

Different techniques can be used to enable the researcher to obtain information in efforts to determine the quality of a learning program or module, for example:

- Interviews / discussions with students, colleagues, supervisors
 - Questionnaires (e.g. student evaluation of instruction)
 - Observations (by educational developers / colleagues)
 - Micro-teaching (video)
 - Checklists (listing behaviour / attitudes observed among students)
 - Performance tests (results of student learning)
- (Bezuidenhout 2000:6).

For the purposes of this study, questionnaires (student evaluations of the teaching) were used.

2.3 VALIDITY, RELIABILITY AND BIAS

To collect information on which to base a quality assurance exercise, a measuring instrument has to be developed. This measuring instrument has to adhere to a set of rules before assigning values to objects or events so as to represent quantities, qualities, or categories of attributes (Wilkin *et al.* 1992: 28).

2.3.1 VALIDITY

The validity of an instrument relates to the effects of non-random or systematic error. An instrument is valid to the extent that it measures what it purports to measure. A measure may be valid for the specific purpose for which it was developed, but not necessarily be valid for a related, but not equivalent purpose.

There are three basic types of validity: content, criterion, and construct validity. The following table (Table 2.2) explains the basic definitions in terms of the questions asked (Wilkin *et al.* 1992: 30):

Table 2.2 Type of validity and explaining the definitions in terms of the questions asked.

TYPES OF VALIDITY:	QUESTIONS ASKED:
CONTENT VALIDITY	Is the choice of, and relative importance given to each component of the index appropriate for the domains they are supposed to measure?
CRITERION VALIDITY	Does the measure produce results which correspond with those obtained using a superior measure simultaneously (concurrent) or which forecast a future criterion value (predictive)?
CONSTRUCT VALIDITY	Do the results obtained confirm the expected pattern of relationships or hypotheses derived from

	the theoretical constructs on which the measure is based?
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In efforts to assure the quality of an education program, it needs to be ensured that the measuring instrument used, satisfies validity criteria.

2.3.2 RELIABILITY

One of the objectives of any measurement should be to reduce both random and non-random error to a minimum. The more reliable a measure, the lower the element of random error. The reliability of a measure is the extent to which it yields the same results in repeated applications on an unchanged population or phenomenon (Wilkin *et al.* 1992:28). The reliability of clinical, social and psychosocial instruments is less easily established, but equally or even more important.

Three types of reliability are generally considered important in the assessment of instruments:

- First, consistency over time is assessed using repeated applications of the instrument (test-retest reliability). In other words, applying the measure to the same population at different points in time under the same conditions. The correlation between the two sets of results is used as an estimation of the reliability of the measure.
- Second, consistency between different users of the instrument may need to be established (inter-rater reliability). This is important for any measure which requires judgements or observations to be made by the person administering the measurement.
- Third, the internal consistency of items within the instrument can be assessed (i.e. to what extent do all the items measure the same dimension?). They thus provide an estimate of homogeneity (Wilken *et al.* 1992:28).

2.3.3 BIAS

One form of systematic error common in self-report measures is response bias. There are two commonly recognised forms, acquiescent response sets and social response sets (Wilkin *et al.* 1992:33):

- The tendency of some respondents to agree with any statement regardless of content, is known as acquiescent response. It can be reduced by keeping questions and statements short, by using several questions to measure each concept, and by alternating the wording of different items (e.g. I feel tense / I feel relaxed).
- The second category of response bias concerns the tendency of respondents to be unwilling to report feelings or behaviour which they perceive as socially undesirable. This problem tends to be reduced in self-completion measures as opposed to face to face interviews and can be further minimized by writing questions or statements in such a way as to make it easy to give an "undesirable" response.

A student's conception of learning can bias his/her rating of teaching. If a student perceives learning as an active process, he/she is unlikely to give high ratings to purely didactic teaching. On the other hand, students who prefer passive learning will be biased against teaching requiring active participation. The latter discourages new developments in education (Kember & Wong 2000:81).

According to Kember and Wong (2000:94), student feedback ratings should only be seen as indicators of beliefs of learning. These can only be influenced by the size of class (little opportunity for interaction in large groups) and compulsory courses (harder to get higher ratings than with interest or speciality courses). Lecturers need to make allowance for innovative, new ways of teaching and new methods need to be adjusted according to student response.

From the above it may be inferred that a variety of factors may interfere with the validity and/or reliability of the results of studies to determine the quality of

an educational program, the same way as student biases may influence results.

2.4 TEACHING QUALITY - ACCORDING TO STUDENTS

Many institutions adopt and use student evaluations of teaching with little evidence that the form of measurement or procedure actually measures or contributes to teaching quality. According to Broder and Dorfman (1994:235), about 81% of the explained variation in teacher ratings in their study was associated with the attributes that contributed to student enjoyment of the learning process. Over 90% of the explained variation in course ratings was associated with attributes that measured how much a student learned in the course.

It appears that teaching effectiveness may be multifaceted and that any instrument that focuses on a single overall score is likely to be inadequate (Watkins 1992:60). For example, a lecturer who is well organized may not be the best of oral communicators. Failure to separate these different components of effective teaching has led, according to Marsh and Roche (1997:1188), to conflicting research findings as well as inadequate information for diagnostic or decision-making purposes (e.g., some aspects of poor teaching may be subject to improvement through training; others not).

Students' evaluations of teaching are expected to be correlated with the responses to questions on learning, e.g., amount of new knowledge gained or material covered (Broder & Dorfman 1994:246). Students seem to attend class as consumers of education, that is, students derive utility from attending class and the educational experience, independent of its human components. The study of Broder and Dorfman (1994:235) hypothesises that students evaluate teaching on how much they enjoyed the experience. Student evaluations are expected to be correlated with attributes that help students enjoy learning (e.g., teacher's enthusiasm, and ability to stimulate thinking).

According to Mclean (2001:7), a study at the University of Natal showed that medical students' perceptions of a "good" educator valued personal attributes

of an educator that allowed them to interact with the teacher (e.g. was able to motivate students and was sensitive to their needs) more than technical aspects (e.g. punctual and organised lectures). Presumably then, a conducive teacher-learner relationship, which would impact positively on the attitudes and the approaches they adopted to learning, was important for these students.

It thus is clear that a variety of student-related factors influence students' evaluation of instruction.

2.5 FACTORS INFLUENCING STUDENTS' EVALUATIONS OF THE EDUCATIONAL EXPERIENCE

This study is aimed at identifying factors that influence students' evaluations of their educational experience; earlier studies however, have already indicated the impact of culture and the students' learning styles on such evaluations, as well as a combination of certain factors.

2.5.1 CULTURE

Whereas the effect of the cultural context has long been recognised as having a major impact on learning, it could be argued that a similar influence could be found in student evaluations of courses (Rindermann & Schofield 2001:277). For example, the expectations of both students and lecturers in an Asian culture, which are perceived (rightly or wrongly) as relying heavily on rote learning and the social distance between lecturer and student, may well be different from those in an American context where there is a level of familiarity between the two groups and where collegiality is emphasised.

Researchers from Third-World countries have long questioned the assumption that Western educational and psychological theories and measuring instruments are appropriate for non-Western subjects (Watkins 1992:251). Watkins further pointed out that there were two fundamentally different approaches to cross-cultural research: the "emic" and the "etic". The "emic" approach seeks to compare different cultures on what are thought to be

universal categories. All too often in the past a researcher has taken a test developed in one culture and administered and scored it for subjects from another culture without demonstrating the relevance of the construct or the validity of the instrument for the new culture.

2.5.2 LEARNING STYLE: ACTIVE AND PASSIVE LEARNERS

A study done by Kember and Wong (2000:77) distinguished between two groups of students in their evaluation of teaching quality. Initially it was assumed there would be "clear cut" identifiable sets of characteristics which would distinguish good from poor teaching; the findings, however proved otherwise. Students who prefer passive learning prefer the following:

- clear organisation
- clarity of structure
- specification of clear objectives
- slower and more structured pace
- clarity of communication
- moderate workload
- lower level of difficulty.

Active learning students would give a high priority to:

- promotion of interaction in class
- variety in teaching approaches
- display of enthusiasm.

2.5.3 MULTI-FACTORIAL MODEL

Course quality is multi-faceted, being determined by lecturer, students, and external conditions. It was found that lecturer variables were reliable across courses given by the same person, but student scales or background variables were less consistent across courses in which the content was identical (Rindermann & Schofield 2001:377).

One must also take into consideration that lecturers at universities teach different subjects in different ways in front of different students. According to

Rindermann and Schofield (2001:378), the results of teacher evaluations, where those teachers were evaluated by different students, could not be compared, as mean differences between judgements made about different professors reflected differences between subgroups of students and not between the teaching quality of the lecturers. Judgement of students was dependent on such factors as total semesters completed, age, sex, pre-university education, past performance at university, the level of study of relevant literature, intelligence level, diligence, motivation, achievement, and interest.

In short, course quality can never be measured in terms of one factor alone. Similarly, scales describing external conditions would be expected to vary considerably, depending on the actual topic or subject being taught, irrespective of the lecturer (Rindermann & Schofield 2001:380).

2.6 SUMMARY AND CONCLUSION

Quality assurance in higher education refers to the way in which a university can satisfy itself and its clients that the policies and procedures in connection with the study programs and qualifications it offers, are monitored and that the enhancement of standards is facilitated (Eenheid vir Navorsing oor Hoër Onderwys 1992:1). According to Frazer (1991:1257), higher education is accountable to at least three different groups, namely society (government), the clients (students and employers) and the subject (professions, colleagues). The clients of higher education are the students and the employers of the graduates. They have a certain right to the best possible education available and to achieve particular levels of knowledge and competence (Jonathan 2000:46).

Just as "every cobbler thinks leather is the only thing" - most social scientists have their favourite research methods with which they are familiar and have some skill in using. Trow's observation (1957:33) - made over 40 years ago - and his subsequent challenge that "we should at least try to be less parochial than cobblers," has only found more widespread support within the last decade.

Within the field of education, whether one is involved in addressing basic research questions, or conducting and evaluating interventions, or both, as described here, the integration of multiple methods represents a useful strategy. Since evaluation is a critical aspect of all health education endeavours, it is important to keep in mind that comprehensive evaluation, to be meaningful, has to be "process as well as outcome oriented, exploratory as well as confirmatory, and valid as well as reliable" (Reichardt & Cook 1979: 3).

Action research, which combines the generation and testing of theory with social system change, demands multiple sources of knowledge about the research setting (see Chapter 3).

Evaluation of teaching quality is not a simple process. Interpersonal skills seem to be a major part of teaching quality. While the lecturer's knowledge is important, the ability to deliver the knowledge is equally, if not more, important.

The purpose of quality assurance is to "assure the quality of the institution or program, and to assist in the improvement of the institution or program" (Hamilton & Vanderwerdt 1990: 541). The current assessment project (Bezuidenhout 2000-2002) is important for the quality assurance of the education and training of undergraduate students at the School of Medicine, University of the Free State. However, it seems as if all the variables were not taken into consideration yet. It is necessary for the quality assurance process to determine the factors (variables) that might influence students' evaluation of teaching quality.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

"Research is the systematic search or inquiry ('research') for knowledge. Scientifically acceptable methods are used to investigate issues in order to arrive at valid conclusions". Each discipline has its own 'bag of research tools' which can be used to further knowledge in the field (Katzenellenbogen, Joubert & Karim 1997:3).

According to Katzenellenbogen *et al.* (1997:4), people may have many reasons for conducting research; however, most people pursue an investigation out of interest in the topic or a perceived need for information in their work situation. They use the results of the research to further scientific knowledge and/or as a rational basis for their work. This may mean that the results can assist when making decisions, motivating for resources from funders and/or governmental agencies, or monitoring progress and evaluating programs.

3.2 BACKGROUND TO THE STUDY

In the light of a changed student body at the University of the Free State and a new curriculum introduced for the M.B.,Ch.B program in 2000, it was essential to take steps to ensure that the quality of the education and training students receive, was maintained at the same high level as in previous years. One measure taken to ensure quality was the implementation of a project to have the modules in the program assessed by students (*cf.* Bezuidenhout 2000-2002).

The results of the assessments of the M.B.,Ch.B program show big discrepancies between different classes in their assessment of instruction. The question that came to the fore was: What factors could be associated with the

discrepancies between classes in their evaluation of a module in the M.B.,Ch.B. program? The problem addressed in this study thus deals with factors coming into play when students in the M.B.,Ch.B. program evaluate a module. This particular problem was identified by studying the results of an action-based research project currently running in the School of Medicine in the University of the Free State (*cf.* Bezuidenhout 2000-2002).

3.3 PURPOSE AND AIM

3.3.1 PURPOSE

The purpose of this study was to contribute to the quality of education in the M.B.,Ch.B. program, in the School of Medicine, University of the Free State. A new program for the training of professional medical practitioners was introduced at the School of Medicine, University of the Free State in 2000 in order to adapt the education and training of the School of Medicine, ensuring that it stays in line with educational developments worldwide. To be able to deliver quality practitioners, it is essential that quality assurance exercises be carried out.

3.3.2 AIM AND OBJECTIVES

The aims of this study, as described in 1.3.2, were to gain a better understanding of the results of the evaluation of instruction by students in the MED 113 module and to identify factors that may be associated with their evaluations, and furthermore to determine the weaknesses and strengths in the MED 113 module.

To achieve these aims, the study endeavoured:

- To obtain an overview of existing knowledge and research methods through an extensive literature survey on quality assurance and factors influencing students' evaluation of teaching
- To develop a research instrument (questionnaire) for gathering data on students' perceptions of teaching quality in the MED113 module for 2002, based on the information gathered from the literature review.

- To identify the weaknesses and strengths, according to students' perception, in the MED 113 module by means of the questionnaire.
- To identify factors influencing students' evaluation of teaching.
- To make recommendations regarding possible ways of addressing these factors that influence a student's perceptions .
- To make recommendations to improve the teaching in the module based on the findings (the so-called "action research").
- To examine whether students' evaluations of the course and other personal characteristics, predicted their final result.

3.4 METHOD AND PROCEDURES

3.4.1 TYPE OF STUDY

A literature study and an empirical investigation were done. The purpose of the literature review was to provide a background to and context for the research problem, to establish the need for the research, and to gain sufficient knowledge about the area of study (*cf.* Landman 1988:75). An extensive literature study was thus conducted to form the basis of the investigation. The focus of the study was on quality in higher education, with special attention to medical education and training, and the factors that may play a role in the assessment of teaching quality.

The investigation was a repeated cross-sectional analytical study. An analytical study attempts to explain or analyse the situation by comparing groups, and in this way identify risk factors (associated factors) for the disease (Katzenellenbogen *et al.* 1997:66), or, in the case of this study, the 'problem' of factors influencing students' perceptions of teaching quality.

3.4.2 STUDY POPULATION

The population group involved consisted of the first-year medical students in the MED113 module in the first-year of the M.B.,Ch.B. program of the University of the Free State in 2002. The study population consisted of 144 students, divided into two classes, the Afrikaans and English classes. The

population comprised about 41% males and 59% females, mostly school leavers of about 17-19 years of age. The MED 113 module is a module offered in the first semester of the first year, resulting in it being one of the first subjects that the undergraduate students encounter in their medical studies.

Only students were used as a source of information because the main emphasis of this study was to gain further insight into students' evaluations of the course (Bezuidenhout 2000-2002) and not to evaluate the course.

3.4.3 SAMPLING

In most studies, it is neither practical nor necessary to study all the individuals in the study population. Rather, a sample (subset or subgroup) of individuals can be studied closely, ensuring that good quality information is obtained (Katzenellenbogen *et al.* 1997:74).

No sampling was done in this study as data collection from the whole study population was feasible, and a large amount of data was needed to be able to analyse the determinants of the students' assessments of lecture quality.

3.4.4 MEASUREMENTS

The collection of information for a study is called measurement. It is the process by which values are obtained for the characteristics (variables) of individuals being studied (Katzenellenbogen *et al.* 1997:82). There are several methods of collecting data. For this study, measuring instruments in the form of two questionnaires were developed, based on literature and existing questionnaires (Bezuidenhout 2000-2002).

For this study, the use of questionnaires to collect information had many advantages, in that it is a relatively cheap data collection process, anonymity could be ensured, and the whole target group could be reached easily.

The first questionnaire (see Appendices C&D) collected personal data on the population (only once), while the second questionnaire (see appendices A&B) collected data on students' perceptions on the instruction in the module in each session. The questionnaires were developed in Afrikaans and English, because parallel-medium instruction (Afrikaans and English) is offered at the School of Medicine, University of the Free State. The questionnaires were tested for reliability and validity by a translator and a statistician (*cf. Wilken et al. 1992:30*), and by means of a pilot study.

3.4.4.1 Student characteristics (demographics)

The following student-level variables that might influence their assessment of the module were investigated:

- Age of student
- Afrikaans / English class
- Home language
- Socio-economic background (reflected by the occupations of the parents)
- Tertiary education of student's parents
- If the student is repeating the year
- If student has completed any other tertiary education before
- The student's marks obtained for the MED 113 test
- The student's grade 12 (final school year) results
- Language medium in grade 12.

3.4.4.2 Evaluations of each session

Each session was evaluated separately to be able to identify possible problems in the module. Some of the aspects where problems had been identified by means of a quality assurance study currently running in the Medical School of the University of the Free State (*cf. Bezuidenhout 2000-2002*) were incorporated into these questionnaires.

The following variables and codes were used for session assessment:

▪ **Session goals and outcomes (Questions A1-A4)**

The following aspects were addressed:

- Whether the student understood the content of the session.
- Whether the outcome of the session was communicated to the students.
- Whether the outcome of the session was realistic and obtainable.
- Whether the session content was directed by the outcome.

▪ **Study material (Questions B1-B2)**

The following aspects were addressed:

- Whether the lecture material was well chosen and organised.
- Whether the lecture material was available in a language / idiom that the student could understand.

▪ **Attitude and skills of lecturer (Questions C1-C6)**

The following aspects were addressed:

- Whether the lecturer showed a positive attitude in class.
- Whether the lecturer was enthusiastic.
- Whether the content was presented in an interesting and stimulating way.
- Whether good explanations with examples were given.
- Whether the course content and practice were well integrated.
- Whether the students were encouraged to have interaction with the lecturer.

▪ **General variables (Questions D1-D4)**

The following aspects were addressed:

- Whether the group work helped the student to achieve the outcomes.
- Whether the directed learning sessions were used well. (Directed learning session is a guided self-study activity, linked to the lecture and the group work of that session. In this module it consists mostly of community-based educational activities.)
- Whether the student found the session enjoyable.
- Whether the student thinks this session should be part of the learning program (M.B.,Ch.B.).

Questionnaire B was completed by each student during the first session of the module, while copies of questionnaire A were given to the class representative of each class, who gave the forms out in the class at each session and ensured that all the completed forms were collected again and taken to the researcher's office the next day.

An ordinal scale was used, more specifically the Likert scale, for measuring the different variables in the questionnaire. The following five-point scale (Table 3.1) was used:

Table 3.1 Five-point scale used in the study

	Score
▪ Strongly disagree	1
▪ Disagree	2
▪ Neutral	3
▪ Agree	4
▪ Strongly agree	5

Scores were allocated by adding up the responses of all items included, namely

- Goals and outcomes score (A-score): 4 items (possible range 4-20)
- Study material score: (B-score): 2 items (possible range 2-10)
- Attitude and skills of lecturer (C-score): 6 items (possible range 6-30)

- Total score: 16 items (possible range 16-80).

The evaluations of students were gathered at each session over the period January 2002 - June 2002. No problems were encountered in the gathering of data, largely due to the diligence and co-operation of the class representatives of the two classes.

3.4.5 PILOT STUDY

The questionnaire was pre-tested by the group of sixth-year students doing their residency in the Department of Community Health and the questionnaire was adapted. The following changes were made:

- Student numbers were changed to an unidentifiable number for confidentiality purposes
- Examples of occupations for the classification of parental occupation were added to the questionnaire.

3.5 DATA MANAGEMENT AND STATISTICAL ANALYSIS

"Statistics is the science and art of collecting, summarising and analysing data that are subject to random variation" (Last 1988:124).

The researcher collected the data, coded the data and entered it into the Excel computer program. The researcher planned the analysis in a collaborative manner with Prof Bachmann from the Department of Community Health, Faculty of Health Sciences, University of the Free State. Statistical analysis was done by Prof. O.M. Bachmann using Stata software. Frequency distributions were used to describe students' evaluation of each aspect of each session. These were then compared between classes, sessions and lecturers. Summary scores were calculated for "SESSION GOALS AND OUTCOMES" (four items; A1-A4 in the questionnaire) and for "LECTURERS' ATTITUDES AND SKILLS" (six items, C1-C6 in questionnaire). These identified the highest and lowest rated sessions, and aspects of sessions.

Prof Bachmann discussed the findings of the analysis with the researcher on a regular base.

The main aim of the statistical analysis was to identify the independent influences of various student-, session-, lecturer- and class-level factors on students' evaluations. The main outcome measures were ordered categorical variables, with skewed distributions. Therefore, the Kruskal Wallis test or ordinal logistic regression was used, with ratings of individual items and summary scores as outcomes. Explanatory variables to be included in each model were selected as follows: First, all potentially influential variables were included (age of student, Afrikaans / English class, home language, socio-economic background, tertiary education of student's parents, if the student is repeating the year, if student has completed any other tertiary education before, the student's marks obtained for the MED 113 test, the student's grade 12 (final school year) results, language medium in grade 12). Then the variables were manually removed from the model if they were not associated with the outcome at 10% significance level)

Each session was first analysed separately. Thereafter all sessions were analysed together, using dummy variables to indicate individual sessions, and adjusting standard errors to account for clustering of outcomes at student level. As an alternative to using dummy variables for teaching sessions, the pooled data was analysed using dummy variables for lecturer. Session and lecturer could not be analysed simultaneously, because they were completely correlated.

The independent associations between students' module assessment and their personal characteristics (independent variables) and the marks they obtained in their end of module examination were also examined. As their marks were normally distributed, multiple linear regression was used for these analyses.

3.6 LIMITATIONS OF THE METHODS

The validity of the questionnaires could not be assessed against a gold standard, so one can't be sure they show what students truly think. The analysis suggested that they had some face validity from a lecturer's perspective - i.e. one would expect students from deprived backgrounds or with better school results to rate Community Health lectures more highly. It would have been interesting to explore the face validity of the results with students, using qualitative methods, but that was beyond the scope of the study.

In retrospect the questionnaire could have made use of internal reliability checks (e.g. more than one item asking the same question in a slightly different way), which could have contributed to reducing variability, or at least measuring it

Ideally, other ways of determining the weaknesses and strengths, e.g. evaluations by other lecturers, would have added value to this study.

However, only students were used as a source of information because the main emphasis of this study was to gain further insight into students' evaluations of the module and not to evaluate the course.

The test-retest reliability of the questionnaires also was not assessed. This could not be done after the recommended two-week interval recommended for assessing the test-retest reliability of health measurement scales (as in Streiner and Norman, 1995), as their recollection of lectures would have been influenced by intervening lectures in the same module (unless it was done after the last lecture, in which case revision might have influenced their recall).

Because parental occupation and language are highly correlated, these might have influenced the results, yet the researcher kept both sets of variables in the model to estimate their independent effect.

3.7 IMPLEMENTING FINDINGS

The findings of the study will be:

- used, where appropriate, in the planning process for the MED 113 module for 2004 and in future quality control strategies, with a view to improving the quality of teaching and learning;
- published in an appropriate journal;
- presented to the Division of Educational Development of the Faculty of Health Sciences with a view to possible use in its staff and curriculum development activities.

The findings were also presented at the Faculty Forum of the Faculty of Health Sciences on 29 August 2002.

3.8 ETHICAL AND LEGAL CONSIDERATIONS

3.8.1 CONFIDENTIALITY

The method of information gathering was anonymous, but because of the nature of the study and the fact that the student had to be linked to a number for purposes of analysis, a constant number needed to be allocated to each student for the questionnaires and the student information. A method of number-allocation was agreed upon with the class to keep all responses anonymous. The class representative of each class kept a list of the numbers and names (only for the purpose if somebody should forget his/her secret number), but was not allowed at any stage to reveal the number and names to the researcher or any lecturer.

Each group was allowed to chose their group number between 1 and 99, after consulting with the class representative. In each group, each member was allowed to chose a number between 1 and 99. The student personal number was then made up by the following: a letter "A" or "E" (A for the Afrikaans class and E for the English class) + group number + personal number in the group; e.g. if a student was in the English class and the group decided to be group 66 and the student decided to be number 6, his/her number would be E + 66 + 06,

and therefore a number E6606 was allocated to this student. The student had to keep this number throughout the research and this number was highly confidential. The class representative of each class kept a list of the numbers and names (only for the purpose if somebody forgot their secret number), but was not allowed at any stage to reveal the number and names to the researcher or any lecturer. Confidentiality was kept at all times. No data could be traced back to a student. The method used to ensure confidentiality was suggested by the students themselves, because they felt in this way their confidentiality could be protected.

3.8.2 INFORMED CONSENT

An oral information session was given to the whole class to explain the nature of the research to the class. Signed consent was not needed - consent was implicit in the return of questionnaires.

3.8.3 VOLUNTARY PARTICIPATION

The completion of the questionnaires was voluntary, although the class was motivated to participate in the study. No action was taken against any person that was unwilling to participate. The researcher was not able to know who these students were.

3.8.4 ETHICS COMMITTEE APPROVAL

The study was approved by the Ethics Committee of the University of the Free State (ETOVS NR 75/02).

3.9 CONCLUSION

The decision to conduct this study to investigate factors influencing students' assessments of their instruction in a first-year module in the M.B.,Ch.B. program was based on the need for sound scientific information on which to base possible adaptations to the module in follow-up planning. An analytical

study design was used, as this type of design is best suited for providing planners with information for designing (or redesigning) activities.

When a need has been identified, it is necessary to address it objectively and scientifically in order to act with confidence and pro-actively to satisfy this need (Bezuidenhout 2002:90). Therefore a scientific investigation, based on sound research principles, was required to determine the factors which influence students' evaluations of the module here in question.

CHAPTER 4

RESULTS: PRESENTATION AND DISCUSSION

4.1 A DESCRIPTION OF THE DEMOGRAPHY OF THE M.B.,Ch.B. 1 CLASS OF 2002

Because of reasons mentioned in chapter 1, the demographics of the M.B.,Ch.B.1 class of 2002 at the University of the Free State, differed from previous years.

4.1.1 Distribution of the ages of the students

The ages of the students varied from 16-31 years. 67% of students were between 18 and 19 years old (see table 4.1).

Table 4.1 Frequency of different ages of students in the MED 113 module of 2002

Age	Frequency
16	1
17	4
18	48
19	48
20	9
21	7
22	9
23	8
24	5
25	0
26	1
27	1
28	0
29	1
30	0
31	1

4.1.2 Distribution of students in the two classes

The distribution of students between the Afrikaans and English class was almost even (see table 4.2).

Table 4.2 Frequency of students in the different classes in the MED 113 module of 2002

Class	Frequency of students
Afrikaans	71
English	72

4.1.3 Distribution of students according to sex

In both classes the females were more than the males. In total the female students represented 59% of the class and the male 41% (see table 4.3).

Table 4.3 Frequency of students of different sexes in the MED 113 module of 2002

Sex	Frequency of students
Male	58
Female	85

4.1.4 Distribution of students according to their language groups

There were 12 languages identified as the first language of the students. Afrikaans was the first language in 53% of the students; 16% of the students identified English and 15% identified Sesotho as their first language (table 4.4).

Table 4.4 Frequency of students of different language groups (first language) in the MED 113 module of 2002

First language	Frequency of students
Afrikaans	75
English	23
Sesotho	22
Tswana	13
Zulu	0
Xhosa	4
Other	6

In the Afrikaans class Afrikaans is the first language of 98.6% of the students in the class, while only 6.9% of the students in the English class use English as first language (See table 4.5 and 4.6).

Table 4.5 Distribution of students of different language groups (first language) in the MED 113 module of 2002 in the Afrikaans class

Language	Frequency	percent	Cumulative frequency	Cumulative percent
Afrikaans	70	98.59	70	98.59
English	1	1.14	71	100

Table 4.6 Distribution of students of different language groups (first language) in the MED 113 module of 2002 in the English class

Language	Frequency	percent	Cumulative frequency	Cumulative percent
Afrikaans	5	6.94	5	6.94
English	22	30.56	27	37.5
Sesotho	22	30.56	49	68.06
Tswana	13	18.06	62	86.11
Zulu	4	5.56	66	91.67
Xhosa	6	8.33	72	100

4.1.5 Distribution of students according to the occupation groups of their parents

64% of the fathers of the students belonged to the professional or managerial group, while only 45% of the mothers of the students belonged to this group (see table 4.7). Examples of each group are attached at the end of the questionnaire (appendices C and D).

Table 4.7 Frequency of students in the MED 113 module of 2002 with fathers and mothers from different occupational groups (Examples attached at end of questionnaire)

Occupation group father	Frequency of students
Professional / managerial	91
Non-manual / clerical	8
Manual - skilled	16
Manual unskilled	1
Unemployed	8
Not applicable	19

Occupation group mother	Frequency of students
Professional / managerial	65
Non-manual / clerical	23
Manual - skilled	8
Manual unskilled	3
Unemployed	20
Not applicable	24

4.1.6 Distribution of parents of students that completed tertiary education

73% of the fathers of the students and 66% of the mothers completed tertiary education at a university or technikon (see table 4.8).

Table 4.8 Frequency of students in the MED 113 module of 2002 with fathers and mothers that completed tertiary education (University / Technikon)

	Frequency of students	% of total students
Fathers completed tertiary education	102	73%
Mothers completed tertiary education	95	66%

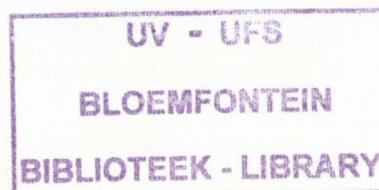
4.1.7 Distribution of students with subjects with an A symbol in their grade 12 (matric) year

The number of A symbols that the students obtained in their grade 12 (matric) year, varied from 0 to 10 A symbols per student (see table 4.9). 19.9% of the class obtained no A symbols in grade 12.

52.7% of the class obtained 4 or more distinctions (A symbols) in their grade 12 year.

Table 4.9 Frequency of students in the MED 113 module of 2002 with subjects with an A symbol during their Grade 12 (matric) final examination

Number of A symbols in Grade 12	Frequency	Percentage of class
0	28	19.9
1	11	7.8
2	9	6.4
3	18	12.8
4	18	12.8
5	28	19.9
6	16	11.4
7	6	4.3
8	4	2.8
9	2	1.4
10	1	0.71



As anticipated, significant differences were detected in all the different categories of evaluation.

4.2 TOTAL SCORE ACCORDING TO SESSIONS

A significant difference in the evaluation of the different sessions was observed (Kruskal Wallis= 0,0001) (see table 4.10). The total score was high for all the sessions. The possible range of scores was from a minimum of 16 to a maximum of 80 (16 items with possible scores of 1 to 5 for each item).

The range of the median value was 67-71 and the range for the mean value was 65.26 - 72.09 (see table 4.10). Highest overall marks were detected in sessions 5, 6 and 9. Lowest overall scores were detected in sessions 2, 3 and 7.

Table 4.10 Comparing the median, inter-quartile range and mean values of each session

TOTAL SCORE			
Session	Median	IQR	Mean
1	68	63.5-74	67.97
2	67	60-73	65.45
3	67	62-73	66.99
4	75	69-79	72.41
5	73	64-79	69.89
6	69	63-77	68.09
7	67	58-73	65.26
8	71	64-77	69.45
9	73	66-79	71.09
10	68	61-76.5	67.72
p-value (Kruskal Wallis Test) =0.0001			

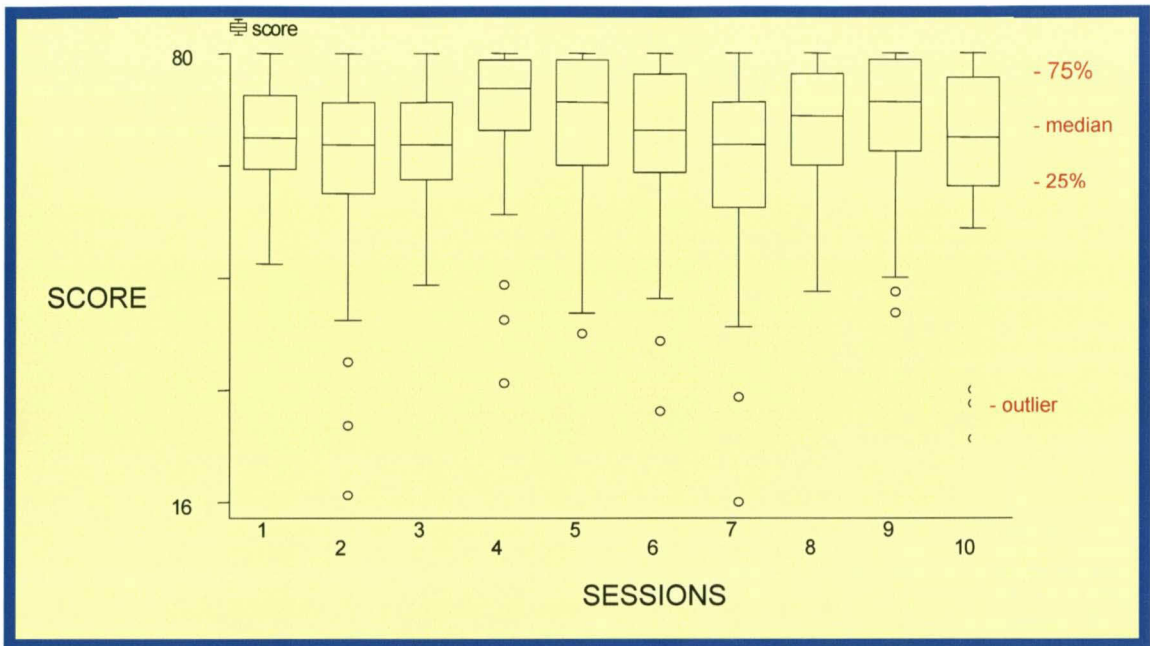


Fig. 4.1 Box plot to demonstrate the median and interquartile range of the different sessions in MED 113

The 25th and 75th percentiles in fig 4.1 suggest very skewed distributions.

If the total score is divided into the different categories (session goals and outcome, evaluation of study material, attitude and skills of lecturer and general matters) and sub-categories, one can easily detect strengths and weaknesses in all the different sessions and different aspects of sessions (figure 4.2 - figure 4.19).

4.2.1 Comparing the A-score (goals and outcomes) of the different sessions

A small, yet significant ($p=0.0001$) difference in the evaluation of the goals and outcome (A-score) of the different sessions was observed (table 4.11). The overall A-score was very high for all the sessions (table 4.9). The possible range of scores was from a minimum of 4 to a maximum of 20 (4 items with possible scores of 1 to 5 for each item). The range of the median value was from 17 to 19 and the range for the mean value was 16.6 to 17.94.

Table 4.11 The median, inter-quartile range and the mean values of the A-score of the different sessions

A-SCORE			
SESSION	Median	Inter-quartile range	Mean
1	17	16-19	16.98
2	18	16-19	17.12
3	17	15-19	16.60
4	19	16-20	17.74
5	18	16-20	17.38
6	17	15-20	16.72
7	18	15-20	17.06
8	18	16-20	17.28
9	19	16-20	17.94
10	18	16-20	17.30
p-value (Kruskal Wallis)		0.0001	
Cronbach's alpha		0.8596	

Highest scores were detected in sessions 4 and 9. Lowest scores were detected in sessions 1, 3 and 6. The sessions that scored high or low in the total score (table 4.8) were not necessarily sessions that scored high and low in the goals and outcome (A-score).

The overall score in all the sessions varied from 4 to 5 out of the possible 5 marks (figure 4.2 - figure 4.5).

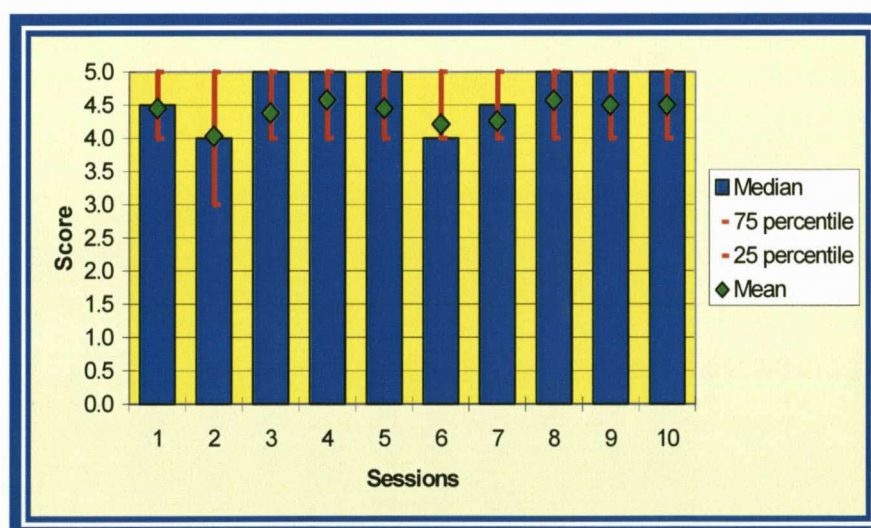


Fig. 4.2 The median values of the A1-score (outcome and goals - understanding the content of the session) of the different sessions of MED 113

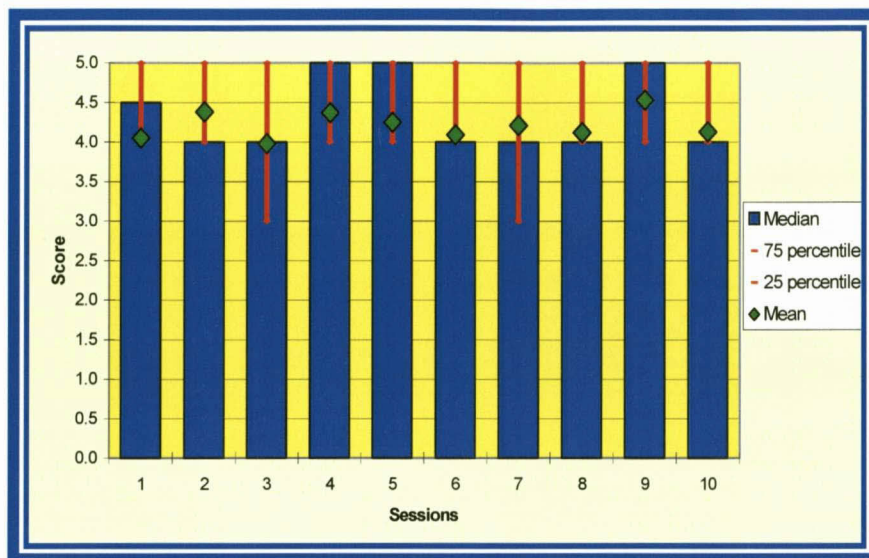


Fig. 4.3 The median values of the A2-score (outcome and goals - outcome of sessions communicated with students) of the different sessions of MED 113

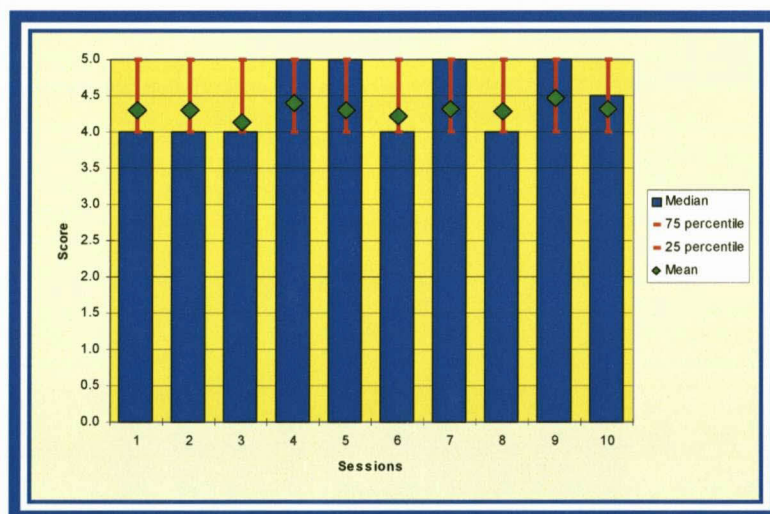


Fig. 4.4 The median values of the A3-score (outcome and goals - outcome realistic and obtainable) of the different sessions of MED 113

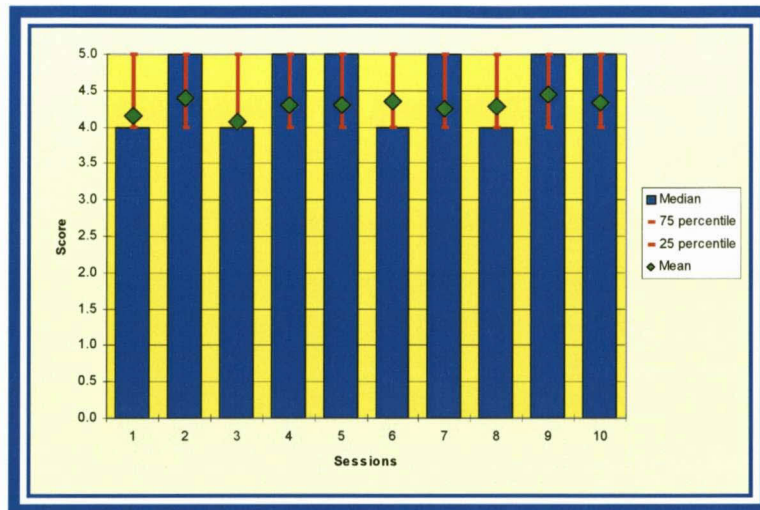


Fig. 4.5 The median values of the A4-score (outcome and goals - lecture content directed by outcome) of the different sessions in MED 113

4.2.2 Comparing the B-score (evaluation of study material) of the different sessions

A significant ($p=0.0001$) difference in the evaluation of the study material (B-score) of the different sessions was observed (table 4.6 and figure 4.8). The overall B-score was very high for all the sessions (figure 4.9). The possible range of scores was from a minimum of 2 to a maximum of 10 (2 items with possible scores of 1 to 5 for each item). The range of the median value was from 8.5 to 10 and the range for the mean value was 7.95 to 9.

Highest scores were detected in sessions 4, 5 and 6; the lowest score was detected in session 3. There was not always a direct correlation between the sessions that scored high or low in the total score and all the sessions that scored high and low in the evaluation of lecture material (B-score).

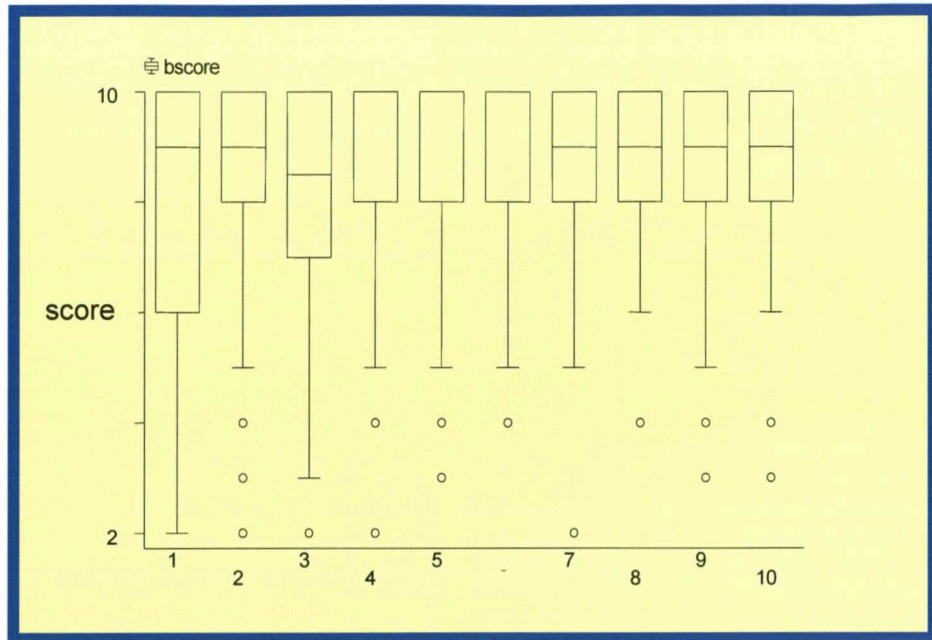


Fig. 4.6 Box plot: Comparing the median values and inter-quartile range of the evaluation of study material (B-scores) of the different sessions in MED 113

The different categories under the B-score also showed a moderate variation (figure 4.7 - figure 4.8).

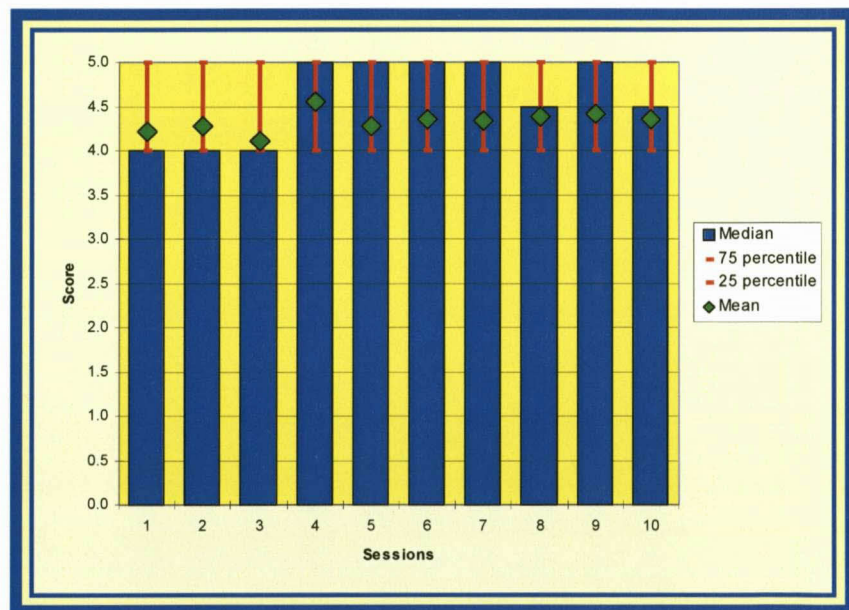


Fig. 4.7 The median values, the inter-quartile range and the mean value of the B1-score (evaluation of lecture material - lecture material well chosen and organized) of the different sessions in MED 113

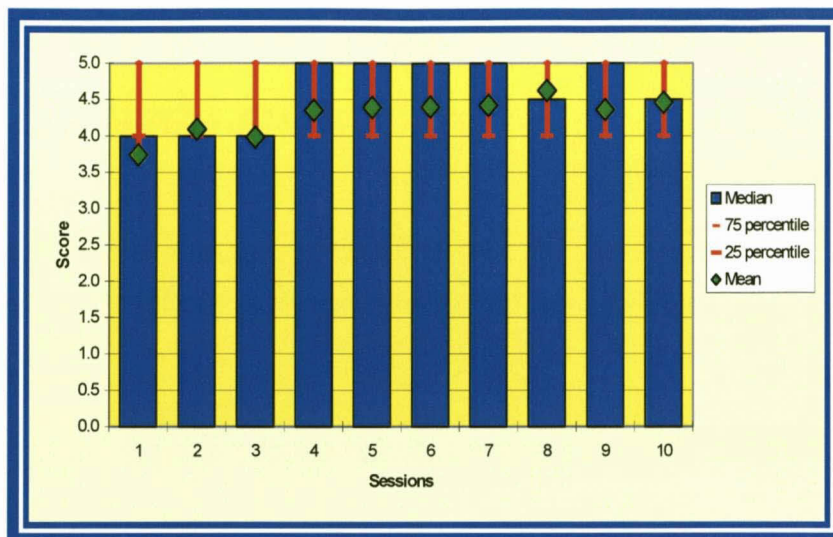


Fig. 4.8 The median values, the inter-quartile range and the mean values of the B2-score (evaluation of lecture material - lecture material available in language / idiom that could be understood) of the different sessions in MED 113

4.2.3 Comparing the C-score (attitude and skills of lecturers) of the different sessions

A significant ($p=0.0001$) difference in the attitude and skills of the lecturers (C-score) of the different sessions was observed (table 4.9 and figure 4.15). The overall C-score was very high for all the sessions (figure 4.9). The possible range of scores was from a minimum of 6 to a maximum of 30 (6 items with possible scores of 1 to 5 for each item). The range of the median value was from 25 to 30 and the range for the mean value was 24.48 to 28.37. Highest scores were detected in sessions 4, 5 and 9. The lowest score was detected in sessions 7 and 10. There was not always a direct correlation between the sessions that scored high or low in the total score and all the sessions that scored high and low in the evaluation of lecturers' skills and attitudes (C-score).

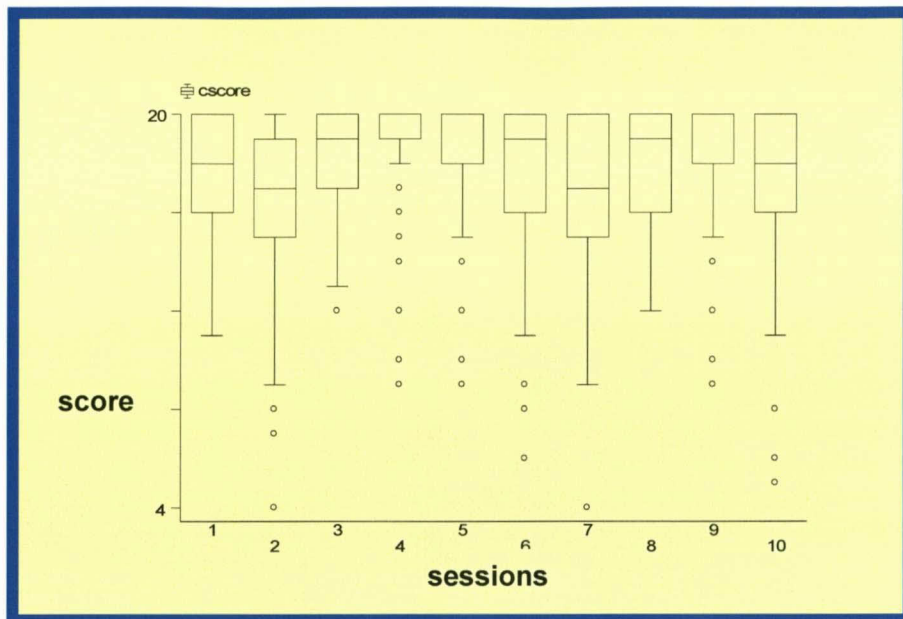


Fig. 4.9 Box plot, comparing the median values and inter-quartile range of the attitudes and skills of lecturers (C-scores) of the different sessions in MED 113

The different categories under the C-score also showed little variation (figure 4.10 - figure 4.15).

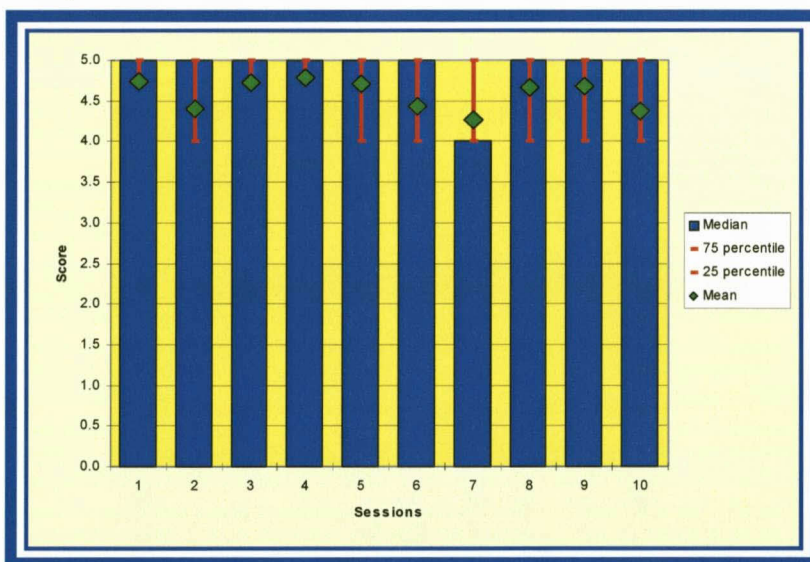


Fig. 4.10 The median values, the inter-quartile range and the mean values of the C1-score (Attitudes and skills of lecturers: The lecturer showed a positive attitude in class) of the different sessions in MED 113

The students experienced the lecturers as having a very positive attitude in class (figure 4.13). Even the lowest median was 4 out of the possible 5 (80%). For all, except one session, the median value was 5 out of the possible 5 (100%).

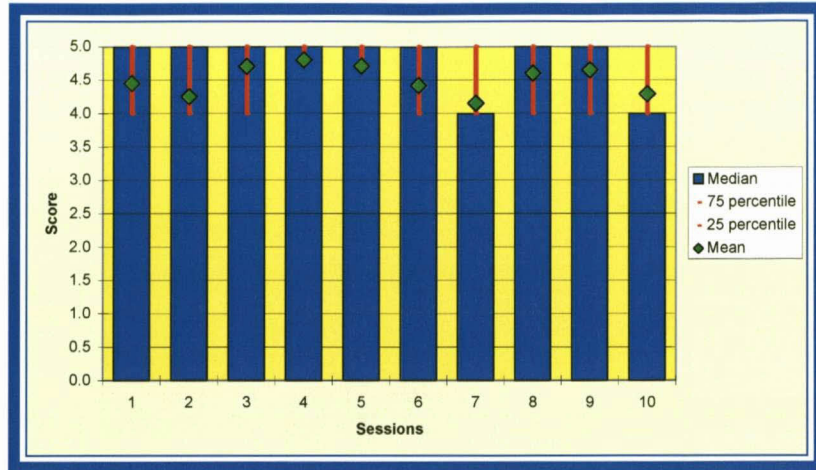


Fig. 4.11 The median values, the inter-quartile range and the mean values of the C2-score (Attitudes and skills of lecturer: The lecturer showed enthusiasm during the lecture) of the different sessions of MED 113

The students also evaluated the lecturers as being very enthusiastic in class (figure 4.11). Again the lowest median values were 80%.

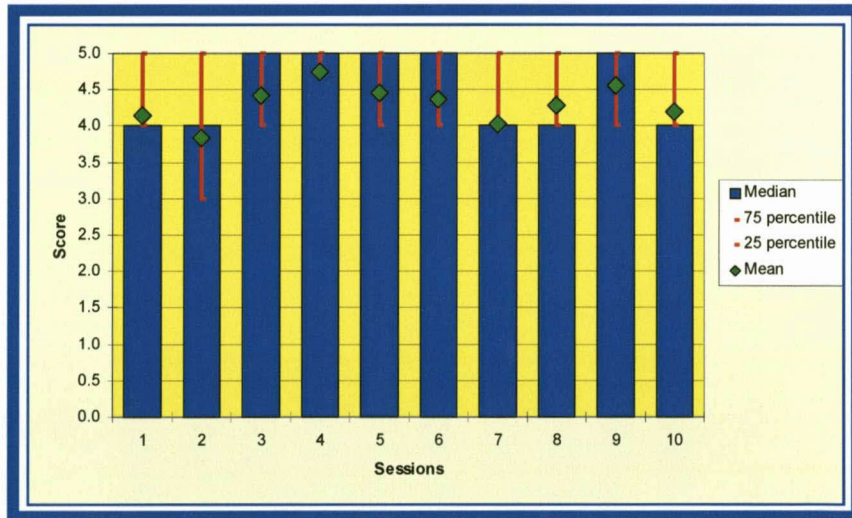


Fig. 4.12 The median values, the inter-quartile range and the mean values of the C3-score (Attitudes and skills of lecturer: The content was presented in an interesting and stimulating way) of the different sessions in MED 113

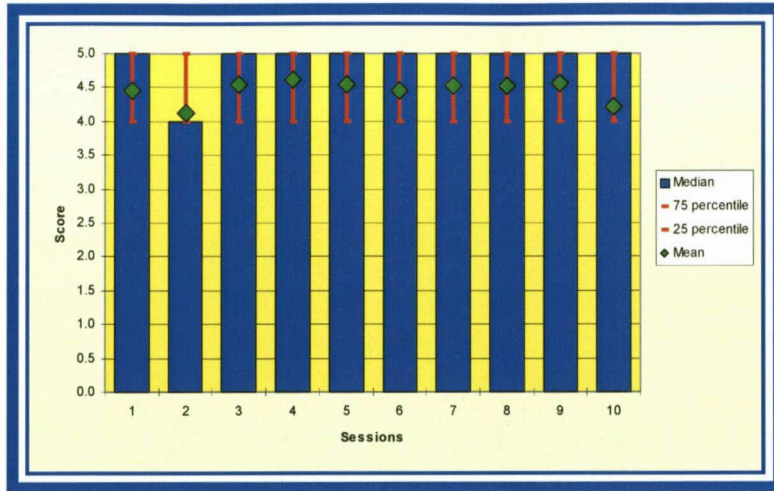


Fig. 4.13 The median values, the inter-quartile range and the mean values of the C4-score (Attitudes and skills of lecturer: Good explanations with examples were given) of the different sessions in MED 113

See section 4.3 for allocations of sessions to different lecturers.

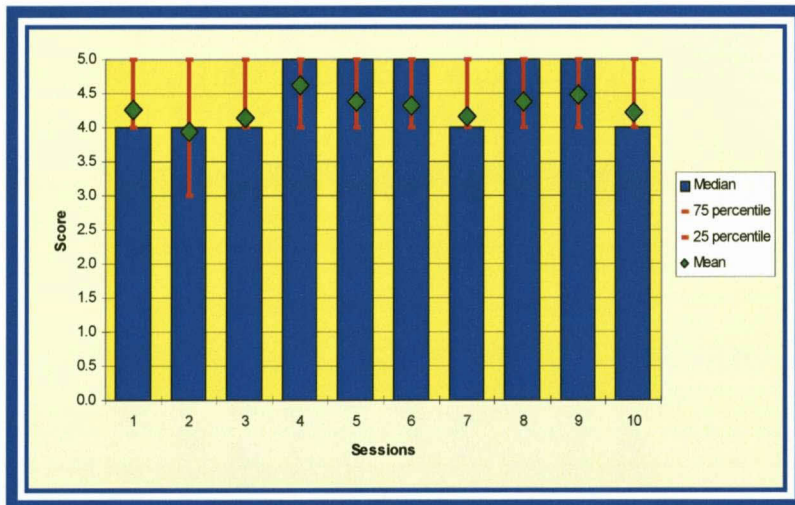


Fig. 4.14 The median values, the inter-quartile range and the mean values of the C5-score (Attitudes and skills of lecturer: Course content and practice were well integrated) of the different sessions in MED 113

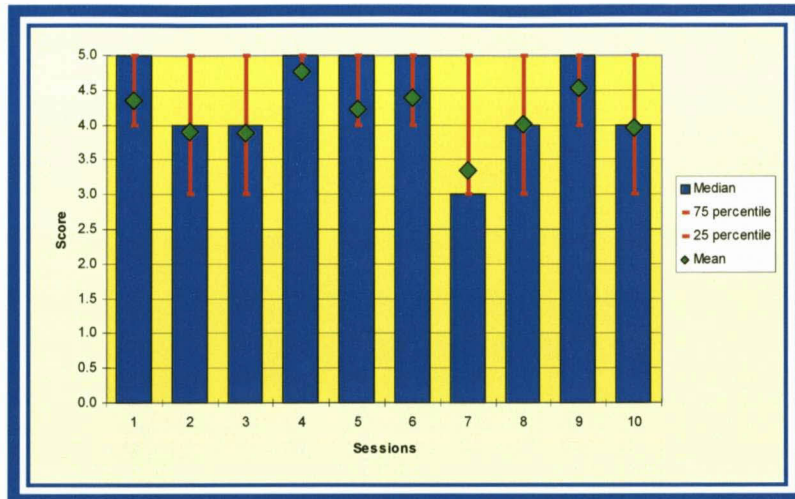


Fig. 4.15 The median values, the inter-quartile range and the mean values of the C6-score (Attitudes and skills of lecturer: Students were encouraged to have interaction with lecturer) of the different sessions in MED 113

4.2.4 Comparing the D-scores (general category) of the different sessions

The different categories under the D-score also showed a moderate a variation (see figure 4.16 - figure 4.19).

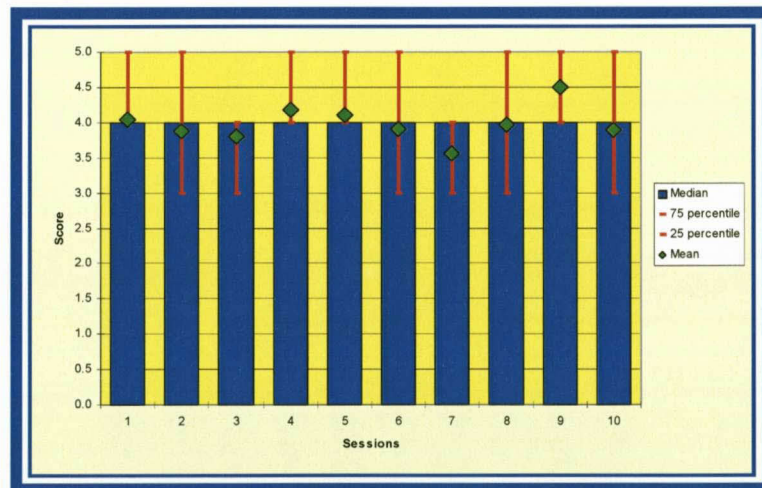


Fig. 4.16 The median values, the inter-quartile range and the mean values of the D1-score (General: The groupwork helped me to achieve the outcomes) of the different sessions in MED 113

The overall scores of the groupwork (fig. 4.16) and directed learning (fig. 4.17) were slightly lower than other categories, which also correlate with the studies by Bezuidenhout (2000-2002), yet it still remains high. The median value of the evaluation of the groupwork was 4 out of the possible 5 and the median of the directed learning varied between 3 and 4 out of the possible 5.

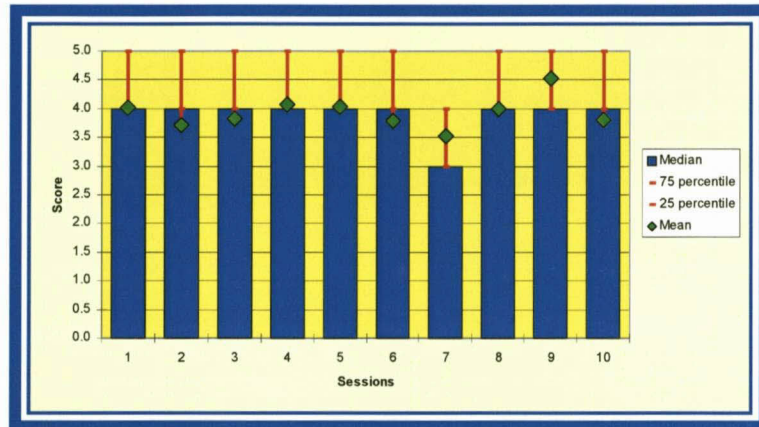


Fig. 4.17 The median values, the inter-quartile range and the mean values of the D2-score (General: The directed learning sessions were used well) of the different sessions in MED 113

The students found the sessions very enjoyable. In four of the sessions the median was 5 out of the possible 5. In four sessions the median was 4 out of the possible 5 and in one session the median was 3.5 out of the possible 5 (fig 4.17).

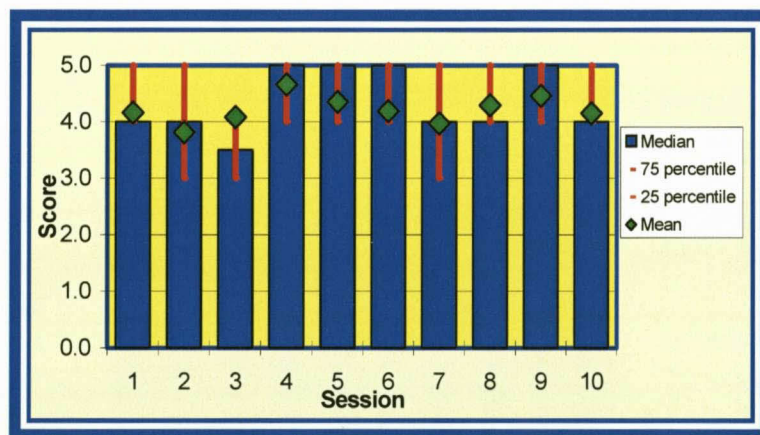


Fig. 4.18 The median values, the inter-quartile range and the mean values of the D3-score (General: The session was most enjoyable) of the different sessions in MED 113

The students also thought that all the sessions should be part of the learning program. The median values varied from 4 to 5 out of the possible 5 (figure 4.19).

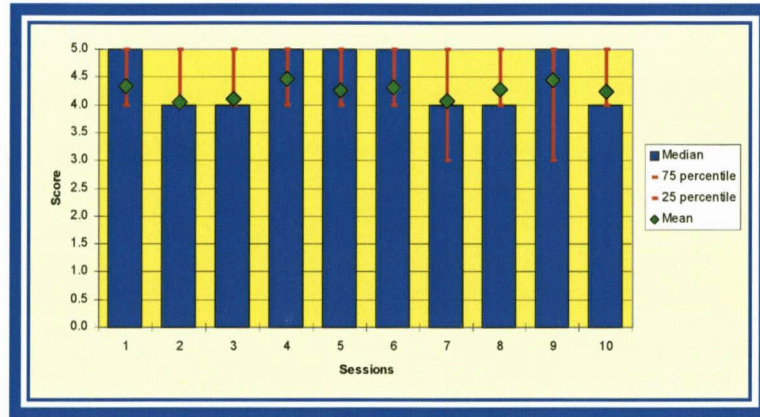


Fig. 4.19 The median values, the inter-quartile range and the mean values of the D4-score (General: This session is essential as part of the learning program) of the different sessions in MED 113

4.3 TOTAL SCORE RELATING TO LECTURERS

There were four lecturers participating in the sessions of the MED113 module. Lecturer 1 only presented one session (session 7). Lecturer 2 presented four sessions, sessions 3, 5, 8 and 10.

Lecturer 3 presented three sessions, sessions 4, 6 and 9. Lecturer 4 presented two sessions, sessions 1 and 2. A small, yet significant difference ($p=0.0001$) was detected in the total scores of the different lecturers (fig. 4.20).

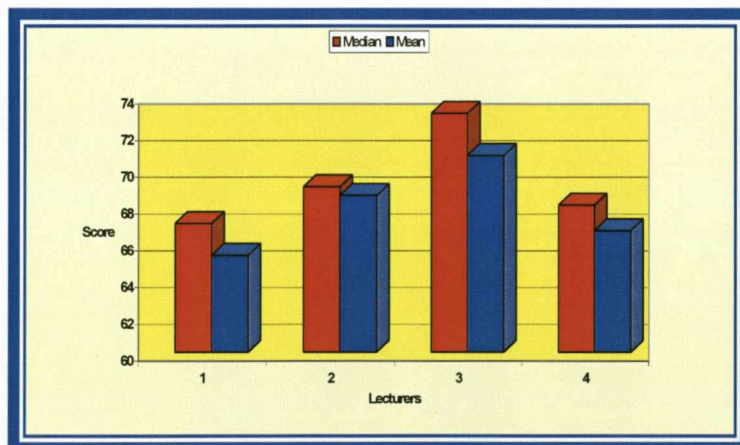


Fig. 4.20 The median and mean scores of the different lecturers in MED 113

Lecturer 3 had the highest overall scores. There was a moderate a variation amongst the different sessions of each lecturer, although the same methods were used in presenting the sessions, e.g. lecturer 2 was responsible for sessions 3, 5, 8 and 10 (fig. 4.21). This could have been influenced by the kind of topic that was presented, but many other factors could have played a role in the variation of these evaluations.

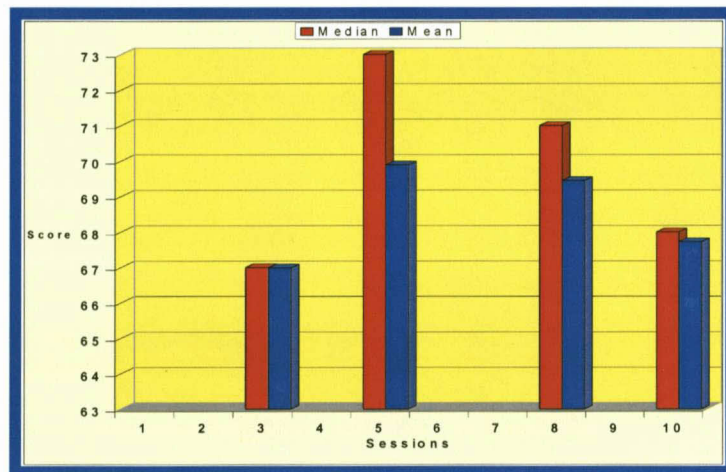


Fig. 4.21 Comparing the median and mean scores of the different sessions of lecturer no.2 in MED 113

4.4 TOTAL SCORE ACCORDING TO CLASS

There was a significant difference in the total score between the Afrikaans and English classes. The median of the Afrikaans class was 66 and of the English class 73. The mean value of the Afrikaans class was 66.38 and of the English class 70.66 (figure 4.22). These findings correlated well with the study by Bezuidenhout (2000-2002), where higher scores were found in the English class in the evaluation of all the modules compared to the Afrikaans class.

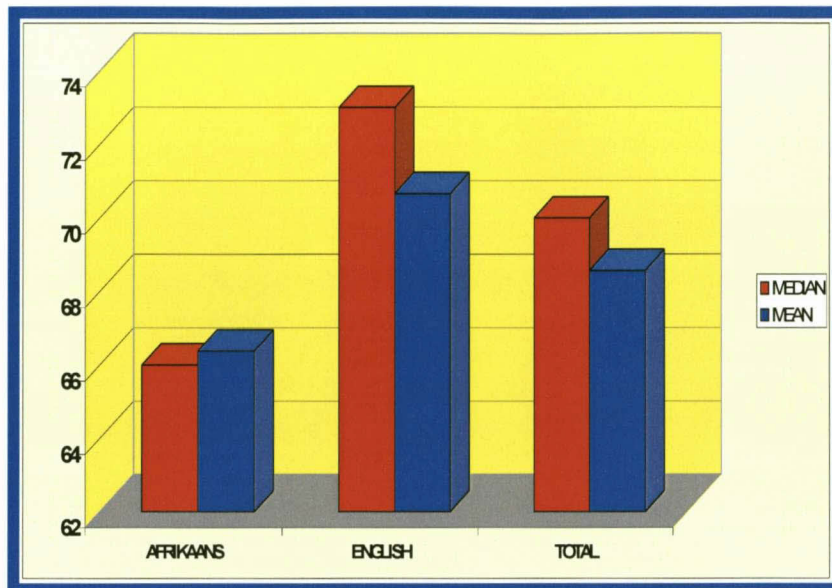


Fig. 4.22 Comparing the median and mean total scores of the Afrikaans and English classes in MED 113

4.5 THE ASSOCIATION BETWEEN STUDENT CHARACTERISTICS AND TOTAL SCORE, ADJUSTED FOR LECTURER

Ordinal logistic regression was used for analysis, using the total score as well as the A-, B- and C-scores as outcomes, because of the negatively skewed distribution of the results. The Odds ratio is the ratio of having a higher score than for the respective reference category, adjusted for the other variables in the model. An odds ratio of 1 would indicate no association between the characteristic and the total score. Several of the variables were significantly and independently associated with the total score as shown in table 4.12 (see highlighted variables).

Table 4.12 Association between the student characteristic and the total score (adjusted for lecturer and for clustering of intra-student correlations of scores)

**		Number of observations =	1062
Log likelihood = -3431.3236		Wald χ^2 (18) =	168.38
		Prob > χ^2 <	0.0001
		Pseudo R ² =	0.03
Variables	Odds ratio	Confidence interval	Adjusted p- value
Lecturer 1 vs. lecturer 2	.63	.38 - 1.05	0.077
Lecturer 3 vs. lecturer 2	1.86	1.44 - 2.4	<0.001
Lecturer 4 vs. lecturer 2	.72	.55 - .94	0.015
Home language: English vs. Afrikaans	2.91	1.65 - 5.13	<0.001
Home language: Sesotho vs. Afrikaans	7.35	3.96 - 13.6	<0.001
Home language: Tswana vs. Afrikaans	2.45	1.22 - 4.9	0.011
Home language: Xhosa vs. Afrikaans	10.2	3.98 - 26.5	<0.001
Father non-manual/clerical vs. professional	.63	.22 - 1.81	0.389
Father manual- skilled vs. professional	.87	.45 - 1.66	0.674
Father manual- unskilled vs. professional	8.08	3.41 - 19.1	<0.001
Father unemployed vs. professional	2.89	1.35 - 6.18	0.006
Mother non-manual/clerical vs. professional	1.03	.5 - 2.12	0.926
Mother manual- skilled vs. professional	2.16	1.23 - 3.81	0.007
Mother manual-unskilled vs. professional	1.02	.41 - 2.57	0.955
Mother unemployed vs. professional	.8	.43 - 1.49	0.489
Father not tertiary educated vs. educated	.44	.270 - .706	0.001
Number of A's in grade 12 (matric)	1.14	1.03 - 1.26	0.006

** Indicating that this model fits the data well.

The significant observations were:

- Lecturer 3 has 1.86 times the chance of having a higher score than lecturer 2 and lecturer 4 has a .719 chance of having a higher score than lecturer 2.
- If a student is English speaking, he/she has a 2.91 times higher probability of giving a higher score than his/her Afrikaans-speaking colleagues. If he/she is Sesotho speaking he/she has a 7.35 chance, if Tswana a 2.45 chance and Xhosa a 10.2 times the chances of giving a higher score than his/her Afrikaans-speaking class mates.
- If the student's father has a manually-unskilled work, he/she has an 8.08 times chance of giving a higher score than his/her class mates with a professional father. If the student's father is unemployed, he/she has a

2.89 chance of giving a higher score than his/her classmates with a professional father.

- If the student's mother has a manually-skilled work, he/she has a 2.16 chance of giving a higher score than his/her classmates with a professional mother.
- If the student's father is not tertiary educated, he/she has a .44 chance of giving a higher score than his/her classmates with a father with a tertiary education.
- For every extra A that the student obtained in grade 12, he/she has a 1.14 chance of giving a higher score.

It seems that the students who rated the teaching most highly were:

- Sesotho- and Xhosa-speaking students
- If the father is manually unskilled or unemployed
- If the mother is manually skilled
- If the father is not tertiary educated
- If the student has more A's in grade 12.

Specific attention was given to the possible correlation between language and parental occupation (table 4.13 and 4.14). Only these variables were investigated because they are indicators of race and social class.

Table 4.13 Correlation between home language of students and the occupation of the father

HOME LANGUAGE	OCCUPATION OF FATHER						TOTAL
	PROFESSIONAL MANAGERIAL	NON-MANUAL/CLERICAL	MANUAL - SKILLED	MANUAL - UNSKILLED	UNEMPLOYED	NOT APPLICABLE	
AFRIKAANS	58 77.33%	2 2.67%	10 13.33%	0 0	0 0	5 6.67%	75 100%
ENGLISH	6 27.27%	5 22.73%	0 0	0 0	3 13.64%	1 4.35%	23 100%
SESOTHO	6 27.27%	5 22.73%	2 15.38%	1 7.69%	3 23.08%	8 36.36%	22 100%
TSWANA	3 23.08%	0 0	2 15.38%	1 7.69%	3 23.23%	4 30.77%	13 100%
	0 0	0 0	1 25%	0 0	0 0	1 25%	4 100%
	0 0	0 0	1 25	0 0	2 50	1 25	4 100
	4 66.67%	0 0	2 33.33%	0 0	0 0	0 0	6 100%
	91 63.64%	8 5.59%	16 11.19%	1 0.70%	8 5.59%	19 13.29%	143 100%

Pearson chi2(25) = 92.3918 Pr = 0.000

Table 4.14 Correlation between home language of students and the occupation of the mother

HOME LANGUAGE	OCCUPATION OF MOTHER						TOTAL
	PROFESSIONAL MANAGERIAL	NON-MANUAL/CLERICAL	MANUAL - SKILLED	MANUAL - UNSKILLED	UNEMPLOYED	NOT APPLICABLE	
AFRIKAANS	43 57.33%	11 14.67%	5 6.67%	0 0	3 4%	13 17.33%	75 100%
ENGLISH	12 52.17%	3 13.04%	0 0	0 0	4 17.39%	4 17.39%	22 100%
SESOTHO	1 4.55%	6 27.27%	1 4.55%	1 4.55%	8 36.36%	5 22.73%	13 100%
TSWANA	6 46.15%	3 23.08%	1 7.69%	1 7.69%	2 15.38%	0 0	13 100%
ZULU	0 0	0 0	0 0	0 0	0 0	0 0	0 0
	0 0	0 0	1 25%	1 25%	2 50%	0 0	4 100%
	3 50%	0 0	0 0	0 0	1 16.67%	2 33.33%	6 100%
	65 45.45%	23 16.08%	8 5.59%	3 2.10%	20 13.99%	24 16.78%	143 100%

Pearson chi2(25) = 57.29 Pr = 0.000

The language of the student is highly correlated with parental occupational status (Pearson chi² paternal= 92.39 and maternal= 57.29) and might have influenced the results. However, both sets of variables were kept in model to estimate the independent effect of each of these variables. Removing either

parental occupation or language would have resulted in severe confounding because they were both associated with each other and with the outcome.

Overall it seems as if the less privileged and clever students with the best grade 12 passes were most appreciative of the lectures.

Similar findings (highlighted) as above were found if ordinal logistic regression was used for the A-, B- and C-scores. Several of the variables were significant, as depicted in tables 4.15 - 4.17.

4.6 THE ASSOCIATION BETWEEN STUDENT CHARACTERISTICS AND THE A-SCORE (EVALUATION OF GOALS AND OUTCOMES) - ADJUSTED FOR LECTURERS

Table 4.15 Association between the student characteristic and the evaluation of the goals and outcomes (A-score) - adjusted for lecturers and adjusted for clustering of intra-student correlations of scores

**		Number of observations = 1074	
Log likelihood = -3431.3236		Wald χ^2 (18) = 79.25	
		Prob > χ^2 < 0.0001	
		Pseudo R ² = 0.02	
Lecturer 1 vs. lecturer 2	.24	-.27 - .76	0.36
Lecturer 3 vs. lecturer 2	.39	.15- .63	0.002
Lecturer 4 vs. lecturer 2	-0.75	.55 - .94	0.58
Home language: English vs. Afrikaans	.68	.118-1.82	.007
Home language: Sesotho vs. Afrikaans	1.17	.65 – 1.68	<0.001
Home language: Tswana vs. Afrikaans	.51	.18 – 1.19	0.146
Home language: Xhosa vs. Afrikaans	1.76	.82 – 2.71	<0.001
Father non-manual/clerical vs. professional	- .06	-0.72 - 0.605	0.87
Father manual- skilled vs. professional	-0.075	-.65 - .48	0.79
Father manual- unskilled vs. professional	1.31	.58 – 2.03	<0.001
Father unemployed vs. professional	.577	-.22 – 1.37	.154
Father not tertiary educated vs. educated	-.65	-1.11- - .19	0.006
Number of A's in grade 12 (matric)	.123	.26-.22	0.013

** Indicating that this model fits the data well.

4.7 THE ASSOCIATION BETWEEN STUDENT CHARACTERISTICS AND B-SCORE (EVALUATION OF LECTURE MATERIAL) - ADJUSTED FOR LECTURERS

Table 4.16 Association between the student characteristics and the evaluation of the lecture material (B-score) - adjusted for lecturer and for clustering of intra-student correlations of scores

Log likelihood = -1592.4688	Number of observations = 1075	Wald $\chi^2(20)$ = 219.5	Prob > χ^2 < 0.0001
	Pseudo R ² = 0.08		
English vs. Afrikaans class	5.55	2.98 - 10.3	<0.001
Lecturer 1 vs. lecturer 2	1.19	.75 - 1.93	0.454
Lecturer 3 vs. lecturer 2	1.30	.99 - 1.71	0.061
Lecturer 4 vs. lecturer 2	.60	.466 - .80	0.001
Home language: English vs. Afrikaans	1.31	.743 - 2.31	0.348
Home language: Sesotho vs. Afrikaans	3.00	1.48 - 6.04	0.002
Home language: Tswana vs. Afrikaans	.88	.45 - 1.72	0.706
Home language: Xhosa vs. Afrikaans	3.5	.74 - 16.6	0.115
Father non-manual/clerical vs. professional	.56	.22 - 1.4	0.217
Father manual- skilled vs. professional	.99	.63 - 1.54	0.956
Father manual- unskilled vs. professional	5.36	2.73 - 10.5	<0.001
Father unemployed vs. professional	3.15	1.48 - 6.68	0.003
Mother non-manual/clerical vs. professional	.77	.46 - 1.29	0.324
Mother manual-skilled vs. professional	2.15	1.21 - 3.81	0.009
Mother manual unskilled vs. professional	.88	.199 - 3.93	0.872
Mother unemployed vs. professional	.43	.24 - .76	0.004
Father not tertiary educated vs. tertiary educated	.44	.29 - .67	<0.001
Number of A's in grade 12 (matric)	1.18	1.08 - 1.3	<0.001

4.8 THE ASSOCIATION BETWEEN STUDENT CHARACTERISTICS AND C-SCORE (EVALUATION OF ATTITUDE AND SKILLS OF LECTURER) - ADJUSTED FOR LECTURER

Table 4.17 The association between student characteristics and the evaluation of the attitude and skills of lecturer (C-score) - adjusted for lecturer and for clustering of intra-student correlations of scores

			Adjusted p-value
Log likelihood = -1925.234	Number of observations =	1075	
	Wald $\chi^2(20)$ =	145.8	
	Prob > χ^2 <	0.0001	
	Pseudo R^2 =	0.03	
English vs. Afrikaans class	1.36	.6 - 3.07	0.457
Lecturer 1 vs. lecturer 2	.47	.29 - .761	0.002
Lecturer 3 vs. lecturer 2	1.72	1.28 - 2.31	<0.001
Lecturer 4 vs. lecturer 2	.56	.42 - .73	<0.001
Home language: English vs. Afrikaans	1.35	.62 - 2.96	0.45
Home language: Sesotho vs. Afrikaans	3.21	1.46 - 7.03	0.004
Home language: Tswana vs. Afrikaans	1.42	.59 - 3.47	0.434
Home language: Xhosa vs. Afrikaans	5.66	2.34 - 13.7	<0.001
Father non-manual/clerical vs. professional	.47	.21 - 1.02	0.057
Father manual- skilled vs. professional	.91	.49 - 1.66	0.751
Father manual- unskilled vs. professional	2.45	1.18 - 5.08	0.015
Father unemployed vs. professional	2.75	1.4 - 5.4	0.003
Mother non-manual/clerical vs. professional	.92	.51 - 1.67	0.795
Mother manual- skilled vs. professional	1.4	.89 - 2.2	0.135
Mother manual-unskilled vs. professional	1.84	.35 - 9.73	0.469
Mother unemployed vs. professional	.56	.33 - .95	0.03
Father not tertiary educated vs. tertiary educated	.45	.28 - .71	0.001
Number of A's in grade 12 (matric)	1.15	1.04 - 1.26	0.004

4.8 PREDICTORS FOR TEST MARK OF MODULE

Because of the normal distributions of the results, linear regression was used to analyse the results to determine the predictors for the test mark of the module. All the variables were considered, but only the significant predictors are indicated in table 4.18.

Table 4.18 Significant predictors for the test mark of module

Number of observations = 137			
F (4,132) = 6.04			
Prob > F = 0.0002			
	Coefficient	Confidence interval	Adjusted p-value
Study material	-0.103	-0.186 - -0.021	0.015
Age (in years)	0.116	0.036 - 0.195	0.005
Sex (female vs. male)	0.516	0.167- 0.864	0.004

Significant effects were found regarding the study material, the age of the student and the sex. The students that complained more about the study material, got higher marks (negative coefficient) compared to the students that were more positive about the lecture material. The older students got higher marks in the test compared to the younger, and female students got higher marks in the test compared to the male students (table 4.18).

4.10 PREDICTORS OF FINAL MARK FOR MODULE

Because of the normal distributions of the results, linear regression was used to analyse the results to determine the final mark of the module. All the variables were considered, but only the significant predictors are indicated in table 4.19. The final marks are expressed as % (thus a β -slope of 0.5 means 0.5% difference).

Table 4.19 Significant predictors for the final mark of module

Number of obs	= 1004	F (7, 124)	= 9.13
Prob > F	< 0.0001	Number of clusters (id)	= 125
Root MSE	= 5.1459		
	Coefficient	Adjusted p-value	95% confidence interval
Age	0.5	0.043	0.02 - 0.99
Sex (female vs. male)	3.76	< 0.001	1.91 - 5.62
Father non-manual/clerical vs. professional	0.72	0.714	- 3.18 - 4.62
Father manual- skilled vs. professional	2.41	0.02	0.39 - 4.44
Father manual- unskilled vs. professional	-1.8	0.13	- 4.15 - 0.55
Father unemployed vs. professional	4.09	0.01	0.93 - 7.25
Number of grade 12 A's	0.44	0.04	0.02 - 0.86

Significant findings were seen with the sex of the student, the father's occupation, whether the father is employed and the number of A symbols that the student acquired in his/her grade 12 year. If the student is female, the chance is that she would obtain 3.76 more marks than her male fellow-student. The student with a manually skilled father would obtain 2.41 marks higher than a fellow-student with a professional father. The student with an unemployed father would obtain 4.09 marks more than a student with a professional father. For every A symbol obtained in grade 12 the student is expected to obtain 0.441 more marks in the final modular mark. If the student is female and the father is unemployed, she would obtain 7.85 (3.76 + 4.09) marks more than the male student with a professional father.

4.11 CONCLUSION

This study correlated well with the findings of Rindermann and Schofield (2001: 380): "Course quality is multi-faceted, being determined by instructor, students and external conditions. Consequently, any attempt at measurement should reflect this diversity, so that stable evaluations can be made that reflect both personal (instructor) and situational (student and external conditions) variables."

With this study an attempt was made to look at some of these variables of student characteristics that could influence the evaluation of teaching quality.

CHAPTER 5

DISCUSSION, RECOMMENDATIONS AND CONCLUSION

5.1 DISCUSSION

According to Mclean (2001:6), the recognition of 'teaching excellence' is either non-existent or vague, despite teaching being one of the fundamental functions of the university. Standard criteria for judging teaching quality seem to be difficult to determine, because the lecturers' perceptions and student perceptions seem to be so different. The lecturer of the 21st century is supposed to be a 'role model' where different facets need to be judged, for example, knowledge, skills and attitudes (difficult to measure).

Literature (as discussed in Chapter 2) indicated that collecting and analysing data with the purpose of improving the quality level of a program is not a once-off process, but can be seen as an integral part of the curriculum development cycle. Structures should be established for the internal evaluation of programs with a view to quality assurance. After certain problems have been identified, changes are made, which will have to be evaluated again, and the cyclic process will continue (Matiru *et al.* 1995:3).

The composition of classes in the medical school of the University of the Free State has changed dramatically compared to previous years. The Afrikaans and English classes differed in many ways. In the Afrikaans class, most of the students' first language is Afrikaans. In the English class, only a few of the students' first language is English (table 4.4). The average of the age of the Afrikaans class is also much lower than the English class. A student evaluation of the modules showed discrepancies in the way in which the English and Afrikaans classes experienced the course.

Against this background, the following was found with regard to the research questions (see 1.2 for research questions):

- It is obvious that students in the same year-group, receiving the same instruction, but in two class groups, that is, an Afrikaans and an English group, differ significantly in their perceptions of the instruction they received. However, one has to take into consideration that 98.5% of the Afrikaans class use Afrikaans as their first language, while only 30% of the English class use English as their first language (see tables 4.5 and 4.6).
- Certain student-related factors might have influenced the students' way of evaluating the MED113 module's quality of instruction: It seems that the students who rated the teaching most highly were the Sesotho- and Xhosa-speaking students, students with fathers that are manually unskilled or unemployed and not tertiary educated, and students with more A's in grade 12.
- An interesting finding was that parental unemployment was associated with an increased score, while maternal unemployment worked in the opposite direction. This could be because paternal unemployment is usually associated with poverty, while maternal unemployment is often associated with affluence.
- Only students were used as a source of information because the main emphasis of this study was to gain further insight into students' evaluations and not to evaluate the course.
- Class performance was not used as a marker, but the study looked at the way in which students' evaluations of the course showed similarities with their marks.
- Although the overall responses reflected very high rankings, these findings may be regarded as reliable as they coincide with findings of similar studies (Bezuidenhout 2000-2002)

- From this study it is obvious that specific groups of students in the undergraduate medical education classes needed special attention regarding certain aspects of teaching and training:
 - Certain Afrikaans-speaking students had a problem understanding the English notes. Unfortunately, not much could be done about this problem since most of the textbooks were in English. The lecturers, however, will make sure they this group receive all the summaries of the lectures in a Powerpoint format in Afrikaans in future.

- The reliability of the findings: This study resulted in gaining a better understanding of the results of the evaluation by students of the MED 113 module and in identifying factors that might be associated with students' evaluations of teaching quality. Yet, although several statistical predictors of students' assessments were found, the R squared values for the regression models were quite low, which shows that most of the variance in the assessments remained unexplained.

Evaluating the results, the limitations of the methods (assessing the validity of the questionnaires against a golden standard and the test-retest reliability of the questionnaires) should be considered (see discussion in chapter 3.6).

- The one session that needed to be changed was session 7. It seems as if this session would fit in better after semester 5. Students could not grasp the principles of "normality" at this stage. This session was replaced with another topic for 2004. These conclusions were not only based on findings from this study, but were also acquired from similar results that were found in the study of Bezuidenhout (2000-2002).

Through this study the researcher was also able to determine the weaknesses and strengths in the MED 113 module and some changes were already made to improve the course:

- After further investigation it was established that the students found the topic of session 7 too difficult, although they enjoyed the way the lecturer presented the session. This session's topic was changed to another easier, yet still very relevant topic.
- The groupwork seems to be a problem. Part of the problem is the lack of facilitators, with the result that the students are often left by themselves with the groupwork, while the lecturer is busy with the other class. This problem was communicated with the relevant people in the management of the Faculty of Health Sciences, who promised to budget for external facilitators for 2004.
- The students were not all that satisfied with the directed learning sessions. After consultation with the students, it seemed as if they were not unhappy with the material or the way that it was done, but preferred the more traditional way of "spoon-fed" lecturing. The principles of the new curriculum and the new worldwide trends in Medical Education were explained to them. No changes will be made for 2004.

From this study it was clear that a variety of student-related factors influence students' evaluation of instruction.

The overall ratings of all the sessions were very good and the lecturers were encouraged by this outcome. The overall high rankings on all the scales correspond well with the findings of the research project of Bezuidenhout (2000-2002) and it is not because of a lack of de-identification of data. From 2000 this module has always been rated very highly in comparison with other modules (Bezuidenhout 2000-2002). From the results of this study it was evident that some lecturers and sessions are evaluated better than others: Lower evaluations were associated with the Afrikaans class, fewer A symbols in grade 12 and professional parents. It seems that the students who rated the teaching the highest were the Sesotho- and Xhosa-speaking students, the students with fathers that are manually unskilled or unemployed and not tertiary educated, and students with more A's in grade 12. Better test marks were associated with older students, female students and poorer evaluations

of study material. Better test marks were not associated with language, parents' occupation or the evaluation of lecturers.

5.2 RECOMMENDATIONS

It is recommended that factors influencing students' evaluation of teaching quality should be taken into consideration when evaluating the quality assurance results for modules (Bezuidenhout 2000-2002). One cannot simply only look at the total result of a quality assurance program, without taking these factors into account.

Although the overall evaluations of the MED 113 module were very high, certain aspects in the evaluation process need to be addressed:

- The majority of Afrikaans-speaking students complained about the English notes given to them. Unfortunately this cannot be changed. Each student received compacted (summarised) notes in Afrikaans or English according to their choice. Additional, more expanded notes are mainly extracted from literature and will not be translated.
- Certain sessions were evaluated poorer than others. Each contact session will have to be evaluated individually to assess whether the lower marks were due to shortcomings in the session, or whether it was due to the topic that was less interesting (or a lecturer they didn't like?).
- Further research needs to be done to establish the way in which modules could be changed to accommodate different students (especially attending to the needs of students with different levels of quality of teaching during their grade 12 school year and students with different social backgrounds).

5.3 IMPLICATIONS OF THE FINDINGS FOR THE MODULE

The finding that students who did less well at school rated the lectures poorly suggests that better / simpler / clearer ways of communicating abstract Community Health concepts to such students need to be developed.

The finding that students from more affluent backgrounds rated the lectures poorly suggests that one cannot take for granted idealistic concepts of social solidarity. Ways of getting students to critically examine their own attitudes to the less well-off members of society should be developed.

5.4 CONCLUSION

It is obvious that standard criteria for judging instructional quality seem to be difficult to determine, because students' perceptions seem to be so different.

In this study an endeavour was made to call attention to a very important issue in medical education and, more specifically, quality assurance in medical education in South Africa, stressing the importance of investigating factors influencing the evaluation of teaching quality before evaluating the specific program.

It is hoped that the results of this study will draw the attention of educationalists to the importance of taking cognisance of students' perceptions of the instruction offered to them when instructional processes are designed.

OPSOMMING - AFRIKAANS

In die lig van die veranderende studentesamestelling as gevolg van die transformasiebeginsels wat in werking gestel is en 'n nuwe kurrikulum vir voorgraadse studente wat sedert 2000 in werking is in die Skool vir Geneeskunde van die Fakulteit Gesondheidswetenskappe van die Universiteit van die Vrystaat, is die voorhandliggende ding om te doen, die daarstel van 'n behoorlike kwaliteitsversekeringsprogram om sodoende die kwaliteit van opleiding wat studente ontvang op 'n hoë vlak te verseker.

Die logiese manier om kwaliteit te verseker was die daarstel van 'n evalueringsprogram waarin studente die modules evalueer. Dog die resultate van die evaluering van die M.B.,Ch.B.-program wat daargestel is (*cf.* Bezuidenhout 2000-2002), het merkbare verskille getoon tussen verskillende klasse, verskillende taalgroepe, verskillende ouderdomme, ens. van studente in hulle evaluering van onderrig en die kurrikulum in die algemeen.

Die probleem wat aangespreek word in hierdie studie handel oor die student- verwante faktore wat 'n invloed mag hê wanneer studente van die M.B.,Ch.B.-program die modules evalueer. Die volgende navorsingsvrae word aangespreek:

- Hoe word die evaluering van modules geaffekteer deur die verandering in die studentesamestelling?
- Is daar enige student-verwante faktore wat 'n invloed kan hê op die studente se evaluering van die MED 113-module se kwaliteit van onderrig?
- Is daar enige spesifieke groepe studente in die voorgraadse opleiding wat spesiale aandag nodig het aangaande sekere fasette van onderrig?
- Is daar enige aspekte in onderrig of sessies in die MED113-module wat drasties moet verander?

Die doel van die studie was om 'n bydrae te lewer tot die kwaliteit van onderrig in die M.B.,Ch.B.-program van die Skool van Geneeskunde, Universiteit van die Vrystaat, en poog om 'n beter begrip van die resultate van die evaluasie deur die studente van die MED 113-module daar te stel, asook om sekere

faktore wat moontlik geassosieer mag wees met hulle evaluasies te identifiseer. Met behulp van die studente se evaluering kan die sterk en swak punte van die MED 113- module geïdentifiseer en reggestel word, indien nodig.

Die metode van ondersoek het die volgende behels:

- 'n Literatuurstudie oor kwaliteitsversekering en die faktore wat moontlik 'n rol kan speel in die evaluering van onderrigkwaliteit deur studente is geloods.
- Die ontwikkeling van 'n navorsingsinstrument (vraelys) om studente se persepsie van onderrigkwaliteit in die MED 113-module (Beginsels van Siekte en Gesondheid) te meet vir 2002, gebaseer op die inligting wat bekom is deur die literatuuroorsig. Hierdie instrumente is deur studente voltooi na elke sessie van die module.
- Identifisering van faktore wat studente se evaluasie van onderrig beïnvloed, deur die inligting wat bekom is uit die vraelyste.
- Die swak en sterk punte van die MED 113-module, volgens die studente se persepsie, is geïdentifiseer.
- Aanbevelings is gemaak om die onderrig in die module te verbeter, gebaseer op die bevindings.

Inligting wat deur hierdie studie versamel is, sal gebruik word in die beplanning van die MED 113-module vir 2004, asook vir toekomstige kwaliteits-versekeringstrategieë, met die oog op die verbetering van onderrig en opleiding in die Skool van Geneeskunde van die Universiteit van die Vrystaat.

Sleutelterme:

Kwaliteitsversekering

Voorgraadse mediese studente

Assessering

Mediese onderwys

Faktore wat assessering beïnvloed

Interne self-evaluasie

SUMMARY - ENGLISH

In the light of a changed student body due to transformation principles coming into place and a new curriculum for undergraduate medical education introduced in 2000 in the Medical School of the University of the Free State, the obvious thing to do, was to take steps to ensure that the quality of the education and training students receive, was maintained at a high level.

One way of ensuring quality was by having the modules in the program evaluated by students. However, the evaluations of modules in the M.B.,Ch.B. program that are in place (*cf.* Bezuidenhout 2000-2002), show big discrepancies between different classes, different language groups, different ages, etc. in their assessment of teaching and the curriculum in general.

The problem addressed in this study dealt with factors coming into play when students in the M.B.,Ch.B. program evaluated a module. The following research questions were addressed:

- How did the changes in the student body and the new curriculum affect the evaluation of modules?
- Were there any student-related factors that might have influenced the students' way of evaluating the MED113 module's quality of instruction?
- Were there specific people groups in the undergraduate medical education classes that needed special attention regarding certain aspects of teaching and training?
- Were there any aspects regarding teaching or the lecturers in the MED113 module that drastically needed to be changed?

The purpose of this study was to contribute to the quality of education in the M.B.,Ch.B. program of the School of Medicine, University of the Free State, and it aimed at gaining a better understanding of the results of the evaluation by students of the MED 113 module and to identify factors that might be associated with their evaluations. From students' evaluations, the weaknesses and strengths in the MED 113 module could also be established and corrected where necessary.

The method of investigation entailed:

- A literature study of quality assurance and the factors that could possibly play a role in students' assessments of lecture quality.
- The development of a research instrument (questionnaire) for gathering data on students' perceptions of teaching quality in the MED113 (Concepts of Health and Disease) module for 2002, based on the information gathered from the literature review. These instruments were completed by each student after each session of the MED 113 module.
- Factors influencing students' evaluation of teaching were identified, using the questionnaires (empirical study).
- Recommendations regarding possible ways of addressing these factors that influence a student's perceptions were made.
- The weaknesses and strengths, according to students' perception, in the MED 113 module, were identified by means of the questionnaire.
- Recommendations to improve the teaching in the module were made, based on the findings.

Information gained through this study will be used in the planning process for the MED113 module for 2004 and in future quality control strategies, with a view to improve the quality of teaching and learning in the School of Medicine at the University of the Free State.

Key terms:

Quality assurance

Medical education

Under-graduate medical students

Factors influencing assessment

Assessments

Internal self-evaluation

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APPENDICES

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- Appendix B** Questionnaire English students - evaluation
- Appendix C** Personal information student - Afrikaans - MED113
- Appendix D** Personal information student - English - MED113
- Appendix E** MED 113 module guide
- Appendix F** MED 113 program for 2002
- Appendix G** Ethics committee of the University of the Free State approval of study.

Appendix A : Afrikaans students - evaluation

MED 113 - 2002

Dankie dat u bereid is om deel te neem aan die studie.

- Die vraelys is vrywillig en eerlikheid sal hoog waardeer word.
- Die vraelys vorm deel van 'n kwaliteitsversekeringspakket vir MED 113
- Indien u belangstel, sal die uitslae van die bevindings beskikbaar wees gedurende Oktober 2002 by dr B de Klerk.

I ALGEMENE INLIGTING :

SESSIE: 1 2 3 4 5 6 7 8 9 10

STUDENTEGROEP:

NOMMER:

II VRAELYS:

Gebruik die volgende waarderingskaal en dui u antwoord aan met 'n X in die betrokke blok:

- 1 = stem ten sterkste nie saam nie 2 = stem nie saam nie 3 = neutraal 4 = stem saam 5 = stem ten sterkste saam

A. SESSIEDOELWITTE EN UITKOMSTE	1	2	3	4	5
1. Ek het die inhoud van die sessie verstaan.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Die uitkomste van die sessie is aan die leerders oorgedra.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Die uitkomste is realisties en haalbaar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Die lesinginhoud is deur die uitkomste gerig.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. STUDIEMATERIAAL (LEERSTOF)	1	2	3	4	5
1. Die lesingmateriaal is goed gekies en georganiseerd.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Die leerstof is beskikbaar in 'n taal / idioom wat ek kan verstaan.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. OPTREDE (VAARDIGHEDE) VAN DOSENT	1	2	3	4	5
1. Die dosent openbaar 'n positiewe gesindheid en houding in klas.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Dosent toon entoesiasme tydens klasgeleentheid.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Die inhoudelike word interessant en stimulerend aangebied.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Goeie verduidelikings met voorbeelde word gegee.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Die kursusinhoud en praktyk is sinvol bymekaar gebring.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Studente is aangemoedig om interaksie met dosent te hê.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. ALGEMEEN	1	2	3	4	5
1. Die groepwerk het my gehelp om die uitkomste te bereik.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Die gerigteleersessies is uitstekend benut.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Die sessie was baie aangenaam.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Die sessie is noodsaaklik as deel van die leerprogram.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appendix B: English students - evaluation

MED 113 - 2002

Thank you that you are willing to participate in this study.

- The questionnaire is optional and honesty will be highly appreciated.
- The questionnaire forms part of a quality assurance package for MED 113
- If you are interested in the results and the findings, you are welcome to contact Dr B de Klerk during October 2002.

I GENERAL INFORMATION :

SESSION: 1 2 3 4 5 6 7 8 9 10

STUDENT GROUP:

NUMBER:

II QUESTIONNAIRE:

Please use the following scale and indicate your opinion with a X in the applicable block:

1 =strongly disagree 2 =disagree 3 =neutral 4 =agree 5 =strongly agree

A. SESSION GOALS AND OUTCOMES	1	2	3	4	5
1. I understood the content of the session.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The outcomes of the session were communicated to the students.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The outcomes of the session are realistic and obtainable.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The session content was directed by the outcome.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. STUDY MATERIAL	1	2	3	4	5
1. The session material was well chosen and organized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The session material is available in the language/ idiom that I could understand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. ATTITUDE AND SKILLS OF LECTURER	1	2	3	4	5
1. The lecturer showed a positive attitude in class.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The lecturer showed enthusiasm during the session.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The content was presented in an interesting and stimulating way.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Good explanations with examples were given.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Course content and practice were well integrated.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Students were encouraged to have interaction with lecturer.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. GENERAL	1	2	3	4	5
1. The groupwork helped me to achieve the outcomes.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The directed learning sessions were used well.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The session was most enjoyable.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. This session is essential as part of the learning programme.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appendix C: Personal information - Afrikaans - MED113

Studente-groep:

Nommer:

Voltooi waar nodig en merk asb. met 'n X in die toepaslike blokkies

A OUDERDOM:

B KLAS:

Afrikaans	1	
Engels	2	

C GESLAG:

Manlik	1	
Vroulik	2	

D HUISTAAL:

Afrikaans	1	
Engels	2	
Sotho	3	
Tswana	4	
Zoeloe	5	
Xhosa	6	
Ander	7	

Spesifiseer indien "ander" :

E BEROEP VAN VADER

(voorbeeld aangeheg aan einde van vraelys)

Professioneel / bestuur	1	
Non-manueel / klerikaal	2	
Manueel - geskoold	3	
Manueel-ongeskoold	4	
Werkloos	5	
Nie van toepassing	6	

F BEROEP VAN MOEDER:

(voorbeeld aangeheg aan einde van vraelys)

Professioneel / bestuur	1	
Non-manueel / klerikaal	2	
Manueel - geskoold	3	
Manueel-ongeskoold	4	
Werkloos	5	
Nie van toepassing	6	

G HET U VADER ENIGE TERSIËRE OPLEIDING VOLTOOI?

1 JA

2 NEE

(Universiteit / Technikon)

H HET U MOEDER ENIGE TERSIËRE OPLEIDING VOLTOOI?

1 JA

2 NEE

(Universiteit / Technikon)

U Matriekuitslae:

- I Aantal vakke geslaag met 'n A-simbool:
- J Aantal vakke geslaag met 'n B-simbool:
- K Aantal vakke geslaag met 'n C-simbool:
- L Aantal vakke geslaag met 'n D-simbool:
- M Aantal vakke geslaag met 'n E-simbool:
- N Aantal vakke geslaag met 'n F-simbool:

O DIE TAAL VAN ONDERRIG GEDURENDE U GRAAD 12-JAAR:

Afrikaans	1	
Engels	2	
Ander	3	

Spesifiseer indien "ander" :.....

**P HET U REEDS ENIGE ANDER TERSIËRE OPLEIDING VOLTOOI? 1 JA
2 NEE**

(Universiteit / Technikon)

**Q HERHAAL U DIE JAAR? 1 JA
2 NEE**

R MED 113: Punte behaal vir die MED113 toets (10 Mei 2002):
(Puntelys beskikbaar by die deur. Kontroleer asseblief indien onseker.)

<20%	1	
21-30%	2	
31-40%	3	
41-50%	4	
51-60%	5	
61-70%	6	
71-80%	7	
81-90%	8	
91-100%	9	

Voorbeelde van beroepsgroepe:

Professioneel/ bestuur	Non-manueel/ klerikaal	Manueel - geskoold	Manueel - ongeskoold
Dokter, veearts, tandarts, argitek, ingenieur, direkteur, ens.	Winkelassistent Kantoorwerk Sekretaresse, ens.	Loodgieter, elektrisiën, ens.	Hande-arbeider Tuinwerker Huishulp ens.

Appendix D: Personal information - English - MED113

Student group:

--	--

 Number:

--	--

Please complete where necessary and mark with a X in the applicable blocks

A AGE:

B CLASS:

Afrikaans	1	
English	2	

C SEX:

Male	1	
Female	2	

D HOME LANGUAGE:

Afrikaans	1	
English	2	
Sesotho	3	
Tswana	4	
Zulu	5	
Xhosa	6	
Other	7	

Specify if "other":.....

E OCCUPATION OF FATHER:

(Examples attached at end of questionnaire)

Professional / managerial	1	
Non-manual / clerical	2	
Manual - skilled	3	
Manual-unskilled	4	
Unemployed	5	
Not applicable	6	

F OCCUPATION OF MOTHER:

(Examples attached at end of questionnaire)

Professional / managerial	1	
Non-manual / clerical	2	
Manual - skilled	3	
Manual-unskilled	4	
Unemployed	5	
Not applicable	6	

G

HAS YOUR FATHER COMPLETED ANY TERTIARY EDUCATION?

(University / Technikon)

1 YES 2 NO

H

HAS YOUR MOTHER COMPLETED ANY TERTIARY EDUCATION?

(University / Technikon)

1 YES 2 NO

YOUR GRADE 12 RESULTS:

- I** Number of subjects passed with an A symbol:.....
- J** Number of subjects passed with a B symbol:.....
- K** Number of subjects passed with a C symbol:.....
- L** Number of subjects passed with a D symbol:.....
- M** Number of subjects passed with an E symbol:.....
- N** Number of subjects passed with an F symbol:.....

Q THE LANGUAGE MEDIUM IN WHICH YOU'VE RECEIVED YOUR TEACHING DURING YOUR GRADE 12 YEAR:

Afrikaans	1	
English	2	
Other	3	

Specify if "other" :

P ARE YOU REPEATING YOUR STUDIES THIS YEAR? 1 YES 2 NO

Q HAVE YOU COMPLETED ANY OTHER TERTIARY EDUCATION BEFORE?
(University / Technikon)

1 YES 2 NO

R MED 113: Marks obtained for the MED 113 test (10th May 2002):

(A list of the marks will be at the door. If you are not sure, please check first)

<20%	1	
21-30%	2	
31-40%	3	
41-50%	4	
51-60%	5	
61-70%	6	
71-80%	7	
81-90%	8	
91-100%	9	

Examples of occupation groups:

Professional/ managerial.	Non-manual/ clerical	Manual - skilled	Manual - unskilled
Doctor, vet, dentist, architect, engineer, director, etc.	Shop assistant, office worker, secretary, etc.	Plumber, electrician, etc.	Labourer, garden worker, domestic helper, etc.

Appendix E: MED 113 module guide

CONCEPTS OF HEALTH AND DISEASE (MED 113)

<i>Module code</i>	:	<i>MED 113</i>
<i>Module type</i>	:	<i>Core</i>
<i>Semester</i>	:	<i>First</i>
<i>Contact time</i>	:	<i>36 hours</i>
<i>Directed learning</i>	:	<i>36 hours</i>
<i>Self-study time</i>	:	<i>Minimum 48 hours</i>
<i>Module leader</i>	:	<i>Dr B de Klerk</i>

AIM

The purpose of this module is to expose the learner to some basic insights of disease and illness, as well as some of the different factors which influence the health and well-being of the individual, but in particular the health and well-being of the community.

PREREQUISITES

Before starting with this module, the learner must have successfully completed Module MEA112.

OUTCOMES

By the end of this module, learners should be able to:

- *Understand the concepts of health and disease*
- *Give contemporary explanations of health and disease*
- *Describe the multi-causality of disease*
- *Debate the notion of communities, community participation and community demographics*
- *Explain concepts surrounding health promotion and health education*
- *Discuss the issues of importance in environmental health*
- *Understand statistical and epidemiological concepts of normality and disease*
- *Apply the levels of care and levels of prevention to health*
- *Debate the aspects surrounding accident prevention*
- *Describe the concepts of community nutrition.*

STRUCTURE OF THE MODULE

SESSION 1:

The concepts of health, disease and illness

<i>Lecture (1hour):</i>	The stages of the illness experience.
<i>Lecture (1hour):</i>	Briefing on how to conduct the survey.
<i>Group work (1hour):</i>	Discussion and debate on professional and lay beliefs of health.
<i>Directed learning (3hours):</i>	As announced.

SESSION 2:

Contemporary explanations of health and disease

<i>Lecture (1hour):</i>	The biomedical model.
<i>Lecture (1hour):</i>	The social model and structuralist explanations.
<i>Group work (1hour):</i>	Medicine as an instrument of social control.
<i>Directed learning (3hours):</i>	As announced.

SESSION 3:

Multi-causality of disease

<i>Lecture (1hour):</i>	Multi-causality of disease.
<i>Group work (2hours):</i>	Discussion of case studies according to different models. Discussion when a factor is described as being necessary or sufficient to cause the condition as well as the type of relationship between die cause and effect.
<i>Directed learning (3hours):</i>	Feedback on group work and class discussion. Learners get the opportunity to evaluate presentations.

SESSION 4:

Community, community participation and community demographics

<i>Lecture (1hour):</i>	Community, community participation and community demographics.
<i>Group work (2hours):</i>	A panel discussion with representatives from various non-governmental organisations. A short written report will be required.
<i>Directed learning (3hours):</i>	Discussion with class concerning community-based education.

SESSION 5:

Health promotion and health education

<i>Lecture (1hour):</i>	Health promotion and health education.
<i>Group work (2hours):</i>	Groups will be given certain topics regarding health education. As a group they will have to plan a health education project according to certain guidelines. A poster must be designed on the topic.
<i>Directed learning (3hours):</i>	Theoretical principles for the production of posters and brochures.

SESSION 6:

Environmental health

<i>Lecture (1hour):</i>	Environmental health.
<i>Group work (2hours):</i>	A simulation of a community organising project with "smoking in public places" as a theme.

<i>Directed learning (3hours):</i>	Community-based education. Health expo.
SESSION 7:	Statistical and epidemiological concepts of normality and disease
<i>Lecture (1hour):</i>	Statistical and epidemiological concepts of normality and disease.
<i>Group work (2hours):</i>	Data-interpretation exercise.
<i>Directed learning (3hours):</i>	Literature review exercise.
SESSION 8:	Levels of care and levels of prevention
<i>Lecture (1hour):</i>	Levels of care and levels of prevention.
<i>Group work (2hours):</i>	Certain situations, conditions and excerpts from newspapers will be given to learners for the purpose of collecting more information. Group discussion according to levels of care and levels of prevention.
<i>Directed learning (3hours):</i>	Discussion of posters.
SESSION 9:	Accident prevention
<i>Lecture (1hour):</i>	Accident prevention.
<i>Group work (2hours):</i>	Group discussions according to newspaper clippings that (a) are related to injuries, (b) are related to environmental health aspects.
<i>Directed learning (3hours):</i>	As announced.
SESSION 10:	Community nutrition
<i>Lecture (1hour):</i>	Community nutrition.
<i>Group work (2hours):</i>	Topics will be covered in class.
<i>Directed learning (3hours):</i>	Feedback (Test 2) and revision.

CLOSELY RELATED MODULES

MEC113: The doctor and the environment (Phase I).
 MEG123: Health policy and service provision (Phase I).
 MEX314: Health and disease in populations (Phase II).

EVALUATION / ASSESSMENT

Two tests of one hour each will be written. The module mark will be derived from the first test mark (25%), the second test mark (25%) and session assignment marks (50%).


Session assignment marks will be derived as follows:

Every learner must prepare session assignments in accordance with the guidelines as provided by the facilitators of sessions 1 and 2. These assignments will contribute 10% to the module mark.

Every learner must prepare posters and/or brochures and complete *Module Guide* assignments in accordance with guidelines provided in Sessions 3-11. These assignments will contribute 40% to the module mark.

One two-hour examination will be written at the end of Semester 1. The final combined mark will be derived from the module mark (50%) and the examination mark (50%).

SUGGESTED READING MATERIAL

- K Farmer R, Miller D. Lecture notes on epidemiology and public health medicine. 4th edition. Oxford: Blackwell Science, 1996.
-  Katzenellenbogen JM, Joubert G, Abdool Karim SS, editors. Epidemiology: a manual for South Africa. London: Oxford University Press, 1997.
- K Last JM. Public health and human ecology. 2nd edition. Stanford: Appleton & Lange, 1998.

Module development team: *Prof E Pretorius, Prof OM Bachmann, Dr B de Klerk, Dr L Seymore, Dr EAM Prinsloo.*

Appendix F: MED 113 lecture program 2002

Session	Lecturer	Subject	Date
Session 1	Prof Pretorius	The concepts of health, disease and illness	21 February 13:00 – 16:00 (A) Kine 8 14:00 - 17:00 (E) Kine 6 Directed learning: 22 February
Session 2	Prof Pretorius	Contemporary explanations of health and disease	28 February 13:00 – 16:00 (A) Kine 8 14:00 - 17:00 (E) Kine 6 Directed learning: 1 March
Session 3	Dr de Klerk	Multicausality of disease	7 March 13:00 – 16:00 (A) Kine 8 14:00 - 17:00 (E) Kine 6 Directed learning: 8 March
Session 4	Dr Kruger	Community and community participation	14 March 13:00 – 16:00 (A) Kine 8 14:00 - 17:00 (E) Kine 6 Directed learning: 15 March
Session 5	Dr de Klerk	Health education and health promotion	28 Maart 13:00 – 16:00 (A) Kine 8 14:00 - 17:00 (E) Kine 6 Community visit: 29 March
Session 6	Dr Kruger	Environmental health	2 May 13:00 – 16:00 (A) Kine 8 14:00 - 17:00 (E) Kine 6 Expo
Session 7	Prof Bachmann	Statistical and epidemiological concepts of normality and disease	9 May 13:00 – 16:00 (A) Kine 8 14:00 - 17:00 (E) Kine 6 Directed learning: 10 May
Session 8	Dr de Klerk	Levels of care and levels of prevention	16 May 13:00 – 16:00 (A) Kine 8 14:00 - 17:00 (E) Kine 6 Directed learning: 17 May
Session 9	Dr Kruger	Accident prevention and the importance of safe living	23 May 13:00 – 16:00 (A) Kine 8 14:00 - 17:00 (E) Kine 6
Session 10	Dr de Klerk	Community nutrition	30 May 13:00 – 16:00 (A) Kine 8 14:00 - 17:00 (E) Kine 6
Session 11	Feedback(Test 2) Dr Kruger Dr de Klerk	Feedback (test 2)	31 Mei 13:00 – 16:00 (A) Kine 8 14:00 - 17:00 (E) Kine 6

Appendix G: Ethics committee of the Faculty of Health Sciences, UFS - approval



**UNIVERSITEIT VAN DIE VRYSTAAT
UNIVERSITY OF THE FREE STATE**



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Mrs G Niemand

23th April 2002

DR B DE KLERK
DEPARTMENT OF COMMUNITY HEALTH
INTERNAL POST BOX G52
UNIVERSITY OF THE FREE STATE

Dear Dr de Klerk

**ETOVS NR 75/02
RESEARCHER: DR B DE KLERK
PROJECT TITLE: FACTORS ASSOCIATED WITH STUDENTS' ASSESSMENTS OF TEACHING
QUALITY IN A MODULE IN THE MB ChB-PROGRAM.**

You are hereby informed that the Ethics Committee approved the abovementioned study during their meeting held on the 23rd April 2002.

Your attention is kindly drawn to the following:

- A progress report be presented not later than one year after approval of the project
- That all extensions, amendments, serious adverse events, termination of a study etc have to be reported to the Ethics Committee

Will you please quote the Etovs number as indicated above in subsequent correspondence, reports and enquiries.

Yours faithfully

For DIRECTOR: MEDICINE ADMINISTRATION

