

**TOPIC: USING AN ORIENTATION
PROGRAMME TO PREPARE
FIRST YEAR MEDICAL
STUDENTS FOR A PROBLEM
BASED CURRICULUM:
A SOUTH AFRICAN CASE STUDY**

BY

DOROTHY MONICA APPALASAMY

**Submitted in partial fulfilment for the
Degree of: Master of Education**

**In the
Centre for Higher Education Studies
School of Education, Training &
Development
Faculty of Education
University of KwaZulu-Natal : Pietermaritzburg**

Acknowledgements

My grateful thanks to
Ruth Searle

For your guidance and support

My Family:

Vishnu, Claudia, Nerissa, Nathaniel and Farhad
For your support, understanding and
encouragement

My friends and colleagues
Especially

Ashni Balram
&
Melanie Alperstein
For your assistance and encouragement

&
My Parents
Nathaniel and Martha
Without whom this would not be possible
For teaching me that education is everything
Last but most important

My God

Who gave me the strength to strive on regardless.

TABLE OF CONTENTS

Title	Page Number
Abstract	3
Definition of Terms	4
 CHAPTER ONE	
Introduction: The Five aspects – Rationale for study	7
Background: Orientation in Higher Education	7
Retention Studies	13
Setting for the Case Study	13
Programme Objectives	14
Orienting Learners to PBL	15
Working in a PBL Tutorial	18
Advantages of PBL	19
Disadvantages of PBL	20
Medical Education Conference	22
Research Questions	23
 CHAPTER TWO	24
Literature Search and Theory – Introduction	24
Student Development and Progress	29
Curriculum	37
The Students' Learning	42
 CHAPTER THREE	
Methods and Methodology- Introduction	51
Research Paradigms in Higher Education	51
Case Study Methodology	54
Problems Associated with Case Study Methodology	58
Reliability	58
Validity	59
Methods of Data Collection	59
 CHAPTER FOUR	
Results and Discussion	
Table 1 – Student perceptions & experiences of PBL	68
Table 2 – Personal information- first year students	71
Table 3 - First Year Responses	72
Table 4 – Second year Responses	82
Table 5 – Staff Responses	86
 CHAPTER FIVE	
Recommendations and Conclusion	92
Organisational Factors	93
Curriculum Factors	94
Learning	95
Student Development and Progress	96
Staff Development	97

Limitations of the study	98
Suggestions for further research	98
 BIBLIOGRAPHY	 100
 APPENDICES:	
1. Schedule for the Orientation Programme – 2002	i - iii
2. University's Eight Steps for PBL	iv
3a&b. Pre-Orientation Questionnaire & Data	v - x
4a&b. Post Orientation Questionnaire & Data	xi -xvii
5. First year Questionnaire Data	xviii
6. Second year Questionnaire Data	xx
7. Staff Questionnaire	xxi
8. Roles of participants in a PBL tutorial	xxii

ABSTRACT

The Nelson R Mandela Medical School is currently implementing Curriculum 2001, which is based on integrated, student centred, problem and group-based learning. In 2002 a three-week orientation Module was introduced to prepare students for Problem Based Learning (PBL). The aim of this programme was to assist first year students through the transition period from high school to university life and prepare them for a new way of learning. In the university context the word orientation has come to mean assisting students to become accustomed to the new environment of university education and to make the first few weeks as friendly and informative as possible so that this transition is made effectively. It is also a socialisation process whereby students get to know what the expectations of the departments and the university are as well as being an introduction to the values and standards of the group the student is entering. For the students the change from school where they are accustomed to a particular approach to learning is a huge step to a tertiary institution where the approach to learning is different. The purpose of this study was: 1) To ascertain what students understood about the new curriculum before they embarked on it and did orientation help them to understand it better? (2) In what ways did the students perceive the orientation programme as a help to prepare first year medical students and especially for PBL? (3) What particular aspects of the orientation programme do students perceive help them in a new situation and did this prepare them for a new way of learning? (4) In what ways do staff perceive the contribution of orientation to the new PBL curriculum? Both qualitative and quantitative data was gathered from questionnaires, interviews and focus group sessions with first and second year students and staff. The first year students agreed that the orientation Programme did assist them to prepare for a new way of learning. Preparing students for a new way of learning and assistance with making the many transitions into university life is very important and necessary if students are to be successful.

Definition of Terms:

Orientation and Induction:

Many authors use these terms interchangeably. In studies done by Rentz & Assoc. (1996) and Upcraft et al (1984) orientation is described as

Any effort on the part of the institution to help entering students make the transition from their previous environment to the college environment and to enhance success in college

Rentz & Assoc: 1996, p 243

Drake (cited in Rentz & Associates: 1996) says that orientation should be defined as

An induction into or at least consistent with college intellectual life rather than an attempt to meet freshmen and institutional needs.

Rentz & Assoc: 1996, p 244

In 1960 the American Council of Education gave an authoritative view of orientation as a process of inducting students into the community of learning (Brown: 1972).

Even though the induction construct seems more appropriate than the orientation construct to describe bringing students into the ways of thinking in a group culture, or easing them into an organisation so that they might adapt to the new environment, I use the word here, in this study to describe the transition into a business setting as well as staff induction.

Curriculum:

Prideaux (2003) says that the curriculum represents the expression of educational ideas in practice. The definition includes all the planned learning experiences of an educational institution. He goes on to say that the curriculum should be in a form that can be communicated to those in the learning institution, as well be open to critique and should be readily transformed into practice. The curriculum exists at three levels – what is planned for the students, what is delivered to them and the students' experience. The curriculum is underpinned by a set of values and beliefs about what students should know and how they came to know it (Prideaux: 2003).

Problem Based Learning in Medicine (PBL):

According to Bligh (1995) PBL is an important development in medical education and is being used in many newly established medical schools throughout the world as a basis for their curricula. PBL is based on the principle of problem-centredness and uses specially prepared problems, usually written cases derived from clinical experience, as the basis of the curriculum. The method uses small group tutorials to stimulate active learning among the students. Students work through the problems using the seven steps with access to a facilitator, who usually is not an expert. The problems chosen are derived from clear course objectives and are sensitive to the level of the students at different stages of training. PBL started in North America where medical teachers were concerned about content overload and inappropriate teaching methods. The emphasis has shifted away from individual disciplines, such as anatomy, physiology and biochemistry towards an integrated and interdisciplinary approach, involving students in problem solving and independent learning (Bligh: 1995). The principles of PBL are underpinned by the philosophy of PBL.

The Philosophy of PBL:

According to Bligh (1995)

PBL is an innovative and challenging approach to medical education- innovative because it is a new way of using clinical material to help students learn, and challenging because it requires the medical teacher to use facilitating and supporting skills rather than didactic, directive ones.

Bligh: 1995, p 323

PBL places the responsibility for learning in the hands of the students and is therefore student directed as opposed to being teacher directed. According to Boud & Feletti (1992) this ancient idea has been linked to the sophisticated analysis of professional practice and a humanistic technology of education to develop highly competent practitioners who have the ability to be life long learners. The use of small group work, self-directed learning, peer support and feedback and the development of critical thinking is an ideal preparation for

learning as a postgraduate. PBL fosters the ability for students to work cooperatively in small groups and teams (Boud and Feletti: 1992).

Orientation Director:

According to Titley an orientation director is someone who “develops and sustains the philosophical and conceptual base” for an orientation programme (Titley, cited in Noel et al: 1987, p 228). The director designs the programmes, selects and trains the staff and finally plans specific activities that reflect the philosophy and character of the institution. In my own experience committees of staff, who run the orientation programme, do this.

ABBREVIATIONS:

ETT: End of Theme Test

LGRS: Large Group Resource Sessions

MSRC: Medical Students’ Representative Council

PBL: Problem Based Learning

SDL: Self-Directed Learning

SGT: Small Group Tutorials

STD’s: Sexually Transmitted Diseases

CHAPTER ONE

Introduction:

This chapter introduces the following:

(1) The five aspects, which form the rationale for the research study

- Background - Orientation in higher education:
(Introduction; History; Retention studies)
- Setting for the case study:
(Learning Objectives for Orientation Programme)
- Why an introduction to PBL is necessary:
(What is PBL; what happens in a PBL tutorial)
- Advantages and Disadvantages in PBL
- Medical Education Conference

(2) Research Questions

Background - Orientation in higher education:

Introduction:

Programmes designed to welcome and introduce those entering an institution are growing in importance in both business and educational settings. Induction or orientation is a process whereby anyone entering an established environment is encouraged to become a part of or integrated into that environment. Often the easing of people into organisations is done in a staff context through staff induction. Our attitudes and behaviours are influenced by our initial experiences and this is important in any setting. According to Bournier and Barlow (1991) studies in labour turnover in organisations recognise what they call “induction crisis” during which new employees have a high propensity to quit (Bournier and Barlow: 1991, p 9). Such new employees who can’t leave are likely to develop attitudes and behaviours that are negative and might not benefit them or the organisation. The importance of induction for new staff becomes paramount if employers want to ensure the quality of their employees’ work and success for the organisation. However, this also operates in educational situations, especially in institutions of Higher Education, and helping new students to make an easier transition into a new

stage of their lives becomes very important. Orientation or induction needs to be understood within its context, where this takes place and for whom the programme or training is planned (Bourner and Barlow: 1991).

Although the aims and objectives might differ in both the business and the university environment, it is clear that both contexts are involved with preparation, gaining new insights in a new environment and a socialisation process that will assist in the transitional phase for the employee, the staff member or the student. Pascarella and Terenzini (cited in Chickering and Associates: 1981) maintain that:

A large part of the impact of college is determined by the extent and content of one's interactions with major agents of socialisation on campus, namely faculty members and student peers. The influence of interpersonal interaction with these groups is manifest in intellectual outcomes as well as in changes in attitudes, values, aspirations and a number of psychosocial characteristics.

Chickering and Associates: 1981, p 620

Socialisation can affect attitude, motivation and therefore success. For the students it can also be a socialisation process where these students get to know the expectations of the department, the faculty and the university, as well as the values, beliefs and standards of the community the student is entering. It can begin to align their understandings of the context, expectations and philosophies and create a sense of belonging and a sense of identity with institution or department and discipline. Often these aspects have been poorly understood and the programmes have been insufficient to prepare new students for their academic work, or to assist new students with the transition from high school into university life.

According to Titley (cited in Noel et al: 1987) a number of people benefit from an effective orientation programme – the students, parents, the faculty and the institution as a whole. This is an important component of the rationale for such programmes since they often determine whether the individual adapts to

the new environment and whether the new student is successful in her/his studies.

History:

Student orientation or the freshman year has been written about extensively internationally, showing the importance of an orientation programme for new students. Upcraft et al (1984), Chickering and Associates (1981), and Rentz & Assoc (1996) are some of the writers who see the student's first year in a higher education institution as a determining factor for the student's academic success in subsequent years. Many overseas universities plan special programmes for their first year students. Different ideas, understandings or commitment to these kinds of activities mean different approaches to running such activities. According to studies done by Rentz & Associates (1996) orientation programmes historically have evolved with different emphases at different times. One-day orientation programmes were offered at Boston University in 1888 and these one-day programmes had as their focus students' personal adjustment to college rather than an introduction to specific academic disciplines or to the world of higher education. This added on model served as a once off programme to help students adjust to the new environment.

The second type of programme was developed at Reed College in 1911, where a freshman course was introduced called the "College life course" (Rentz & Assoc: 1996, p 241). Attendance at weekly meetings for entering students was rewarded with academic credit. These courses were designed to teach students, for example, how to use the library, how to study and how to participate in campus activities. This was a more integrated model, which served both the social and academic aspects of the students' needs and would also provide an opportunity for academic staff to see their role more clearly. Although this played a crucial role in the development of orientation programmes, some argued about their proper length. In the mid 1920s the debate about the correct length of the orientation programme continued. Thirty years later, Strang (1951), Wrenn (1951) and subsequently Mueller

(1961), (cited in Rentz & Assoc: 1996) expressed their belief that an orientation programme should not be a one or two day event, and should be a continuous and dynamic process, beginning in high school and ending after college graduation. According to this belief orientation is a

Developmental process assisting entering students with specific tasks associated with the transition to higher education and the subsequent goals of self direction and interdependence. Rentz & Assoc: 1996, p 241

Rentz & Assoc. (1996) say that in American institutions whilst the purpose of orientation activities has remained constant within the academic community–institutional goals and commitment have varied greatly. Often programmes are organised for students, which are perceived to be frivolous and extraneous. It is often the opinion of support and academic staff as well as students that orientation is one long party, a sort of welcome period, not to be taken too seriously. It has often been the case that faculties have organised programmes – short and tacked on in the beginning of the year for new students based on the philosophy of welcoming new students into a new environment. Usually it is a front-end, extra curricular, first year experience to welcome, to include, and to show someone the ropes or the way things are done in the institution/departments, to familiarize, to acclimatise, sensitise and introduce them to the rituals and customs of the place. With this approach, there is a limit to what can be achieved and is often the case that the relevance and importance of the educational, institutional or personal benefits are not seen.

A second approach is to use a more holistic process where orientation is integrated into the curriculum, seeing this as educational activity where students are encouraged to develop important life and academic skills over time. It is important that programmes involve the participation of and a good understanding of students' needs. Both social and academic needs of the students need to be included in the programme (Rent & Assoc: 1996 and Titley, cited in Noel et al: 1987). It is also important that one thinks about what one hopes to achieve through an orientation process, both short and long term.

According to Luderman (2001) the students' transition into university depends on a solid foundation laid in the students' first year of study at the university. This includes a cultivation of individual efforts, institutional influence and a culture of inclusion and acceptance that prepares them for the world that awaits them. Luderman argues that it is the responsibility of every university employee to help students through the transitions that every student faces. In the long term this will benefit the student, the university employees and the university (Luderman: 2001). According to Upcraft and Gardner (1990) Colleges and Universities must make the effort

To enhance freshman success, we believe institutions must (1) develop A clear and broader definition of it, (2) commit to a set of beliefs that create maximum opportunities, and (3) know and understand the variables that affect it.

Upcraft and Gardner: 1990, p 1-2

Only then can these programmes be developed that allow first year students the maximum opportunity to succeed. There is overwhelming evidence that students' success is largely determined by experiences during the freshman year. Orientation is important because for most students entering university it is often a period of major transitions for all, young and mature and is an enormous adjustment (ibid). It is also important to note that the responsibility of orientation can be avoided by academics unless the programmes include academic content. The more orientation becomes part of the curriculum, the more clearly academics will see their role in the programmes as their responsibility (ibid).

For many people in the university context the word orientation has come to mean assisting students to become accustomed to the new environment of university education and to make the first weeks as friendly and informative as possible (Luderman, 2001). The issue of orientation for new students is becoming more important as institutions of higher education are transforming their processes, changing curricula and ways of teaching. According to Dison and Rule (1996) in the context of a post-apartheid South Africa the imperatives of access and reform in higher education posed a challenge to curriculum

designers. I believe that there is a strong role for academic development practitioners to play in first year orientation programmes, with other faculty staff in curriculum development. Student demographics are also changing from what used to be a predominantly homogenous group to becoming a much more diverse student body, with students coming from backgrounds that include poorer schooling, thus they may be under prepared for university, they may even be the first person in their family to enter university (Dison and Rule: 1996). Student orientation allows students a chance to interact with other students in a multicultural and diverse setting.

There are also a number of “mature” students, who have pursued some type of university studies or bridging/access course for entry into a medical school. For such students who have had some experience of university life, orientation is vital and can provide much needed support and training – since medical school campuses are “different” from other campuses and have a history of being a more challenging environment. Schlossberg et al (1991) argue that gearing higher education for older students remains a challenge to institutions as these students are in different stages of transition. Orientation programmes need to include provision for support, that eliminate barriers and provide the necessary challenges that effectively meet the needs of mature students. According to Schlossberg adult learners learn to balance the academic with other parts of their lives, as well find ways to feel supported and challenged through their learning journey. These students want to appear “independent and competent” and often universities rely on rigid rules, regulations and policies. As a result these students have difficulty in adjusting (Schlossberg: 1991, p 8).

It has become increasingly important for universities to see orientation as a period to begin to assist students through the many transitions from teenager to adulthood, giving support and training to assist in the students’ holistic development as well as increasing the retention rates in the institution. Assisting new and “mature” students to adapt to new ways of learning and new expectations is crucial.

Retention Studies:

Rentz & Associates (1996) talk about a vast amount of research done to show the significance of the first year experience and the importance of the relationship between student satisfaction and student retention. This included studies, which identified factors contributing to student attrition. How we prepare students for new teaching methods and a new way of learning is a concern that needs to be addressed globally. Programmes providing both academic and social support, especially where a large number of the undergraduate population come from disadvantaged backgrounds, are crucial, as retention becomes a major concern. A respected author of retention literature, Tinto (cited in Noel et al: 1987) suggests that the most important goal of freshman orientation experiences should be education and not just retention. I support the idea that it is paramount that institutions provide the necessary support and nurturing for its' students. According to Tinto there is a great amount of evidence that –

Experiences that promote students' social and intellectual integration into communities of higher education are likely to strengthen their commitment and therefore reinforce persistence. The absence of integrative interactions is likely to lead students to disassociate themselves from these communities and eventually withdraw. Noel et al: 1987, p 35

Setting for the case study:

At the Nelson R Mandela Medical School, where I work as Co-ordinator of Student Programmes, the annual orientation programme for first years is one of my portfolios. This research is based on a case study approach (as explained further in chapter three) and is applied to a “real” situation. This programme has been organised and implemented to help make the students' transition to university from school as quick and painless as possible so that they could get on with their studies. In the previous traditional curriculum social elements of the learning process were often deemed less important or perhaps underestimated by many of the staff. Initially (up until the year 2000) the orientation programme was a one-week programme designed by the senior students and administrative staff in the traditional curriculum. Although

most of the students attended and were serious about the programme, I was not sure how much difference this made to their learning. The orientation programme for first year students in 2002 (see appendix 1) was organised over three weeks and included both social and academic activities. The difference between the two orientation programmes was that the one was more organisational, more focused on social and administrative efforts, than on academic or learning aspects.

Programme Objectives:

The following objectives were outlined for weeks one, two and three:

During this Orientation Programme the students will be introduced to:

- 1 An outline of the Problem Based Learning (PBL) curriculum and ethical aspects of student behaviour and professional conduct
- 2 Principles and concepts of self – directed learning (SDL)
- 3 Training in Process Skills – for small group work
- 4 The Mentoring Programme
- 5 The Student Counselling Unit
- 6 The MSRC – sports day and other social activities
- 7 Learning Resources and Facilities i.e. Library, the Skills Laboratory and Computers
- 8 WebCT
- 9 History of Medicine and Medical Terminology
- 10 Communication Skills and an English Course
- 11 The general concepts - Emergency Care Practitioner's Course
- 12 Computer Skills
- 13 IsiZulu
- 14 Assessment in PBL

Time was scheduled in the programme for each activity. Social activities were organised by the Medical Student Representatives Council members. Though there isn't an ongoing orientation programme throughout the year there are support mechanisms in place that provide students with immediate and long-term support. Additional mechanisms like the peer-mentoring programme, the medical students representative council and student counselling were put in

place in the faculty to give this ongoing support. The peer-mentoring programme, which was an added on initiative and funded externally, did help students. Evaluation of this programme as well as research done show that the students did benefit and welcomed this peer support system even though there was the difficulty of time constraints (Appalasamy: 1995).

This brings us to the next aspect, which is the introduction of the new curriculum and changes to teaching and learning. This presented new opportunities with a new emphasis on learning. New opportunities to explore holistic development and where deep learning is encouraged rather than surface learning (explained further in chapter two). In the traditional curriculum the focus was on transmission of a body of knowledge. This encouraged rote learning as vast amounts of information had to be assimilated. This approach corresponds with what Luckett calls a “Traditionalist Paradigm” which focuses on the curriculum as a plan rather than on process and practice (Luckett: 1995, p132). With the new curriculum came a different ethos of building holistic development, changed expectations from staff and students, different teaching and learning forms and different methods to assess students.

Orienting Learners to PBL

Problem Based Learning:

The new curriculum, which was implemented in January 2001, based on PBL was introduced in keeping with international trends that medical education needs to change in order to accommodate the changing healthcare needs of society and become centred on student learning rather than information transfer (Olmesdahl: 2000). PBL aims to enable the student to acquire and structure knowledge in an efficient, accessible and integrated manner in a context in which, ultimately, it will be applied. This is achieved through the strategy of small group tutorial sessions in which learning goals are generated; information is obtained and subsequently understood (Olmesdahl: 2000). Students work with an integrated curriculum, which is designed to encourage learning for understanding rather than for recall of isolated facts (Boud &

Feletti: 1992). The case studies for PBL tutorials involve a multidisciplinary approach to encourage students to see the patient more holistically rather than a disciplinary approach, which was used previously in the traditional method. I have explored further the need for curriculum change to PBL in chapter two of this study.

The opportunity to introduce new students to PBL during orientation has arisen because of the nature and ethos of the new curriculum - to revisit the role or function of orientation and what that could be in relation to PBL, which is a key aspect to this study.

I have worked with students in both the new and traditional curriculum and have come to realise that students need more time to settle in and find their bearings or become accustomed to new situations. The medical curriculum is very stressful and we need to provide more support for these students (Deary: 1994).

The students may need group skills and need to move from the more usual individualised competitive learning to a more collaborative style of learning. This then not only necessitates training and helping the students to develop these skills but also providing continued support for these students (Woods: 1994). The importance of support for these students who have added anxieties about the new curriculum and issues about the transition into university life should not be overlooked. Students may have different expectations about learning, which may not work for them in the new context, and they might need convincing that previous successful strategies may not work here. The new roles in PBL require students to take an active part in learning. Students who are shy or who feel inadequate find it difficult to be scribe and chairperson in a tutorial group when it is their turn on the group roster and often are unable to play these roles effectively, especially if they feel the environment is unsafe (Woods: 1994). Unless the facilitator encourages and reassures the students and builds a safe environment the small group learning

activity can be destructive and discouraging even for students who are confident.

Often staff view the adjustment and orientation of new students as the students' problem and show an uncaring attitude, which does little to motivate students. For the students the transition from school where they are accustomed to a particular type or approach to learning is different to studying in a tertiary institution. These processes need to be made explicit to students during orientation. Without prior training for process skills for small group learning, which enable and equip students to work effectively with the cases, it was found that students at first had some difficulty in following the cases and the university's eight steps, which are used to work through each case study for their tutorials. We need to consider then the issue of when to develop the process skills, how vital these are for our students and how explicit do we want to be (Woods: 1994).

English second language students have the problem of expressing themselves in the small group tutorial sessions (Chur-Hansen: 1999). Since the small group situation gives the students such intimate contact with each other and the facilitator present, any difficulty experienced by the student in expressing himself/herself becomes very obvious and known to the others in the group. This detection is picked up very quickly and could become embarrassing to the student.

Introducing students to PBL and preparing them for a new way of learning during orientation will assist new students to build their awareness and make them familiar with the learning process. Orientation serves as the cushion between past and future learning experiences (Titley, cited in Noel et al: 1987).

Working in a PBL Tutorial:

Students work in groups of nine or ten with a facilitator, and use the university's eight steps (Appendix 2) to work on cases appropriate to the theme of that module. Students need to be trained in how they are expected to work – the different roles that they need to take on, and be given the opportunity to

develop some of these processes early on during the orientation programme. In the tutorial group students elect a chair for each PBL session and a “scribe” to record the discussion. At the start of each session, the chair or one of the other students reads out the scenario/case study. Usually a handbook with the scenarios, timetables of all the activities, broad learning outcomes of the Theme as well as any other information necessary to guide the students is given to students. The roles are rotated for each case study. (See appendix 8)

By talking to each other in these small groups, students can also place their own views and ideas within the spectrum of their peers’ opinions. They can make valuable contributions about their own strengths and weaknesses by observing other students struggle with the same issues (Tiberius: 1999). They benefit from the ideas and information by the others in the group, as well as broaden their own understanding as they build on their prior knowledge. With the guidance of a good facilitator students can learn valuable interpersonal skills, learn how to act with sensitivity and build a co-operative climate, where sharing and caring take place. This can also help build a good team and group identity for the students.

In turn each facilitator is able to assess each student in terms of how the student has understood the materials as well as whether the student can integrate and apply them (Tiberius: 1999). The role of the facilitator is to guide the students (by helping the chair, when necessary) and to ensure that the group achieves the appropriate learning objectives in line with those set out by the design team.

Advantages of PBL:

According to Davis & Harden (1999) PBL has now been in use for more than twenty-five years and brings many benefits to health professions’ education. If used appropriately it could result in the following advantages:

- *Relevance – PBL eliminates much of the irrelevant and outdated teaching cluttering undergraduate training programmes.*
- *Identification of core – The PBL approach has the potential to reduce content overload that overburdens students*
- *Generic competence – This approach encourages the acquisition of personal transferable skills such as problem solving, communication and team working – essential for all graduates of higher education (Allen: 1992)*
- *Student centred – The PBL process involves the students taking responsibility for their own learning and this encourages life long learning. Students are actively involved in their learning*
- *Integration – The curriculum is integrated and a number of disciplines are involved in each case study/ scenario. This has shown to be a real benefit to students (Schmidt et al: 1996)*
- *Motivation – PBL is enjoyable by both students and staff and the clinical setting makes this more motivating for students*
- *Deep approach to learning – During the PBL process, students interact with the learning material more than in an information gathering or theoretical approach. Concepts are related to everyday experience and evidence is related to conclusions. These are features of the deep approach to learning*
- *Constructivist approach to learning – When generating learning issues, students make use of existing or prior knowledge to identify what they still need to learn. Dewey (1929) proposed that learners construct personal frameworks for organising and retrieving information. The process of learning involves activating appropriate schemata and organising new learning within the framework.*
- *Prototype cases – Literature on the principles of adult learning indicates that people learn best when they are ready and motivated to learn, involved in setting goals and deciding on relevant content and when they participate in decisions affecting their learning (Westberg & Jason: 1993).*

Davis & Harden: 1999, p133-134

Disadvantages of PBL:

Norman (1998) argues that for too long PBL has been viewed as a self evidently “better” approach to health sciences education, despite an accumulation of evidence that the outcomes are “not much different”. I agree with Davis and Harden that each of the objections identified by Hemker can be addressed and don’t necessarily need to remain disadvantageous. Hemker (cited in Davis and Harden: 1999) writing from the perspective of a teacher in Maastricht medical school identifies these objections to PBL:

- *PBL makes it difficult for students to identify with a good teacher. In PBL the teacher serves as a facilitator rather than acting as a role model. This may deprive students of the benefits of learning from an inspirational teacher.*

The use of PBL does not necessarily exclude the opportunities for this to happen, as PBL is supported by facilitators, who can play this role as well, by guiding students.

- *PBL does not motivate staff to share their knowledge with the students. Staff are denied getting a “buzz” out of teaching.*

On the other hand many staff find it rewarding and stimulating working within a PBL context.

- *The knowledge acquired through PBL tends to remain unorganised. In the traditional curriculum, experienced teachers who are able to distinguish what is important and what is unimportant introduce students to a topic.*

The use of study guides may overcome this potential disadvantage.

- *PBL requires competences many teachers do not possess. Teachers tend to teach the way they were taught.*

Staff development programmes must be sufficiently robust to meet these challenges.

- *Concern has been raised about the increased cost of a PBL programme. PBL is not necessarily more expensive than traditional approaches (Nieuwenhuijzen et al: 1997; Sefton: 1997)*

- *PBL is time consuming for students – who need to find their own resources.*

Davis & Harden: 1999, p134

In the South African context, a study done by Walker and Wright (1996) from the University of the Witwatersrand, discussed problem areas in the implementation of their medical PBL course for first year medical students in the Human Behavioural Science Selective – a thirteen-week course. They said that while students found the course “stimulating and challenging”, the students voiced concern over the lack of prescribed textbooks and comprehensive lecture notes (Walker and Wright: 1996, p23). They described two factors responsible for this concern. Firstly, since this was the only PBL course, students used their earlier learning habits – which had been successful and had come to rely heavily on the lecture notes and readings and then repeating them in an examination, which was inappropriate. Secondly, the students’ schooling had engendered a dependence on rote learning and an uncritical dogmatic, attitude. Another area was that staff satisfaction was low. The changes in job description for staff involved included that the emphasis shifted from one of teacher to administrator/facilitator (Norman: 1998 and Schmidt: 1993). The integrated nature of the course also resulted in a loss of disciplinary attachment. The study concluded by saying that this PBL course successfully pioneered a methodology within a segment of the curriculum. Mitchell (cited in Walker and Wright: 1996) says that

Teachers should not be daunted by the introduction of PBL. The process is not complex, is feasible and the results exceptionally rewarding to both teachers and learners.

Walker and Wright: 1996, p 28

I support Mitchell in this argument and add that PBL can be daunting to students. Preparation and training during orientation could make PBL less complex to students by introducing them to a new way of learning before they begin with their studies.

Medical Education Conference:

In keeping with this philosophy of PBL I recently attended a Health Professionals conference in Bloemfontein, where papers and workshops related mostly to curricular change. I did a workshop titled - *Using an Orientation programme to prepare first year students for Problem Based Learning*. The

purpose of this workshop was to explore what the other universities were doing in this area of orientation and introducing students to curricula changes and to share what our medical school was doing in this regard. The workshop participants were from other universities, both local and international, who were able to give feedback on this presentation as well as shared their own ideas for their context/institution. Most of the delegates understood the need for faculties to spend more time in preparing students for a new way of learning. Since this was a workshop format, participants were encouraged to ask questions throughout the workshop. Questions asked were queries about the logistics; how to set up such a programme and clarification about the results, for example, “what percentage of the students understood the new curriculum before they embarked on it?” All the delegates understood that the rationale for the change to PBL was in keeping with international trends that medical education needed to change in order to accommodate the changing healthcare needs of society and become centred on student learning rather than information transfer (Olmesdahl: 2000).

This workshop was interactive and towards the end, participants were asked to draw up a programme, to either enhance their existing programme or draw up one to fit their own context. The workshop was not only enjoyable and participants shared enthusiastically, but this gave a diverse view of the perspectives of staff from other institutions, who shared their ideas and experience with the rest of us at the conference. This also gave weight to the rationale for this study and the urgent need to find answers for the key research questions to the study as well as the question of what did the students understand about the new curriculum before they embarked on it.

Research Questions:

- 1 What did students understand about the new curriculum before they embarked on it and did orientation help them understand it better?

2. In what ways did students perceive the orientation programme as a help to prepare first year medical students and especially for Problem Based Learning?
3. What particular aspects of the orientation programme do students perceive help them in a new situation and prepare them for a new way of learning?
4. In what ways do staff perceive the contribution of orientation to the new PBL curriculum?

CHAPTER TWO

Literature Search and Theory

Introduction:

This chapter explores and discusses some of the ideas and theories that link both learning and the curriculum to student development. Curriculum change and student learning are influenced by the key component of student development and are linked in a cohesive manner. Whilst discussing student development, it is also important to see that it is the curriculum change in medical schools and a new way of learning that has brought about the space needed to assist students during orientation. Orientation is important in student development as it familiarises, aligns and outlines expectations, as well as socialises. It is often underpinned by a theory, such as holistic student development. The next paragraphs introduce theory that illustrates relationships regarding the key components, that is, how students learn and how curriculum issues, relate to student development.

Rentz and Associates (1996) say that orientation programmes have the potential to significantly affect student adjustment and future success. Participation in orientation activities is linked to student satisfaction and persistence. They say that in orientation, the following trends or issues regarding orientation are important:

- 1. With the emphasis on student learning and new attempts to reintegrate the extra-curriculum, more and more institutions will require entering students to participate in orientation programmes whether they are fashioned from the week long or freshman seminar models.*

Rentz and Associates: 1996, p 263

Orientation activities that are organised to emphasise student learning need to be put in place to encourage students to focus on the studies in a more serious way at the outset, from day one at

registration. It is also very important that faculty staff consider orientation activities as an integral part of their job as well as think about the usefulness of such activities. Planning these activities needs the support of all of the staff and not just those from student affairs to make this a meaningful educational endeavour (Titley, cited in Noel et al: 1987).

- 2. While the increasing use of technology helps to make procedures such as registration easier for students, its greater use removes the opportunity for personal interaction within institutions. Professionals will need to put greater emphasis on the concepts of mattering and belonging - using them as cornerstones of future programmes.*

Rentz and Associates: 1996, p 263

Although we should not fear technology and we should appreciate its usefulness, programmes that include activities that encourage student interaction with other students and staff are still necessary. Students need to feel that they matter and are important to the faculty and that they belong. Activities that encourage students to get to know each other, make new friends and develop a sense of group identity will help them have a sense of belonging (Titley, cited in Noel et al: 1987; Bournier and Barlow: 1991 and Chickering and Reisser: 1993).

- 3. The need for an extended programme of support through small groups, facilitated by peers and staff/faculty, beyond the first few weeks seems to be evident. Such programmes may be needed during the first semester but into the second as well.*

Rentz and Associates: 1996, p 263

I support Bournier and Barlow (1991) who say that orientation is a continuous process and programmes that offer support from staff and peers can play a vital role to new students helping them along the way, throughout the first year. This support can continue to assist in bridging the gap between high school and university, preparing

students for the transition into university life. As well as assisting with the challenges of finding new friends and building a sense of belonging, as well as a new way of learning.

- 4. More attention needs to be given to the more traditional issues of homesickness than is being done presently. The suitcase college or university phenomenon may result now more from some new students' needs to reconnect with a loved pet at home than the lack of planned activities on campus or student apathy.*

Rentz and Associates: 1996, p 263

Students' needs are diverse and the importance of addressing their basic needs is important if we want to get them to seriously focus on their studies. We often discount this aspect of students' basic needs as we think it has very little bearing on their academic studies (Bourner and Barlow: 1991). Often students who are away from home miss the support of close friends and family and this can have a bearing on their studies. Support and nurturing needed could come from their peers as well as staff who can provide understanding of these needs being met.

- 5. With increased attention on assessment, accountability, and learning, institutions will expect that orientation professionals utilise skills to design and complete more evaluation and other research activities than ever before.*

Rentz and Associates: 1996, p 263

In the South African context Corneilse (1998) discusses the profound changes that are occurring in institutions of higher education.

The issue of quality in higher education has arisen in the context of rapidly increasing student numbers as a result of widening access to university study.

Corneilse: 1998, p 47

Corneilse goes on to say that in order to meet demands for “accountability”, mechanisms have been developed and put in place at a level of “scrutiny” that academics have not experienced before (Corneilse: 1998, p 68). Improving the quality of teaching and learning becomes paramount in this context. Orientation directors need both academic skills as well as interpersonal skills to be able to undertake the various educational tasks in higher education.

6. Fewer students residing on campuses in the future will create new challenges for orientation professionals. New methods of communication may be necessary to assist new students with building a sense of identity as well as commitment to learning and higher education. Rentz and Associates: 1996, p 263

Assisting students to gain insight into this area of building identity and being committed to learning is important and orientation directors need to be creative in facilitating these components, by designing interactive sessions on communication. The issue here is the growing, off campus student body and their needs. If students are to feel comfortable in a new situation they must be given an opportunity to establish their identity and feel personally secure. Orientation directors having a holistic view of the students’ experience will motivate and encourage students in their development, by helping them see the importance of the social and the academic components.

According to Titley (cited in Noel et al: 1987) the orientation director should be someone who understands the local and international higher education scene as well as the institution’s mission statement and policies. In other words, the programme should reflect the nature of the individual institution. A large part of the orientation director’s role is to visit all departments on campus so that there is some understanding gained of the needs and requirements, programmes and procedures and to become known to these personnel. In an integrated curriculum, which is not discipline specific such as PBL,

the department responsible for organising undergraduate education should be central to the programme. Without the relevant information on the structure of the curriculum it is very difficult to work effectively to design, develop and implement an orientation programme for new students (Titley, cited in Noel et al: 1987).

Both the social and the academic issues are inextricably intertwined and should not be separately addressed. With this in mind it is important to understand that student development occurs within the context of curricular changes and a new way of learning. It is clear that what happens to students in the first few weeks can have a huge impact on the students' whole educational experience (Titley, cited in Noel et al: 1987).

The next paragraph sets the scene for a theoretical framework of this study, which draws on ideas from the following areas:

A. Student development and progress: I discuss the issues that new students face and how these are and can be addressed in the university context, and how this relates to orientation. Orientation for new students can be a powerful vehicle for meeting the needs of new students by providing support for their academic studies and assisting them through the many transitions of university life and future success.

B. Curriculum: I have focused on aspects of PBL in medical curricula discussing some background and history of PBL and how orientation can help prepare students for PBL. The relationship to the key aspect of student development and progress and to student learning is discussed. As discussed in chapter one, a solid foundation needs to be laid in the student's first year of university life to ensure success in their studies and to be able to cope with university life. To understand the importance of this philosophy we need to take a look at the

medical curricula to see where and how orientation can help build this solid foundation to assist in student success and retention in the faculty.

C. Student learning: I discuss how students learn in PBL; the challenges to academics; as well as an understanding of quality learning. How this relates to student development and curriculum and how orientation can help is also discussed. Some studies (Walker & Wright: 1996) show that most students find the learning process in PBL, “stimulating and challenging,” as described in chapter one (page 20) even though they need preparation and training and ongoing support. (I will discuss this further in chapter four.) Orientation can play a vital role in meeting these needs by providing insight into how students learn and the role staff play in the learning process to help encourage student success.

A. Student Development and Progress:

Introduction: The transition from high school into the university for many students is about new expectations, new ways of learning, assessment and becoming an adult. Especially in Medicine, students find that they are taking on new responsibilities for themselves and others. We recognise the fact that retention and success has its foundation in the student’s early experiences and motivation, as clearly stated in chapter one of this study, and noted by Tinto and Titley (cited in Noel et al: 1987) and Rentz and Associates (1996) in their research. It is important that faculties understand the students’ needs more fully and provide the necessary support. Rentz and Associates (1996) say that professionals need to have their practice grounded in student development theory and become familiar with research literature that describes the new student. The emotional and social effects of learning also impact on the developing sense of identity for the student.

Orientation has the space (in the structured curriculum timetable) to make explicit some of the issues that are often left implicit and are confusing to students. This space can be used to explore personal and social issues as well as the academic and the intersection of these issues. For example the process skills' training, which involves small group dynamics, can be discussed here during curriculum time. This training also assists the students with a new way of learning. Whilst the students are being trained there is also the opportunity for the students to get to know each other better and build trust as well as learn to support each other, developing interpersonal skills and ideas about responsibility and civic skills (Titley, cited in Noel et al: 1987). In this way the student is developing holistically, where both the academic and the social issues are being addressed.

Some of the following issues are what students need to deal with:

1. Leaving home and being on their own; trying to find a place to live; how to deal with financial issues:

The new responsibilities for the individual student of being on his or her own; finding a place to live and trying to deal with finances are complexities that the student has to deal with and how to manage these complexities whilst developing autonomy is a challenge. Autonomy implies mastery of oneself and one's powers. To be able to practise autonomy one needs to look at one's own personality and to identify key conflicts and contradictions there. Chickering and Reisser (1993) say

Some progress in the management of emotions is needed for movement along this vector, since the only way to find what fits is to explore and experiment, and this often involves guilt and anxiety. Letting go of the old dependencies involves a grieving process.

Chickering and Reisser: 1993, p 118

Swell (1992) says that the students' personal evaluations of themselves are a dominant influence on their academic achievement.

A supportive environment with encouragement from staff and students during and after orientation is necessary to help give students the safety they need, to help build their self concept and independence. These new responsibilities can become growth experiences for students if they keep positive attitudes in both positive and negative situations.

2. Loneliness; making new friends; fitting in and importance of interaction

Making new friends in a new environment is another issue that can make students anxious and involves a certain amount of risk taking. A crowd of people new to a college can be a lonely crowd for a new student. In a social environment students learn the most from other students. The less students interact with one another, the more marginalized the students feel. Orientation programmes that help students get to know each other are important (Bourner and Barlow: 1991). Often students who study together in one discipline change their courses and disciplines within their individual curricula and do not have the same contact across all courses on an ongoing basis, so there may be insufficient time to bond with each other. On the other hand some disciplines like medicine, provide ample opportunity to bond as their courses stay the same throughout the year. Nevertheless activities during orientation can help students make new friends, begin to develop a sense of group identity and are useful to help students belong (Bourner and Barlow: 1991). This ties in with the next point on small group learning in PBL, which provides opportunities for students to address both their academic and social needs.

Tiberius (1999) says that in the PBL tutorial group students have the opportunity to get to know one another and this builds trust and friendships and this would build on processes begun in orientation.

This helps students to have a stronger identity since the students have much in common. Chickering and Reisser (1993) say

Relationships are connections with others that have a profound impact on students' lives.

Chickering and Reisser: 1993, p 145

Through these experiences students learn how to express and manage their feelings: how to manage a relationship at a deeper level and how to make commitments. How students fit in depends very much on their own capacity to give and socially interact with others. Pascarella and Terenzini (cited in Chickering and Associates: 1981), define ethnocentrism in their study on the relationship between college attendance and interpersonal relationships

as an individual's tendency to view social interactions in terms of in-groups and out-groups – where in-groups are seen as dominant and perceptions of individuals' characteristics are determined on the basis of stereotypic positive or negative images of the groups to which they belong.

Chickering and Associates: 1981, p 281

Orientation can help students feel they belong to the community they have entered by focussing on gaining some idea of other students' interests and experiences as well as abilities and needs. It is difficult for students to be enthusiastic and motivated towards their studies if they are homesick and lonely. University counsellors and advisors know that loneliness is a major problem for many students especially in their first year of study. Maslow's hierarchy of needs (Jordaan & Jordaan: 1996) indicate that the need to be liked and accepted is stronger than the need for personal growth and knowledge. Chickering and Reisser (1993) say that whether students live on campus or commute to university they will make friends. Students are greatly influenced by these friends and every aspect of their lives becomes patterned and planned by their music, books, films, concerts, lectures

attended and whatever else is recommended by these friends. The influence of friends is amplified and enriched by the values, standards and interests of the groups to which they belong. These groups can influence students more than their parents. Whether positive or negative an individual's student's friend/friends can also extend an influence that can define the norms for relating to the entire faculty community. Socials organised during orientation can help "break the ice" and encourage students to make friends quicker. Small group learning also facilitates this process as students work together over a period of time, get to know one another better and discuss issues of diversity, responsibilities and their learning (ibid).

3. Balancing their academic and social life; managing their time; adjusting to a different level of academic work; staying motivated:

The responsibility of balancing their academic and social lives can be very complex for most students, no matter how organised that individual student is, the fact that there are so many "new" responsibilities make this task a daunting one. Many students see the workload ahead of them and are overwhelmed because of it. Faculty can use the orientation period to encourage students to make this transition in a more balanced and effective way. This needs the individual student to make judgements about what his/her priorities are and requires a certain amount of skill that can be introduced during the orientation programme (Chickering and Reisser: 1993).

For most students parents are also not there to supervise the students' time and this means that the students have to make their own choices. The task of prior preparation and scheduling of their time and their priorities can help students make their lives more manageable. One of the problems that most students face is the problem of freedom and how to cope with this freedom. How this freedom is used will have an impact on all other aspects of the students' university life and career. This freedom really represents the

individual's first foray into real adult independence, albeit still sheltered to some extent. The importance of time management for students is a priority, as they need to take responsibility for their own learning (Chickering and Reisser: 1993). During orientation this aspect could be addressed through time management workshops and helping them with prioritisation of their responsibilities. Social constructivism implies responsibility towards one's fellow learners as well as to oneself. Students need to do the learning themselves or no one else is going to do the learning for them.

4.Coping with issues of diversity; Coping with feelings of inadequacy or overconfidence; Learning how to ask for help in an environment that values independence; where to go when feeling lost:

For many medical students the difficulty is finding out that there are many other "top" students in their classes. In the South African context medical students are referred to as the "cream of the crop" and there is a great deal of pressure and an expectation of students to achieve. Previously in high school each of these students was the top student. It comes as quite a shock to many students that they have to now learn to share this place with other students. For many students what is needed during orientation is to learn how to grow, how to mature academically, spiritually and emotionally.

Pascarella & Terenzini (cited in Chickering and Reisser: 1993) emphasise the importance of "socialising agents"- the people with whom students come into contact with, as playing a critical role in identity and ego development during their college years. They also suggest that

it is the diversity of individuals – particularly other students that developmentally challenge students' perceptions of themselves and this requires adaptation and commitment to certain attitudes, values, beliefs and actions.

Chickering and Reisser: 1993, p 148

Students learning in groups, learn how to care for each other and learn how to play the roles that they will play throughout life. These relationships can help to influence student development and in this way help facilitate the students' transition into university life. All these issues can be introduced early in an orientation programme as a support mechanism and as preparation for students to become in touch with their own feelings, concerns and their anxieties during this time of transition. There is a growing need for a more structured and formalised introduction to university orientation courses and programmes for new students (ibid).

The orientation period for most students is a time of mixed feelings and major adjustments to be made, anxieties and also some disappointments. Most fields of study are quite competitive and the information explosion has put great demands on students to absorb masses of information, albeit at an introductory level, of the different disciplines. Students are concerned with what the curricula contains, as well as the method and approach to the learning, good marks and generally to be successful (Deary: 1994).

Chickering and Reisser propose four axioms when designing curricula that are in keeping with the PBL philosophy, which can help encourage growth and help students develop the capacities for learning, living and working in this century:

1. *"Make content relevant to students' backgrounds and prior experiences"* Chickering and Reisser: 1993, p 363

Building on the students' prior knowledge and earlier experiences legitimises their knowledge and is a basis for constructing new knowledge. This helps students develop their confidence and contributes to the developing identity.

2. *Recognise significant dimensions of individual differences between students* (ibid)

Often we treat students as though they are going through a “machine” of some sort instead of understanding that these are individuals who are different and that these differences are not deficiencies. Staff and senior students can help with this during orientation by organising activities that celebrate diversity and build this understanding and appreciating of these differences.

3. *Create encounters with diverse perspectives that challenge pre-existing information, assumptions and values.* (ibid)

Organising this into the orientation programme where students can realise early, that their learning involves a process that involves building on their prior learning and that new information needs to be substantiated. Students will be challenged and will challenge others on their own values and assumptions.

4. *Provide activities that help students integrate diverse perspectives, assumptions and value orientations*

Chickering and Reisser: 1993, p 362

The major task of education is to see the relationships among parts be perceived or constructed so that more complex wholes result. Differentiation and integration are key to education. Chickering and Reisser (1993) say that when faculties select their content for the curriculum it should be done on the grounds of considering these axioms so that they can contribute to the holistic development of the students. How the curriculum impacts on the student, and the student’s holistic development are interwoven and this is important for progress to be made. Both staff and students should recognise that orientation can improve the quality of the students experience at university as well as their learning experience.

B. Curriculum:

Definition: According to Prideaux (2003) the curriculum represents the expression of “educational ideas in practice.” The curriculum includes all the planned learning experiences of an educational institution and exists at three levels: what is planned for the students, what is delivered to the students and what the students experience. It is underpinned by a set of values and beliefs about what students should know and how they come to know it (Prideaux: 2003, p 268).

The subject of changing curricula in the Health Sciences is topical globally. The aim of orientation is to prepare students for an unfamiliar form of learning for most students. Current research in this area is vast, as different medical schools have opted for different strategies to achieve the mutual goals of developing active, independent learners; equipped with the problem solving and lifelong learning skills needed to practise responsibility (Sayres, cited in Rankin: 1999). PBL is one of these strategies and there are various approaches (Bligh: 1995). Even though the actual application of PBL may vary, the fundamental PBL philosophy and its methods are similar across the United States, Britain, Canada, South Africa and various countries worldwide where PBL is being adopted (Rankin: 1999).

A number of universities in the UK are incorporating the principles of PBL into their own curricula and as a result of the recent General Medical Council recommendations many new graduates will have experienced it in one form or another (Bligh: 1995). Bligh’s article on PBL in Medicine addresses British health science educators particularly who are moving to PBL. This article shows the importance of the educational needs in that context and provides valuable information on the underlying pedagogy and methods used in PBL.

PBL was first introduced at McMaster University Medical School in Canada in the 1960's as its major teaching approach. The universities of Newcastle, Maastricht and New Mexico followed during the 1970's. Since then increasing numbers of schools have implemented PBL and examples of PBL curricula can now be found in almost all parts of the world, including North and South America, Europe, Africa, the Middle East, Asia, Australia, and the South Pacific (Schwartz et al: 2001). Education and training for doctors in most of the medical schools in South Africa have been going through a transformation and for the last fifteen years, there have been substantial changes made to curricula. The University of Natal, Medical School has adopted an approach to PBL based on the Maastricht Medical School model. The Medical School seeks to serve a population between first and third world in both its medical and education needs (Sommerville: 1999).

The positive impact of this approach on education and training includes additional support programmes for holistic development in medical schools like the orientation programme, which was designed to consider what the students needs are and how best one can meet these needs. To understand this context and why it is so important that orientation programmes be designed to prepare medical students for a new way of learning and university life, one needs to understand what these changes were and how they impact eventually on the student

Some of these changes relate to external influences and some relate to inherent characteristics of the undergraduate curricula. Some of the external influences cited in Tomorrow's Doctor (1993) are:

- *The focus of medical education has moved from the understanding of diseases as they affect individuals to a wider interest of epidemic and environmental hazards that affect populations. "Public Health has been firmly reinstated as a*

priority in the planning of Medical Services in this country and abroad.

- *The application of new services and new techniques require constant readjustment of our approaches and methods to all aspects of Medicine.*
- *The application of computers to Medicine has revolutionised our communication within Medicine and a working knowledge of this kind of technology is necessary for the future doctor.*
- *Expectations of patients have changed and patients want to know and understand the nature of their illness and the consequences of their treatment.*
- *Scientific advances and cures for diseases need to be anticipated and the moral and ethical issues they present will need to be debated and addressed. An understanding of the principles involved is necessary and students need to consider, for example, what is the moral dilemma?* Tomorrow's Doctor: 1993, p3

These external influences that brought about change also affect the kind of programmes that need to be put in place to address the apparent mismatch between school and university. An orientation programme that addresses these changes and encourages an understanding of the PBL philosophy is important so that students understand the need for these changes and why the new curriculum has been implemented. Some characteristics for example the overloading of the curriculum, have urgently needed change and have been part of Medical educational discourse for over a hundred years, as far back as 1863:

Overloading of the curriculum of education.... followed by results injurious to the student, was noted. Other issues like the need To give the student a larger amount of time for self education

Tomorrow's Doctor: 1993, p3

Thomas Huxley in an address on university education in 1877 made the point more forcibly and said

the burden we place on the medical student is far too heavy and it takes some doing to keep from breaking his intellectual back. A system of medical education that is actually calculated to obstruct the acquisition of sound knowledge and to heavily favour the crammer and the grinder is a disgrace.

Tomorrow's Doctor: 1993, p5

For students to understand and accept the need for the change in the curriculum the issue of content overload should be addressed in the orientation programme. The history of how these changes came about is important for them to understand. If students enter university with conceptions of learning as acquiring knowledge, i.e. in the old form, they need to move to a position where they understand it at least as understanding if not change. Helping students set realistic and attainable goals about the educational experience they are about to encounter could also help them to identify the learning skills they need to develop and apply them (Bourner and Barlow: 1991).

Over a century later in 1980 the following recommendations on Basic Medical Education was made:

We therefore reiterate the views expressed in the Recommendations of 1957 and 1967, that the students' factual load should be reduced as far as possible, to ensure that the memorising and reproduction of factual data should not be allocated to interfere with the primary need for fostering the critical study of principles and the development of independent thought. Tomorrow's Doctor: 1993, p5

This statement emphasises the need for free time for private study and self-directed learning and that it is important and necessary for students to understand why rote learning is inappropriate in this

context (Boud and Felletti: 1992). This change has been fundamental and orientation prepares the students in a different way, to enable them to identify and access information. Self directed learning does not take place without some kind of guidance and support, or preparation especially if it is a new way of approaching learning for the learner. This change has been fundamental and orientation prepares the students in a different way, to enable them to identify and access information.

The strong words of Thomas Huxley reflect emotions that many educationalists have expressed over the years about the need for change and the changing of curricula. Boud and Felletti (1992) talk about the different areas that individuals find themselves in an institution. For example, different parts of the same university differ in their organisation, operation and ethos and differences are multiplied across cultures and national boundaries. University campuses are complicated places and the need for preparation and therefore orientation is so important. This information is important if one is to understand why the curriculum has changed and why the PBL philosophy of learning ties up with holistic development and the need for training the student as a whole person.

The next paragraphs describe the new curriculum, which involves active learning and illustrates some of the differences from the traditional, overloaded curriculum. In this context the importance of the role of orientation is emphasised as a time of preparation and training and becomes crucial for students since active learning involves a particular type of engagement.

In January 2001 the new curriculum was implemented for the first time at this Medical School in Natal. Since 1995 faculty staff have been involved in serious educational discourse on the design, development and implementation of the new curriculum. Visits to

other medical schools, both locally and abroad were done to ascertain what models were being implemented in curriculum reform and how this could fit into our South African context. One of the issues discussed was the need to make sure that all the aspects of the core content of each Theme or Module (two Themes) were covered and at the same time that a checklist was drawn up to make certain that there was no overload. Each Theme, for example “Diabetes” which is covered in the first year of study consists of PBL tutorials where students work on case studies relating to the theme of the Diabetes disorder and this is implemented over six weeks. Special Themes included the HIV/AIDS component and the Electives Module where students can do any one of three compulsory components when they want to. A matrix of the five-year curriculum plan showed when topics or sections could be revisited and where students could add on to the knowledge they already had on a section – showing how the curriculum would evolve with a spiral effect. It is important that students receive this information on the new curriculum so that they understand why the curriculum has changed and what has been developed so that they understand their role in the context. Making information clear during orientation is important, as students tend to get information overload. Handbooks containing this information could prove to be useful as they can refer to this when needed.

C. The Students’ Learning:

Introduction: The PBL curriculum creates new opportunities for a new type of ethos of caring and sharing in that the philosophy and principles underpinning the new curriculum based on PBL encourages and postulates this. Learning skills are at the core of what students need in order to succeed in their studies and these should be introduced during orientation. Training for the small group tutorials provides an opportunity where students are trained to share knowledge as well as challenge each other. The philosophy of training

and educating students as caring practitioners includes the holistic development of each individual student.

It is also very important that academics who are exposed to teaching (facilitating tutorial groups in the new curriculum) are part of this training during orientation and understand the role they have to play in the process of student learning. David Taylor (cited in Schwartz et al: 2001) discusses the need for both staff and students to be involved in the development of the training programmes. Both staff and student performance needs to be evaluated so that they don't undercut the move towards self-directed learning. Watson & Groh (cited in Schwartz et al: 2001) in sharing their experience of faculty PBL training say that the most important change has been in the attitude of staff and a renewed interest in meeting the real needs of students – in ways that are effective for both students and the faculty. Helping students address the need for personal skills and self-awareness during orientation can help students to clarify what they want out of their time at university –their aspirations and priorities (Bourner and Barlow: 1991).

The new curriculum represents a number of significant challenges for academics to consider and the training for both students and staff during orientation should address the issues. According to Boud and Feletti (1992) the following challenges should be considered:

- *Encourages open-minded, reflective, critical and active learning*

This can be a real threat to those staff who prefer passive students in situations where the teacher has the most control over what has to be learned. For some staff a loss of control is a sense of a loss of personal power.

- *Is morally defensible in that it pays due respect to both student and teacher as persons with knowledge,*

understanding, feelings and interests and who come together in a shared educational process.

This is threatening to any educator who thinks that education is a one-way process of direct information transmission from the knowledgeable teacher to the ignorant student. It can also be a threat to people who think that differences are deficient and who find it difficult to see other human beings as having equal worth.

- *Reflects the nature of knowledge – that is, knowledge is complex and changes as a result of responses by communities of persons to problems they perceive in their worlds*

Boud and Feletti: 1992, p45

This is a threat for academics that view knowledge merely as a body of knowledge to be transmitted; teaching as a process of information transmission and learning as an information absorption process. Making students aware of what the expectations of facilitators are in the new curriculum, during orientation, will help them to understand the facilitator's role. Academics need to embrace this new pedagogy and encourage the students' learning by building a safe environment for the students. In the traditional curriculum teaching is in transmission mode and is known and understood as such. Changing to the new mode is threatening and also more work, and requires a different understanding of learning and teaching (Boud and Feletti: 1992).

Gibbs (1992) describes the definition of what quality learning is

...the development of students' intellectual and imaginative powers; their understanding and judgement; their problem solving skills; their ability to communicate; their ability to see relationships within what they have learned and to perceive their field of study in a broader perspective. The programme must aim

*to stimulate an enquiring, analytical and creative approach,
encouraging independent judgement and critical self-awareness.*

Gibbs: 1992, p1

Orientation can introduce students to these skills training and assist them in understanding what quality learning is. For these outcomes to be achieved the objectives of the courses must be set out to avoid spoon-feeding in lectures and making the student over dependent on one way of teaching and learning. Students need to develop a range of skills appropriate to higher education. Gibbs (1992) discusses how students vary in their approach to learning and gives us a definition of a surface or deep approach to learning. A surface approach is where the students reduce what is to be learnt to the status of unconnected facts to be memorised and the learning task is to reproduce this at a later date in an examination or test. A deep approach is where the students attempt to make sense of what is to be learnt, which consists of concepts and ideas. This involves thinking and the integration of components and tasks. Schank (cited in Madolo: 1998) says that to foster critical thinking in learning the teacher needs to create

A climate of curiosity and questioning and prevent assumptions and speculations from being used as a basis for action without verification, require evaluation of intervention, engage in dialogue to develop divergent thinking, create and maintain an open environment that does not become disciplined, provide for feedback, and design objectives that focus on process rather than content.

Madolo: 1998, p 38

Gibbs goes on to discuss how the students' quality of learning can be improved by fostering a deep approach and he postulates nine strategies that can be used to do this. These nine strategies, which are

(1) Independent learning -

Methods associated with this strategy include the use of learning contracts, (Knowles, 1986) self and peer assessment, project work, and the negotiation of goals, learning methods, assignments, and assessment methods, assessment criteria and marks.

Gibbs: 1992, p2-18

The students can be introduced to all these aspects during orientation where there is the space to explore these issues to build understanding.

(2) Personal development –

Group work, which allows discussion of group process and Individual feelings as well as of the content of learning. (ibid)

This is one of the key components of the new curriculum and the orientation programme introduces this early in the students training.

(3) Problem based learning –

Involves learning through tackling relevant problems, distinct from problem solving. The aim is to learn rather than solve the problem. (ibid)

Students discover what they need to learn from tackling a case study in their tutorial groups, which they are introduced to in orientation.

(4) Reflection-

Reflection on learning, both the process and content, can help students to take charge of their learning, even in highly constraining circumstances and to move towards a deep approach. (Boud et al: 1985) (ibid)

The need for students to reflect on their learning is made explicit during orientation, and some aspects or processes are introduced during the process skills training during orientation.

(5) Independent group work-

This strategy focuses mainly on the element of interaction.

Interaction between students is also inherently motivating and encourages a range of learning activity. (ibid)

This also provides an opportunity for students to get to know each other better and assists them to make friends. As this is such an important issue for students they could be encouraged to do this right at the beginning during orientation.

(6) Learning by doing-

Experiential learning emphasises the element of learner activity.

Involves visits, practical work and work experience which involves careful planning and subsequent processing. (ibid)

Preparation for hospital visits and other practical work could also be introduced during orientation. Although students are introduced to this later, some guidelines and etiquette are helpful.

(7) Developing learning skills-

Study skills' training is not enough. Developing learning skills involves special training type exercises (Habeshaw et al: 1989) and reflection on learning integrated into courses and learning tasks (ibid)

The student counsellors who provide ongoing support throughout the year for students could do this training.

(8) Project work-

Used in higher education for the purpose of going beyond reproduction of information, to the application of knowledge. (ibid)

In the medical school context the students are introduced to clinical work and community visits in their first year, which is very early in their training. The preparation for this during orientation can build a solid foundation for students. This preparation and ongoing support can build the confidence that is later needed when they work with real patients.

(9) Fine tuning-

These nine strategies may seem to imply radical alternatives to conventional taught courses are necessary to support a deep approach to learning. However it is possible to have a marked impact

Gibbs: 1992, p2-18

For the purpose of this study I would like to discuss further the second strategy of personal development and the students' personal involvement in learning. Orientation could play a strong role in building the students' personal development as well as the students' personal involvement in learning. Rogers (cited in Gibbs: 1992) indicates that the learning process involves the whole person, feelings as well as intellect and that the role of the academic is quite different to that in conventional teaching and involves three main features

- *Creating a learning climate, which is safe and supportive, within which learners feel able to take risks in their learning, challenging existing assumptions and going beyond past learning?*
- *Facilitating learners in taking responsibility for their learning. The development of student autonomy may be a primary educational goal.*
- *An emphasis on the expression of feelings and on learning to have more open access to one's own feelings and more sensitive response to the feelings of others. The integration of the affect and the intellect is also a primary educational goal.*

Gibbs: 1992, p20

The method commonly associated with this strategy is group work, which allows discussion of group process and individual feelings as well as of the content of learning. Interaction between students is motivating and encourages a range of learning activity. Process skills training for small group learning could start early in the student's life at university and the orientation programme could introduce students

to the principles of small group learning and self directed learning, which allows for the facilitation of a number of issues the students will be able to start addressing. Self directed learning where students do their own research and collect and assimilate information, is tested out in the small group process, where students share the information they have gathered, about the topics discussed in the small group (see university's eight steps – appendix 2)

Clearly here are theories, which show the importance of how personal development and student learning should influence the way students are taught. Orientation programmes have much potential to begin helping students take charge of their own learning. The way the curriculum is organised could encourage and enhance personal development and foster deep learning in students to assist them to be successful. According to Upcraft, Gardner & Associates (1990) first year students succeed when they make progress toward fulfilling their educational and personal goals by:

- 1) *Developing academic and intellectual competence;*
- 2) *Establishing and maintaining interpersonal relationships;*
- 3) *Developing an identity;*
- 4) *Deciding on a career and lifestyle;*
- 5) *Maintaining personal health and wellness; and*
- 6) *Developing an integrated philosophy of life.*

Upcraft, Gardner & Associates: 1990, p2

Orientation could help the student's to be successful in both their academic progress and their socialisation, which links the key theory of student development and progress to curriculum issues, and the students learning. What is of immense importance is that there is the space in the orientation programme where students can address the many issues that confuse them. Orientation can begin to prepare students for dealing with the uncertainties and stresses associated with an unfamiliar form of learning. Orientation

can begin to alert them and get them thinking about learning, introducing strategies for use (Bourner and Barlow: 1991). This space can be used to explore personal and social issues as well as the academic and the intersection of these issues.

CHAPTER THREE

Methods and Methodology

Introduction:

This chapter discusses research methods and methodology in the context of educational research in higher education. Reasons for the chosen approach, advantages and disadvantages of the design, methods of data collection, data analysis and the important aspects of validity and reliability are discussed.

Research Paradigms in higher education:

Zuber-Skerritt writes that educational research is affected by the battle between at least two competing paradigms of what philosophy should inform educational research, namely, quantitative and qualitative research. She argues that the “non-traditional, interpretive, alternative approach is scientific too, and has to use different methods in order to research and fully understand the human or social reality under investigation” (Zuber-Skerritt: 1992, p 124). Cohen and Manion (1990) also mention these criticisms and present information on both perspectives.

Qualitative or ethnographic or the naturalist approach draws on research in social anthropology. The researcher observes human behaviour in a natural or real situation. The aim here is to gain a better understanding of the people or events in the setting (Zuber-Skerritt: 1992). A comprehensive treatment of the qualitative paradigm and its methodological traditions is found in Denzin and Lincoln (1994); Locke and Silverman (1998); McNiff (1992); Bailey (1987) and Zuber-Skerritt (1992). The quantitative or traditional approach is where a researcher sets up an experiment, intervenes in a process and manipulates a number of variables to test a hypothesis (Zuber-Skerritt: 1992). This type of research has characteristics that involve experience; it is empirical and is systematic and controlled. Kerlinger (cited in Bailey: 1987) also indicates that scientists must

always subject their notions to the court of empirical inquiry and test. At the heart of the empiricist tradition is the idea of evidence and testing and the scientist turns to experience for validation (McNiff: 1992).

My own ideas and philosophy include that of trying to understand the student's own perspective and their reality and how this fits into the broader picture of what happens in the faculty and how best this can be improved. I find that over the years qualitative, interpretive research has assisted me to know and understand the students' perspective better and has also shown how the programmes that were designed for the students' development were received. I have chosen to use a qualitative approach, as I believe this to be an effective way of gathering in depth information regarding what people think and feel; and to understand the insider's view. In this study the approach is being used to understand the experiences and perceptions of both staff and students of a new education programme in a particular context. Qualitative research is now represented in many fields of study. Its influence especially in the social sciences has been growing steadily. According to Wickham (1998) qualitative research has its powers and limitations. To understand this I had to think carefully about these aspects, in terms of the design and implementation of the project and how this would work. As a researcher who has engaged in a number of research projects I found qualitative research, the interpretive paradigm is characterised by a concern for the individual.

Denzin and Lincoln (1994) discuss qualitative research as a field where researchers may deploy a variety of empirical methods and materials which help in describing routine and problematic moments and meaning to peoples lives. Qualitative research involves the studied use and collection of empirical materials such as – case study, personal experience, introspective, life story, interview, observational,

historical, interactional and visual texts. They offer a generic definition of qualitative research as

Multimethod in focus, involving an interpretive, naturalistic approach to its subject matter Denzin and Lincoln: 1994, p 2

The use of multimethod in this sense implying an attempt to secure an in-depth study of the phenomena in question. Qualitative researchers study things in their natural settings, attempting to make sense of, or interpret phenomena in terms of the meanings people bring to them. Denzin & Lincoln (1994) and Cohen and Manion (1990) say the central idea of the interpretive paradigm is to understand the subjective world of human experience. As an interpretive researcher I needed to begin with an individual and start to understand his /her interpretations of the world around this individual.

The topic for this study addresses the issues of anxieties that new students have about the new curriculum and a new way of learning; new responsibilities that students find themselves having, during the transition from high school to university; the difficulties that students face in a new setting and the university's responsibility to support new and mature students in a new environment. The purpose of this study is to understand the students' perspective and how this fits into the broader picture of the institutional context.

Critical Research and Interpretative Research:

Locke, Silverman and Spirduso (1998) say that the purpose of critical theory is the "understanding and critique of power within society." They discuss critical research very broadly and say that most critical researchers are involved in matters that either must help us understand the sources of inequity and the social processes that sustain it; or must go beyond that to serve as an agent for remedial change by helping to empower members of an oppressed group, usually as a consequence of being participants in a study. The

purpose of interpretative research is understanding a situation from the perspective of the participant (Locke, Silverman and Spirduso: 1998, p 141).

Action Research:

McNiff (1992) argues that both the empiricist and the interpretive traditions are grounded in subjects other than educational practice, and that what is needed is a new educational tradition – which she refers to as action research. Action research as described by McNiff urges teachers to develop and improve their own practices by taking education research out of the confines of academia and conducting these themselves. According to Zuber-Skerritt (1992) the operational definition of action research is

Research by higher education teachers themselves into their own teaching practice and into student learning with the aim of improving their practice or changing their social environment.

Zuber-Skerritt: 1992, p 88

Although this study has key features of action research in that it seeks to improve my own practice and understanding – it seemed more appropriate to choose a case study approach, as this study is not cyclical in nature, that is, it is not an ongoing study at this stage.

Case Study Methodology:

Rationale for choosing this methodology-

According to Yin (1993) case study research can be based on single or multiple case studies, which can be exploratory, descriptive or explanatory. This case study can be described as a single descriptive study, which gives a complete description of a phenomenon in its context and covers the scope and depth of the case (Yin: 1993). I have chosen the case study approach as this gave me the opportunity to use various methods of data collection. I was also researching a “real” situation.

Adelman et al (cited in Zuber-Skerritt: 1992) define case study research as the study of an instance in action in the context that the 'action' takes place. According to Zuber-Skerritt (1992) case study methodology has made a considerable contribution to educational knowledge over the last three decades. The researcher's critical presence in the context of the research, hypothesis testing and triangulation makes case study work "scientific" and acceptable to other educational researchers (Zuber-Skerritt: 1992, p133).

According to Zuber-Skerritt (1992) the purpose of triangulation is similar to that of "critical intersubjectivity and participant confirmation" (Zuber-Skerritt: 1992, p138). In other words the researcher's interpretations are to be validated by others either through confirmation or negotiation of meaning. In this study I discussed in summary my interpretations of the data with both staff and students who were the participants. In order to increase the reliability of the data collected I have used my role as participant and observer, as well as the formal course evaluation forms completed by students, as a process of triangulation.

Other possible advantages of case study research suggested by Adelman et al are:

- 1. Case studies subject themselves to re-interpretation, inasmuch as the data can be stored and used by researchers or others for their own purposes, which may be different to the original purpose.*
- 2. Case studies allow generalizations-either about an instance or from an instance to a class; they attend to subtle and complex relations*
- 3. Case studies are a step to action.*

A case study can serve a more than one audience and therefore can assist in the democratization of decision-making. The reader is able to make his /her own judgments.

4. A case study is strong in reality

Zuber-Skerritt: 1992, p 133

Case study research can be based on single or multiple case studies, which can be exploratory, descriptive or explanatory. A basic strategy of this design is to describe in detail a single unit in a specific context, during a specific period. Zuber-Skerritt (1992) describes the case study approach as applied to a real situation and not one that is created for the purpose of research. This case study can best be described as a single descriptive case study, which gives a complete description of the study within its context. I felt that the case study approach was appropriate for this study as I was researching a real situation. I would hope that others would use it for their purposes, for example, to learn from and improve the programme to make it more effective, or to influence policy or decision-making.

When applying the case study approach there are recognized methodological principles and guidelines to follow and I found these useful in this study. Millar (cited in Alperstein: 2001) describes three principles of procedure:

- 1. Accurate Portrayal*
- 2. Progressive Focusing*
- 3. Holism*

Millar further describes a framework for applying three master questions that are helpful to the case study approach:

- 1. What is the case about?*
- 2. How does the case work?*
- 3. Why does the case work this way?*

Alperstein: 2001, p 55

(1). Accurate portrayal refers to presenting all data honestly and accurately. It is important that the researcher pay attention to data that could be easily distorted such as interview scripts. In this study I attempted to apply this principle by using and referencing direct quotes of the participants, distinguishing between the participants' views and my own interpretations and referencing all documents and literature used for this study.

(2). Progressive focusing refers to the importance of focusing on key aspects and questions that emerge and that help illustrate the main issues of the case. I attempted to do this through the literature review and the analysis and discussion of the research data.

(3). Holism refers to aiming to understand all aspects of the case, and not only a part or parts of it. The broader context within which the case is located needs to be looked at as well. I have attempted to contextualize this study by relating student development within curriculum change and student learning and analyzing and interpreting the research data. (ibid)

1.What is the case about? This is a description of the case using all the various data and capturing the differing views and perceptions of the various role players.

(2). How does the case work? This requires the exploration of the relationships and social processes as well as the range of meanings and core educational processes involved.

(3). Why does the case work in this way? This analyses the case within its social, traditional and cultural context. In this specific study, this is extremely relevant in the South African context, in relation to the diversity of student backgrounds, various cultures and the changing environment in health care education. (ibid)

Problems associated with the case study approach:

Locke, Silverman and Spirduso (1998) say that just as in quantitative research, qualitative research also has the same general problems and the need to formulate good questions, matching questions with the appropriate methodology, collecting high quality data that are reliable and valid and interpreting those data with thoughtful care are important principles for a study that is true and valid. The most common criticisms of the approach are related to issues of reliability, validity and generalization. A combination of both closed and open questions were used to give a broad ground for continued investigation through interviews and focus groups in this study. Although this approach allows for flexibility and has the capacity to elicit new aspects of reality, it also has limitations. These need to be acknowledged and minimized where possible. This approach is also time consuming and this study had to be done in a short space of time because of work constraints. I had to work around this by planning a structure that would fit into the time, so that the research process could follow expediently. The aspects of time constraints as well as other implications like the costs and accessibility of the participants, needed to be considered before embarking on the project.

Reliability:

The research methods could be replicated by other researchers if clear and explicit information on the research procedures are given. Data is regarded as reliable if the same method used to collect the data initially, produces the same results if the same or different researchers use it at different times. Each researcher has his/her own interpretation and the case study will seldom produce the same results as each case has its own dynamics, especially at different periods of time (Cohen and Manion: 1990).

Validity:

Internal validity is concerned with whether the research is designed so that it truly deals with what is being examined. External validity is concerned with whether or not the results will remain truthful when subsequently applied to people, situations or objects outside the original investigation (Locke, Silverman and Spirduso: 1998). According to Mouton (1996) validity is difficult to ensure in the case study approach, as case study research is a highly subjective form of inquiry. There is

*Truth as plausibility, goodness of fit or as better or worse,
dependent on the range of complexity of scientific knowledge*

Mouton: 1996, p30

The only way to minimize the subjectivity is for the researcher to expose and problematise his/her perspective as part of the presentation of the study. It is not necessarily wrong or right that two researchers studying the same case are likely to reflect different opinions of the reality of the situation and each interpretation. The case study approach does not claim the last word and it should invite confrontation by a better analysis (ibid). The researcher must present the findings, procedures, basic data and frame of reference for public scrutiny (ibid).

Methods of data collection:

Three primary methods for collecting the data for this study were used - interviews, focus groups and questionnaires. While these techniques involved both quantitative and qualitative aspects, my main approach was qualitative. The secondary data collection was done via the whole class who filled in pre and post orientation evaluation forms for the main purpose of indicating their proficiency level with computers, language etc as well as information on

perceptions of PBL and information regarding the personal information of students.

Convenience Sampling:

According to Bailey (1987)

Convenience sampling is where the investigator chooses the closest live persons as respondents. What is lost in sampling accuracy is saved in time and money. A common example is “captive audience” sampling, as in the use of introductory social science students as questionnaire respondents.

Bailey: 1987, p93

I used a convenience sample, which was taken from the first year class register from each tutorial group (representative of students backgrounds) to collect the data. Interviews and focus groups were the instruments developed for this project and provide the primary data collected for the research questions.

Interviews and Focus Groups:

First years:

Interviews were scheduled for first year students on a weekly basis with individual students. Thirty students were scheduled and interviewed at lunch times, as any other time was difficult to organise. Although there was the difficulty of time constraints, most students were enthusiastic and participated quite freely. Cohen and Manion (1990) define the interview as

a “two person “ conversation initiated by the interviewer for the purpose of obtaining research-relevant information, and focused by him/her on content specified by research objectives of systematic description, prediction, or explanation.

Cohen and Manion: 1990, p307

One advantage of the interview is that it allows for greater depth than is the case with other methods of data collection. A disadvantage, on the other hand is that this method is prone to subjectivity and bias on the part of the interviewer. The format for the interviews was semi-structured even though I had planned the questions; there was greater flexibility and freedom, since I had some contact with both the first and second year class. They knew me as a facilitator and as part of the medical education team. In this case there was some trust in the relationship and my role was to try and persuade these students to go deeper into their motivations as the respondents. As Kerlinger (cited in Cohen and Manion: 1990) notes

Although the research purposes govern the questions asked, their content, sequence and wording are entirely in the hands of the interviewer. This does not mean, however, that the unstructured (in this case, some structure) interview is a more casual affair, for its own way it also has to be carefully planned.

Cohen and Manion: 1990, p309

Students had a number of anxieties about assessment issues, which came up constantly because of the change in the rules for assessment. This was an opportunity for students to talk about their feelings and most of the students were asked the following open-ended and closed questions, which obtained information for the research questions in this study:

1. Did the Orientation programme help you in your transition into university life?
2. Did you benefit from the process skills training?
3. Do you enjoy your tutorials and working in small groups?
4. How can we make the Orientation programme more effective?

Unfortunately more open-ended questions were not asked, as this would have encouraged the data to be more revealing. Data from each interview was documented and the information captured on Microsoft Word programme. The data was then coded and categorised into

themes, which were used as sub headings for discussion in chapter four.

According to Barbour and Kitzinger (1999)

Crucially, group work explores how accounts are articulated, censured, opposed and changed through social interaction and how this relates to peer communication and group norms...In general, questionnaires are more appropriate for obtaining quantitative information and explaining how many people "hold" a certain (predefined) "opinion". However focus groups are better for exploring how points of view are constructed and expressed.

Barbour and Kitzinger: 1999, p5

Focus group discussions were scheduled with three tutorial groups of ten students. According to Barbour and Kitzinger (1999) focus groups are group discussions exploring a specific set of issues that involve some kind of activity experienced by all in the group. The focus group technique has gained a high profile as a method for guiding political campaigns and in big business. Barbour and Kitzinger say

That this method does have great potential, but like any other research method is open to careless and inappropriate use, the results may be manipulated, "subjects "of the research can be exploited.

Barbour and Kitzinger: 1999, p1-5

Instead of asking each person in the group a question, the interviewer encourages a discussion of these questions. As a tutorial facilitator I was able to ask students if they could meet for about an hour after their tutorial for a discussion as a group. After introducing the purpose of the focus group discussion I asked students if I could use an audio tape recorder to tape the discussion. I then handed out a short questionnaire to each student (see appendix 5), with a 5-point, likert scale agreement or disagreement and asked them to complete

this. This took about five to eight minutes and I then started the questions for the discussion. The questionnaire added some structure to the session before the students participated in the group discussion and I wanted to see what their individual responses were before being interviewed in the group and how or whether their peers influenced the group discussion. I put this into the design at the time thinking it would be helpful and found that this did not add any useful dimension to the discussion. In fact this could have hindered the process by introducing a bias with such closed questions being asked. This issue is discussed further in the next chapter. Data from the questionnaires were collated and documented. The data from the discussion was documented, coded and then categorised into themes for discussion.

Second year students:

The reason for obtaining data from second year students was that they had experienced the first year of PBL training and had not gone through the same training in orientation, so they could speak with a different voice; as well as the voice of experience (they were more senior) and this could be compared with the voice of the first year students. I asked twenty, second year students from two tutorial groups I had facilitated if they would agree individually to an interview during their lunch hour to discuss orientation. Although it was more difficult to locate second year students, for many reasons, all of the students who were scheduled attended the sessions. They were asked introductory questions that addressed their own experience of an orientation programme, retrospectively, and what they thought would have been useful during orientation in their first year. Data was documented and the information coded and then categorised into themes for discussion. The questions were:

1. Did your Orientation programme in 2001 – assist you in preparing you for PBL?
2. What would have helped to prepare you for PBL?

Again more open-ended questions would have encouraged more revealing data – closed questions were not as helpful.

Because of time constraints only two focus group discussions with the second year students were carried out. I asked the twenty-one (2nd year) students who were mentors to attend a lunch hour session. Unfortunately the third focus group discussion I organised clashed with an end of Theme test and this was impossible to reschedule in a short space of time. These eight students filled in the questionnaire only. The discussion followed the same format of introductory questions pertaining to the fact that they should address their own issues about preparation for Problem Based Learning and what would have been useful to them (with hindsight) in first year. These sessions were audio taped and the data documented and categorised. The 2nd year students also completed questionnaires (see appendix 6) on a 5-point, Lickert scale of agreement or disagreement. Once again, this did not prove to be helpful as part of the design and I found that this did not add any useful dimension to the discussion (see page 61). Data from the questionnaires were collated and documented. The data from the discussion was documented, coded and then categorised into themes for discussion.

Staff:

Five staff were interviewed and at each individual interview, staff were asked to discuss their perceptions of using orientation as preparation for Problem Based Learning. This was organised to suit the staff member's availability and took about 30 minutes to an hour depending on how much time the staff member had to share. During the interview I focused on their feelings and attitudes of orientation and how this could help with a new way of learning. Staff were asked the following 5 questions on a 5-point Lickert scale of agreement or disagreement:

1. The orientation programme should cover the academic and social aspects of a student's life on campus.
2. Training in process skills (small group learning) will help students adapt more quickly to the PBL curriculum.
3. Preparation for PBL will change the way first year students approach the new curriculum.
4. I think the orientation programme for 2002 adequately prepared the new students.
5. I think the orientation programme should be implemented in the curriculum.

Although these were closed questions staff were also asked to make comments and the data was documented, coded and categorised into themes for discussion.

Secondary data:

The pre and post-orientation questionnaires are secondary data, which were collected for purposes of gathering information for reasons other than for this research project; however they provide some useful baseline information. Only certain questions that pertain to this study have been chosen and used for analysis. Since not all of the data was available I addressed this issue by using only some of the responses to section A and B of the pre-orientation questionnaire.

The pre-orientation questionnaire (see appendix 3a) was administered on the first day of the 2nd week of the orientation programme to 108 – 115 students (seven students registered late) with the following objectives:

- To gather information about the students' background
- To ascertain how students have socialised into the university
- To ascertain the students' opinions of the new curriculum
- To ascertain the students' computer literacy and English proficiency

- To ascertain the students' awareness of Problem Based Learning
- To ascertain the students' understanding about PBL, the learning philosophy and small group work

Students were asked to respond to a semi-structured questionnaire: the first 15 questions were open ended and were intended to ascertain information about the students; one open-ended question about group work and the remaining 87 questions - on a 5 point Lickert-type scale of agreement or disagreement. The data was captured and collated on an EXCEL spreadsheet (Microsoft) The comments were captured and collated on Microsoft Word programme. Available data was coded and categorised into themes for discussion.

The post-orientation questionnaire (Appendix 4a) was administered on the last day of the third week of the orientation period to 171 students. The students were asked to respond to 80 questions on a 5-point Lickert scale of agreement or disagreement. The data was captured and collated on an EXCEL spreadsheet (Microsoft) The questions covered the following categories:

1. Did the orientation programme assist the students?
2. Did the students start making friends on campus?
3. Did the students acquire Computer Literacy skills?
4. Did the students acquire Library skills?
5. Did the students find these courses helpful - Courses: Emergency Care; Histology practical?
6. Did the students understand the criteria for Assessment?
7. Did the students understand small group tutorials?
8. Did the students understand the purpose of the Ethics lectures?
9. How did the students understand PBL and the Learning Philosophy?
10. Did the students understand group participation?

This was also secondary data; although it would have been useful to compare both the pre and post orientation data I did not have access to all of the data and was therefore unable to do this. Therefore the data has not been used in this study. (appendix 4b)

CHAPTER FOUR

Results and Discussion

This chapter comprises a descriptive portrayal of the findings and has some of my own interpretations, observations and perceptions. As indicated in the previous chapter the pre and post-test data are secondary data. I have used both the primary and secondary data and discussed these in the appropriate category where applicable. For example, I used the secondary data in the introduction for the first and second category as this reveals important information that explains the context for this study, which is an integral part of the framework for the discussion. The data was synthesised into categories, (in relation to the orientation programme) which were defined - by coding the data, drawing out units of meaning, and working on the relationships and patterns across these categories.

1. What were the students' perceptions and experiences about PBL and the new curriculum?

Table 1:

Section B (N=115)

Aware of PBL	n	If yes, What have you heard (PBL)	n	Whom did you hear it from	n	What is your opinion of Curr? 2001	n
Yes	115	Integrated learning	46	Staff	67	Exciting and interesting	42
No	0	Different- trad. curr.	23	Students/ Mentors	44	Allows better understanding	11
		understanding	14	Friends	4	Relevant	21
		Research to be done	23			More interaction	15
		Exciting	9			Application – more than memorisation	12
						Make better practitioners	14

Discussion:

These comments of the students which pertained to the new curriculum and PBL were in the students' own words in response to open ended questions. The responses may have been more revealing if the question 'why' was added to these questions, as a means to determine more understanding by the researcher as to why the students gave the particular responses to the questions.

Of the 115 responses – 100% said yes to be aware of PBL prior to the implementation of the PBL programme. This indicates that staff, student- mentors or friends either told the students, or they could have been told during a school visit to the faculty, which was during a morning session, where faculty members addressed students giving them information about the new curriculum. Some students (46) heard that PBL was about integrated learning. This shows some understanding as the word integrated denotes a multidisciplinary approach or they could be repeating something they have heard with little understanding. Some students heard that PBL was different to the traditional curriculum and involved research. This however does not show how much they understood what this means. A smaller number of students thought that PBL involved understanding and that PBL was exciting. Although these seem to be all positive descriptions it is doubtful whether there is or isn't much understanding about PBL. There seems to be some recognition that PBL would be different but ideas on what these differences were, makes this response rather vague and unformed. Orientation helps to build and focus this understanding during the PBL, LGRS sessions and the workshops where the students are given the opportunity to practise PBL tutorials.

Many students come from government schools and would need to be made aware about the philosophy and principles of PBL as well as learn how this new approach to learning works. Students (42) had the

opinion that the new curriculum was exciting and interesting. This shows some motivation and enthusiasm and that these students were looking forward to their studies. Some students (21) thought that the new curriculum was relevant.

Other responses were - more interaction (15), Application more than memorisation (12), allows better understanding (11) show that some students did understand some of the basic philosophy of PBL and perceived that these were the differences in the approach to a new way of learning in PBL. PBL encourages understanding of the content rather than rote or surface learning. Some students (14) said that the new curriculum would make better practitioners showing that this could be their goal, to be good medical practitioners. Whether they understood this to mean that it was because they were going to become life long learners could have been explored in the interviews and focus groups. This is an important aspect to be explored in future evaluation and research as this assists the students in their understanding of PBL.

2. Subjects of the Study:

In 2002 of the class of 197 first year students, 115 students had been registered by the end of the first week. Of the remaining number of 82 students, 59 students attended the second and third week of the orientation due to late registration, and 23 students did not attend orientation at all. Since they only registered after the three-week programme, all 197 of the students had registered for the MBChB1 Course for first year medical students over January and February 2002. As indicated in the methods section - objectives were set out for the pre-orientation questionnaire and I chose to include in this study only those questions that directly relate to the study. (See appendix 3)

Table 2. Personal Information of the Cohort: N=115

Age group	N	Language	N	Gender	N	School Matriculated	N
18-20	84	English	49	Male	39	Model C	27
21-25	24	Zulu	37	Female	76	Private	19
> 25	7	Other	29			Government	69

Discussion:

The personal information of the students indicates that 69 students attended government schools and could have come from so-called disadvantaged backgrounds or from schools that may be impoverished. In many black schools, facilities, especially for the science courses, are minimal and students have not been exposed for example, to laboratories and libraries (Wood: 1998). Lack of trained and/or experienced teachers with few resources makes rote learning probable in most formerly black schools. It is against this background of already being disadvantaged that we begin to explore and examine the student and staff responses. This makes preparation and training during orientation crucial if we are to encourage, assist and support new students entering into an environment with very different expectations of learners. The gap between high school and university is enormous and the way students are taught in university is very different from the way they are taught in high school.

The data shows that 66 students were English second language students and this could also be problematic for students. Chur-Hansen ((1999) writes

Many of the students from non-English speaking backgrounds (NESB) studying medicine at the University of Adelaide experience difficulties in the medical course because of their English language skills. The findings reported in this paper emphasise the fact that the university must provide some form of teaching support for these students, given the fact that they have been accepted into a course where they are disadvantaged by their language skills.

Chur-Hansen: 1999, p407

This quote brings up the issue of language skills as well as the issue of selection/recruitment of students. In our South African context where we have 11 official languages, we know from experience that the issue of English second language students is an important issue to address in a diverse student body. An orientation programme, which provides some support and training, will especially benefit these students who need language skills to communicate in PBL. Students need to communicate well in PBL – for the small group tutorials as well as for their assessments. Without these skills students will find understanding and answering questions difficult. Unfortunately no specific questions relating to the difficulties experienced by English second language students were asked either in this questionnaire or for that matter was this issue raised in the focus groups or the interviews for both first and second year students. This issue needs to be given priority in future research as an issue that staff and students find problematic.

Table 3. Framework for discussion on responses - during interviews and focus groups – First Years

	Positive Responses & Suggestions	Negative Responses
1. Physical Location	<i>-Maps for all the buildings are needed – explaining where everything is.</i>	<i>-It was difficult for the students to approach the Theme Heads for fear of imposing on them</i>
	<i>-We should have been introduced to the Heads of Departments as well.</i>	<i>-Students didn't know where the Departments are.</i>
2. Social – Interaction	<i>-We really enjoyed the social interaction during orientation.</i>	
	<i>-I think it was because there wasn't a full academic load to worry about.</i>	
	<i>- We got acquainted with the other cream of the crop.</i>	
	<i>- Many students found it much easier to make friends.</i>	
	<i>- The tutorial groups forced us to make friends.</i>	
3. Support	<i>-The mentors were very helpful and the first year students needed this from day one at registration</i>	<i>-I am so unhappy, I want to leave, but you know to me it will be a sense of failure.</i>

Table3Cont	Positive Responses & Suggestions	Negative Responses
4. Academic focus:	- It would be good to have academic activities in the morning and social activities in the afternoons. Even though orientation needs to be balanced with academic and social activities, it is important for us to be given a set pace of working systematically from the beginning. Students need to learn to take their work seriously from the beginning and we need help with this.	- The programme was too long (orientation)
		-Students should pay for the training during orientation
		- At first it was too laid back and then suddenly all these tests
	-We should have had a case study on HIV/AIDS instead	-The scuba diving case study was inappropriate – some of us are not familiar with this sport.
	-We needed more time to practise, the workshop (process skills training) was very helpful, but we needed more time.	- We can't learn lab work from a book, we need to practise. I saw a microscope for the first time and I was intimidated.
	The process skill training was good	- but the groups were too large to gain much from the exercises.
		-Some students don't put enough into this(tutorial groups)- they don't make the effort
	-We would like to have medical doctors as facilitators; they know more and understand what we need.	-Some facilitators are intimidating and sometimes we are not sure if we feel safe enough to share. I am scared my facilitator will think I am stupid;
	-The small group learning was good even though some students didn't put enough into this.	-My facilitator was so insensitive; I felt she kept picking on me and this was unnecessary.
		-We need some of the old stuff
		-Sometimes there were too many learning goals and not enough time to do research, assimilate facts and be prepared for tests and examinations.

Discussion:

Interviews and focus groups with first year students were conducted three months after the orientation programme. At this time the students were very anxious about the assessment criteria, which they said was still not clear to them and this influenced their responses. Students responded to the questions asked in these interviews by sharing their own perspectives based on their experience. After three months students still generally felt the orientation had been beneficial. However the strain and the discomfort of a new way of learning could be seen. This could indicate that they were out of their depth and this could lead to student dropouts, or withdrawal.

One of my concerns was that 23 new students (12%) didn't participate in the orientation programme and didn't have any of this preparation and training at all, whilst the rest of the class had training during the orientation programme. This issue is dealt with under staff responses.

3.1. Physical Location:

These statements show that students were still unsure of some of the locations and venues on the medical campus and this seemed to make them insecure. Tours and maps were needed to help students to adapt to a new environment more easily. Students were encouraged by their facilitators to approach the experts or Theme Heads, staff who head the team responsible for each Theme in the curriculum, if they needed more information or clarification on an issue. They found this difficult to do since they didn't know where to go and didn't know the staff. They would have been able to if they had this information. Students seemed anxious about needing to know where to go and what to do in a new situation.

3.2. Social Interaction:

Making friends in a new environment is another issue that makes students anxious and involves a certain amount of risk taking. In

social environments students learn the most from other students (Chickering and Reisser: 1993). Through these interpersonal relationships, students learn to express and manage their feelings. How students fit in depends very much on their own capacity to give and socially interact with others. Students were less anxious as they did not have the full academic load to worry about during orientation. They were able to interact and enjoy getting to know the other students.

Disciplines like medicine provide ample opportunity for students to bond with each other as their courses stay the same throughout the year. This helps students to develop a stronger identity since they have much in common (Chickering and Reisser: 1993). Interpersonal relationships amongst the students and between staff and students are important as they help students belong to the community they have entered. It would be helpful if staff make the effort to get to know what the students' expectations are as staff and student expectations often differ greatly. Students also have much to offer and contribute.

Powell (1988) says that

If we try to look at things from the perspective of the student this enables us to develop a view of learning as an interaction between what the students bring with them and their perceptions of the context in which learning takes place...Often students have very different views of the context in which the learning takes place.

Powell: 1988, p25

This is true of a very diverse student body, and each student comes with his/her own frame of reference, their own set of values, beliefs and attitudes; an idealistic view of their chosen profession and a high expectation of future academic achievement.

Research done by Chickering & Reisser (1993) emphasise the importance of socialising agents, the people with whom students come into contact with, as playing a critical role in identity and ego development during their college years. They also suggest that it is the diversity of individuals, particularly other students that developmentally challenge students' perceptions of themselves and this requires adaptation and commitment to certain attitudes, values, beliefs and actions (Chickering & Reisser: 1993).

3.3. Support:

Since the mentors could help by providing support, students felt it was important that the mentors start from day one at registration. This is a peer support programme involving senior students and has quite a powerful impact on junior students who need guidance and support. Mentor programmes in the residences, which are run by the MSRC, and other senior students also play a supportive role.

The student who was very unhappy and wanted to leave was not coping with the new curriculum and felt it too demanding. Her unhappiness could have come from a sense of having high expectations that she would cope with her studies and didn't realise that she would have these difficulties or that she was having a difficult time with other students. Ongoing support from mentors and the student counsellor would be helpful in this situation. Although students know this, they don't always avail themselves to these facilities and assistance and this could be due to the fact that some students see this as remedial or that "something" is wrong with them. It is necessary during orientation to encourage students to make use of the facilities available to them.

3.4. Academic Focus:

I have synthesised further sub categories for discussion under the aspect of the academic focus, from table 3 that I will reflect on.

Balance with academic and social components: Some students felt that the pace in the new curriculum needs to be set from the beginning and this should start from orientation. The students felt that other students were not taking their work as seriously as they should. The curriculum organisers could help this aspect along by introducing stricter rules during orientation about the roles and participation of students in tutorial groups. Most students are used to staff being in charge and telling them what to do and students taking responsibility for their own learning might be a difficulty. Balancing the social and academic was important, but so was the systematic study. The need to manage this transition was difficult as it was.

Case study: In order to orientate students into the PBL process, they were exposed to a sample case study, on scuba diving and some students had problems with this case study. Students felt that the Scuba diving case study was not appropriate and perhaps case studies on HIV/Aids or STD's could be used. This shows that they found the Scuba Diving case irrelevant, and to me this was more the case of being unfamiliar with the sport. This could also be a situation where more sensitivity and understanding to diversity from the students is needed. To some of the students HIV/AIDS or STD's seemed more urgent and real than the Scuba diving case. Perhaps these seem more relevant and compelling, more in their frame of reference or prior knowledge. This also points to the issue of diversity. There needs to be a good programme in orientation, which addresses this issue in a creative way which allows the students to explore what differences there are especially in culture, gender and belief systems.

Laboratory work: Some students were insecure due to lack of exposure to laboratory equipment. In PBL students also need to work on their own in the laboratory during their practicals and some students did not feel confident enough to do this. Students who have

been exposed to instruments in the laboratory, for example the microscope, will be more familiar with how these instruments work and will therefore find it easier to work with the practicals or content that they need to learn. This is something that other students (as well as staff) take for granted because they have had the exposure and have not realised how difficult this can be for students who have not had the same experiences. I believe that this could be a starting point of exploring what preparation and training is required for laboratory practicals for orientation organisers and those staff who convene the practicals – as to how the planning, organising and implementation can be fine tuned to meet the students' needs.

Process skills training: There was anxiety about the group work that some students still felt, even though they were well into their course work. The need for adequate preparation and training as to what their roles were and how to carry out these roles as well as ongoing training is reiterated. As much of the new curriculum in PBL, hinges on this, the need to assist students to feel more confident about group work is important. It is fundamental that students get the PBL process right and that each step is followed. Students often don't understand what needs to be achieved with each step of the university's eight steps (appendix 2). The students focus instead - on the content, as they believe that it is the content they will be tested on and this produces great anxiety. Students often rush through the steps in the first tutorial where they have to leave with their learning objectives so that they can do their research (Schwartz et al: 2001). One of the principles of PBL is the fact that students need to "unpack" their prior knowledge so that they know what they know, and what they don't know. Doing this step adequately is to encourage surface learning.

Tutorial Groups: Students felt that they would have benefited more training in small groups and the time to practise. The importance of this training was realised later on when students had settled down a

bit and understood its importance in the PBL programme. A new way of learning as well as SDL were new concepts and the students had to adapt.

Group work has many advantages as well as some disadvantages and these can either enhance or can be negative for the students and the facilitator. Tiberius says that one advantage of the small group is that of being efficient for higher orders of learning, such as how to analyse, how to synthesise and how to evaluate. One aspect that can be a disadvantage and can affect small groups is the fact that there is such close physical contact in the small group – for the students and for the facilitator, who can't stand behind a podium, in this situation. The students easily detect any lack of knowledge or ignorance from other students; as well as the facilitator and this can make everyone uncomfortable in the group (Tiberius: 1999).

The tutorial groups also give students the space for ongoing support in the group. In groups the focus is on the students and their interactions not on the teacher, in this case the facilitator. Students get to know one another better even though they might not become good friends. According to Tiberius (1999) students can learn valuable interpersonal skills and learn how to do this sensitively in small groups. In my own experience the facilitator plays an important role in small group learning, by monitoring the interaction between students and a good facilitator can help build a safe and conducive environment for the students' learning.

This brings us to the next issue, which is a huge debate in medical education on whether the facilitator should be an expert, or not. It is difficult for some academics who are experts in a discipline to not teach when this is what they are used to doing. Many academics believe that only experts should be allowed in the training of doctors and it is highly inappropriate for anyone other than medical doctors to

be involved. Others believe that since facilitators are not teaching the students, and only giving guidance, it is possible for a non-expert to manage this role. Still others believe that whilst a non-expert can manage a tutorial, some understanding of the content is needed to guide the students effectively. While no real consensus can be reached in this debate, there are strict criteria for recruiting facilitators and monitoring facilitation of tutorials. In recent meetings with other facilitators, discussions around ongoing training and feedback meetings have started, recognising the need for introspection; mentoring; specific skills training as well as reflection on their experiences.

According to Boud and Felletti (1992) students at McMaster Medical School were selected on the basis of their understanding and demonstrated problem-solving skills. Only those students, who had pre-medical training and understood the principles and philosophy of PBL and how this process worked, were selected. There is a need for training and to help students understand how PBL operates, and McMaster confirms this. Where they have however time, because of the premed courses we however, don't have this opportunity - we have a three-week orientation at the beginning of the process. This could be made even more effective if spread throughout the first year, examining aspects of both course and student development.

PBL has been applied in nursing education at the University of Natal and even at Master's level there have been problems with orienting new students (Cassimjee & Brookes: 1998 and Uys & Cassimjee: 1997). The preparation and training gives students a pre-practise, providing them with a frame of reference. Without this students can become very insecure and will take longer to settle into the PBL process.

Gibbs recommends a learning climate that is safe and supportive within which students feel able “to take risks in their learning” (Gibbs: 1992, p12-16). Helping build a safe environment for the students also encourages deep learning in the student – where students feel they can take risks in their learning. Even though all facilitators go through rigorous training, it is possible that some facilitators do not fully understand their role as facilitator in the group or that they don’t understand that the philosophy of PBL includes a mentoring component.

Curriculum: The students would like to feel more secure in old methods and approaches to learning since this also produced good results for them in the past – and to cling to the old way is understandable. They needed some of the more familiar approaches to learning & teaching. Transmission of learning and teaching in the traditional approach required less thought, less engagement on the part of the student & therefore less energy than PBL. To these students PBL is more challenging, more active and requires effort and engagement on the students’ part as they take responsibility for their own learning (Boud and Feletti: 1992). The need to address this aspect of the PBL in the orientation programme is very important.

The first year students provide indications about the scope of orientation as well as the focus, which is clearly academic, but strongly supported by the social, physical and interactional, especially with staff.

Second year students

Twenty-second year students were interviewed and participated in focus group sessions. Responses were made to questions that enquired about their perceptions and experience of orientation and what would have been helpful to them.

Table 4. Framework for discussion on responses - during interviews and focus groups – Second year students

	Positive Responses & Suggestions	Negative Responses
1. Physical Location	<i>-Tours and maps are essential, and other useful information about the Medical School and the University, so that students knew more about where and what they were entering into.</i>	
2. Social Interaction	<i>-Socials with sessions on the academic information would have been a good balance and would have helped us to make friends more easily</i>	
	<i>- It is important to have socials that give students an opportunity to get to know other students and make friends, Students should be involved in the planning of these programmes</i>	
3. Support	<i>-It is important for students to have support from registration- there are too many new responsibilities and students need direction and support, especially for the first six months of the year.</i>	
	<i>-The MSRC and the mentors need to give ongoing support.</i>	
4. Academic Focus		<i>-We had very little preparation for PBL – because of the student boycott</i>
		<i>-Sleeping patterns changed because</i>
		<i>Of the study load, there was too much responsibility, too quickly.</i>
	<i>-Orientation on what to expect in Hospitals; how to behave and etiquette was needed.</i>	<i>-The hours changed from 8:00 to 14:00 –became 8:00 to 16:30, sometimes later.</i>
	<i>- The Hospital Superintendent or someone from the Hospital could have given us a talk or lecture on this</i>	<i>-We felt quite nervous doing these visits without a staff member accompanying us.</i>

4.1. Physical Location:

The second year students also felt they needed to know where everything was and how to find it. They also didn't know where the Departments or the tutorial venues were, and this was disconcerting to them. Maps as well as tours essential to assist in locating the departments especially when they had queries for staff. Having information and knowledge during orientation can assist students to become more aware of their surroundings and can help students feel more confident. Chickering and Reisser (1993) tell us that new students have all kinds of anxieties – not just one or two. This anxiety about their location of where to find what is added to other anxieties, for example about finances, buying books, transport and other issues, and this can lead to frustrated students.

4.2. Social Interaction:

The students asked if they could be on the planning committee for such orientation activities to ensure that this aspect could be incorporated into the orientation programme. According to Luderman (2001) and Chickering and Reisser (1993) making friends is extremely important to new students and opportunities for socialising can be organised in the orientation programme.

4.3. Support:

There were so many changes and this was difficult. Survival skills – for example, managing time, making sound decisions, coping with stress, study skills, managing financial matters, talking to staff and peers and communication skills are important areas for training in an orientation programme and can help students survive in a new situation. The new curriculum has support mechanisms, some initiated during the orientation process and some mechanisms that are ongoing support. This ongoing support and assistance could have come from their mentors, student counsellors, the MSRC or even from the tutorial group that the students belonged to.

4. 4. Academic Focus:

Students felt that they were introduced to too many new things that they had to learn quickly; they were not prepared for this. They said that they didn't receive enough information and no one explained anything to them and this didn't seem fair. Students felt they were lost without any training and preparation for PBL. Preparation and training for new students should not be optional and must be included in the orientation programme. The PBL process was demanding to students who were not familiar with its philosophy and how it worked. The change in the approach to learning requires that we prepare and train students to ensure success and student retention.

Hospital visits for new students were intimidating and challenging for these students. A great deal of time and effort is taken to organise these visits and staff need to ensure that students know what to do before they get to these sites. This sort of introduction can be done during orientation. Student involvement in the planning would ensure that the students' perspective was considered and respected and this also encouraged students to be part of the decision-making.

Available literature giving information would be useful as well to those students who register late. The second year students were quite adamant that they would have benefited from an orientation programme that was organised to prepare them for PBL.

If we want to produce effective doctors it is important that we consider how we prepare and train them. Henry (1997) in his writing about identifying and responding to needs, from Newcastle University says that in order to produce the doctor who functions effectively, we need to first consider what produces a good doctor and goes on to say,

There are intrinsic strengths in individuals, which are important background framework for their capacity to function as good

doctors. Given these intrinsic capacities, such individuals need an appropriate educational experience in order to develop into a doctor. At one level this induction is the process of admission to a medical course. Once an individual has been admitted as a medical student, the medical course will have a number of influences whether or not the student will subsequently function effectively as a doctor.

Henry: 1997, p6&7

The second year students felt that their needs were not considered. David Taylor (cited in Schwartz et al: 2001) says that all change is painful and that a major change in philosophy such as PBL, there is no substitute for training. It was clear that these second year students were feeling very intense about what they had to go through during their first year and saw the usefulness of the training and preparation in the first year orientation programme in 2002. They were also saying that they would have benefited from a programme of preparation and training for PBL during orientation (in 2001), which they didn't have, and especially since there was no space later on in the curriculum to deal with their difficulties.

The second year students broaden the scope of orientation even further by focusing on discussion around clinical preparation and practise in the laboratory. As well as who should be involved in the planning – both senior students and staff, not just the organisers, thus making a team effort.

Staff

Five staff members were interviewed, three were involved with the new curriculum and two staff who were not involved with the new curriculum. The purpose of this was to see what perceptions staff had about the need for preparation for a new way of learning during orientation. Of the staff members who responded three participants strongly agreed that the orientation programme should cover both the

academic and social aspects of a student's life on campus; that training in process skills would help students adapt more quickly to the PBL curriculum and that the preparation for PBL would change the way first year students approached the new curriculum. The significance of this is that these staff were supportive and enthusiastic about the preparation and training for PBL in orientation. Three of the staff were not sure whether the orientation programme for 2002 adequately prepared the new students – the other two staff – strongly agreed. Three staff were not sure whether the orientation programme should be implemented in curriculum time and two strongly agreed. One of the staff was not sure what “curriculum time” meant – she preferred the special time slot given to the programme so that students were not distracted with other course related work and still saw this as not integrated and a separate activity. I have tabled the staff responses from the interviews, questionnaires and the staff meeting below and discuss this according to sub categories:

Table 5. Staff Perceptions and experiences of Orientation:

	Positive Responses and Suggestions	Negative Responses
5.1 Physical Location	<i>-There should be a tour of the school after the Dean's address; a virtual tour in the form of a PowerPoint presentation should be done.</i>	<i>-The Skills Laboratory was not included in the tours.</i>
5.2 Social	<i>- Socialisation is an important part of a tertiary institution.</i>	
	<i>There should be more interactive sessions during orientation, for example Quizzes and Seminars.</i>	
5.3 Support	<i>First year students ask fewer questions (for clarification) as compared to last year – and this is due to the orientation programme. Programmes like webct, for example, help students with communication with their peers and with staff</i>	

Table 5 cont	Positive responses and suggestions	Negative responses
5.4 Academic Focus	<i>- How could we not train them? Training in the process skills will definitely assist the students' change of learning skills and alleviate anxiety of the new programme – the students will then have a good sense of what they will be doing.</i>	<i>- The PBL curriculum is a drastic change compared to most secondary school curricula.</i>
	<i>Students should take orientation seriously, this is very important as this could have a positive effect on the students progress throughout their years of study."</i>	
	<i>– I think that most students were prepared, but I feel that those involved in designing and implementing the programme should be participating more - be more involved in facilitating rather than just the LGRS sessions.</i>	
	<i>-Orientation should continue to be three weeks long – we need sufficient time in the curriculum to prepare students</i>	
	<i>- My other concern is that the students who registered late did not receive any training; this issue needs to be taken to the Undergraduate Committee</i>	
	<i>-The students are accessing the Library frequently and this is a good sign.</i>	
	<i>-Proficiency tests -students gave favourable feedback on this saying that writing these tests and examination was a good, valuable experience for them and helped them to understand what would be expected from them in the examination room.</i>	
	<i>-Computer skills should be taught throughout the year – to help with competency.</i>	
	<i>-The movie Patch Adams should be shown again</i>	
	<i>-LGRS sessions should focus on specific aspects of PBL instead of an overview.</i>	

5.1. Physical Location:

Students need to know where everything can be found so that they can feel they are in a familiar place and this not only is efficient but also helps the students to feel more secure in a new situation. Staff felt that a PowerPoint presentation might be more helpful for students and this information could be put into the handbook for orientation as well. The Skills Laboratory is an area where students spend a great deal of time in their first year learning skills needed for the Emergency Care Course. It would be very helpful to the students to know what is expected of them and how the training will happen before the training commenced.

5.2. Social Interaction:

Staff felt that socialisation was an important component of orientation and should be part of an orientation programme. As indicated in the second year responses, this is an area students can be involved in the organising in the orientation programme.

5.3. Support:

The staff member was receiving far fewer queries of clarification than she did the previous year, which meant that the message had been delivered. Staff and students were communicating via WEBCT, the group boxes for tutorials or the notice board.

5.4. Academic Focus:

Staff participation: Clearly the staff involved in the discussions and interviews saw the importance and relevance of proper preparation and training for the PBL process. Staff confirmed the importance of the training received during orientation by realising how necessary this training is and how the students benefit. However, more is needed than just the right attitudes of the staff to be portrayed. It could be that some staff saw the orientation programme as competing with other curriculum items for space or time. This could cause much

tension in a department. Staff themselves felt that other staff needed to be actively involved in the preparation and training as well as “be there” for students. Lack of staff participation poses a difficulty in terms of how these programmes are organised and how much of the resources in terms of the budget are allocated to the orientation programme and ongoing support programmes, like the mentor programme. Insufficient resources also limit research and evaluation of the orientation programme, which could really impact on the kind of programme organised and its effectiveness and success.

Students - who missed the training: A programme organised for the students who missed the orientation programme is critical, especially since they come in so late. The students would find this difficult since the other students would already be into their coursework. Late registration was one issue that staff were very concerned about. Staff did not have any immediate answer to address this since there were time constraints and staff were already overloaded. This issue was addressed in the meeting where the planning team suggested that this issue be brought to the Faculty’s attention, through the undergraduate committee.

Library: The students were reading and researching well. Library staff reported that the mentors were also helpful in this area, accompanying these students and giving them guidance in the Library as ongoing support. Since Library skills are fundamental to the PBL process and without these skills – students struggle to find information, it is important that library staff serve on the various staff committees to get a better understanding of the PBL programme and the information management needs of both the faculty and the students.

Mock Progress Examination and Proficiency tests: Staff felt that many students gave favourable feedback on this saying that writing these

tests and examination was a good, valuable experience for them and helped them to understand what would be expected from them in the examinations. Preparing students for this during orientation helps in allaying the students' anxieties. Chickering and Reisser (1993) identify academic stressors and the list includes tests, grade competition and future success.

Patch Adams Movie: This movie is about Patch Adams, a doctor who in real life struggled to show the importance of the doctor having the right attitudes and behaviours and skills. This type of bio-psychosocial attitude to training as opposed to the bio medical approach needs to be encouraged early in the students' training. Showing the movie during orientation can help students have a more holistic perspective to their training.

LGRS Sessions: Staff felt that there should be more focus on specific aspects of PBL rather an overview of PBL. For example, to help the students in their understanding of assessment issues; the principles and philosophy of PBL; how students learn in PBL and SDL. Often too much information given during orientation could be overwhelming for the students. This information would also be helpful in a handbook for orientation. This comment also reiterates the first year students' responses (earlier in this chapter, p 71) where a need for a structured programme with academic slots in the morning was noted, implying the need for a structure that is more helpful, in terms of students' needs. Staff made other suggestions and said that orientation programmes should be creative and interesting as well to the students. Learning does not have to be boring and the programme should reflect this.

The staff focus on a number of broader aspects of orientation that add scope to the study, for example, aspects on participation, length of time and integration into the curriculum.

The overall discussion on the issues that were presented in this case study is continued in the next chapter where the research questions will be discussed.

CHAPTER FIVE

Recommendations and Conclusion

In this chapter I return to the research questions that guided this study and relate the findings to the theoretical framework in chapter two. I then discuss the implications for practice and future research as well as limitations of the study. This study does not answer all the questions adequately and cannot seek to prove the effectiveness of orientation as a tool for preparing new students for PBL. It attempts to give educators an opportunity to explore and discuss what orientation has the potential to do in preparing students for PBL in a new situation in the South African context. Implications for further research and discussion in the South African context will add valuable insights and learnings for educators globally.

Research Questions:

- 1 What did students understand about the new curriculum before they embarked on it and did orientation help them understand it better?
- 2 In what ways did students perceive the orientation programme as a help to prepare first year medical students and especially for Problem Based Learning?
- 3 What particular aspects of the orientation programme do students perceive help them in a new situation and prepare them for a new way of learning?
- 4 In what ways do staff perceive the contribution of orientation to the new PBL curriculum?

The previous chapter gave detailed analysis of the results of the study. I would like to further discuss some of the aspects of orientation that could help both students and staff prepare for PBL.

Organisational Factors:

Although most of the first year students agreed that the training did help them to prepare for a new way of learning in PBL, some students felt that the programme was too long and others wanted more training and more time to do this. From both the first and second year students' responses and the staff responses, it is clear that preparation and training are critical if students are to be successful in a new situation. How we prepare the first year students and mature students for a new way of learning depends on a number of institutional factors which impact on the goals and what we are hoping to achieve with the programme. Preparing students for a new way of learning needs faculty support and funding; all the staff involved in curriculum planning as well as students need to be involved in the process. This should be part of the visionary process for the faculty where staff especially, take ownership of and are able to answer the following questions:

- What can orientation do?
- What should orientation achieve?
- Who benefits from orientation?
- Who should lead orientation?
- What funding do we need and where will the money come from?

This will confront faculty to examine and explore ways in which the students could receive the assistance and will be equipped with the tools that they need in a new situation and for a new way of learning (Tittley, cited in Noel et al: 1987). Many studies show that an orientation programme is a significant part of a multifaceted approach to retention and this is worthy of institutional attention. Tinto says that it is those institutions that are concerned with student welfare and the quality of the students' social and intellectual development that retain students and attract students who are more likely to be retained (Tinto, cited in Noel et al: 1987). I support Tinto's idea that

An institutional concern for retention, without regard to the question of the education of students, is a misplaced concern.

Noel et al: 1987, p 29

Students who registered late need training and preparation for PBL as well as ongoing support. I would also like to recommend that faculty take responsibility in ensuring that these students get the support they need, as this is an ethical issue that has to be addressed.

Specific aspects that first year students needed to prepare them for a new way of learning included the following:

Curriculum Factors:

- PBL process - Students had difficulty with the PBL process and this response came through a number of times through the first and second year data collected. More training on the PBL process and how this is structured is important. The design, development and implementation of the orientation programme needs to be done collaboratively with faculty staff taking joint accountability. Monitoring of the programme is important so that the students receive the support and assistance when it is needed. Staff need to be more aware of what happens in the programme, and what the students' needs are. Although feedback from the facilitators and ongoing evaluation takes place, closer monitoring of the students needs to happen and feedback from staff on how students do in the tutorials regarding the learning process must be done timeously.
- Understanding of PBL – Although some students had a good idea of what the new curriculum was about and understood the new curriculum before they embarked on the PBL programme, most of the students did not understand the new curriculum before they embarked on it. Sessions on this understanding

could be organised in a workshop or small groups sessions with the facilitator and could be used to ascertain their level of understanding and have their misconceptions clarified.

- Students' clinical visits - The second year students had been through the first year programme and spoke with the voice of experience. With hindsight they were able to give concrete suggestions, for example, on the visits to the Hospital. First year students should be trained and made aware of the need for sensitivity, etiquette and behaviour, as suggested in their focus group discussion.

Learning:

- I found that most of the first year students not sure about whether the preparation changed the way they approached the new curriculum or helped them in deep learning. Ramsden (1983) emphasised that the quality of the students' learning depended on the student's approach to learning. He talks about deep learning as searching for meaning and exploring a topic or issue. This approach encourages critical thinking and analysis and is effective in most learning situations. Madolo's study on critical thinking ability shows clearly the need for students to develop and use this skill in the learning process (Madolo: 1998). Gibbs (1992) refers to nine strategies that can be used to foster deep learning. As discussed in chapter two, orientation has the space to explore this and provide training and preparation for new students. Structured courses with clear objectives can have a marked impact on how students approach learning. This preparation and training can build a solid foundation for students as well as help build their confidence.

Student Development and Progress:

Although most of the students enjoyed orientation and felt that this did help in their transition into university, there were a number of suggestions that were made to improve the programme:

1. Some students felt that students need to take orientation more seriously and take ownership of the programme, behave more responsibly and participate more. Students suggested that students should pay for orientation. This could work if the amount could be added to their fee structure.

2. Programmes should have more structure - a balance of both academic sessions in the morning and socials in the afternoon. New students were anxious about making friends and the socials could help to bring people together. The students who suggested this were keen and enthusiastic to offer assistance to staff in this area. This was also something to be explored – working with students to help with the preparation and training in orientation.

3. Maps and tours were needed to help them get to know where everything is, especially to find venues for tutorials, lectures, laboratories for skills and practicals as well as the library and other departments. Without this tacit knowledge students were lost. Senior students, the mentors as well as the MSRC were willing to act as guides on the planned tours. In this way the new students could get to know the campus better.

4. Introductory sessions with King Edward Hospital were needed before students' visits so that they knew what was expected of them. Negotiation needed to be done with Hospital staff so that these sessions could be planned in advance and meet the objectives set out for the sessions. Clear directions and indications as what to do when they got there would be helpful to the new students.

5. The mentors need to meet the new students at registration. They felt that it was useful to have this peer support right at the outset, as it made them feel more secure and helped them with the transition right at the outset. Having someone who knew what to do was very helpful to them, especially in the residences.

6. Laboratory work should be introduced during orientation and time allocated to practise, especially with a microscope. Sessions in the laboratory needed to be organised with the departments concerned and sessions slotted into the programme. Staff needed to give more guidance to these students, for example, students needed to be reminded that they needed to know how these slides looked in their textbooks before they looked at them under the microscope as these two pictures might not correlate since the dissection slides were pictures of three-D sections in the book. These sorts of aspects of laboratory work were unfamiliar to some students and needed to be spelt out to new students.

Staff development:

There is a need for adequate preparation and training for staff and ongoing staff development for facilitators who are having difficulty in handling the skills and behaviours required of them.

Much thought and effort must be devoted to the introduction and induction procedures for staff in any implementation of PBL.

Schwartz et al: 2001, p173

Since the heart of the PBL philosophy is the students' taking responsibility for their own learning, there can be a great deal of anxiety for some staff that have to turn over control to the students in the learning environment. This attitude has to be discouraged as it can frustrate the successful implementation of PBL (Schwartz et al: 2001).

Limitations of the Study:

- In terms of the methodology, there should have been more open-ended questions asked, as this would have been more revealing in the data. In fact the interviews and focus groups' questions should have been more matched to the research questions, for example, exactly how many students understood the new curriculum before they embarked on it – could have been explored in the interviews and focus groups.
- The students who did not receive any training could have been interviewed to reveal a rich source of data pertaining to their needs.
- The interviews and focus groups had questions (likert scale) put to students that were found to be not as helpful as intended. The reason being that this did not encourage an open flow of discussion and in fact it directed the discussion in a more closed way.
- Issues regarding English second language students and mature students could have been explored with both staff and students in the interviews and the focus groups.

Since the interpretations of this study are mostly my own, in keeping with case study research, they are open to scrutiny, criticism and reinterpretation.

Suggestions for Further Research:

1. I am concerned about some of the difficulties/constraints that the importance of orientation is still not supported, as it should be by all of the staff. Only some of the staff really commit themselves to the organising and the implementation of the programme. Organising of programmes like the orientation programmes, depend largely on

resources and this is hard to come by. Internationally so much has been done and written about orientation, especially in the USA and Australia and this is because of the manageable and sometimes abundant resources available to these institutions. I believe that we are still in a third world situation and this presents us with the problem of often improvising and making do with what we have, which I think is such a pity. Faculty needs to play a stronger role in the design, development and implementation of the orientation programme – for reasons mentioned earlier on in the chapter. Since this programme can play a major role in contributing to fostering deep learning and the holistic development of our students, the role players should be both staff and students.

2. The experiences of how other Medical Schools prepare their students should be researched and perhaps networking to assist each other should be sought. For example the workshop experience at the Bloemfontein conference could be taken one step further and communication should be continued. Regionally institutions could get together to share resources and pool and consolidate ideas so that cost effectiveness could be ensured.

3. Ongoing support mechanisms should be in place. This is imperative as there will always be situations where students find themselves needing someone to talk to or need guidance. Further evaluation should take place with the first year students to ascertain how they are coping with the new curriculum.

4. Further studies on how this training has prepared the students for a new way of learning as well as what has helped them change the way first years approach the new curriculum should be continued.

BIBLIOGRAPHY

Alperstein, M. (2001) Master of Philosophy: "An Evaluation of a Pilot, Community based, Interdisciplinary, Primary Health Care teaching programme for Health Sciences Students." University of Cape Town, Cape Town.

"A Passport to Enhanced Student Learning. Success, Satisfaction, and Retention." *Proceedings of the International Conference on First-Year Experience, 9th, St. Andrew's Scotland, United Kingdom.* (July 15-19, 1996) National Resource Centre for the Freshman Year Experience and Students in Transition. South Carolina University, Columbia.

Appalasamy, D.M. (1995) "Mentoring with Senior Students in a Medical Faculty". *Mentoring and Tutoring Journal*. Stoke-on -Trent: Trentham Books Limited. Vol. 3 (1). p, 19-22

Bailey, D.M. (1987) *Research for the Health Professional. A practical Guide*. Philadelphia: F. A. Davis Company.

Bernstein, B. (1996) *Pedagogy, Symbolic Control and Identity – Theory, Research and Critique*. London: Taylor and Francis

Bligh, J. (1995) Problem Based Learning in Medicine. An Introduction. *Postgraduate Medical Journal*. Vol.71 (836). p, 323-6.

Boud, D. and Felletti, G. (1992) *The Challenge of Problem Based Learning*. London: Kogan Page Limited.

Bourner, T. and Barlow, J. (1991) *The Student Induction Handbook*. London: Kogan Page Limited

Brown, R. (1972). "A return to the academy." *Tomorrow's higher education*. The American College Personal Association.

Cassimjee, R. and Brookes, H.B. (1998) "The Concerns and/or fears of Undergraduate students in a Problem Based Curriculum." *South African Journal of Higher Education*. Vol.12. p, 95 – 102

Chickering, A.W. and Reisser, L. (1993) *Education and Identity*. San Francisco: Jossey-Bass Publishers.

Chickering, A.W. and Associates. (1981) *The Modern American College: Responding to the new realities of diverse students and a changing society*. San Francisco: Jossey-Bass Publishers.

Chur-Hansen, A. (1999) "Teaching support in the behavioural sciences for non - English speaking background medical students." *Medical Education*. Vol. 33. p, 404-410.

Cohen, I. and Manion, L. (1990) *Research Methods in Education*. Routledge, NY. USA: Routledge, Chapman and Hall Inc.

Coombs, R.H. and Virshup, R. (1994) "Enhancing the psychological health of Medical Students: The Student Well-being Committee." *Medical Education*. Vol. 28. p, 47-54

Corneilse, C. (1998) Master of Philosophy in Educational Administration, Planning and Social Policy: "Quality Assurance in Higher Education: An International Survey of Current Practice and Lessons for South Africa" University of Cape Town, Cape Town.

Davis, M.H. and Harden, R.M. (1999) "Problem Based Learning: A Practical Guide." *Medical Teacher. Amee Medical Education Guide*. No.15. Vol. 21(2). p, 130-140.

Deary, I.J. (1994) "Need Medical Education be stressful?" *Medical Education*. Vol. 28. p, 55-57.

Denzin, N.K. and Lincoln, Y.S. (ed.) (1994) *Handbook of Qualitative Research*. London: Sage Publications.

De Grave, W.S. Dolmans, D. and Van der Vleuten, C.P.M. (2001) "Student Perceptions about the occurrence of critical incidents in tutorial groups." *Medical Teacher*. Vol. 23(1). p, 49-54.

Dison, L. and Rule, P. (1996) Bridging the Subject - Student Divide. *Academic Development*. Vol.2 (2). p, 83-97.

Duch, B.J. Groh, S.E. and Allen, D.E. (2001) *The Power of Problem Based Learning*. Virginia: Stylus Publishing, LLC.

Frame, J.M. (1996) Master of Education: "An Exploration of the Concept 'Core Curriculum' in the context of curriculum innovation at the University of Natal." University of Natal, Durban.

Gibbs, G. (1992) *Improving the Quality of Student Learning*. Bristol: Oxford Centre for Staff Development, Technical and Education Services.

Hamilton, D. (1976) *Curriculum Evaluation*. London: Open Books

Henry, R. (1997) (ed.) *Imperatives in Medical Education, the Newcastle Approach*. Newcastle: Lloyd Scott.

Jordaan, W. and Jordaan, J. (1996) *Man In Context*. Unisa: SA. Lexicon Publishers.

Kariem, S. (1997) Master of Philosophy: "An Evaluative study of a University Course for Professional Adult Educators using an Experiential Learning Methodology." University of Cape Town, Cape Town.

Kitzinger, J. and Barbour, R.S. (1999) *Developing Focus Group Research*. London: Sage Publications Ltd.

Knapper, C.K. and Cropley, A.J. (ed.) (1985) *Lifelong learning and Higher Education* Kent: Croom Helm Ltd.

Locke, L. & Silverman, S. & Spirduso, W. (1998) *Reading and Understanding Research*. California: Sage Publications.

Luckett, K. (1995) "Towards a model of Curriculum Development for the University of Natal's Curriculum Reform Programme." *Academic Development*. Vol. 1. (2). p, 125 – 140.

Luderman, R. (2001) "The First year Experience. Frontloading Resources for Student learning and Success." Fullbright Scholar. Presentation at UND. Orientation Workshop. Unpublished.

Madolo, A.N. (1998) Masters in Progressive Education for Health Professionals: "Critical Thinking Ability in a Problem Based Learning Programme." University of Natal, Durban.

McNiff, J. (1992) *Action Research: Principles and Practice*. London: Routledge

Mouton, J. (1996) *Understanding Social Research*. Pretoria: JL van Publishers

Norman, G. (1998) "Problem Based Learning – The Least Worst Curriculum Design?" *Advances in Health Sciences Education* Vol. 3.p, 1-2

Noel, L. Levitz, R. Saluri, D. and Associates. (1987) *Increasing Student Retention*. London: Jossey-Bass Publishers.

Olmesdahl, P.J. (1999) Facilitator Training Handbook. University of Natal, Durban. Unpublished.

Olmesdahl, P.J. (2000) Facilitator Training Handbook. University of Natal, Durban. Unpublished.

Pascarella, E.T. and Terenzini, P.T. (1977) "Patterns of Student-Faculty Informal Interaction Beyond the classroom and voluntary Freshman Attrition." *Journal of Higher Education*. Vol. 48. p, 540 – 552.

Powell, J.P. (ed.) (1988) "How do students Learn?" *Medical Teacher* Hong Kong: Longman Group (FE) Ltd.

Prideaux, D. (2003) "Curriculum Design." In "ABC of Learning and Teaching in Medicine." *British Medical Journal*. (1 February)(326). p, 268-270.

Ramsden, P. (1983) "Institutional variations in British students' approaches to learning and experiences of teaching". *Higher Education*. Vol.12. p, 691-705.

Rankin, J. (ed.) (1999) *Handbook on Problem Based Learning*. New York: Forbes Custom Publishers.

Rentz, A. and Associates. (1996) *Student Affairs and Practice in Higher Education*. Illinois: Charles Thomas

Rogers, C.R. (1969) *Freedom to Learn*. Ohio, Columbus: Charles and Merrill Publishing Co.

Schon, D.A. (1987) *Educating the Reflective Practitioner*. San Francisco: Jossey-Bass Publishers.

Schlossberg, N.K. Lynch, A.Q. and Chickering, A.W. (1991) *Improving Higher Education Environments for Adults*. London: Jossey Bass Ltd.

Schwartz, P. Mennin, S. and Webb, G. (2001) (ed.) *Problem Based Learning. Case Studies, Experience and Practice*. London: Kogan Page Limited.

Schmidt, H.G. (1993) "Foundations of Problem-Based Learning: some explanatory notes." *Medical Education*. Vol.27 (4). p, 422-432

Silverman, D. (1993) *Interpreting Qualitative Data – Methods for Analysing Talk, Text and Interaction*. London: Sage Publishers.

Sommerville, T.E. (1999) Master of Education: "Curriculum Reform at the University of Natal, Medical School, purging content and changing paradigms." University of Natal, Durban.

Swell, L. (1992) "Educating for Success. A Programme to Enhance the Self Concept of Freshmen on a Large College Campus: An Evaluation." *Canadian Journal of Higher Education*. Vol. 22 (2). p, 60-72.

"Tomorrow's Doctors, Recommendations On Undergraduate Medical Education". (1993) *General Medical Council, Education Committee*. London: Kiek and Read Ltd.

Tiberius, R.G. (1999) *Small Group Teaching*. London: Kogan Page Ltd.

Tinto, V. (1987) "Dropping out and other forms of withdrawal from College." (Chap.2) In Noel, L. Levitz, R. Saluri, D. and Associates. *Increasing Student Retention*. London: Jossey-Bass Publishers.

Titely, B.S. (1987) "Orientation" (Chap.12) In Noel, L. Levitz, R. Saluri, D. and Associates. *Increasing Student Retention*. London: Jossey-Bass Publishers.

Tyler, R.W. (1949) *Basic Principles of Curriculum and Instruction*. Chicago: University of Chicago Press.

Upcraft, M.L. Gardner, J.N. and Associates. (1990) *The Freshman Year Experience*. San Francisco & Oxford: Jossey-Bass Publishers.

Upcraft, M.L. Finney, J.E. and Garland. (1984) "Orientation: A context." In M. L. Upcraft (ed.) *Orienting students to College. New Directions for Student Services*. No. 25. San Francisco: Jossey – Bass Publishers.

Uys, L.R. and Cassimjee, R. (1997) "Implementing a Problem Based Curriculum in a University Department." *South African Journal of Higher Education*. Vol. 11. p, 132-138

Walker, E. and Wright, A.E. (1996) "Medical Education begins in First Year." *Academic Development*. Vol. 2. (2). p, 17-29.

Walton, H.J. (ed.) (1993) *Recommendations, World Summit on Medical Education*. Oxford: Blackwell Scientific Publications Ltd.

Wickham, S. (1998) "The Power and Limitations of Qualitative Research." Research and Academic Development (RAD) Cape Town: University of Cape Town.

Woods, D.R. (1994) *Problem Based Learning: How to gain the most from PBL*. Canada: Woods Publishing

Wood, T. (1998) "Issues relating to the Cognitive development of students at historically disadvantaged universities." *South African Journal of Higher Education*. Vol. 12. (1). p, 87-93.

Woods, D.F. (2003) "Problem Based Learning." *British Medical Journal*. Vol. 326. (8 February). p, 328

World Health Organisation. (1994)
“Regional Consultation on Medical Education, Final Report.” Brazzaville:
Regional Office for Africa.

Yin, R.K. (1993) *Applications of Case Study Research*. London: Sage
Publications.

Zuber-Skerritt, O. (1992) *Professional Development in Higher
Education – A Theoretical Framework for Action Research*. London:
Kogan Page Limited.

	08:30	09:30	10:00	10:30	11:00	11:30	12:00	13:00	14:00	16:00
Mon 21/01/02	Registration Level 6 Shepstone Building UND	Dean's Address Parents UND	T E A			Registration		L U N C H	Registration	
Tues 22/01/02		Welcome & Introd.- class Dean's Address Medical School				Tour - Faculty			Card swiping & library registration Login	
Wed 23/01/02	Student Clinic Sr IP	Student Housing Survival tips at Res.	Safety Rules & Regula- tions AP	Dean of Develop ment DR	Introduction to the MSRC	MSRC What really happens at Medical School			Movie	
Thur 24/01/02	Introduction to Curriculum 2001 PJO			Mentoring Programme DA / PS / Mentors					Small Group Process DA & PS Workshop	
Fri 25/01/02	Bus Tour			Bus Tour					Sports Day	

GRADUATE MEDICAL STUDENTS

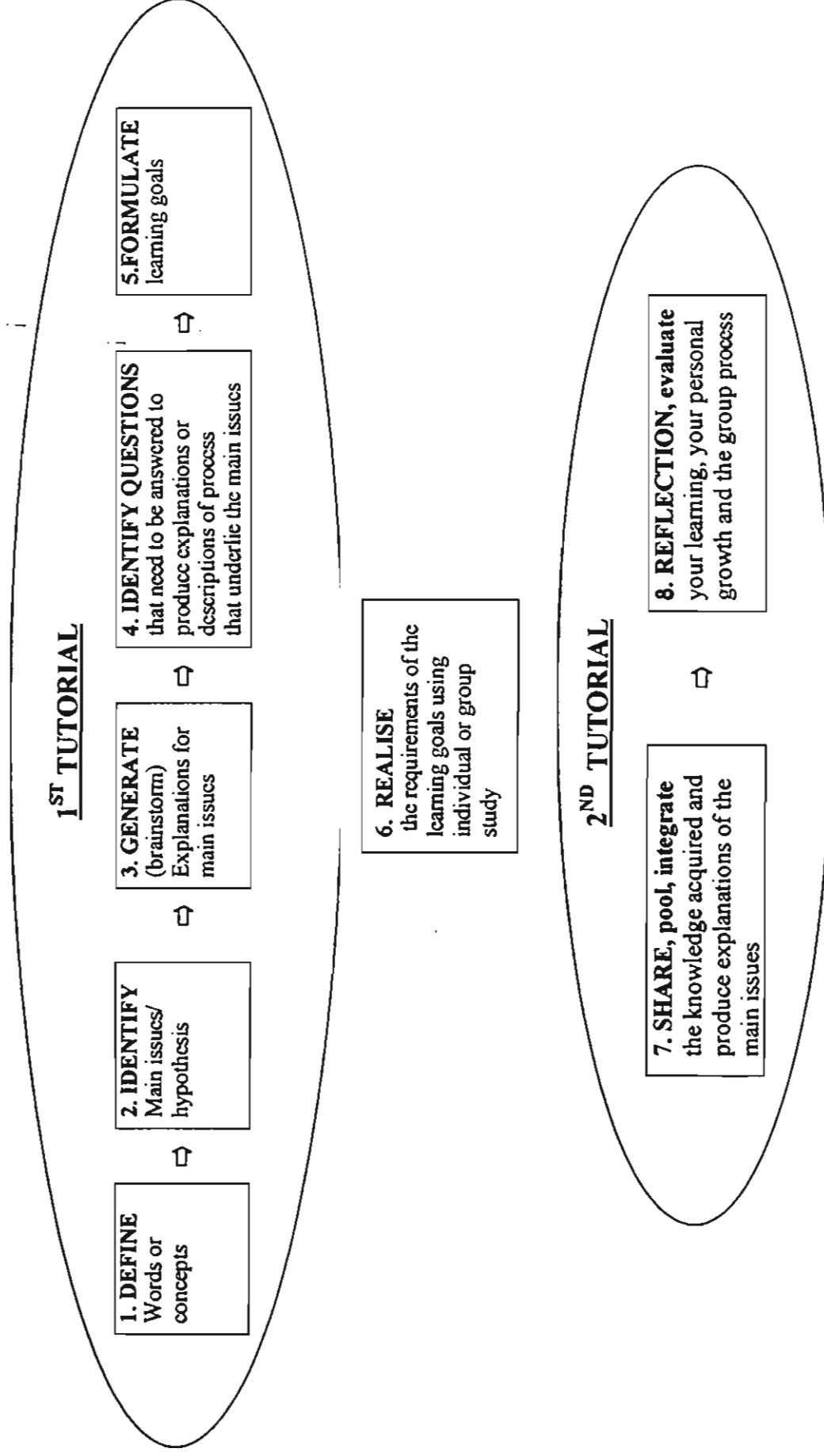
		08:30	09:30	10:30	11:00	12:00	13:00	14:00	16:00
Mon 28/01/02	Evaluation / Outline of Curriculum VS / J/VW / MMcL Steve Biko	T E A		Icebreaker + Thunderstorm 1 st Tut SGV		L U N C H		Report Back Thunderstorm + Cog Psychology PJO SGV	
Tues 29/01/02	Computer Test CL Exam Hall	Branches of Medicine VC Steve Biko		Web CT Steve Biko / LAN		Library Layout LGRS RM			
Wed 31/01/02	Computers LAN [non-users]	Computers LAN [non-users]		Library Grps 9,10		Library Grps 11,12		Library Grps 1-2 RM	
Thur 31/01/02	Library Grps 5,6	Library Grps 7,8		Introduction to Histology Practical Grps 1-7 MMcL / AM		Introduction to Histology Practical Grps 8-14 MMcL AM		Library Grps 13,14,21 RM	
Fri 01/02/02	Library Grps 17,18	Library Grps 19,20		Problems Producing Hypotheses Tut Facilitators + LGRS		The 8 steps PJO Facilitators + LGRS			
		Small Groups Process Grps 8-14		DA/PS					

Histology Groups 1-7 [Group A], 8-14 [Group B], 15-21 [Group C]

Mon 04/02/02	Ethics in Medicine	Assessment Curriculum 2001 JVW/PJO	T E A		1 st Tut Scuba Diving Facilitators SGV	L U N C H	Introduction to Medical Terminology / History of Medicine JH
Tues 05/02/02	Cultural Beliefs Grps 1-10 Mrs. D. Haas	Small group process Grps 15-21 DA / PS	Cultural Beliefs Grps 11-21		Cultural Beliefs Grps 11-21		Health Care Visits / Introduction to Anatomy VS / NS / SR [DH – Hippocratic Oath]
			Small group process Grps 1-7 DA / PS		Cultural Beliefs Grps 11-21		Cultural Beliefs Grps 11-21
Wed 06/02/02	Student Computers [Library's Internet Searchers] 50 Students	Student Computers [Library's Internet Searchers] 50 Students	Student Computers [Library's Internet Searchers] 50 Students	Student Computers [Library's Internet Searchers] 50 Students	Cultural Beliefs Mdh		Cultural Beliefs
Thur 07/02/02	Computers & WebCt 50 Students	Computers & WebCt 50 Students	Computers & WebCt 50 Students	Computers & WebCt 50 Students	English Proficiency Skills Test Exam Hall Zulu Proficiency Test [non Zulu] Exam Hall		English Proficiency Skills Test Exam Hall Zulu Proficiency Test [non Zulu] Exam Hall
Fri 08/02/02	Philosophy of Ethics DAH	Introduction Emergency Care Course SR	2 nd Tut Scuba Diving Facilitators SGV		The PBL process Issues Summary Staff	PJO	

UNIVERSITY OF NATAL

the eight PBL steps





University of Natal
Nelson R. Mandela School of Medicine
FINDING OUT MORE ABOUT YOU!

Student input is an important consideration in curriculum planning and development. Your input, by completing this anonymous questionnaire, could impact on curriculum reform. It will also assist in ensuring that appropriate measures are instituted to assist you to overcome problem areas. Your co-operation is greatly appreciated.

A. General information. Please TICK (✓) the appropriate/correct box.

Name _____

Date of Birth _____ Home language/s _____ Gender

M	<input type="checkbox"/>	F	<input type="checkbox"/>
---	--------------------------	---	--------------------------

Year matriculated _____ School where matriculated _____

What type of school was it?

Model C	<input type="checkbox"/>	Private	<input type="checkbox"/>	Government	<input type="checkbox"/>
---------	--------------------------	---------	--------------------------	------------	--------------------------

Have you studied previously at a tertiary institute?

YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

 If YES, explain the nature of your studies _____

B. Curriculum 2001

Are you aware that you will be undertaking a problem-based, student-centred curriculum (*Curriculum 2001*) in 2002 at the Nelson R. Mandela School of Medicine?

YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

If YES, a) what have you heard about this curriculum? _____

b) From whom did you hear it? _____

c) What is your opinion of *Curriculum 2001*? _____

What do you understand about this new problem-based curriculum (*Curriculum 2001*) in terms of

a) Small group tutorials?

b) Self-directed learning?

c) Large Group Resource Sessions?

d) Facilitators?

Your turn to express yourself.

Below, space is provided for a drawing and a brief explanation of your drawing so we know how you see yourself in the big picture at Medical School. Please let us know how you are feeling during these first few days at Medical School. It doesn't matter that you can't really draw. What is more important is what is in the drawing. Use colour if you want to. Spend about 15 of 20 minutes. You might want to come back to this once you have finished the rest of the survey.

January 2001: Registration. The BIG DAY! How did you feel/see yourself?

[illegible]

C Introduction into the Basic Emergency Practitioner course: Use the scale A-E to

Indicate your degree of agreement with the statement. A = Strongly Agree; B

= Agree; C = Not sure; D = Disagree, E = Strongly disagree

26	I have a clear understanding of the function of the Skills Laboratory	A	B	C	D	E
27	I understand the aim and objectives of the Emergency Care Course	A	B	C	D	E
28	I am able to identify the members of the emergency medical care team	A	B	C	D	E
29	I am acquainted with the role/function of the Clinical Skills Tutors	A	B	C	D	E
30	I have a clear understanding of the components of the Emergency Care examination	A	B	C	D	E
31	I have an understanding of the Clinical Skills Assessment	A	B	C	D	E

D Assessment and Faculty Rules

Use the scale A-E to indicate your degree of agreement with the statement.

A = Strongly Agree; B = Agree; C = Not sure; D = Disagree and E = Strongly disagree

32	Formative assessment is used to determine student progress to the following year	A	B	C	D	E
33	Summative assessment is used to determine student progress to the following year	A	B	C	D	E
34	Formative assessment is used to help students develop and understand how well they are doing	A	B	C	D	E
35	Summative assessment is used to help students develop and understand how well they are doing	A	B	C	D	E
36	Formative assessment involves tests, assignments and facilitator assessments	A	B	C	D	E
37	Summative assessment involves tests, assignments and facilitator assessments	A	B	C	D	E
38	Formative assessment involves the Progress examinations (PE) and Objective Structured Clinical Examinations (OSCE)	A	B	C	D	E
39	Summative assessment involves the Progress examinations (PE) and Objective Structured Clinical Examinations (OSCE)	A	B	C	D	E
40	Progress examinations are set on the content covered during of a theme (6 week block)	A	B	C	D	E
41	End of theme tests (ETT) are set on the content covered during a theme (6 week block)	A	B	C	D	E
42	Progress examinations are set on the content covered throughout the 5 years of study	A	B	C	D	E
43	End of theme tests (ETT) are set on the content covered throughout the 5 years of study	A	B	C	D	E
44	I have a copy of the Faculty rules that specifies all rules and regulations regarding my stay at the Faculty	A	B	C	D	E
45	I have read and understand the Faculty rules and procedures	A	B	C	D	E
46	In order to pass at the end of this year, I have to pass a theory and a practical component	A	B	C	D	E
47	In order to pass at the end of this year, I have to pass a theory or a practical component	A	B	C	D	E
48	I will be expected to pass both theory and practical components of the Emergency Practitioner's Care course by the end of my second year of studies	A	B	C	D	E
49	I am allowed to repeat during the MBChB programme	A	B	C	D	E
50	I will be excluded from studying at this faculty if I fail more than once in an academic year	A	B	C	D	E

E With regard to the Large Group Resource Sessions during Orientation,

51	I am able to conduct myself in an appropriate manner on site visits	A	B	C	D	E
52	I am acquainted with and I have been introduced to the rules in the dissecting hall	A	B	C	D	E
53	I understand the small group process	A	B	C	D	E
54	I understand the importance of following all eight steps during small group sessions	A	B	C	D	E
55	I have an understanding of the branches of Medicine	A	B	C	D	E
56	I know what I am expected to do in the Histology lab	A	B	C	D	E
57	I think I will require a lot of assistance when doing practical work in the Histology lab	A	B	C	D	E
58	I understand the relevance of the ethics lectures	A	B	C	D	E
59	I understand how values, religion and culture influence the practice of ethics	A	B	C	D	E
60	I have been briefed about the ethical theories and its relevance to patient care	A	B	C	D	E
61	I know what is expected of me as a self-directed learner	A	B	C	D	E
62	I still do not know what I am expected to do in problem-based learning	A	B	C	D	E
63	I know that my attendance at tutorials, skills training sessions and health care sites is compulsory	A	B	C	D	E
64	I know that my facilitators are not supposed to teach us during small group sessions	A	B	C	D	E
65	I think that training in Information literacy was necessary too become "library literate"	A	B	C	D	E
66	I think that the information literacy programme fulfilled my needs for this year	A	B	C	D	E

F With regard to the small group process training:

67	I know what is expected of a good group leader	A	B	C	D	E
68	I think that I will be able to be an effective chairperson	A	B	C	D	E
69	I think that I will be a good listener and group member	A	B	C	D	E
70	I think that I will be a good scribe	A	B	C	D	E
71	I will learn to be tolerant in group sessions	A	B	C	D	E
72	Group learning will be a good way of learning the content of the course	A	B	C	D	E
73	I think that I would be reluctant to participate in group discussions	A	B	C	D	E
74	I am too shy to be a chairperson or a scribe	A	B	C	D	E
75	I think that I will be able to work successfully with students from different social and cultural groups	A	B	C	D	E
76	I am a very competitive person and I will find group learning frustrating	A	B	C	D	E
77	I think that I am more aware of being a group member as the training sensitised me in this regard	A	B	C	D	E
78	I would have been a good group member even without training	A	B	C	D	E
79	I am scared that too much is expected of me	A	B	C	D	E
80	I am looking forward to the rest of the year	A	B	C	D	E

81 Any other comments.

Your cooperation in completing the questionnaire is much appreciated. We hope that the Orientation Programme provided you with the necessary foundations to start your year.

FINDING OUT MORE ABOUT YOU**NUMBER OF RESPONSES = 115****SECTION A:**

AGE GROUP	<i>n</i> = 115	%
18 - 20	84	73.04%
21 - 25	24	20.87%
> 25	7	6.09%

LANGUAGE	<i>n</i> = 115	%
ENGLISH	49	42.61%
ZULU	37	32.17%
OTHER	29	25.22%

GENDER	<i>n</i> = 115	%
MALE	39	33.91%
FEMALE	76	66.09%

TYPE OF SCHOOL MATRICULATED AT	<i>n</i> = 115	%
MODEL C	27	23.48%
PRIVATE	19	16.52%
GOVERNMENT	69	60.00%

PREVIOUS STUDY AT TERTIARY LEVEL	<i>n</i> = 115	%
YES	52	45.22%
NO	63	54.78%

SECTION B:

AWARE OF PBL	<i>n</i> = 115	%
YES	115	100.00%
NO	0	0.00%

IF YES, WHAT HAVE YOU HEARD	<i>n</i> = 115	%
Integrated learning	46	40.00%
Different from traditional curriculum	23	20.00%
More about understanding	14	12.17%
Research done	23	20.00%
Exciting	9	7.83%

WHOM DID YOU HEAR IT FROM?	<i>n</i> = 115	%
Staff	67	55.56%
Students / Mentors	44	40.74%
Friends	4	3.70%

WHAT IS YOUR OPINION OF CURRICULUM 2001?		%
Exciting and interesting	42	36.52%
Allows for better understanding of course material	11	9.57%
Relevant teaching method	21	18.26%
Make better practitioners	14	12.17%
More interaction	15	13.04%
Learning through application rather than memorisation	12	10.43%

WHAT IS YOUR UNDERSTANDING OF SMALL GROUP TUTORIALS?		%
Sharing of information	60	52.17%
Doing reseach	17	14.78%
Problem solving	38	33.04%

WHAT IS YOUR UNDERSTANDING OF SELF-DIRECTED LEARNING?		%
Working together	51	44.35%
Being responsible	43	37.39%
Motivating yourself	21	18.26%

WHAT IS YOUR UNDERSTANDING OF LARGE GROUP RESOURCE SESSIONS?		%
Assisted by a facilitator	32	27.83%
Discussion on problem areas	83	72.17%

WHAT IS YOUR UNDERSTANDING OF FACILITATORS?		%
A guide	105	91.30%
To encourage the student	10	8.70%

WHAT IS YOUR UNDERSTANDING OF LEARNING PHILOSOPHY?		%
To do research	20	17.39%
It involves continuous learning	55	47.83%



University of Natal
Nelson R. Mandela School of Medicine

The purpose of this questionnaire is to evaluate the effectiveness of the Orientation Programme.

The Nelson R. Mandela School of Medicine Orientation Programme: January 2002

Use the scale A-E to Indicate your degree of agreement with the statement

A = Strongly Agree; B = Agree; C = Not sure; D = Disagree and E = Strongly disagree

1	The orientation programme assisted me in making an easier transition into university life	A	B	C	D	E
2	The Orientation Programme helped me to know more about Curriculum 2001	A	B	C	D	E
3	The training on group learning prepared me to work more effectively in small groups	A	B	C	D	E
4	I think that the Orientation Programme for 1 st years should be ongoing throughout the year	A	B	C	D	E
5	In the university context, the word "orientation" means assisting students to become accustomed to the new environment of university education	A	B	C	D	E
6	The Programme helped me to adjust to a learning new environment	A	B	C	D	E
7	The Programme prepared me for a new way of learning	A	B	C	D	E
8	In the university context, "mentoring" means having a supportive advisor/guide/friend	A	B	C	D	E
9	I think having a senior student as a mentor will guide me in the university environment	A	B	C	D	E
10	I am aware that the Medical Curriculum will be demanding and that I will need support	A	B	C	D	E
11	I still do not know my way around the medical campus	A	B	C	D	E
12	I am aware that there are sporting facilities to which I can affiliate	A	B	C	D	E
13	I have made at least one new friend during orientation	A	B	C	D	E
14	I feel comfortable about having friends from different cultural backgrounds	A	B	C	D	E
15	The Orientation Programme introduced me to training that will develop my computer literacy skills	A	B	C	D	E

B Information literacy: This section deals with the hours and training in the Medical library

Please tick the appropriate letter when answering the following items.

16	For how long can you borrow a short loan book with a yellow band? A) 3 days; B) 14 days C) 2 hours	A	B	C	D	E
17	Can you renew a book from the general shelves by phone? A) Yes; B) No; C) No renewals allowed	A	B	C	D	E
18	How many times can you renew a book or journal from the general shelves? A) Once; B) Three times; C) Four times	A	B	C	D	E
19	For how long can you borrow a journal? A) 7 days; B) 14 days; C) 3 days	A	B	C	D	E
20	What are the library hours on a Wednesday during term time? A) 8h30-22h00; B) 8h00-22h00; C) 8h30-18h00	A	B	C	D	E
21	What does OPAC stand for? A) Online Public Access Catalogue; B) Online Public Accessions Catalogue; C) Online People's Access Catalogue	A	B	C	D	E
22	When using the author's name as a search option in OPAC, you need to know the author's A) Surname and initials; B) First name; C) Nick name	A	B	C	D	E
23	When you want to loan any library material, you need to produce: A) your friend's student card; B) no student card; C) your own student card	A	B	C	D	E
24	Where in the library can you buy a photocopy card? A) the Librarian's office; B) cashier's office; C) the Reserved Book Room	A	B	C	D	E
25	Which one of the following is regarded as reference material? A) journals; B) dictionaries; C) pamphlets	A	B	C	D	E

C Introduction Into the Basic Emergency Practitioner course: Use the scale A-E to

Indicate your degree of agreement with the statement. A = Strongly Agree; B

= Agree; C = Not sure; D = Disagree, E = Strongly disagree

26	I have a clear understanding of the function of the Skills Laboratory	A	B	C	D	E
27	I understand the aim and objectives of the Emergency Care Course	A	B	C	D	E
28	I am able to identify the members of the emergency medical care team	A	B	C	D	E
29	I am acquainted with the role/function of the Clinical Skills Tutors	A	B	C	D	E
30	I have a clear understanding of the components of the Emergency Care examination	A	B	C	D	E
31	I have an understanding of the Clinical Skills Assessment	A	B	C	D	E

D Assessment and Faculty Rules

Use the scale A-E to indicate your degree of agreement with the statement.

A = Strongly Agree; B = Agree; C = Not sure; D = Disagree and E = Strongly disagree

32	Formative assessment is used to determine student progress to the following year	A	B	C	D	E
33	Summative assessment is used to determine student progress to the following year	A	B	C	D	E
34	Formative assessment is used to help students develop and understand how well they are doing	A	B	C	D	E
35	Summative assessment is used to help students develop and understand how well they are doing	A	B	C	D	E
36	Formative assessment involves tests, assignments and facilitator assessments	A	B	C	D	E
37	Summative assessment involves tests, assignments and facilitator assessments	A	B	C	D	E
38	Formative assessment involves the Progress examinations (PE) and Objective Structured Clinical Examinations (OSCE)	A	B	C	D	E
39	Summative assessment involves the Progress examinations (PE) and Objective Structured Clinical Examinations (OSCE)	A	B	C	D	E
40	Progress examinations are set on the content covered during of a theme (6 week block)	A	B	C	D	E
41	End of theme tests (ETT) are set on the content covered during a theme (6 week block)	A	B	C	D	E
42	Progress examinations are set on the content covered throughout the 5 years of study	A	B	C	D	E
43	End of theme tests (ETT) are set on the content covered throughout the 5 years of study	A	B	C	D	E
44	I have a copy of the Faculty rules that specifies all rules and regulations regarding my stay at the Faculty	A	B	C	D	E
45	I have read and understand the Faculty rules and procedures	A	B	C	D	E
46	In order to pass at the end of this year, I have to pass a theory and a practical component	A	B	C	D	E
47	In order to pass at the end of this year, I have to pass a theory or a practical component	A	B	C	D	E
48	I will be expected to pass both theory and practical components of the Emergency Practitioner's Care course by the end of my second year of studies	A	B	C	D	E
49	I am allowed to repeat during the MBChB programme	A	B	C	D	E
50	I will be excluded from studying at this faculty if I fail more than once in an academic year.	A	B	C	D	E

E With regard to the Large Group Resource Sessions during Orientation,

51	I am able to conduct myself in an appropriate manner on site visits	A	B	C	D	E
52	I am acquainted with and I have been introduced to the rules in the dissecting hall	A	B	C	D	E
53	I understand the small group process	A	B	C	D	E
54	I understand the importance of following all eight steps during small group sessions	A	B	C	D	E
55	I have an understanding of the branches of Medicine	A	B	C	D	E
56	I know what I am expected to do in the Histology lab	A	B	C	D	E
57	I think I will require a lot of assistance when doing practical work in the Histology lab	A	B	C	D	E
58	I understand the relevance of the ethics lectures	A	B	C	D	E
59	I understand how values, religion and culture influence the practice of ethics	A	B	C	D	E
60	I have been briefed about the ethical theories and its relevance to patient care	A	B	C	D	E
61	I know what is expected of me as a self-directed learner	A	B	C	D	E
62	I still do not know what I am expected to do in problem-based learning	A	B	C	D	E
63	I know that my attendance at tutorials, skills training sessions and health care sites is compulsory	A	B	C	D	E
64	I know that my facilitators are not supposed to teach us during small group sessions	A	B	C	D	E
65	I think that training in Information literacy was necessary too become "library literate"	A	B	C	D	E
66	I think that the information literacy programme fulfilled my needs for this year	A	B	C	D	E

F With regard to the small group process training:

67	I know what is expected of a good group leader	A	B	C	D	E
68	I think that I will be able to be an effective chairperson	A	B	C	D	E
69	I think that I will be a good listener and group member.	A	B	C	D	E
70	I think that I will be a good scribe	A	B	C	D	E
71	I will learn to be tolerant in group sessions	A	B	C	D	E
72	Group learning will be a good way of learning the content of the course	A	B	C	D	E
73	I think that I would be reluctant to participate in group discussions	A	B	C	D	E
74	I am too shy to be a chairperson or a scribe	A	B	C	D	E
75	I think that I will be able to work successfully with students from different social and cultural groups	A	B	C	D	E
76	I am a very competitive person and I will find group learning frustrating	A	B	C	D	E
77	I think that I am more aware of being a group member as the training sensitised me in this regard	A	B	C	D	E
78	I would have been a good group member even without training	A	B	C	D	E
79	I am scared that too much is expected of me	A	B	C	D	E
80	I am looking forward to the rest of the year	A	B	C	D	E

81 Any other comments.

Your cooperation in completing the questionnaire is much appreciated. We hope that the Orientation Programme provided you with the necessary foundations to start your year.

POST-ORIENTATION QUESTIONNAIRES 2002

Questions	N	% AGREE	% NOT SURE	% DISAGREE
1. The orientation programme assisted me in making an easier transition into university life	171	97	1	2
2. The Orientation Programme helped me to know more about Curriculum 2001	170	96	2	2
3. The training on group learning prepared me to work more effectively in small groups	171	92	5	2
4. I think that the Orientation Programme for 1st years should be ongoing throughout the year	171	23	23	54
5. In the university context, the word "orientation" means assisting students to become accustomed to the new environment of university education	171	96	3	1
6. The Programme helped me to adjust to a learning new environment	171	94	4	2
7. The Programme prepared me for a new way of learning	168	95	2	2
8. In the university context, "mentoring" means having a supportive advisor/guide/friend	171	98	1	1
9. I think having a senior student as a mentor will guide me in the university environment	171	92	5	3
10. I am aware that the Medical Curriculum will be demanding and that I will need support	171	95	3	2
11. I still do not know my way around the medical campus	169	16	14	70
12. I am aware that there are sporting facilities to which I can affiliate	171	76	15	9
13. I have made at least one new friend during orientation	171	96	0	4
14. I feel comfortable about having friends from different cultural backgrounds	171	97	2	1
15. The Orientation Programme introduced me to training that will develop my computer literacy skills	171	91	6	2
16. For how long can you borrow a short loan book with a yellow band? A) 3 days; B) 14 days C) 2 hours	64	92	8	0
17. Can you renew a book from the general shelves by phone? A) Yes; B) No; C) No renewals allowed	167	98	2	0
18. How many times can you renew a book or journal from the general shelves? A) Once; B) Three times; C) Four times	157	94	6	0
19. For how long can you borrow a journal? A) 7 days; B) 14 days; C) 3 days	152	49	51	1
20. What are the library hours on a Wednesday during term time? A) 8h30-22h00; B) 8h00-22h00; C) 8h30-18h00	164	84	16	0

21. What does OPAC stand for? A) Online Public Access Catalogue; B) Online Public Accessions Catalogue; C) Online People's Access Catalogue	162	93	7	0
22. When using the author's name as a search option in OPAC, you need to know the author's A) Surname and initials; B) First name; C) Nick name	168	100	0	0
23. When you want to loan any library material, you need to produce A) your friend's student card; B) no student card; C) your own student card	69	3	97	0
24. Where in the library can you buy a photocopy card? A) the Librarian's office; B) cashier's office; C) the Reserved Book Room	167	99	1	0
25. Which one of the following is regarded as reference material? A) journals; B) dictionaries; C) pamphlets	167	90	10	0
26. I have a clear understanding of the function of the Skills Laboratory	169	64	22	13
27. I understand the aim and objectives of the Emergency Care Course	169	86	10	4
28. I am able to identify the members of the emergency medical care team	169	44	36	21
29. I am acquainted with the role/function of the Clinical Skills Tutors	168	57	25	18
30. I have a clear understanding of the components of the Emergency Care examination	170	62	18	20
31. I have an understanding of the Clinical Skills Assessment	168	67	21	12
32. Formative assessment is used to determine student progress to the following year	168	14	5	81
33. Summative assessment is used to determine student progress to the following year	168	89	5	6
34. Formative assessment is used to help students develop and understand how well they are doing	166	94	4	2
35. Summative assessment is used to help students develop and understand how well they are doing	169	31	9	59
36. Formative assessment involves tests, assignments and facilitator assessments	168	74	10	15
37. Summative assessment involves tests, assignments and facilitator assessments	167	27	11	62
38. Formative assessment involves the Progress examinations (PE) and Objective Structured Clinical Examinations (OSCE)	168	14	11	74
39. Summative assessment involves the Progress examinations (PE) and Objective Structured Clinical Examinations (OSCE)	169	82	7	11
40. Progress examinations are set on the content covered during of a theme (6 week block)	169	17	6	77

41. End of theme tests (ETT) are set on the content covered during a theme (6 week block)	167	93	4	3
42. Progress examinations are set on the content covered throughout the 5 years of study	169	84	5	11
43. End of theme tests (ETT) are set on the content covered throughout the 5 years of study	69	4	14	81
44. I have a copy of the Faculty rules that specifies all rules and regulations regarding my stay at the Faculty	167	88	4	8
45. I have read and understand the Faculty rules and procedures	169	77	14	9
46. In order to pass at the end of this year, I have to pass a theory and a practical component	169	93	5	2
47. In order to pass at the end of this year, I have to pass a theory or a practical component	168	15	11	74
48. I will be expected to pass both theory and practical components of the Emergency Practitioner's Care course by the end of my second year of studies	169	86	5	9
49. I am allowed to repeat during the MBChB programme	169	69	29	2
50. I will be excluded from studying at this faculty if I fail more than once in an academic year	168	45	42	13
51. I am able to conduct myself in an appropriate manner on site visits	166	94	5	1
52. I am acquainted with and I have been introduced to the rules in the dissecting hall	169	94	5	1
53. I understand the small group process	169	98	2	1
54. I understand the importance of following all eight steps during small group sessions	169	95	5	0
55. I have an understanding of the branches of Medicine	168	90	8	2
56. I know what I am expected to do in the Histology lab	169	83	11	5
57. I think I will require a lot of assistance when doing practical work in the Histology lab	169	56	25	19
58. I understand the relevance of the ethics lectures	168	85	11	4
59. I understand how values, religion and culture influence the practice of ethics	168	93	4	3
60. I have been briefed about the ethical theories and its relevance to patient care	168	98	0	2
61. I know what is expected of me as a self-directed learner	169	92	7	1
62. I still do not know what I am expected to do in problem-based learning	168	11	7	82
63. I know that my attendance at tutorials, skills training sessions and health care sites is compulsory	169	93	5	2
64. I know that my facilitators are not supposed to teach us during small group sessions	169	97	1	2
65. I think that training in Information literacy was necessary too become "library literate"	168	83	14	4

66. I think that the information literacy programme fulfilled my needs for this year	168	83	13	5
67. I know what is expected of a good group leader	167	98	2	1
68. I think that I will be able to be an effective chairperson	168	83	15	2
69. I think that I will be a good listener and group member	168	96	3	1
70. I think that I will be a good scribe	167	87	9	4
71. I will learn to be tolerant in group sessions	167	96	3	1
72. Group learning will be a good way of learning the content of the course	167	90	7	3
73. I think that I would be reluctant to participate in group discussions	167	19	5	76
74. I am too shy to be a chairperson or a scribe	167	10	7	83
75. I think that I will be able to work successfully with students from different social and cultural groups	167	97	2	1
76. I am a very competitive person and I will find group learning frustrating	168	8	12	80
77. I think that I am more aware of being a group member as the training sensitised me in this regard	167	85	11	4
78. I would have been a good group member even without training	168	34	35	32
79. I am scared that too much is expected of me	168	35	17	48
80. I am looking forward to the rest of the year	166	93	5	2

FIRST YEARS QUESTIONNAIRE

Appendix ... 5

QUESTION ONE

Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
29%	46%	23%	3%	0%

1. The Orientation Programme helped to make a transition into University life

QUESTION TWO

Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
43%	23%	23%	6%	3%

2. The Orientation Programme helped me to get know about Curriculum 2001

QUESTION THREE

Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
54%	31%	0%	7.5%	7.5%

3. I have managed to make new friends

QUESTION FOUR

Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
49%	43%	3%	3%	0%

4. I feel comfortable about having friends in different cultural backgrounds

QUESTION FIVE

Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
26%	34%	26%	11%	3%

5. Working in a group (tutorial) is better than working alone

QUESTION SIX

Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
34%	20%	3%	3%	3%

6. I am learning to work successfully with students from different social & cultural backgrounds

QUESTION SEVEN

Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
6%	3%	20%	34%	23%

7. Group learning takes too much time

QUESTION EIGHT

Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
23%	31%	17%	17%	6%

8. Learning is how much you have actually taken in, acquiring facts, knowing certain amounts of things, being able to produce what is expected from you in a test or examination

QUESTION NINE

Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
40%	43%	3%	9%	6%

9. Learning actually changes one as a person by learning more about people and the world and why things happen, changes you. Learning changes the way of seeing or understanding them

QUESTION TEN

Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
0%	29%	6%	46%	14%

10. In my learning, I often find I have difficulty in making sense of new ideas presented

QUESTION ELEVEN

Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
3%	49%	26%	17%	0%

11. I found the training process skill for group work helped me to adapt more quickly to the P.B.L. process in the new curriculum

QUESTION TWELVE

Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
8%	20%	51%	11%	3%

12. I found the preparation during Orientation changed the way I approached the new Curriculum

Question One

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
7%	24%	17%	21%	31%

1. The orientation Programme helped me to make a easier transition into University life

Question Two

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
3%	24%	31%	24%	17%

2. The orientation Programme helped me to get to know about Curriculum 2001

Question Three

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
31%	55%	7%	0%	7%

3. I have managed to make new friends in first year.

Question Four

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
59%	31%	3%	7%	0%

4. I feel comfortable about having friends in different cultural backgrounds

Question Five

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
65%	28%	3%	3%	0%

5. I am learning to work successfully with students from different socail and cultural groups

Question Six

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
0	0	21%	59%	21%

6. Group learning takes too much of my time

Question Seven

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
3%	3%	31%	45%	17%

7. In my learning, I often find I have difficulty in making sense of new ideas presented

Question Eight

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
3%	3%	34%	41%	34%

8. I found the preparation during Orientation changed the way I approached the new curriculum

Question Nine

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
79%	10%	3%	0%	7%

9. The Orientation Programme should prepare studens for a new way of learning

Question Ten

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
79%	10%	3%	0%	7%

10. The Orientation programme should cover the academic and social aspects of a student's life

The Nelson R. Mandela School of Medicine

Appendix 7

Staff Questionnaire August 2002

Sincere thanks to you for participating.

Please answer the following on a scale A - E, if Yes where:

- A = Strongly Agree
B = Agree
C = Not Sure
D = Disagree
E = Strongly Disagree

Questions

1. The Orientation Programme should cover the academic and social aspects of a student' life on campus	A	B	C	D	E
2. Training in process skills (small group learning) will help students adapt more quickly to the PBL Curriculum	A	B	C	D	E
3. Preparation for PBL will change the way first year students approach the new curriculum	A	B	C	D	E
4. I think the Orientation programme for 2002 adequately prepared the new students	A	B	C	D	E
5. I think the Orientation programme should be implemented in curriculum time	A	B	C	D	E

Please feel free to comment on the above.

Comments:

All participants have role to play

Scribe

- Record points made by group
- Help group order their thoughts
- Participate in discussion
- Record resources used by group

Tutor

- Encourage all group members to participate
- Assist chair with group dynamics and keeping to time
- Check scribe keeps an accurate record
- Prevent side-tracking
- Ensure group achieves appropriate learning objectives
- Check understanding
- Assess performance

Chair

- Lead the group through the process
- Encourage all members to participate
- Maintain group dynamics
- Keep to time
- Ensure group keeps to task in hand
- Ensure scribe can keep up and is making an accurate record

Group member

- Follow the steps of the process in sequence
- Participate in discussion
- Listen to and respect contributions of others
- Ask open questions
- Research all the learning objectives
- Share information with others

Roles of participants in a PBL tutorial

(WOOD, D.F.) 2003.