INVESTIGATING STRATEGIES TO ENHANCE CLINICAL EDUCATION IN AN UNDERGRADUATE PHYSIOTHERAPY PROGRAMME:

AN ACTION RESEARCH STUDY

Mary Faure

Presented in part fulfilment of the requirements
for the degree of M.Phil.
Department of Didactics
University of the Western Cape

Supervisors:
Professor Owen van den Berg
Mrs Ratie Mpofu

1997

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ABSTRACT

INVESTIGATING STRATEGIES TO ENHANCE CLINICAL EDUCATION IN AN UNDERGRADUATE PHYSIOTHERAPY PROGRAMME.

The traditional approach to physiotherapy education is that of an applied science, in which scientific theory and therapeutic skills are taught in a classroom, and then implemented in a clinical setting. Many difficulties were demonstrated by students during the clinical practice component of the undergraduate course at the University of the Western Cape (UWC). This raised the question of whether current strategies of clinical education were effective in facilitating the development of the clinical skills deemed necessary for professional practice. Furthermore, it appeared to me that the teaching strategies which I employed did little to integrate classroom teaching with clinical practice.

During 1993 and 1994 I initiated two cycles of workshops as an action research project, in collaboration with students and colleagues at UWC. The purpose of the workshops was for me to investigate my practice as a clinical educator, whereby I hoped to understand more fully, and therefore enhance, my teaching practice.

The study revealed that clinical education is a complex and dynamic process strongly influenced by many factors. Personal perceptions of the educator's role in clinical teaching and learning, as well as the interaction with, and expections of those participating in clinical education, shape teaching practice. The concept of a positive learning environment was

explored, and it was found that collaboration with students and classroom democracy has a significant impact on student motivation.

The effect of a variety of reading and writing tasks, co-operative learning and structured group discussion are some of the teaching strategies that were implemented, and positively evaluated by students and colleagues. Ethical considerations relating to the role of the patient during clinical practice and clinial education developed as an important aspect of the workshops. The conflict which can arise between the related roles of clinical educator and clinician, evolved as a professional dilemma. It is suggested that the process of clinical education requires further investigation.

Educational change and innovation proved to be a difficult personal, and co-operative, process. Unique responses by different groups of individuals to similar situations or strategies make this issue more complex. In order to practice more competently, it would be appropriate that the clinical education process be thoroughly investigated in order to be more fully understood by physiotherapy educators, rather than be taken for granted.

Action research proved to be an effective and flexible vehicle for investigating, and responding to, the dynamic teaching process. The action research study documented in this thesis, being similar in effect to the therapeutic process, would serve the physiotherapy clinician as effectively as it would the physiotherapy lecturer.

ACKNOWLEDGEMENTS

Owen van den Berg, for sharing your skills and time so generously since 1993 - and for continuing to do so even by telephone and e-mail from the USA. It has been an enormous privilege working with you during this exciting and challenging learning experience.

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The fourth year physiotherapy students of 1993, and third year students of 1994, for making this project possible. Your enthusiastic participation and cooperation made this a most enjoyable and rewarding project for me to implement. I learnt so much from your feedback. My colleagues, especially Kathy Harris and Cheryl de Kock, who took part in many of the workshops - for your participation, tolerance, and insight into the workshop "environment".

Pam Versveld, for initiating this process, and for recognising that the students deserved more innovative teaching - and for coopting John and Chrissie Boughey to encourage us to examine the effects of our teaching practice. John and Chrissie, it took a long time, but at last webs are much more exciting than columns! Sheena Irwin-Carruthers, for your encouragement and willingness to read and comment on sections, in spite of huge pressure on your time.

My husband, Jean and children Jeanita, Mario and Andre. If you had not been with me every step of the way, none of this would have been possible. Thank you for everything.

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INTRODUCTION

ORGANISATION OF THE THESIS

The purpose of the action research project documented in this thesis was to investigate various teaching strategies in an attempt to improve my understanding of the learning process of undergraduate physiotherapy students during clinical practice education. I anticipated that this understanding would strengthen my teaching practice, which would in turn enhance the education of the students. The action research project was undertaken in collaboration with staff and students of the Physiotherapy Department at the University of the Western Cape (UWC). The cycles of workshops which were conducted took place in two phases.

The first phase of the project took place between August and September 1993. Physiotherapy students participated voluntarily in the workshops during the second semester of their fourth, and final, year of study. The intention of these workshops was to assist students to prepare for their final clinical practice examinations, while I attempted to evaluate various teaching strategies which I implemented during the workshops.

The second phase of the project was conducted during April and May 1994. The decision to initiate workshops with the physiotherapy students in their third year of study, was directly informed by the response to the workshops of the group of students of the previous year.

The thesis is divided into four parts. In Part One I outline my personal, as well as the political, social and health care framework within South Africa which formed the context within which this action research project developed. The attempts of physiotherapy practice and physiotherapy education to respond to the changes occurring in South Africa are outlined. The selection of action research as an appropriate research approach for this project is discussed, as are the data gathering techniques utilised. Kemmis and McTaggart (1988:8) report that the "general idea that some kind of improvement or change is desirable" usually precedes the decision to embark on an action research project. These "general ideas" provide the context of the workshops which are documented in Parts Two and Three, which contain the bulk of the thesis.

In Part Two the first cycle of workshops undertaken in participation with the fourth year physiotherapy students in 1993, is documented. Winter (1989a:21) states that there is a need for selectivity both in the collection of data as well as in recording the research project. Therefore, I have recorded only two of the five workshops undertaken as I regard them as being representative of the processes and interactions which took place. Part Three comprises the motivation for and planning of the second cycle of workshops undertaken with third year physiotherapy students, during 1994. Three workshops during which specific issues were raised, were selected for documentation.

In Part Four the implications of the results of the research for future undergraduate physiotherapy education, and physiotherapy practice, is discussed. Future research possibilites for curriculum design and course content in physiotherapy education, are proposed.

PART ONE

CONTEXT OF THIS ACTION RESEARCH PROJECT

Personal values, as well as the political and educational circumstances to which I had been exposed before and during my professional career, influenced this action research project. Walker (1991:38) states that in the act of the researcher acknowledging that action research is value-laden, the reader is able to take this into account in assessing the findings. In Chapter 1, therefore, I outline my background and the political, social and healthcare framework within South Africa in which this project was undertaken, in order that its impact on the possible bias of this project be recognised.

The transformation occurring in South Africa, and the resulting need for health care education in general, and physiotherapy education in particular, to respond to these changes, is discussed in Chapter 2.

While participating in this action research project, it seemed to me that the process of action research could profitably be learnt and employed by physiotherapists, whether they be clinicians or educators. Currently, this research process is not commonly used or understood by physiotherapy practitioners. It appeared, therefore, appropriate to me to outline this research process in some detail early in this thesis, in order to set the scene for the following chapters. In Chapter 3, therefore, the selection of action research as the research approach for this project is discussed, as are the data gathering techniques utilised.

Kemmis and McTaggart (1988:8) report that the "general idea that some kind of improvement or change is desirable" usually precedes the decision to embark on an action research project. In Chapter 4 some observations made by colleagues and myself of students' clinical performance bewteen 1986 and 1993, and which reinforced the decision to undertake this project, are discussed. Reference is made to published research relating to these observations.

CHAPTER 1

SETTING THE SCENE

1.1 PERSONAL BACKGROUND

> The mental, physical and social health of South Africans has been severely damaged by apartheid policies and their consequences.
> (African National Congress 1994:42-43)

I grew up in a secure, white, privileged, professional, non-political home. My ignorance of the lifestyle and aspirations of the majority of my fellow "citizens" is one small indication of the success of the apartheid policy.

For many years I conducted my life, as did many of my peers, in accordance with the privileged white values and attitudes commonly encountered during the 1950's-1980's. The authority of adults or "superiors" was accepted, often unquestioningly. A university education was regarded as a right and we were secure in the knowledge that professional employment and enhanced status were likely to follow graduation.

I received my physiotherapy training at the University of Cape Town, from where I qualified with a diploma in 1967 after completing a three-year course (see Appendix A). The first year of this curriculum included the basic sciences of physics and chemistry, and the second year

included the medical sciences of anatomy, physiology and pathology. During the second and third years of the course we were instructed in the principles underlying patient care and physiotherapy treatment, during which time we were expected to master selected therapeutic techniques. These latter two years also incorporated supervised professional practice in selected placements.

Physiotherapy lecturers drilled us so that we might perform effectively the limited number of skills and techniques used by physiotherapists 25 years ago, and which could be prescribed by a doctor when he (and I use the male form deliberately) referred a patient for physiotherapy treatment. I never questioned my lecturers, as I believed them to be "specialists" responsible for transmitting their knowledge and skills to me. The autocratic management of physiotherapy education has been well documented by Turnbull (1994:9).

In turn, I assumed an authoritarian and authoritative role in relation to patients. I never considered the role which they might play in their recovery, nor expected them to question my decisions regarding their treatment. I have no recollection of giving patients any choices regarding treatment goals. In all honesty I believed that I knew what was best for them, and it appeared to me that the patients thought so too. I was (and remain) proud of my qualification and of the contribution which I believed I would make, and have made, to improving the quality of patients' lives.

In retrospect it appears to me that the physiotherapy professional training which I received reinforced the traditional values of my childhood. These values influenced my perceptions of

myself in relation to the South African population, and of my role within the "medical profession". I never questioned the prescriptive relationship whereby the doctor was ultimately responsible for the patient's well-being, and thus indirectly for the effectiveness of the treatment which I provided. Neither did I doubt that the physiotherapy education that I received would be relevant to the professional role which I was preparing to fulfil.

On completion of my training as a physiotherapist, I felt confident that I would be able to fulfil my well-defined, and fairly limited, role within a hospital setting. My first post after qualifying was as the sole physiotherapist in a 300-bed hospital in Cape Town.

Over the next sixteen years I worked, part-time or full-time, in a number of hospitals and institutions in Cape Town and London. During these years I was employed both as a clinical practitioner and as a clinical supervisor of student physiotherapists. I also worked, for a while, for a private physiotherapist, providing domiciliary treatment for patients.

In September 1986 I attended a four-day clinical education workshop with the intention of furthering my interest in clinical teaching. In retrospect, this workshop proved to be a turning point in my life. The reason is that following this workshop, I accepted an invitation to join the staff of the Physiotherapy Department at the University of the Western Cape (UWC) as a part-time lecturer.

During my initial years at UWC I felt for the first time in my life that I, too, had been a victim of apartheid. My colleagues, now, were individuals with a history and ideologies of

which I was ignorant. Worst of all, I felt guilty at having accepted without question the authority of a minority government. Within a short space of time my security and comfortable world were threatened. It appeared to me that not only my background, but also my perception of my professional role within the health care profession had encouraged the development of values and beliefs in conflict with those of many of my colleagues.

My ignorance of the implications of my new professional role in physiotherapy education further reinforced my discomfort. I had been employed as a clinical physiotherapist during a large part of the preceding 18 years, with the result that I had no experience of lecturing, and little experience of clinical practice education. I therefore felt totally ill-equipped to contribute to the education of physiotherapists, especially at UWC, in what was then to me a completely "foreign" environment. Some of my values and beliefs with which I became to feel very uncomfortable during my early years at this university, are outlined below.

* Whilst believing myself to be "democratic", I came to realise that my "autocratic" teaching style reflected my own personal philosophy. Being the "superior" in knowledge and experience, I expected the students to reproduce the knowledge and skills which I had decided were necessary for them to practice as professional physiotherapists. I became frustrated when they couldn't reproduce this knowledge and skills in tests, both theoretical and practical.

* I had imagined myself to be "broad-minded" but realised that I had approached education and professional practice from a "narrow-minded" viewpoint, where the lecturer and

physiotherapist were the individuals who were solely responsible for the learning of students, or the physical improvement of patients.

* I had thought I was "secure", when in fact my "insecurity" was apparent in my hesitation to implement, and then evaluate, new teaching strategies.

* I valued "rationality", but often acted "irrationally", making teaching and examination decisions based on "gut feelings".

In 1986 I thus commenced what was to become an ongoing process of questioning my own philosophy, values and behaviour. This action research project was one consequence of this inquiry.

1.2 POLITICAL CONTEXT

> The aim [of the new health care system] is to ensure that all South Africans get infinitely better value for the money spent in this area, and that their mental, physical and social health improves both for its own sake and as a major contribution to increasing prosperity and the quality of life for all.
>
> (African National Congress 1994:42-43)

Fundamental changes have occurred, and still are occurring, in South Africa. Political change has led to change within the financial, social and health care structures of this country. The transformation taking place includes the development of a new democracy and the institution

of a Bill of Rights, both of which have contributed to the initiation of a major reconstruction and development plan. The latter will include a significant shift in health care delivery with the emphasis on service provision to a previously largely disenfranchised and deprived population. An attempt is currently being made to identify and address the health care needs and expectations of the health care system, of the majority of the population. It thus appears that democratisation will bring about significantly altered expectations of health care delivery.

New relationships are developing between professional and non-professional health workers, as well as between them and the patients/ clients. This is reflected in the tension between the terms "patient" and "client", both of which are currently in use. According to the Concise Oxford Dictionary, a patient is defined as "under medical care", suggesting a subservient and dependent relationship. Client has "customer" as a simile, implying independence, right of choice and decision making.

Snyder and Anderson (1993:24) claim that a response to environmental changes often demands a fundamentally different approach to solving problems. This demand for innovation is observed today in the quest, at governmental and local level, for a constructive solution to the health care needs of the South African population. This search is followed closely by the popular media, as well as by professional bodies and institutions responsible for health care training and service delivery.

The largely authoritarian, "biomedical understanding of health", with the emphasis on curative, highly specialised and technical care, is developing into a "social paradigm of health" (Myburgh and Owen 1991). Implicit in the philosophy of this paradigm is an holistic approach to patient care. In this approach all aspects of the patient's life, lifestyle and their community context are considered when planning an evaluation or treatment management programme.

Furthermore, in the place of a medical hierarchy, in which a doctor is the undisputed head of patient care, a more democratic team approach to health care is developing. Traditionally, instructions were issued by the "highest" level of the hierarchy to the nurses, physiotherapists and occupational therapists. More recently, the importance of consultation between members of the professional team, as well as between the patient and family, voluntary health workers and assistants is being recognised. In addition, current health care philosophy accepts that responsibility for the final decisions regarding appropriate rehabilitation goals should rest with the client.

A result of the changing paradigm of health care is observed in the accelerated development of the roles of existing health care workers, including that of physiotherapists, which has occurred during the past 25 years of my professional practice.

1.3 THE EVOLVING ROLE OF PHYSIOTHERAPISTS

> ... yesterday's graduate was a clinician (with a focus on treatment skills). Tomorrow's graduate will be a clinician (with a focus on evaluation skills), a teacher, an administrator, a consultant, and a researcher. (Shepard and Jensen 1990:567)

Since the 1960's, socio-political change and the continuing growth in the mass of knowledge, diagnostic and therapeutic skills and technology has augmented the development of the role of physiotherapists. Recently the endeavour to empower communities to identify and address its health needs has also impacted on the role of physiotherapists in SA.

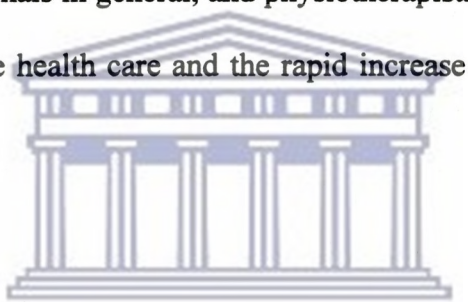
It is not only in South Africa that the traditional view of physiotherapists as giving specialised care to patients, by means of technical skills, is undergoing change. Richardson (1992:23) maintains that the major changes occurring in the provision and management of health care services are reflected in the developing role of physiotherapists. The result is that physiotherapists now are involved in the rehabilitation and education of patients within a wide range of contexts of practice. This discussion concerning appropriate physiotherapy service is therefore not unique to South Africa. The development in the role and service provision of physiotherapists, in this country, includes the following:

* physiotherapists may practice independently as first contact practitioners, without having to rely on a medical doctor first to diagnose the condition;

* physiotherapists are often required to provide appropriate training for non-professional and, where necessary, professional members of the health care team; and

* the objectives of health care promotion, disease prevention and rehabilitation are becoming as important for physiotherapists to address, as is the curative service traditionally offered.

The following chapter contains a discussion of implications for educational reform in the training of health care professionals in general, and physiotherapists in particular, in response to the need to provide adequate health care and the rapid increase in medical knowledge.



CHAPTER 2

PHYSIOTHERAPY EDUCATION - THEN AND NOW

2.1 IMPLICATIONS FOR THE EDUCATION OF PHYSIOTHERAPISTS

> One of the most important parts of the RDP[1] in the health sector will be the complete transformation of health worker training.
> (African National Congress 1994:51)

The RDP highlights the urgent need for an investigation of appropriate course content and teaching strategies which will contribute to the ability of new graduates to respond effectively to the transformations taking place in SA.

Shepard and Jensen (1990:566) state that many physical therapist education programmes will need to consider re-designing their curricula, if they have not already done so, in order to prepare professionals who are able to deal effectively with the health care needs of the future.

The need to evaluate the relevance of the education of health professionals is not unique to physiotherapy training. Kent (1994:822) suggests that undergraduate medical education in South Africa is in need of fundamental reassessment. Amongst the reasons which he cites, is

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[1]RDP = Reconstruction and Development Programme

that medical education has developed into a subject of national and international interest.

Kent states further:

> ... curiosity has turned to interest, interest to enquiry, enquiry to research, and research to publication with information dissemination and exchange. This academic maturation must now be accompanied by an increasing professionalism. Each medical school in South Africa will have to take a fundamental look at what it teaches to undergraduates, how students learn learn this material and where it is taught.
>
> (1994:822)

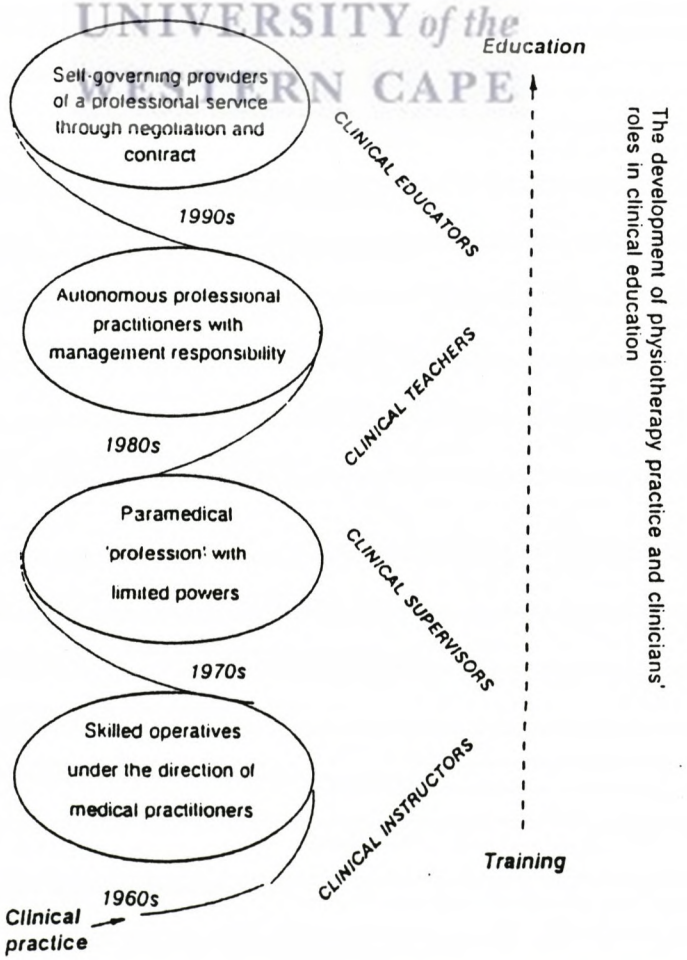
It is maintained that the education process should assist physiotherapists to accept and respond to the challenge of change. Furthermore, if education is to provide a solid foundation for the development of expertise, then it is essential that education does not lag behind practice (Richardson 1992:25). It has already been stated that the role and professional practice of physiotherapists in South Africa is undergoing radical change and development (cf. pp.12-13).

It is necessary, therefore, to question whether course content and teaching strategies in the physiotherapy curriculum reflect the democratic, social, financial and concomitant health care changes. If this is not the case, then one would need to question whether graduates are equipped to practice effectively within a new paradigm of health care in South Africa.

Cross (1994:609) has constructed a diagram in an effort to illustrate the developments which have taken place within the role and practice of physiotherapists, from dependent to independent practitioners. The diagram also traces a shift in the delivery of physiotherapy service from one that reflects mainly autocratic and biomedical qualities to one that embraces democratic and holistic principles (cf. p.16).

As can be seen from the following diagram, Cross also suggests that a parallel development has also occurred in the relationship between the clinical educator and student. The implication is that the clinical educator has entered into a relationship with the student which appears to be governed by principles of power sharing, independence and active learning.

Definitions can be useful to clarify closely related concepts. "Instruct" has as synonyms "inform, direct, command", while "supervise" is defined as "direct or watch with authority..., to oversee". Similarly "teach" corresponds to "instruct, train, inform" (The Concise Oxford Dictionary, 1964). The implication suggested by these similar terms - instruct, supervise and teach - is that control of the clinical experience rests with the professional, thus fostering student dependency. All three of these terms suggest that the contribution of the physiotherapy educator is active while the students respond passively. "Education", on the other hand, includes the description "development of character and mental powers".



Whilst acknowledging that descriptive changes have indeed occurred, we need to examine whether the altered behaviour implied by this terminology is reflected in practice. As professional educators we need to investigate whether a paradigm shift in practice and education has occurred, or whether this shift is largely rhetorical.

In order to examine the validity of the descriptive paradigm shift in clinical education as described by Cross, it is useful to consider and compare some past and current strategies of clinical education. However, it is necessary first to clarify the terms "clinical practice" (CP) and "clinical education" (CE), as used in this thesis.

2.2 CLINICAL PRACTICE AND CLINICAL EDUCATION (CP AND CE)

Clinical practice comprises an integral and major part of the physiotherapy curriculum (Jarski, Kulig and Olson 1990:173; Maxwell 1995:10). CE is a basic element of physiotherapy education and " ... the experience by students of their clinical/ professional role in real or simulated settings." is central to CE (Higgs 1993a:239).

The opinion that CE is an essential process in the physiotherapy education curriculum is also held by Wells and Lessard, who maintain that there is no viable alternative to clinical education (1986:551). The situational, task and human complexities of the real world as a context for the practice and evaluation of previous as well as new learning, are provided by the clinical environment (Higgs 1992a:822).

The term "clinical environment" might prove to be misleading within the context of physiotherapy education at UWC. The reason for this is that the "clinical environment" might refer to a private home, shack, community hall or other informal venue. There is thus often little resemblance to the traditional sterile and therapeutic "clinical" environment associated with a hospital or clinic.

In the following section I will attempt to explain the interdependence of the terms "clinical practice" (CP) and "clinical education" (CE) .

The term "clinical practice" assumes different forms in various health professions, but each refers to the practical experience gained in professional practice. In physiotherapy CP often follows an apprenticeship model. This model is a process of progressive clinical experiences, in which the student functions at increasing levels of independence, under professional supervision (Denton and Jensen 1989:407).

The CP component of the physiotherapy curriculum at UWC has always included some degree of formal or informal "supervision" and "education" by a qualified physiotherapist or physiotherapy lecturer. However, during the last few years, another health care worker might be responsible for student supervision, particularly in the community-based placements. Reasons for this include logistical constraints for lecturers and lack of physiotherapy clinician posts in community areas.

CE refers to learning opportunities during the "clinical" or professional practice component of the curriculum. In addition to the apprenticeship model, CP could include problem-based learning programmes, or clinical simulation in laboratories (Day 1985:1215).

A further distinction is made in some universities in the USA. "Cooperative education" refers to "an educational strategy in which students alternate academic periods with periods of paid employment in their field of study." While participating in this experience, students are paid employees, and have all of the concomitant rights and responsibilities of an employee, although they still work under the supervision of registered physical therapists. This aspect of their training appears to be similar to that of student nurses in South Africa and elsewhere. However, a distinction is drawn between CE, which is required by all physical therapy training programmes, and cooperative education experience, which occurs outside of the formal course of study. Nevertheless, both groups of students might work side by side, and report to the same supervisor. It is anticipated that learning takes place during both facets of practice, but during the cooperative experience the student's primary responsibility is to provide a service to the employer (Noonan 1989:349-351).

It has been recorded that some universities recognise problem-based and competency-based simulated activities as valid CE. However, UWC and other South African Universities currently include only the experience and education gained in a hospital or other authentic environment as CE.

For the sake of clarity, CP in this thesis refers to the practical professional experience of students gained in health care settings. These might be hospitals, clinics or less formal community settings. CE, on the other hand, refers to the formal or informal educational strategies employed by physiotherapy lecturers or clinicians aimed at providing educational opportunities for students in these health care settings.

2.3 GOALS OF CP AND CE

The goals of CP and CE are well documented in the literature. Guilbert emphasised the importance of centring on a code of ethics, as well as on the knowledge base and principles which underpin the health care profession in question, when preparing health science students for their professional role (in Higgs 1993a:241). Some authors stress the need to develop clinical skills and competencies relevant to physiotherapy. These include cognitive skills of analysis, synthesis and the evaluation of data. Metacognitive skills of monitoring and awareness of their thinking process, as well as the ability to access their knowledge base, are further examples of skills which students should be encouraged to develop during CE. Interpersonal and human relation skills, as well as verbal and non-verbal communication skills, are also cited as being goals of mastery during CP and CE (Higgs 1992b:17-23). Still other goals relate to fostering self-directed learning and holistic patient treatment (Dobbelaaere and de Volder 1987:623).

Humanity and issues of patient autonomy, responsibility for ongoing care and equity of access have also been identified as important considerations during CE. The need to develop in the

students the ability to respond to the changing health care needs of the community has been documented by Foreman (1986:18-20).

The expectations of educators of the goals to be achieved by students during CP and CE are thus very high. These are reflected in the variety and volume of knowledge, skills and attitudes which students are expected to master during this component of the curriculum.

The need to master the vast factual and technical skills content of the course, as well as being responsible for patient care, leaves the student little time to develop many of the values, attitudes and skills associated with CP. There is thus a lack of time available for students to participate in problem solving or clinical decision making activities, and explore their values and attitudes relating to professional practice. This lack is, in my opinion, one of the greatest barriers to effective physiotherapy education and student learning during CP and CE. A further lack is that teaching staff, whether lecturers or clinicians, have little time or energy available for innovation relating to CE strategies, due to understaffing and other professional demands.

In the following section the physiotherapy curriculum will be outlined, in order to contextualise CE within the under-graduate training programme in operation at UWC during the period that this project took place.

2.4 OUTLINE OF THE PHYSIOTHERAPY CURRICULUM AT UWC (CA. 1993)

During the first two years of the training, pre-clinical sciences and the theory and practice of specialised techniques have constituted the bulk of the training at UWC (see Appendix B). During this time the CP component, mainly in the form of patient interviews, was initiated in order to introduce students early in their training to the needs of patients, as well as to attempt to provide a context for the other courses which they were following.

During the third and fourth year the theory of conditions deemed relevant to physiotherapy management, as well as the theoretical principles and knowledge related to therapeutic skills and modalities used by physiotherapists, were taught. Practical classes where therapeutic skills were mastered also formed part of the curriculum. Increasing hours of professional training, or CP, in a variety of hospital and community placements was an integral aspect of these latter two years of the course.

It is thus apparent that the four-year degree course of 1993 demonstrates the same sequential approach to education as the 3-year diploma course of 1967 (cf. pp.5-6), as was described by Neufeld and Barrows (1974:1043). In contrasting the McMaster Philosophy with the traditional medical education curriculum, they state:

> The sequence myth includes the idea that basic science must be learned prior to clinical science ... sequences are based on arbitrary decisions which are frequently unrelated to real life situations.

The assumption underlying this traditional medical model of education is that medicine, and thus health care, is an applied science. Scientific theory is learnt first, and is then applied in another setting. In a sequential or tiered curriculum, theory and practical skills must be mastered in the classroom, before clinical practice can take place.

During the CP component of the third and fourth years of the course, students assessed patients in order to identify problems, and then formulate and institute an appropriate physiotherapy programme in which these "problems" could be "solved". However, final responsibility for the patients' improvement and well-being rested with the qualified clinical physiotherapists.

All lecturers employed by the university were responsible for classroom teaching as well as CE. Students rotated through a number of clinical areas, or "blocks", working for a period of 4-6 weeks in each block. These clinical "blocks" included Community, Orthopaedic, Surgical, Medical, Neurological, Spinal Cord Injured and Intensive Care Unit placements.

Students were evaluated on their performance during a practical clinical examination held at the end of each block. If a student did not pass this practical examination, there was an opportunity for a re-examination. The combined marks achieved for these practical examinations contributed to the students' yearmark. This mark in turn constituted 60% of the final promotion mark at the end of the year. Students were required to pass this practical clinical component of the third and fourth year of study in order to be promoted to the following year of study, or to graduate as a physiotherapist.

A comparison of the CE strategies employed during the physiotherapy course at UWC in 1993, and those in use during my training in 1967, is useful in order to evaluate if there has been a fundamental change in educational strategies, as suggested by Cross (1994:609).

2.5 MOST COMMON CE STRATEGIES: 1967 AND 1993

A student or group of students met regularly with a physiotherapy lecturer or clinician for individual or group education sessions during the CE component of both courses under discussion. These sessions commonly lasted between 30 minutes and one hour. The following are three of the most commonly employed strategies of CE in use during the 1967 and 1993 courses. While both strategies have undoubted advantages, both also have significant limitations. A fourth strategy is included, as it was an additional strategy commonly used at UWC in 1993.

2.5.1 Strategy 1

A lecturer or clinician spent time with one student during a treatment session in order ot assist with, or validate, the techniques being used by the student.

The major advantage of this strategy is that the student had thirty to sixty minutes of undivided attention. During this time physiotherapy techniques could be refined, and problems relating to physiotherapy management could be addressed. The students' records of the physiotherapy assessment and treatment could also be discussed.

However, limiting factors include the following:

* Many students, including myself, state that they experienced these sessions as being intimidating. At UWC this was reflected in students often choosing to treat a patient with whom they felt competent, when a staff member was to be present. Those patients with conditions which they felt less competent to treat, were avoided by many students, thus reducing the educational effect of CE.

A reason for some students making such a choice is reflected in the comment made by a number of students that they did not want to appear to be incompetent or uncertain. This sentiment is easily understood, as these same lecturers and clinicians also allocated marks to students at the end of a block, based on the students' performance during the block. They also examined the students during the end-of-block clinical examination (cf. p.23). A significant number of students informed me that they therefore regarded these CE sessions as "informal" practical examinations, rather than as learning opportunities.

* Often only a limited assessment or treatment was demonstrated by the student due to time constraints. A holistic approach to patient care was therefore usually omitted, with the student only demonstrating that which was most important to address during that CE session.

It is of great importance that a physiotherapist be able to select priorities of treatment and effectively perform therapeutic techniques. As a regular learning experience, however, this situation appears to foster a reductionist rather than an holistic approach to patient care.

A **reductionist** approach is considered to be one in which problems are identified and addressed in an isolated and hierarchical manner. While acknowledging that effective assessment and treatment skills and techniques are crucial to the effective management of the rehabilitation process, a holistic approach, which includes a social paradigm of health care, is integral to this process. It seems appropriate to me therefore, that a holistic approach to health care should be encouraged, rather than omitted, during CE.

2.5.2 Strategy 2

A student was responsible for presenting a complete assessment or treatment demonstration to the rest of the student group, in the presence of a lecturer or clinician.

An advantage of student presentations includes the possibility that the act of demonstrating to their peers could lead to the development of confidence in handling a patient in front of observers.

Ward round discussions, as well as the explanation and motivation of various physiotherapeutic interventions to other members of the health care team, is an important facet of the role of the physiotherapist. Furthermore, clinical examinations also take place in the

presence of internal or external examiners. Students who are familiar with demonstrating to their peers, often claim that they feel more confidant, and less "stressed" when taking part in ward rounds and clinical examinations (cf. student feedback in Parts 2 and 3).

Limiting factors of student demonstrations include the following:

* Some students who appear to lack self-confidence, demonstrate extreme nervousness and stress when demonstrating to others.

It was uncommon for a student to have more than one opportunity to be responsible for such a demonstration. The lack of time for the repetition of such a demonstration prevented the student from developing self-confidence, and improvement in the performance of these demonstrations. This strategy could prove, therefore, to be counter-productive to the student, as well as to the student group and the patient, who often displayed embarrassement at the discomfort portrayed by the demonstrator.

* If a student did not appear to have prepared well for the demonstration, the staff member often felt compelled to continue with the demonstration. This was to ensure that the patient received an effective treatment, and to prevent the teaching session from being completely ineffective for the rest of the group.

This could serve to further undermine the confidence of the demonstrator, as well as the trust with which the patient might regard the student, and the treatment received. Furthermore, the

body language of the students in the group often reflected the unease with which they appeared to identify with the student, or the irritation at attending a demonstration which they perceived to be a waste of time.

2.5.3 Strategy 3

A staff member took responsibility for presenting an assessment or treatment to the student group. This demonstration thus took the form of a combined practical and lecture, but in a clinical setting rather than in a classroom.

Advantages of staff presentations include the following:

* The staff member who demonstrated was in control of the learning experience and attempted to impart knowledge and skills to the student in a relatively short period of time. A large amount of knowledge and skills could thus be "covered" by the demonstrator.

* A staff member with an empathic approach to patient care as well as being technically skilled, could serve as an effective role model for the students.

* Opinions on patient care and alternative treatment approaches could be canvassed. This could lead to the enrichment of the discussion and learning experience. In providing alternate viewpoints on a particular problem, discussion could be generated by the students.

Significant limitations to CE are also present in this group approach, where lecturers or clinicians take responsibility for the demonstration. These include the following:

* Educators are usually considered to be the "specialist" by the student. The covert, and sometimes overt, message to the student is that the "correct" technique or approach was being demonstrated.

It has been my experience that students will often attempt to reproduce, frequently inappropriately, that which they have observed being demonstrated during CE. However, each patient's particular needs are unique, and need to be approached as such. A treatment session can therefore very rarely be repeated effectively. In addition, there is very rarely only one appropriate technique which could be effective in any given situation.

* A demonstration with a pre-determined goal often resulted in other valuable learning experiences and discussions being omitted.

Although it is often necessary to focus on a particular problem, or even on one aspect of a problem, an holistic approach to patient care was seldom addressed during this CE strategy.

2.5.4 Strategy 4

At UWC, case presentations and discussion in which hypothetical or "paper patients" and their problems were discussed, was a further CE strategy.

Advantages of this approach include:

* Students took part in clinical decision making or problem solving activities, related to the "paper patient".

* In-depth discussions could take place and many issues were discussed in an holistic manner, without a patient being present.

Many students took part in these discussions freely, which contributed to the richness of the learning experience. The complicating factor of a patient being presented was excluded, and there was no preoccupation on the part of the staff member or students to provide patient with an effective treatment. Full attention, therefore, could be focused on the problem at hand. As there was no risk factor, many alternatives of care and rehabilitation could be considered.

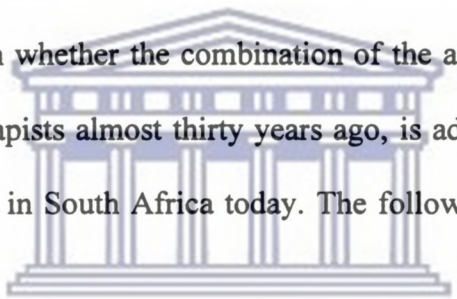
* Students in their third and fourth years of study regularly were required to discuss physiotherapy management based on "paper patients" during written examinations. This approach therefore served as practice for these examinations.

However the main limiting factors of this approach are the following:

* The lack of the immediacy of the authentic situation with its inherent communication opportunities, and unforseen incidents (cf. p.18). Furthermore, this strategy often was regarded as classroom teaching, and therefore not as CE.

It has already been suggested that change within South Africa and the health care system holds implications for the education of physiotherapists. However, it will hopefully have been noted that in spite of the shift in health care occurring in South Africa, the descriptive development in the role CP educators (cf. p.16) appears to be largely rhetorical, and that there has been very little development in the approach to CE between 1967 and 1993. Clinical educators still prefer to "teach", "watch with authority", "instruct" or "inform" students of "correct" knowledge and skills. There also appears to have been little increase in "power sharing", "independence" and "active learning" as suggested by Cross (1994:609).

Furthermore, I would question whether the combination of the above strategies, identical to those used to train physiotherapists almost thirty years ago, is adequate to provide adequate CE for physiotherapy training in South Africa today. The following questions thus arise:



* Is the lack of development of the role of CP educators contributed to by the limited physiotherapy teaching education for lecturers and clinicians involved in CE?

* Is the limited number of lecturers and clinicians who are effective role models during CE, a factor in this lack of development?

* Are we, as educators, dependent on our own educators who trained us to fulfil a more more limited professional role than that which is required today?

Turnbull (1994: 11-12) outlines the path that the career of a physiotherapy lecturer commonly follows. While a clinical practitioner, the physiotherapist might be invited to teach on a sessional basis, while also being responsible for student supervision within a clinical setting. After observing their interest, or following further study, physiotherapists would be expected to teach in a subject area familiar to them. He states that it is much more complex to teach "bright demanding students day in and day out" than the "apparently straightforward" task initially anticipated. The act of survival then becomes a major goal of new lecturers during their first few years of teaching practice.

In describing problems contributing to the often "devastating experience" facing new lecturers, Turnbull noted the lack of academic role models and the little formal teaching preparation available. He suggests that teachers will therefore teach in a manner similar to the way in which they were taught as students. This raises the question of whether a previous generation of lecturers and their teaching strategies are adequate role models for teachers of successive generations of students. Hislop (1990:573) maintains that the greatest disservice which educators do to students is to prepare "students in our own image".

Being an inexperienced lecturer on arrival at UWC in 1986, I began the search for an identity as a physiotherapy lecturer and CP educator. The frustration I felt at my lack of competence to contribute to the education of students who are equipped to practice in the current paradigm of health care, was the main motivating force which contributed to my decision to investigate what happens in the classroom when I teach. I therefore undertook this action research project

in an effort to improve my teaching practice, based as it was on my experiences gained through my own role models - those lecturers under whom I trained more than 20 years ago.

The following chapter will contain an explanation of the process of action research as a methodology for investigating and improving classroom practice. The decision to implement this research process, and the qualitative data gathering techniques selected, will be discussed.

CHAPTER 3

METHODOLOGY

3.1 INTRODUCTION

> ... the process of understanding must start from reflection upon one's own experience, ... the sort of "wisdom" derived entirely from the experience of others is at best impoverished, and at worst illusory.
> (Winter 1989a:vii)

Between 1987-1993, any "knowledge" relating to the teaching strategies which I implemented at UWC, I had gleaned from the experience of others. This situation did little to improve my confidence in my role as lecturer, or my conviction about the effectiveness of my teaching efforts. Furthermore, my lack of understanding of the underlying causes of the problems which colleagues and I had observed in the performance of students during CP was a source of great frustration to me.

I decided to embark on this research project as a process through which I hoped to increase my understanding of what happens when I teach. In addition, I expected that my increased "understanding" would then lead to an improvement in my teaching practice. However, this simple equation proved to be much more complex, and at the same time much more empowering, than I had initially thought that it would be.

Educational research is an investigation of educational problems. The criteria for testing this research is not its theoretical conformity but

> ... its capacity to resolve educational problems and improve educational practice. For this reason, any account of the nature of educational research that simply transforms educational problems into a series of theoretical problems seriously distorts the purpose and nature of the whole enterprise.
>
> (Carr and Kemmis 1986:108-109)

In this chapter action research as a model of educational research and its choice as method for this project is discussed. Qualitative research methods and the data collection techniques used to conduct this research project are outlined. Ethical considerations are included, but as they assumed a much greater role during the research project than I had anticipated they would, they will be addressed more fully in Chapter 4.

3.2 ACTION RESEARCH AS A MODEL OF RESEARCH.

> ... it has been demonstrated time and again that the **application** of the researches of others ... in new social, cultural, and economic contexts is unlikely to work. People must conduct substantive research on the practices which affect their lives themselves.
>
> (McTaggart 1989:2)

Kurt Lewin (1946), an American social psychologist, was perhaps the first to use the term "action research". He was interested in developing a form of research which investigated

social problems and which could then lead to social action. He regarded the research and action as being linked into an "integrated cycle of activities, in which each phase learns from the previous one and shapes the next" (Winter 1989a:11). This view is comparable to that of Elliott (1991:71), who describes action research as "the study of a social situation with a view to improving the quality of action within it".

Carr and Kemmis (1986:162) consider the act of reflection as being central to this process, and explain action research as

> ... simply a form of self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their own practices, their understandings of these practices and the situations in which the practices are carried out.

The importance of the role of the community is raised by Oja and Smulyan (1989:3), who stress that it is not the knowledge of the researcher which leads to the formulation of the problems to be studied, but rather that these problems grow out of the community. During the first cycle of workshops, the "community" refers to the fourth year physiotherapy students, some academic and clinical colleagues and those patients who took part in the workshops. During the second cycle of workshops, the physiotherapy students in their third year of study, as well as some of my colleagues, formed the community taking part in the research. Although I initially identified issues which I hoped to investigate, the majority of the problems which assumed prominence in this project did, in fact, grow out of the academic communities which collaborated in the research (cf. Parts 2 and 3).

It is not within the scope of this thesis to elaborate on and compare the various approaches, theories and underlying philosophies of action research. However, a cyclical process consisting of repeated sequences of planning, action, observation and reflection is central to most of the interpretations of this type of research. Further common factors include:

- the investigation of a problem within a social context, leading to
- increased understanding of the problem;
- the implementation of strategies in order to improve the quality of action within the social setting;
- reflection on the action in order to monitor its effect;
- group decision making; and
- some improvement in the lives of those who participate in the action research project.

Although action research did not originate as "educational" research, it has become recognised as an "... appropriate strategy whereby teachers and teacher-educators might improve their work by adopting a reflective attitude to their practice" (Walker 1991:26).

Winter (1989b:4) regards action research as an "ideal which is already inherent in the 'professional' worker." He claims that action research is a form of learning "... which is an intrinsic outcome of professional **experience**, and a form of involvement with practical experience which is intrinsically **educational**".

3.3 ACTION RESEARCH FOR EDUCATIONAL RESEARCH

> ... [action research] actively involves teachers as participants in their own educational process.
> (McNiff 1988:1)

The following three proponents of action research relate the process to "educational" research and describe it in terms of the highly structured process recorded in the research models of Lewin and Elliott (see Appendix C and D). Flanagan and Walker consider that action research provides teachers with

> the opportunity to inquire systematically and critically into the patterns of teaching and learning going on in their classrooms ... they are the researchers and the focus of the research is their own practice (1988:17).

Ebbutt (1985:156) describes action research as:

> the systematic study of attempts to change and improve educational practice by groups of participants by means of their own practical actions and by means of their own reflection upon the effects of those actions.

The scope of action research as described by Winter (1989a:193) includes the development of professional practice and of understanding, which support each other in a structured process in which they are inseparably linked.

McNiff (1988:2), on the other hand, describes the process as:

> ... a loose set of activities that are designed to improve the quality of education; it is an essentially eclectic way in to a self-reflective programme aimed at such educational improvement.

This view appears to be supported by Kelly (1985:129) who claims that "action research means many things to many people" and argues that it is a "broad church" in which "no one type should be allowed to pre-empt the term".

Tickle (1989:48) distinguishes a creative role in action-research for educators, with "... the teacher responding creatively to situations." Teachers thus participate in research-based teaching as a form of professional development. Action research, therefore, seemed to me to be an appropriate vehicle in which I could participate in my own educational process as a physiotherapy educator.

3.4 THE PROCESS OF ACTION RESEARCH

> ... participatory action researchers must re-invent the wheel as part of the commitment to owning the practice of research as well as the social practice the research informs and is informed by.
> (McTaggart 1989:1)

McTaggart (1989:5-6) states that participatory action research has individual and collective features. The researchers themselves change, and they support others as they change. If this change has not improved the lives of those who have been part of the process, he suggests that it is necessary to question whether it could have been performed differently (cf. p.60-61).

The action research process

> begins with a general idea that some kind of improvement or change is desirable ... The general idea prompts a reconnaissance of the circumstances of the field, and fact-finding about them ...
>
> (Kemmis and McTaggart 1988:8)

The difficulties displayed by students during CP was central to many of the formal and informal discussions which I had with colleagues after commencing teaching at UWC in 1986. These difficulties are addressed in more detail in Chapter 4.

My intentions for the initial cycles of workshops, held in 1993, were twofold. Firstly, the workshops were intended to assist fourth year students to prepare for their final clinical examinations. Secondly, I planned to observe and obtain feedback from participants of the effects of various teaching strategies. I thereby hoped to increase my understanding of what happened when I conducted these first workshops as part of CE.

The cyclic nature of the Lewinian approach recognises the need for action plans to be "flexible and responsive" (McTaggart 1989:2). The structure and format of the workshop was sufficiently flexible to allow for modifications in response to the feedback provided by participants.

After reflecting on my own observations and the feedback obtained from those present at this cycle of workshops, I decided to undertake a second cycle of workshops during 1994 with students in their third year of study. The structure of this second cycle of workshops was even more flexible and responsive than that of the first cycle. Reasons for this included the need to accommodate suggestions made in feedback by students, and my growing awareness of the emerging complexities which appeared inherent in CE. These included ethical tensions as well as the learning climate and student motivation, which are recurrent themes throughout Parts 2 and 3 (cf. pp.210-215).

3.5 ACTION RESEARCH AND REFLECTIVE PRACTICE

> [Action research] encourages a teacher to be reflective of his (sic) own practice in order to enhance the quality of education of himself and his pupils.
> (McNiff 1988:1)

In reflection one searches for meanings in "processes, problems, issues and constraints" which are displayed in strategic action (Kemmis and McTaggart 1988:13-15). Observation and the documentation of the effects of critically informed action provide the basis for reflection. This documentation must include the action process, the intended and unintended effects of the action, constraints on the planned action and other issues which may arise. The observation and documentation provide a sound basis for critical self-reflection.

Furthermore, state these authors,

> Reflection has an evaluative aspect - it asks action researchers to weigh their experience ... it allows re-connaissance, building a more vivid picture of life and work in the situation, constraints on action and more importantly, of what might now be possible ...
> (Kemmis and McTaggart 1988:15)

Winter (1989a:25) regards the process of reflection, through which we make sense of data collected from specific data gathering methods, or from our own experience, as a crucial feature of action research. He argues that in order to learn from our experience, we need to reflect on it. The process of reflection should therefore be given as much attention and thought as the process of data collection. It appeared to me that the process of action research was a more structured process than the therapeutic process followed by physiotherapists. This process consists of a repeated cycle of planning, evaluation, observation, planning treatment and observation. However, this process seems to focus on the data gathering activity, and so lacks the structured "reflective" element, through which therapists and students might learn from their experience and thus improve their practice. Through the process of reflecting on my teaching, I hoped to identify parallels in the therapeutic process, which might provide a means to enhancing CE.

Winter (1989a:20) recommends that data should be gathered that will tell us more than we know about the professional practice under inquiry. This process might involve a combination of procedures. I utilized the following techniques of data collection in order to gather and record observations which could provide the basis for reflection during this project.

3.6 DATA GATHERING

> ... when we learn **significantly** from our experience, we use skills (which can be improved) and methods (which can be described). (Winter 1989a:8)

Winter (1989a:20) describes the deliberate nature of information gathering as:

> making systematic records where usually we are content with our spontaneous impressions, making permanent records, where usually we are content to rely on our memories, and collecting detailed statements from people whose general opinions we usually take for granted.

Jensen (1989:492-493) states that qualitative research methods are "well-suited to studying the complex, multidimensional environments present in physical therapy practice and education." Quantitative methods, on the other hand, emphasise empirical observations that can be analysed by mathematical tools. These methods do not adequately inform the researcher about the "complexity of human behaviour and social interaction." Walker (1991:36) appears to agree with Jensen, and suggests that social reality would be oversimplified if quantifying methods were used as the means to "unravel complex networks of social relationships and complex processes of action."

3.6.1 Some characteristics of qualitative research

Jensen (1989:494-496) explained that shared characteristics of qualitative research are due to the underlying philosophy of phenomenology, and identified, amongst others, the following characteristics:

- Research is done in a natural setting

The classroom and hospital provided the setting for this research. The data was thus collected "in context" as these locations form part of the "natural" setting for the education of physiotherapists.

- The researcher is the instrument

I was the "primary gathering tool" (Jensen 1989:494), and my role alternated between that of observer of, and participant in, the change process:

> Just as the group and research processes of an action research team change over time, so do the roles played by the individual participants on the team.
>
> (Oja and Smulyan 1989:142)

The leadership role in action research is thus a dynamic one, in which

> ... the leader must disperse his or her power, sharing control and allowing others to delegate and assume responsibility ... Successful action research projects may struggle with and find ways to balance the concepts of collaboration or democracy and leadership which allow the project to move forward.
>
> (Oja and Smulyan 1989:17)

During the first cycle of workshops, I initially found the roles of participant and observer conflicting. I found it problematic to combine, and yet differentiate between, the roles. A further difficulty which I experienced was the degree of "participation" in which I indulged. During these workshops I wished to change my role from being a fairly authoritarian lecturer to being a more democratic facilitator, where the students' voices were heard more than mine. As the cycles progressed and I reflected on my roles, I became more familiar and comfortable with both and, I believe, more successful in combining them.

During the second cycle of workshops I became more aware of an added conflict in roles. By now I was a registered masters' student, and "my students" became "my teachers". This was so not only in the manner in which they influenced my understanding and became change agents in the direction in which the workshops were developing. Quite regularly a student would show interest in the progress of my work. They appeared to understand that I was also a student and offered their verbal support, resulting in our traditional roles undergoing change.

The roles which I found the most difficult to balance with my own, were those in collaboration with the resource persons whom I requested to participate in many of the workshops. This tension will be discussed more fully in Parts 2 and 3.

- **The research is both descriptive and interpretive**

While in the classroom or hospital setting, I used various methods to collect data which could be both descriptive and interpretive. The interpretation of the data became a critical and time-consuming facet of the research process. I attempted to make sense of the workshops in terms

of a variety of interactions and teaching strategies, and to discover their implications when planning for the following workshop.

- **The research process is both systematic, and flexible**

I entered this research project with vague conceptual ideas concerning students' lacks as demonstrated in the CP component of the course, as well as of my own lacks in providing effective undergraduate physiotherapy education. These concepts arose from my own experience and observations during the preceding five years of working at UWC (cf. pp.63-70). The initial workshops were grounded in these concepts. As the research proceeded and data was obtained, other issues emerged which became included in the research.

- **The research works on a generative, not a verificative, dimension**

"Inference and speculation" were essential components throughout the action research process. It appeared to me that the longer the workshops continued, the more rapidly issues emerged which I wished to research. This led to my recording of very detailed and copious field notes, from which I made choices for detailed discussion in this thesis. It appeared to me that I spent more time in asking questions than in answering them. Some of these questions for further research, are included in Chapter 15.

- **Data collection and data analysis are interdependent**

Data collection and analysis informed each other during the action cycle. Analysis of data led to new research questions, and the subsequent collection of new categories of data.

- **Data analysis involves a process of higher level synthesis**

Jensen (1989:495) states that the amount of data collected presents a major dilemma for qualitative researchers. At first the volume of data I collected was confusing and often inappropriate. As the research progressed, this skill improved. As patterns and themes presented themselves, I felt more confident that I could interpret and reduce my data. The verbal and written feedback was especially vast. This, too, I analysed in order to seek comparable or contrasting themes for discussion and interpretation.

3.6.2 My choice of data gathering methods

The following are the data gathering methods which I used during the project.

- **Field notes**

> At first the aim will be comprehensive description, but later on criteria for selectivity will arise ...
> (Winter 1989a:21)

The field notes which I kept consisted of the written account of that which I observed, heard, experienced and thought. They included:

- planning and preparation notes of the workshops;
- a detailed diary which consisted of descriptive accounts of the workshops, as well as of my subjective observations, impressions and reflections; and

- accounts of meetings, as well as informal comments and anecdotes relating directly or indirectly to the workshops.

Apart from the planning and preparation notes, the field notes were written from memory as soon after the event as possible, usually between ten minutes and 24 hours later. Those notes written within ten minutes, were embryonic notes which were later expanded into more comprehensive fieldnotes. Writing up the comprehensive notes was thus undertaken in a more leisurely manner, with detail recollected, relevant dialogue re-constructed and reflected on. The last few workshops of the second cycle in 1994 were undertaken after I had commenced working as a full-time lecturer at a neighbouring university. The result was that the last few workshops were not documented in as much detail as were the first four, due to the pressure of adjusting to a new environment and of working significantly longer hours.

Winter (1989a:21) states that the aim of the field notes will initially be comprehensive description, but that criteria for selectivity will arise, allowing one to concentrate on various aspects of professional practice. Being an inexperienced researcher undertaking cycles of action research where each cycle informed the next, I initially intended the field notes to be comprehensive throughout the study. My reasoning was that I did not know in advance which aspects would develop into unexpected or surprising themes. It was while reflecting on the detailed notes that I became aware, during this second cycle of workshops, of the significance of ethics, student motivation and the learning climate, which had been recurring themes since the first workshop of the first cycle. These selected aspects are included in the discussions in Part 4.

- Interviews

> What people believe to be true may be more important than objective reality because people act on what they believe. (Jensen 1989:493)

Formal as well as informal interviews were conducted and are discussed in relevant chapters of the thesis. Formal interviews were conducted with the following persons:

- Resource persons who were present at various workshops were interviewed individually. Some of these persons were interviewed on a number of occasions during the course of data collection.

- On two occasions, I interviewed a patient individually.

- Five graduate physiotherapists who took part in the first cycle of workshops during their fourth year of study were interviewed. I interviewed one student by herself, and the others in pairs, at their respective places of employment.

- One year after the last workshop had taken place, I conducted a group interview with the students who were in their fourth year of study, and who had taken part in the second cycle of workshops.

An appointment was made, or time set aside, for each interview, which consisted mainly of open-ended informal discussion. Questions were therefore not standardised. The interviewees were asked to explain their perceptions or opinions, or offer any suggestions, with as little prompting from myself as possible. At times I found it difficult not to attempt to explain, defend or justify myself, or agree with, those being interviewed, in spite of realising that by imposing my own opinions I would have jeopardised the identification of "subtle nuances of an unfamiliar perspective" (Winter 1989a:21).

Informal interviews took place on the telephone, in the car, in corridors, restaurants and in various other places. They usually occurred spontaneously and were conducted with students, other colleagues and research students, as well as with my research supervisors.

- Questionnaire surveys

> Both will evaluate from their own perspective, [therefore] course evaluation which involves tutor and participants will inevitably be a process of negotiation between diverse subjectivities.
>
> (Rowland 1993:126)

During the first cycle of workshops, the students were handed a short questionnaire after each workshop. Depending on the time available, these were handed in before they left or at the next workshop. Usually each response was returned. Just prior to their graduation ceremony, I handed each student of this first group a final questionnaire, with a stamped and addressed

envelope. Seven out of the ten students returned their responses. These are discussed in Chapter 8.

Questionnaires were also used during the second cycle of workshops. However, the time factor was a constant pressure during the both cycles of workshops, with the result that the questionnaires were usually only returned to me at the following workshop. The responses which were returned varied between 10 to 18 out of a possible 24. The most common reasons given by the students for not returning their responses were that they had lost the questionnaire, had been too busy, or had simply forgotten to do so.

The questionnaires were drawn up in an "open format", with the students being requested to give their ideas concerning general issues. Examples of these questionnaires are included (see Appendix F;G). Winter (1989a:21) advises this type of format when investigating a situation so that a range of possible interpretations can be elicited.

Delitto (1989:585) advances the use of subjective measures in clinical decision making on the argument that

> Everyone would agree that information regarding subjective phenomena of illness serves as an important base for clinical decision making.

As physiotherapy lecturers we are accustomed to recognising subjective information offered by clients as an integral feature of data to be considered when making clinical decisions. It is surely as valid, therefore, to consider the subjective information offered by students and

other colleagues as an integral feature of data to be considered when making decisions concerning educational strategies. I would suggest, therefore, that the subjective perceptions of participants concerning their education process serve as an important base for decision making when implementing educational strategies.

The action research and reflective processes open up new possibilities of action, by searching for differences, contradictions, possibilities and questions. Feedback must therefore be presented as a "multiplicity of viewpoints" which are not reduced to a consensus (Winter 1989a:62). In recounting the responses to the questionnaires and interviews, I have used direct quotations to a great degree. While acknowledging that my choices of quotation were subjective, I made an effort to include as many different voices and views as possible.

- The use of an "outside observer"

> [This] can be useful if the outsider is well briefed [and] knows the sort of information which will be of use ... The outsider may be ... a colleague who is not involved in the research.
> (Elliott 1991:79-80)

This aspect of the research proved, for me, to be rather problematic. In a number of the workshops a colleague was present as a participant. My intention was that her role would be that of "outside observer", combined with that of "resource person" providing specialist knowledge or skills in response to students' requests. During the first workshops I was not sufficiently clear of this role to be able to brief the person adequately, nor was I aware of the

importance of such a briefing. During the second cycle of workshops I became more clear of the role of a resource person, as well as on the goals of the various workshops. I feel that my skills in collaborating with a resource person improved and this could have contributed to more effective learning experiences for all participants at the workshops.

- Triangulation

> The creation of a variety of types of data ... is important for small scale research.
> (Winter 1989a:22)

The methods described above created a variety of types of data which could be compared with one another. Each opinion and perception was a source of comparison with another.

By employing the above techniques of data collection, and by seeking multiple points of view, I found the comparisons and contrasts to be illuminating, and certain conclusions could be deduced.

3.7 VALIDITY AND RELIABILITY

> It is therefore teachers and pupils which validate educational research and the procedures of science.
> (Elliott 1978:22)

Critics of qualitative research methods maintain that these methods are unreliable, and therefore lead to research that lacks validity and generalizability (Jensen 1989:497).

- **Validity** requires the researcher to demonstrate that that which was observed and measured is believable and dependable. However, it can be argued that the action research procedures assist us in checking and questioning our beliefs, assumptions, opinions and ideologies, causing our practices and understandings to be more securely based and, in this way, more "valid" than before (Winter 1989a:36). He also suggests that we should ensure that these procedures are "more rigorous" rather than that the findings are valid. This shift in emphasis would avoid the "unanswerable question" of whether an interpretation is, in fact, reality, as one cannot perceive reality except by means of an interpretation.

Walker (1991:38) states that when the researcher acknowledges that action research is value-laden, the reader is able to take this into account when assessing the findings.

In an attempt to identify the origins of potential bias in the methods of data-collecting and in later interpretation of the same, I have attempted to remain transparent in reporting any decisions which I have made. Furthermore, in Chapter 1 I provided an autobiographical account of the circumstances, both personal and professional which I, subjectively, consider could have impacted on my decision-making and interpretation of data during the research process.

Triangulation prevented me from drawing premature conclusions from initial impressions or feedback, as each individual addressed various problems in unique ways. By offering multiple interpretations of various aspects of the workshops, each individual's point of view contributed to my understanding. In addition, no single point of view was taken as the final

interpretation of all of the other points of view. In focusing on the contradictory elements of a viewpoint, we can recognise those "fleeting glimpses of ideas" which we normally dismiss as being irrelevant because they do not conform to our conceptual framework (Winter 1989a:56). Ethical issues related to clinical teaching are an example of an aspect which had not been included in my original conceptual framework of clinical teaching.

In August 1995, in an attempt to verify that my observations and report on the workshops were rigorous and valid, five of the ten ex-students who had participated in the first cycle of workshops were handed a copy of a draft of my observations, my representation of their feedback, as well as my own interpretation of these. They were interviewed when they had read this draft copy. The other students were not contacted as they worked out of Cape Town.

In October 1994, I interviewed a group of those students, then in their fourth year of study, who had participated in the second cycle of workshops of 1993, when they had been in their third year of study. In spite of the fact that the lectures preceding my interview had been cancelled, 12 of the class members waited for about two hours for my arrival. At this meeting, I handed three draft copies of the second cycle of workshops to the students. Three students agreed to read and make comments, anonymously, on the draft copy, before handing the draft to another student for further comment. I distinguished six styles of handwriting on the returned drafts. Apart from minor suggestions, some of which were purely grammatical, the students who took part in both cycles of workshops agreed, in writing and in personal discussion, with my interpretation of the workshops and their feedback, documented in these draft copies.

- **Reliability** is usually understood as the extent to which a study can be replicated, and that when using the same methods, similar results will be obtained by another researcher. Qualitative research, where the emphasis is on human behaviour in a natural setting, has as a point of departure the belief that each behaviour and situation is unique. Although this allows for the production of multiple layers of reality, this unique experience is difficult to re-construct. Qualitative research must rely, therefore, on other methods to gain reliability. Jensen (1989:497) claims that the use of verbatim accounts of interviews, direct quotations in field notes and the careful description of the methods of the research are some of the methods whereby reliability and credibility can be obtained. These are the methods which I used in an attempt to support the claim to the reliability of this study.

3.8 ETHICS AND ACTION RESEARCH

> It is clear that data gathering methods ... involved the professional practitioner in new sets of relationships with colleagues and clients.
>
> (Winter 1989a:23)

It is suggested that when use is made of qualitative methods of research, ethical issues which arise become more acute. This can be ascribed to the highly personal nature of the data which is collected (Preedy and Riches 1988:220).

Certain ethical procedures, apart from those recognised concerns of confidentiality and respect, should be followed by practitioner action researchers. These procedures encompass appropriate

ways of working with other participants in the social organisation (Kemmis and McTaggart 1988:106-108). Those concerns that are of significance to this study will be summarised and referred to below.

- Consult with the relevant persons, committees and authorities and obtain the necessary permission and authority.

Before this study was undertaken, the students, resource persons and my university colleagues were consulted at formal meetings. These negotiations are recorded at the beginning of Parts 2 and 3. I explained the goals of the workshops and their experimental nature, as well as my intention to utilise the data gathered from the workshops for the purpose of a masters' research thesis.

The ward personnel at the two hospitals where the workshops took place were also consulted each time that a patient was removed from the ward. I also obtained the permission of the Medical Superintendent to report the names of the two hospitals identified in this thesis.

Consultation with the patient in each case became unexpectedly problematic. This was not so much due to the action research process, but due to the tensions, of which I became ever more aware, between my roles as teacher and clinician. A further unexpected dilemma for me was my perception of the altered role and rights of patients taking part in a "teaching" rather than a "treating" session. It was only in reflecting on the feedback from the workshops that this became a major issue to me for the first time, after eight years of clinical teaching.

- All participants must be encouraged to influence the work, and the wishes of those who do not want to be directly involved must be respected.

Throughout the cycles of workshops the opinions, perceptions and evaluations of all participants were elicited regularly. I gave the students the choice of whether or not to participate in the workshops. Furthermore, they were informed that no marks would at any time be attached to their attendance or to the performance of any of the tasks. Those students who chose to attend the workshops, were requested to do so regularly so that the group tasks and dynamics would not be disturbed. However, there were a few students who did not attend all of the workshops, or did not return the responses to questionnaires at the end of each workshop. Apart from repeating the initial request for attendance and feedback, and explaining their importance to the group, and to me, I took no further follow-up action.

- Negotiate accounts of the points of view of those concerned and retain the right to report the work.

Throughout the narrative I have attempted to protect the identity of the participants at the workshops. However, in reading the appropriate sections my draft of this thesis, the students sometimes recognised their own or anothers' voice. Both groups of students and staff gave me permission to publish the information reported in this thesis. One of the resource persons was overseas for a year during the time of writing up this record. I initially requested Ms Mpofu, one of my supervisors for this thesis, and a mutual colleague, to read the appropriate text on her behalf. However, on her return to South Africa in April 1996, this lecturer did read the text, and confirmed my interpretation of the workshops.

3.9 WRITING THE THESIS

> The point where rich data, careful analysis and lofty ideas meet the iron discipline of writing is one of the great problem areas in qualitative research.
>
> (Woods 1985a:104)

Woods (ibid.) identified three reasons why writing qualitative research reports is more problematic than writing quantitative research reports:

- the investigator is the chief research instrument, with the result that the problems appear more personal than they are in reality;

- the research process is by nature an open-ended ongoing dialogue between data collection and theory, where the search for ideas militates against early foreclosure; and

- the writing up process can be regarded as an important incentive to the creation of ideas, as well as to their communication.

A further difficulty experienced when reporting action research, is in "admitting some of the false starts, dead ends and changes in direction or scope" of the research (Edwards and Furlong 1985:21). I experienced this difficulty in reporting some of the events with colleagues and patients (cf. pp102-104).

Ebbutt (1985:157) argues that a major motivation for subjecting oneself to the "iron discipline of writing" is that for action research to be legitimately considered as research, the participants must be prepared to produce written reports of their activities. These reports should then be made available for some form of public critique. He suggests further that no matter how personally or professionally valuable the activity might have been, if the above condition is not satisfied, then the activity would not qualify as action research. Ebbutt does not, however, comment on his views of whether it is only the availability of written reports, and not video or verbal reporting, for public critique, which would fulfil the criteria for recognising action research.

Carr and Kemmis (1986:119-120) state that in order to determine whether the problems in educational research can achieve the status of a scientific enterprise, they need to be

> ... confronted in ways which are consistent with the principles and rules that govern the conduct of scientific enquiry, and in terms of which the conclusions of such enquiries can be given the status of scientific knowledge ... a rationality which allows for scientific theories and knowledge to be conclusively proved, is not possible. All that rationality permits is the acceptance of theories that can withstand criticism. In science, the purpose of reason is to be critical not justificatory.
>
> (Carr and Kemmis 1986:119-120)

This thesis is reported and made vulnerable to critical assessment in order to test whether it can achieve the status of a scientific exercise. However, the fact that this project has enhanced my understanding of the action research process and CE, and has resulted in increased

confidence in my ability to more effectively fulfil my role of physiotherapy educator, is unquestionable.

Before reporting the cycles of workshops with physiotherapy students, I will outline some of the inadequacies demonstrated by students during CP, which were observed and discussed by colleagues and myself during my first years at UWC. These difficulties are presented in the following chapter. The students were aware of many of these criticisms of their clinical performance, as they were often included in the reports which the students received on completing a clinical block or a block examination. It was in an effort to address some of the criticisms that, together with the fourth year students of 1992, I decided to initiate the first cycle of workshops of this research project.

CHAPTER 4

IDENTIFICATION OF INITIAL CONCERNS

4.1 INTRODUCTION

This chapter contains a brief description of some of the observations and perceptions of colleagues relating to the large number of students demonstrating many inadequacies during CP. I noted, and sometimes recorded, these observations and perceptions between 1989 and 1993. Formal and informal discussions were also held with internal and external examiners, clinicians and lecturers. In addition, discussions of students' performance took place following clinical examinations and teaching sessions, as well as at staff meetings and in tearooms and corridors. It appeared that similar difficulties were displayed by students studying at other universities, all of which employed similar CE strategies to those in use at UWC during the period that I undertook this action research project.

The "inadequacies" which students displayed during CP, appeared to me to be related to whether those CE strategies were sufficiently effective in equipping students for professional practice. As the majority of students appeared to me to be hard working, I questioned whether the "teaching methods" which I, and my colleagues, employed during CE were adequate to equip students to fulfil the considerable expectations of CP (cf. pp.20-21).

In the following section I have grouped into descriptive categories those observations of colleagues which appear to me to be related. The observations in each category were voiced by more than one colleague. I am now aware that my "categories" are, in fact, a list of difficulties which appear neatly delineated, whereas in practice these groupings disintegrate into a less defined and inter-related matrix.

4.2 INADEQUACIES IDENTIFIED DURING CE

4.2.1 Related to clinical reasoning:

- have no "insight"
- can't identify problems
- can't interpret what they observe
- can't problem-solve
- can't adapt/modify their treatment plan
- can't integrate theory with practice

Clinical reasoning can be defined as "the thinking and decision-making processes associated with clinical practice" (Higgs 1993b:196). Competence in clinical reasoning and decision-making enables CP to be effectively performed

> within the context of the constant changes occurring in medical science, in health care systems and in society. An integral part of this process is the ability to generate and use knowledge effectively.
>
> Higgs (1993b:195)

Clinical reasoning and problem-solving skills are therefore central to effective physiotherapy practice, and include the ability to generate knowledge and display competence in data collection. The patient should also be involved in co-operative decision-making, and this also will influence clinical reasoning. It therefore appears that skills related to clinical decision-making extend beyond the acquisition of knowledge, or the recall or reproduction of this knowledge. New and stored information are interrelated or rearranged in order to make clinical decisions.

Physiotherapy courses should emphasise the reasoning associated with the phases of diagnosis, treatment planning, implementation and evaluation (ibid.). Having completed this research project, I would now suggest that this "reasoning" includes reflecting on one stage of the therapeutic process, which then will inform the next.

The aims of a course entitled "Clinical Reasoning" conducted at the University of Sydney include encouraging students to

> become aware of how they reason in relation to clinical problems ... and develop their skills in the areas of clinical reasoning, self-evaluation of reasoning abilities and communication of reasoning ... This is particularly important in relation to the clinical education component of the program, since this is the venue in which clinical reasoning needs to occur effectively after graduation.
>
> (Higgs 1993b:196)

The key concern that emerges here, is:

> Do the CE strategies currently in use provide students with sufficient opportunity to develop skills related to problem solving?

4.2.2 Related to communication skills:

- interact poorly with patients/families
- do not educate/inform/consult the patient relating to assessment and treatment goals and procedures.

Although it can be argued that "examination stress" could contribute to the poor interacting skills of some students, even in less stressful, non-examination conditions these inadequacies were often demonstrated.

Gartland (1984:24) states that "the therapeutic relationship and the clinical interview necessitate considerable personal interaction." Levin and Riley (1984:190) conclude that because students rotate through numerous clinical placements of a relatively short duration, they must establish a rapport early with a patient, in order to be effective practitioners.

By the nature of the profession, physiotherapists are primarily orientated towards the treatment of physical disabilities. However, they simultaneously need to be concerned with the importance of establishing, and maintaining, an effective relationship with their patients (Bowerbank 1981:41).

Houston-McMillan (1988:38-41), a clinical psychologist, described her experience of physiotherapy treatment while recovering from critical injuries sustained in a motor vehicle accident. She suggested that training in communication skills and interactional awareness

should form a larger component of the psychology programme than it does. Her personal observations led her to the conclusion that, while the group of physiotherapists with whom she had been in contact had appeared "generally warm, sensitive and motivated", both physiotherapists and patients would benefit from an increase in communication skills in the physiotherapist (1988:38-41). It is appropriate, therefore, to consider the following question:

Do the CE strategies currently in use provide students with sufficient opportunities to develop skills related to effective communication?

4.2.3 Related to personal coping skills:

- have no confidence
- appear "casual"
- appear very stressed/ nervous

The above group of skills relates to personal behaviours, which can be observed in the conduct often demonstrated by students. When considering the volume and depth of knowledge, skills, values and attitudes physiotherapy students are expected to master within four years of training, it is hardly surprising that their coping skills are sometimes extended to the limit. In addition, the students are exposed to traumatic injuries and situations in which they are expected to assume a position of responsibility. It is interesting to note that very

little, if any, time is spent in the undergraduate training course in attempting to assist students to learn coping skills. As educators, we should thus ask the following question:

> Do the CE strategies currently in use provide students with sufficient opportunities to develop skills which will help them to cope with the physiotherapy course, particularly during the CP component of the course?

4.2.4 Related to practical assessment and treatment skills:

- have poor practical assessment skills
- are careless in implementing assessment and treatment techniques
- do not observe critically

Shepard and Jensen (1990:567) note that the goals and objectives of most physical therapist education programmes seem to be aimed at achieving technical excellence. They describe how teachers first describe, then demonstrate a skill. Students then practice the skill, first with and then without supervision. Finally teachers examine the students' performance. It is my experience that the regime which they describe is very similar to that which I, and many of my colleagues, experienced during our training many years ago.

Assessment and treatment skills are taught mainly in the classroom. These skills are examined either in a classroom by various forms of practical examination, or in CP. Students appear to

display more difficulty performing these skills effectively in a clinical environment than they did in the classroom. The reasons for this could include the fact that the actual performance of these practical techniques on a "normal" person feels different to that on a patient where there is some underlying pathology present which might necessitate modification of the technique. This was evident even to a first year student of 1993 who, as part of ongoing course evaluation, commented that "contact with patients helps us to gain early experience because in a physiotherapist's working environment things are never a photocopy of the theory."

Shepard and Jensen state that more and more knowledge and practical skills are being included in the undergraduate curriculum. However, attention is rarely paid to how these skills might be taught in a way that "develops the type of professional practitioner who can meet the challenges of patient care in tomorrow's health care system." (1990:567).

It seems to me that there is are two considerations relating to the practical skills taught to undergraduate physiotherapists. The first is whether it is appropriate to continually include every new practical skill which is developed into an already overloaded curriculum without omitting any existing course content. This practice of overloading the undergraduate curriculum is an often-voiced concern of lecturers in South Africa. However, there is little evidence to me that existing content is being eliminated at undergraduate level. It appears to me, and many colleagues, that the identification of an appropriate core of knowledge and skills is an urgent priority in curriculum planning.

The second question relating to practical skills concerns the lack of observational, self-reflective and clinical decision-making ability of some students, who appeared oblivious of whether they or the patient were effectively performing an assessment or treatment technique. The following question needs to be asked:

> Do the CE strategies currently in use provide students with sufficient opportunity to develop skills related to the effective performance of practical techniques?

4.2.5 Related to holistic patient care:

- don't treat the "whole" patient

All aspects of the patients' life and lifestyle, as well as the community in which they live, need to be considered when planning an effective and appropriate treatment programme. While having an academic basis, the physiotherapy profession requires practitioners who are able to apply their knowledge to a practical situation (Morris 1993:91).

"Holism" is an appreciation that all aspects of human experience are part of any illness, disease or dysfunction. It is thus important to understand the part played by these aspects, which are identified as the biological and psychological actions and the social conditions, before any treatment is planned (Hubbard 1991:417). An holistic approach to patient care is therefore central to effective patient management, and so it is necessary to investigate ways

in which this approach to physiotherapy management is reflected in our teaching in order for it to be reflected in physiotherapy practice. As educators we need to ask ourselves:

> Do the CE strategies currently in use provide students with sufficient opportunity to develop skills related to holistic patient care?

In considering the above range of some of the perceived inadequacies demonstrated by students during CP, it seemed to me even more necessary to examine the effectiveness of what I taught, and also of how I taught, especially during the CE component of the course.

During the second semester of 1993 I therefore offered to conduct a few informal workshops with the fourth year students, to assist them to revise and prepare for their final clinical examinations. My detailed field notes and some reflections of these sessions developed into the first cycles of planning, observation, action and reflection of this project. Two representative workshops of the first cycle of workshops which I undertook in co-operation with the fourth year students of 1993 will be documented in Part Two.

PART TWO

THE FIRST ACTION RESEARCH CYCLE FOURTH YEAR WORKSHOPS 1993

The first cycle of workshops undertaken in participation with the fourth year physiotherapy students in 1993, will be documented in Part 2. Winter (1989a:21) states that there is a need for selectivity both in the collection of data as well as in recording the research project. Therefore, I have recorded only two of the five workshops undertaken as I regard them as being representative of the processes and interactions which took place.

In Chapter 5, the preparations and planning which I undertook before the commencement of the first cycle of workshops, are recorded. The first workshop, together with feedback from both students and resource persons present as well as my reflections of the workshop, are recorded in Chapter 6. During a subsequent workshop a conflict, which appeared important to me, was raised. This workshop is documented in Chapter 7. The final feedback of the students, as well as my reflections and evaluation of the first cycle of workshops, are contained in Chapter 8.

CHAPTER 5

PREPARATIONS FOR THE FIRST ACTION RESEARCH CYCLE

5.1 BACKGROUND TO THE FIRST WORKSHOPS

> ... a general plan of action ... a change in strategy which aims not only at improvement at improvement, but a greater understanding about what it will be possible to achieve later.
> Kemmis and McTaggart (1988:8)

On Monday 6th September 1993 I wrote a letter to Prof van den Berg, a colleague at UWC, and who subsequently agreed to be one of my supervisors for this study. We had met the previous Saturday to discuss my frustrations as a lecturer and clinical educator. CE, and the inadequacies displayed by many students during CP (cf. pp.63-70), were included in the discussion. My thoughts were muddled, if intense. Prof van den Berg suggested that I wrote him a letter entitled "What keeps me awake at night" in an attempt to clarify my thoughts. The following is an extract:

> What keeps me awake at night? Tonight it will be that in the past few days, various staff members (including myself), have failed six out of eight of the third year students who have been doing clinical block practical exams ... If they are so lousy, why are they in third year?? ... I am angry and frustrated - and don't believe that we can continue to blame only the students ... How can a student go into 4th year with such poor analysing, (problem posing??!!) abilities? If you can't pose a problem, you can hardly solve it ... They have passed anatomy and physiotherapy theory exams

> ... how ineffectively have they been treating their patients if they don't even have the insight to identify necessary information in order to treat a "prepared" patient effectively ... We are teaching students mainly in the classroom, in various subjects, including practical, and then examining them in a clinical situation, with very little clinical practice education ... It seems that what we are teaching, is not what we are evaluating as effective patient care.

Many students in the fourth year class of 1993 were concerned about their performance, and the marks which they achieved, during the clinical examinations which took place at the end of each clinical block. They verbalised that they were feeling very insecure and demotivated, as their final examinations were to be held within a few months.

I had taught this class of students since their first year, both in the classroom and in the CP component of the course. I felt that we had built up a relationship of trust during these 3 1/2 years. The positive relationship which I experienced with them, and their expressed concerns, motivated me to suggest that I implement some experimental revision workshops with them. An added incentive to initiating these workshops was that this class consisted of only eleven students, which seemed to me to be a manageable size with which to implement new teaching strategies. An opportunity thus seemed to exist for me to explore the feasibility of implementing alternative teaching strategies, as well as to monitor the effects of some of these strategies, while assisting the students to prepare for their examinations. I hoped, thereby, to develop a greater understanding of the learning process during CE, and thus improve my teaching.

My initial aspirations for these workshops were very broad and not very focused. I had little educational theoretical background from which to inform my selection of teaching strategies for these workshops, and no-one to whom I felt I could turn for help. This was possibly partly due to the fact that I could not yet identify or formulate the help which I needed.

My "general plan of action" was to extend the form and structure of a demonstration, so that students could be exposed to a more holistic approach to patient care, while I explored a more holistic approach to CE. I also wished to investigate whether it was possible to create a learning environment where problem solving/clinical decision making skills, including observation, communication and linking skills, could be developed. The question of whether alternative strategies of CE could contribute to increased student motivation and self confidence, was an added issue which I hoped to explore. All of these goals were related to the comments from colleagues concerning students' performance during CP (cf. pp.63-70).

5.2 NEGOTIATIONS PRIOR TO UNDERTAKING THE WORKSHOPS

These discussions were held during formal meetings with colleagues and with the students.

5.2.1 Negotiations with colleagues

At a staff meeting held on Friday, 6th August, I discussed my suggestion of implementing revision classes with the fourth year students. I also outlined my own plans and goals for these "experimental" workshops.

My colleagues agreed that these workshops could take place on condition that:

- The workshops did not take place during clinical or timetabled teaching time.

- Student attendance was voluntary. Two afternoons for self-study or research had been set aside each week, at the students' request. The workshops could only be implemented during these afternoons and would, therefore, take place in the students' own time.

- The students were responsible for their own transport to the venue where the workshops would take place. As the workshops were to be voluntary, it was decided that the departmental budget could not provide further transport for the students.

Individual staff members whom I approached agreed to act as resource persons where appropriate. I anticipated that I would not be qualified to discuss, in-depth, the wide variety of topics which might be raised. Furthermore, I intended the workshops to be student-centred, with the class making democratic decisions concerning the knowledge and skills which they wished to revise. It was obvious, therefore, that I would not be able to focus only on teaching that which I felt competent to teach.

5.2.2 Negotiations with students

At a meeting with the students the following week, I outlined my suggestions concerning the format and structure of the workshops. I explained that I would like to document their

perceptions of the tasks, and monitor the interactions which occurred between all participants at the workshops. I also told them that I was considering recording and reflecting on these workshops, with a view to working towards a masters thesis on clinical education. As there would be an "experimental" element in the structure and presentation of the workshops, I requested the students to provide me with written or verbal feedback at the end of each session. I anticipated that this feedback would assist me in evaluating their perceptions of the various strategies employed, and facilitate the planning of the following workshop. Furthermore, I could utilise this feedback as data, if I decided to write up the workshops to submit as an M.Phil. thesis. No student appeared reluctant to provide me with feedback.

The students enthusiastically accepted my suggestions for these extra "clinical revision workshops". There was consensus that they should be held on alternate Tuesday afternoons. There also appeared to be a general acceptance of the conditions required by the staff. The students understood that the afternoons were voluntary on my account as well as on theirs, as I only worked part-time for UWC.

At the end of this discussion, one student stated that although she recognised my intentions for the workshops, **her** intention was to use this opportunity for revision, so that she might pass the examinations at the end of the year, - "but I am quite willing to help you with your masters at the same time"! For the first time since commencing teaching I experienced the pleasure of planning a cooperative venture, which I hoped would be mutually beneficial, with a group of students.

5.3 PLANNING THE FIRST WORKSHOPS

5.3.1 The venue

I decided that the workshops would take place at Conradie Hospital. The reasons for this decision included the following:

- The university occupied a pre-fabricated building in the grounds of this hospital. The building had a few large rooms which were used as classrooms or practical and treatment rooms. When appropriate, patients were brought to the building to take part in teaching demonstrations, as it was easier than having a number of students at a patient's bedside.

- The students were familiar with the hospital as they performed much of their clinical practice there.

- The ward staff, especially the nursing sisters, were accustomed to having students treating patients, and patients taking part in demonstration sessions, often in the UWC building.

- As this was a "teaching" hospital for nurses, physiotherapists and occupational therapists, patients were accustomed to seeing groups of students, either in the wards or the hospital gymnasium.

- During the previous six years I had grown to know many of the ward staff well, and anticipated that it would be easy to gain their co-operation in having patients either sent to the UWC building, or having these sessions in an empty sideward or other area set aside for the use of patients.

5.3.2 Initial educational strategies

The following are some of those aspects, that I identified from my fieldnotes of this time, which I planned to implement and evaluate during these introductory workshops:

- Tasks aimed at encouraging students to identify the knowledge and skills which they anticipated that they might require, relating to assessment and treatment of a given patient. I hoped that these tasks would also facilitate the integration of theory into practice, and classroom practice into clinical practice, as well as group discussion.

- Participation by other members of the health care team in an attempt to stimulate discussion on the team approach to holistic patient care.

- Implementation of appropriate physiotherapeutic management by the students, in order to enhance observational and other practical skills.

- Questionnaires or interviews at the end of each session which would relate to the perceptions of the students and colleagues on the effectiveness of these strategies.

- An informal and relaxed approach to students in order to create a learning environment where students might feel safe to discuss their views creatively, without fear of being "wrong"!

In retrospect, I am dismayed at my lack of concern for, and the authoritarian approach toward, the patient which these goals display.

Prior to the meeting with Prof van den Berg I had completed one out of the five revision workshops which I held with these fourth year students. Prof van den Berg advised me to recall and record as much detail as possible, relating to this and subsequent workshops. These fieldnotes formed the basis for reflection and planning for further workshops.

The narrative of this first workshop is contained in Chapter 6. The feedback from students and colleagues, as well as my own observations and reflections which informed the subsequent workshops, are also included.

CHAPTER 6.

THE FIRST WORKSHOP

6.1 PREPARATIONS FOR THE WORKSHOP

At the end of the meeting held with the students on 11th August 1993, one of the class members requested that the assessment and treatment of a patient who had sustained "multiple fractures" be the topic for this workshop. I suspected that this choice was in response to the recent examinations, in which a few students had performed poorly when treating patients who had sustained more that one fracture. This appeared to be a popular choice, as demonstrated by the show of hands.

The clinical educator, who was a staff member of UWC but was based at Conradie Hospital, identified a patient who said that he was willing to take part in the workshop. Following a motor vehicle accident (MVA) in which he had sustained multiple injuries, the patient had undergone many surgical operations, one of which was an upper limb amputation. He had been hospitalized for a number of months, and was thus acquainted with many of the staff and students who worked in his ward.

This patient was in the convalescent section of the hospital, which has its own dining room, sitting room and treatment room. As the dining room was large enough to accommodate the patient and the students, we decided that the interview and assessment of the patient would

take place in there. The ward sister and the patient agreed that he would be wheeled to the dining room for the workshop.

The following persons agreed to be present. They are listed together with their intended roles:

- The physiotherapy lecturer responsible for teaching orthopaedics agreed to act as a resource person and provide orthopaedic knowledge related to the condition and treatment, where necessary.

- The clinical physiotherapist treating the patient agreed to supply the current information relating to the patient's anticipated medical treatment and final rehabilitation.

- The CP educator on the UWC staff, who was responsible for a large part of CE at Conradie Hospital, agreed to participate in the discussion, where necessary. She also consented to provide feedback on her observations of student participation and the effectiveness of the session.

- An occupational therapist who knew this patient agreed to discuss the occupation therapy management of this patient, relating especially to his upper limb amputation.

- Myself, as facilitator/ observer.

On the Friday prior to the workshop, each student was handed a brief medical history of the patient, together with tasks to complete before attending the workshop (see Appendix E). These tasks included predicting the knowledge and skills which would be required in order to assess and treat this patient. In an effort to stimulate creative thinking and an holistic approach to patient care, the students were asked to consider the social circumstances of the patient and various aspects of the treatment management. The students had the weekend during which to practise any appropriate therapeutic techniques which they did not feel competent to perform.

The orthopaedic lecturer and I set a short test to be completed by the students at the beginning of the workshop. The questions related to the knowledge which the students should have predicted that they might require in order to conduct an initial assessment and treatment plan.

I planned to request verbal feedback to specific questions from the students and staff at the conclusion of the workshop. I decided to ask for feedback in this manner, as I felt the general mood and experience of the students could be evaluated by observing their non-verbal communication. Being a small group of students, I anticipated that it would be relatively easy to observe the attitudes of individuals during the discussion. I assumed that the students would be at ease in providing their comments, as they knew each other, and the lecturers present, very well.

6.2 THE WORKSHOP

At 2:00pm on Tuesday 17th August, the full class of eleven students met in the UWC building at Conradie Hospital. They seemed very talkative and appeared to be looking forward to the workshop. I suddenly felt very concerned that their expectations for these workshops would be unrealistically high, and that my enthusiasm had misled them. I was grateful for the presence of, and support from, the other staff members, but at the same time I felt intimidated by their presence.

We met in the large classroom where the chairs were arranged in a horseshoe. We were fairly spread out, but had eye-contact with each other. An X-ray viewing box was in the front of the room and the staff, including myself, stood in the front near this box. I felt a little uncomfortable as this arrangement seemed to me to suggest an "us" and "them" relationship.

6.2.1 Introductory section

I introduced the staff members who were not known to the class, by name and "role". After the students had each completed the short written test, a brief and lively discussion by the students followed. The variety of ideas and insightfulness of their comments during this discussion, suggested that they had prepared well for the workshop. The X-rays of the patient were then displayed on the viewing box. I led an informal discussion on the implications of the X-ray findings. The orthopaedic lecturer acted as resource person where necessary.

The students were then given a few minutes to discuss an outline for an appropriate interview and physical assessment, with the person sitting next to them. At the students' suggestion, lots were then drawn in order to decide which student would conduct the assessment. The lot fell to A.J. (not his real initials), a young man who had not worked in the orthopaedic wards recently. I assured him that the workshop was informal, and that he could ask for help at any stage. After hesitating, he seemed willing to take on the task.

The students were requested to take a pen and paper with them to the diningroom, in order to record their comments on the appropriateness and effectiveness of the techniques and skills demonstrated throughout the assessment.

There were too few chairs in the diningroom, with the result that some students sat on tables in a semi-circle around the patient's bed.

After I had introduced the students and the patient to each other, the occupational therapist requested that she first outline her role in the rehabilitation of this patient, as she had to leave within a short while to attend a meeting.

6.2.2 Assessment of the patient

Following a brief discussion of the role of the occupational therapist, A.J. interviewed the patient about his injury, treatment, previous medical history, as well as his social and occupational circumstances.

A.J. then performed a physical assessment of the patient. This included the observation and evaluation of the patient's physical and functional abilities and limitations. The student occasionally asked for assistance when he was unsure of how to continue with the assessment. At times another student would interrupt A.J. with a comment or suggestion. The orthopaedic lecturer also provided assistance when requested by a student to do so.

The patient appeared relaxed and talked freely. He laughed at times when A.J. appeared unsure of himself. He co-operated throughout, and seemed to enjoy the break from his routine. At the end of the assessment the clinical educator arranged for the patient to be returned to his ward while we returned to the classroom in the UWC building for a plenary session.

6.2.3 Discussion following the assessment

A.J. sat forward in his chair and appeared animated and confident. A student immediately asked him how he had felt about performing the assessment. He smiled broadly while speaking, joking a little at how nervous he had initially felt. One could sense a feeling of relief and surprise when he acknowledged that the experience had proved to be less difficult than he had expected that it would be "due to the support from the class."

It seemed fitting first to reassure A.J., and ask the students to give him feedback on their opinion of his performance of the assessment. They provided mainly positive comments. When I asked them why they only commented favourably, one student said that she thought that he had "done well considering that he went first". The other students seemed to agree.

The students then spent a few minutes referring to the notes which they had made in order to identify the main current problems of the patient. They also were asked to identify those problems which they anticipated might develop in the future.

A lively discussion followed on short and long term management goals. The students debated with each other, with little prompting from the staff present. They also discussed aspects of management by other members of the health team. Physiotherapy management, relating to short and long term goals, and to the physiotherapy treatment techniques necessary to achieve these goals, also emerged from the discussion.

The orthopaedic lecturer and clinical physiotherapist treating the patient, as well as the UWC clinical educator, provided added knowledge either on the medical condition or treatment when asked to so, by either the students or myself.

It was then approaching 4:00pm, and as some students needed to catch a train, the discussion had to end fairly abruptly. Since the train line is not a very safe one, the students did not want to leave too late, especially as it was a dark winter's day. The students appeared relaxed and talkative, and quite willing to provide me with feedback before they left. The main points of their feedback are recorded below.

One "contact" student from each group was then nominated to distribute information to the rest of the group, when necessary. It was agreed that I would telephone these students to pass on relevant information or arrangements concerning the following workshop. It had been

difficult for me to hand students written information as they worked in geographically spread-out placements.

6.3 FEEDBACK AND REFLECTIONS

The time for feedback from staff and students was limited due to the length of the workshop. The following are details of discussions and subjective observations and which I recorded, in writing, immediately after the workshop.

6.3.1 Immediate verbal feedback - students

Some of this feedback was in response to questions which I asked, and some comments were made spontaneously. However, there were students who expressed themselves more forcefully than others and could have influenced the group.

A.J's feedback

This student stated that although he felt intimidated at first, he thought that he had learnt a lot from doing the assessment, as well as from the assistance and feedback from the class. He said that "it is not so difficult to work things out", and that he would be prepared to demonstrate each week.

General feedback from the students

I explained to the students that it was important to comment both negatively and positively as this would assist me in planning the next workshop. I then asked first for their general opinion of the workshop. Their comments included the following ideas:

- "In future I think it will be easier to plan an assessment." This student thought that the written tasks had helped to structure her preparation for the assessment and discussion, and that "it made sense" to first consider issues in general and then to deal with them more specifically.

- The discussion which followed the assessment helped to relate the priorities for an objective and functional assessment to the patients immediate needs.

- "After today" it would be easier to plan an assessment of patients in other clinical areas.

- "It was interesting to listen to the occupational therapist." Several students commented that they now realised that their role as a physiotherapist integrated, and even overlapped, with that of an occupational therapist. It was therefore "important to communicate with other members of the team so that treatment is effective and time isn't wasted".

Other aspects of the workshop were included in the feedback discussion. These included the following:

- The structure of the workshop appeared to be "good" and "the content was very helpful".

- The size of the group was "no problem". However, one student expressed a preference for a smaller group, as she felt that it would have been easier to "criticise and be criticised" if there had been fewer students. However, many students responded by shaking their heads and laughing. I understood them to be indicating that they did not consider this to be a problem.

- Nine of the eleven students indicated that they had found it useful to have the outline of the patient's history given to them before the workshop. The opinion of these students appeared to be that they had "learnt a lot" when reading up about the patient's condition and in considering alternatives of treatment.

- Those students who had prepared for the class felt that they had been able to participate more actively than they usually did when observing or discussing a patient assessment.

- One student voiced the wish that these sessions had been held since second year. There seemed to be enthusiastic general agreement to her statement.

- It was suggested by a student that the time from 2:00pm-4:00pm was too short, even though we had no tea break! After a brief discussion, the students decided unanimously, by a show of hands, to begin the next workshop at 1:30pm.

6.3.2 Immediate verbal feedback - staff

After the workshop, I had a brief discussion with the orthopaedic lecturer, the clinical educator and the clinical physiotherapist. The occupational therapist was not present as she had not returned from her meeting. The discussion was brief because we were tired, as the afternoon had been long and intensive.

The immediate impressions of the staff included the following:

- It had been "enriching" to have other staff present, in terms of increasing student awareness of a variety of opinions, both within our own profession, and between other members of the health care team.

- Having a number of staff present was also good for the professional growth of lecturers and clinicians. Interaction between clinical and teaching staff was facilitated, and "we have more idea of what we expect from each other", as well as of our varying expectations of the students.

- Student participation and "involvement during the whole session had been very good".

- The workshops were "definitely worth continuing" and "developing".

- It would be more efficient, both in terms of patient care and time management, to discuss the approach to the assessment with the whole group before meeting with the patient.

- The test beforehand was unnecessary and very time consuming. Furthermore, the skills/ knowledge discussion which should take place before the assessment, would make this test obsolete.

6.3.3 My reflections

On the evening of the workshop I reflected on the session and the feedback. The following is an extract from my notes:

> Most of the students and staff commented favourably. The students seemed grateful to have extra help in CE. They appear to hope that this will contribute to their being successful in the final exams. They might have worried that if they commented negatively I might decide that it was not worthwhile continuing with the workshops.
>
> The staff might have excluded negative comments for fear of hurting my feelings - they know that I am enthusiastic to try these workshops. Also, there was not much time for feedback. It is my experience that people often feel that they need to justify negative feedback more than positive. This would take longer.
>
> (Personal notes, 17th August 1993)

Some positive aspects of the workshop

Many students commented that the tasks had stimulated them to read more broadly. This could in part have been due to the general nature of the tasks, allowing the students the choice of exploring information and ideas. Moreover, as the tasks were related to the care of a "real" rather than "paper" (or imaginary) patient, the information required could have appeared to have more authenticity and purpose.

It appeared, therefore, that setting tasks had provided the students with an outline to prepare for the workshop, and contributed to many of them demonstrating the ability to:

- answer written questions predicting the knowledge and skills which they would need in order to assess and treat this patient,

- use this knowledge in discussion and debate, in order to plan assessment and treatment goals,

- suggest a variety of appropriate techniques in order to perform an effective assessment of the patient, and

- discuss an approach to patient care that was holistic, concentrating not only on their role in the hospital but also considering his final rehabilitation.

The comments of the staff seemed to confirm my opinion. The creativity, debate and motivation for particular suggestions of physiotherapy management appeared to be more significant than is usual in class discussions.

It appeared, therefore, that tasks handed to the students prior to the workshop did motivate many of them to identify, and acquaint themselves with, relevant theory and practical skills. This, in turn, could have contributed to their participating more freely in discussions.

The short test before the assessment seemed to me to focus the students' thoughts and validate their knowledge. Following the test, students seemed more willing than usual to make suggestions concerning the possible assessment for this patient, and to offer assistance to the student performing the assessment.

My colleagues and I observed the students writing their comments during the demonstration. They appeared to be more actively engaged in the proceedings than they often appear to be. During demonstrations students are frequently seen to be yawning, doodling, staring into the distance or even communicating in whispers or in writing, with the student next to them. This attentiveness of the students during the demonstration could have encouraged the lively discussion which took place. The staff present also referred to this involvement which the students reflected.

Some negative aspects of the workshop

A disadvantage of testing the students at the beginning of the workshop, was that feedback to the answers was very time consuming. A discussion, as suggested by a colleague, might have been more effective, and less time consuming.

Students tended to ask whether information or suggestions were correct, rather than to discuss amongst themselves, thus relying on the staff to provide the "right" information. However, it was interesting to note that when providing feedback to A.J., the "rightness" or "wrongness" of his performance did not seem to appear to the students to be a major issue. Many students provided him with positive suggestions as to how he could have been more "effective" rather than "right". This appears to me to be encouraging on the one hand, but on the other a possible cause for concern. Is it only in relating to staff that students seek that which is "right" - is this the result of our autocratic teaching?

Staff members, including myself, sometimes interrupted the discussion with personal opinions before the students had completed formulating their ideas or thoughts. I had not been consciously aware, until now, of how tempting it is to "guide" students, thus denying them the opportunity to explore thoughts and concepts for themselves. This could re-inforce the student dependency on teachers and clinicians, as mentioned above.

I felt somewhat frustrated by the lack of time, as I had planned that the patient would be treated following the assessment. I also felt guilty that the patient had not been treated and

therefore had not received any physical benefit from the session. On reflection, I do not remember feeling this concern before. This is possibly because it is easier to plan a treatment when conducting a demonstration myself. In such a situation my responsibility to the patient is covered, but maybe not my responsibility to the students.

6.4 SUBSEQUENT WORKSHOPS IN THIS CYCLE

The following four workshops continued in a similar manner to the one discussed. The cycle of planning, student preparation, workshop action, feedback, reflection and re-planning was continued, with minor adjustments in response to feedback.

My agreement with the students was that I would endeavour to help them to prepare for their forthcoming final clinical examinations. I considered this to be my main obligation. However, I continued to document the workshops in order to decide whether there was sufficient reason to continue with this action research project, in a more structured manner, the following year.

I regularly circulated patient information to the students. Students were asked to follow the general preparation plan which I had included in the first set of tasks, as they had found this format to be useful.

The succeeding workshops always started at 1:30pm, as the students continued to be sufficiently motivated to reduce their lunch break. They no longer performed a written "test",

but a discussion was always held before the demonstration. A time limit was usually set for the completion of tasks or discussions, in an effort to practice more efficient time management. However, this often proved to be ineffective, especially during the discussion periods, which nearly always continued for much longer than intended.

A member of staff was always present, with my choice of colleagues being dependent on the pathology which the students had selected as the topic of the workshop. The physiotherapy or occupational therapy clinician who treated the patient was often present.

As the students became very enthusiastic to take part in the demonstrations, I requested subsequent patients to allow a few students to participate in the demonstration. No patient, either in words or in body language, ever appeared to resent this request. Most patients commented that they were accustomed to a variety of medical staff members and students examining or treating them.

I felt very positive about many aspects of the sessions. This was directly related to the feedback which I had received from both staff and students. In the following chapter I have documented another workshop in this cycle. A conflict arose for the first time relating to the differing perceptions and expectations of students and staff concerning physiotherapy education. This conflict further motivated me to continue with these workshops, as I felt that they had the potential to assist in bridging the gap between classroom teaching and CE.

CHAPTER 7

A SUBSEQUENT WORKSHOP

The impression that course content, and practical skills, were often taught in a manner which confused students and did not result in effective professional practice, had concerned me for some time. The tension between student and staff perceptions of what was taught, caused significant conflict following this workshop. I will only describe those aspects of the workshop which are relevant to the conflict which arose.

7.1 PREPARATION FOR THE WORKSHOP

The patient who agreed to take part in the workshop had sustained a spinal cord injury of his neck, at the level of C7, during a motor car accident. The injury resulted in his being paralysed from his neck down with only a few muscles in his arms being functional. He had been attending daily physiotherapy sessions in the gymnasium of the hospital.

The following colleagues agreed to be present:

- The CP educator attached to the Spinal Unit requested that she facilitate this workshop as she was responsible for CE in the Spinal Unit. Furthermore, she was very interested in issues relating to clinical education, and more knowledgable than myself of the management of patients with spinal cord injuries. I looked forward to observing how she chose to facilitate this session.

- The chief physiotherapist at Conradie Hospital, who had a particular interest in CE. She expressed an interest in attending a workshop, and I therefore invited her to be present as an observer.

- The clinical physiotherapist and occupational therapist who treated the patient attended as resource persons.

- The CP educator on the UWC staff again agreed to provide me with feedback on the session, and of her observations of student participation.

- Myself, as non-participant observer.

7.2 THE WORKSHOP

This workshop was held on Tuesday 14th September, at 1:30pm. The students had requested that "spinal cord injury" be the topic of this workshop. We met in the same large classroom as previously, but I had arranged the chairs in a smaller semicircle. The students were amused that I had placed a small chocolate bar on each of their tables, as they were having a short lunch-break. They appeared enthusiastic, and eager to begin with the session.

7.2.1 Introductory section

I introduced the staff members who were not known to the students, and explained that the CP educator from the Spinal Unit would facilitate this workshop. No student objected to this arrangement.

The CP educator from the Spinal Unit led a brief discussion during which an outline for a patient assessment was agreed upon by the students. Just before we were to go to the treatment room, the clinical physiotherapist stated that the patient was to return home for a few days. His wife had just arrived to learn how to care for him and had requested that she also attend the workshop, as this was to be the first time that he was to go home following his injury.

There was no time to replan the whole assessment. I felt irritated that this information had not been made available earlier. However, I thought that it would be interesting to observe to what extent the students would modify the assessment, as the concerns of the patient and his wife now became an important focus. I suggested that the students spend a few minutes to reflect on this "new" information, and its implication for the assessment of this patient. The functional ability of the patient, his social history and home environment were then identified as being important to assess during that session. I forgot to remind the students to take notepads with them to the treatment room. My irritation grew when I noticed that only two of the students had done so!

7.2.2 Assessment and treatment of the patient

During the demonstration of the assessment the students concentrated on measuring individual muscle power and joint range of movement, in spite of having decided that it was more important to focus on this man's functional ability as he was to be returning home for the first time since his injury.

After the assessment demonstration the students returned to the classroom, where they discussed the appropriate treatment. The clinical educator from the Spinal Unit led the discussion, answering questions and prompting the students into recognising that they would need to address the concerns of the patient and his wife relating to his physical care at home rather than performing strengthening exercises. Furthermore, his wife would need to be shown, amongst others, how to assist him to dress, transfer from his bed to a chair, and how to prevent him from developing pressure sores.

The student who volunteered to demonstrate this treatment appeared to find it difficult to communicate much of the advice and physical handling skill to the patient's wife in such a a way that she could understand. The rest of the students made suggestions, many of which were inappropriate, throughout the treatment session. Neither the patient nor his wife seemed to mind the interruptions.

7.2.3 Discussion following the treatment

The CP educator led a discussion on the role of other health professionals, as well as of the patient and family, in managing this patient's rehabilitation. The demonstration of the assessment and treatment was then discussed, and the staff offered many suggestions, especially relating to the assessment of the patient. They maintained that the students did not focus on the patients' functional ability, and the concerns of him and his wife pertaining to his mobility and care at home. The staff maintained that had the students done so, it would have facilitated the formulation of appropriate treatment goals.

7.3 FEEDBACK AND REFLECTIONS

I observed that many students appeared to become less relaxed and talkative as this workshop progressed, and looked annoyed during the assessment and treatment demonstrations. I sensed that they were confused, and felt that some students might express themselves more freely in writing their opinion of the workshop. Therefore, in spite of having planned verbal feedback, I requested anonymous written feedback.

However, before the students started writing their comments, a very vocal and highly academic student said that she would rather give verbal feedback as, "I don't feel like writing". This student was regarded as a leader in the class, and often appeared to voice the concerns of the other students. Her body language and facial expressions made it obvious that she was not happy with this workshop, and needed to air her views. I suggested that the

students who were prepared to do so, should first write their comments to avoid being influenced by the discussion which would follow. The heated discussion initiated by this student, is outlined below.

7.3.1 Discussion of conflicting perceptions

> I am confused! I see no connection between what we were doing today, and the way that we are being taught to assess and treat spinal patients!

I was taken aback at the intensity with which most of the group appeared to agree with this student. Judging by the reactions of the rest of the staff present, they too, were very surprised at the outburst.

A heated debate between the students and staff followed this protest. The perceptions of students concerning the relevance of some of the theory and practical skills taught in the classroom - and during CE sessions - and their application to many instances of the actual needs of a patient in a "real" situation, were now being verbalised for the first time.

One student complained that too much time and emphasis was placed on the technical skills of testing the muscle power of each muscle, and the range of movement of each joint, when assessing a patient with a spinal cord injury. It appeared to the students that mastery of the performance and documentation of these practical skills were the only assessment goals to be achieved during this block, and that the importance of functional assessment was not stressed. This student argued that for the purposes of this demonstration, and in most clinical

examinations, functional abilities and other "holistic criteria of assessment and treatment", were regarded as most important. A conflict thus arose, as the student perceived a dichotomy between the practical skills which were taught, and the holistic approach and problem solving skills which are needed in a real life situation, and on which the students were being examined. By their nods and interjections, it appeared that many of the students agreed with this opinion.

A staff member responded that the effective performance of practical and recording skills was important, as these related directly to the assessment of the progress of the patients' physical and functional ability. While the students agreed, they were adamant that the relevance of the practical techniques was never put in the context of the total assessment of the patient. They maintained that an inappropriate amount of time was spent on teaching and perfecting these detailed assessments, resulting in no time being spent on functional assessment and treatment.

The students' irritation and confusion was extended to the relevance of the content and focus of much of the course and CE, and not only to the subject of spinal cord injury.

Unfortunately the discussion was again cut short due to time constraints. A conclusion was not reached, and constructive suggestions were not offered by either the staff or the students. The former appeared defensive and irritated, and the latter were aggressive and irritated. As the staff were in a hurry to leave and, I suspect, disinclined to continue with the discussion, I arranged a meeting with the chief physiotherapist on 16th September.

7.3.2 Meeting on 16th September

This meeting was fairly brief as the chief physiotherapist, who was very concerned at the tensions that had surfaced, was required to attend another meeting. The most important discussion centred around the feelings of the clinical educator in the Spinal Unit, who had been "shattered" at the students' perceptions. That which she had thought she had taught, and the students' perceptions of what she had taught, were very different. This clinical educator, a well-respected and highly competent physiotherapist who had enjoyed teaching, was very despondent and frustrated by the students' criticisms. However, the criticisms and perceptions of the students also concerned the chief physiotherapist. She said that "students don't see the whole picture, break it into parts, and then build it up again." I stated that it appeared to me that it was the role of educators to aid the "construction process, as we are in possession of the whole plan".

I explained that the reason that I had undertaken these sessions and asked for feedback from students, was that I sometimes also felt "shattered" when students did not respond to my teaching. I then felt inadequate and responsible for their lack, and had come to the conclusion that their lacks in performance during CP probably mirrored my lacks in teaching.

7.3.3 My reflections

My initial intention for having these workshops was to assist the students to prepare for their final examinations, while exploring alternate strategies for CE. Furthermore, I had hoped that

these workshops would help me develop a deeper understanding of the rationality and effectiveness of various teaching strategies, and that the process of planning, action, reflection and re-planning would lead to an improvement in my teaching practice.

I now realised that the learning process and classroom interactions were much more complex than I had originally thought. I recognised that it was impossible to formulate, and understand, new strategies during a few workshops. Moreover, there were student perceptions, staff perceptions as well as my own perceptions of the roles and expectations of physiotherapy education to consider. There would be damaged ego's to be acknowledged, and the needs of the students would need to be balanced with those of the patient.

Nevertheless, the feedback from the students and staff was generally very positive. This, and the fact that I was now stimulated by the unexpected complexity of the teaching process, encouraged me to initiate similar workshops the following year, in 1994, to continue my own learning process. However, it appears to me to be appropriate first to reflect on this cycle of workshops, which directly informed the planning and rationale of the following cycle. Chapter 8, therefore, contains a discussion of my reflections on the feedback obtained from the fourth year students and staff who had attended the workshops. This feedback includes both that which I solicited following each workshop, as well as the responses to a questionnaire which I handed to students just before they attended their graduation ceremony.

CHAPTER 8

THE FIRST ACTION RESEARCH CYCLE - FEEDBACK AND REFLECTIONS

8.1 INTRODUCTION

> What significance can we give to what people say about their own learning? How can tutor's practice be informed by what students say? ... how are we to interpret their accounts about their learning experience?
>
> Rowland (1993:127)

Evaluation and assessment are among the methods that lecturers employ in order to learn from their practice. The documentation of this learning is, conceivably, the most complex field of educational writing. One reason for this is that, in categorizing and theorizing within such a complex field, discussions can easily become remote from the events which they seek to illuminate (Rowland 1993:141).

8.2 FEEDBACK AND RESPONSES TO THE QUESTIONNAIRE

The lack of time for in-depth discussion is nearly always a problem at the end of a workshop. The majority of comments made, therefore, referred to easily identifiable factors, such as the size of the group, the value of a task or the structure of the session. As a result, certain issues were never directly raised. I thus decided to draw up a questionnaire of five questions for the

students to complete at their leisure, following their final examinations (see Appendix F). I hoped that by asking only a few questions, the students would take time to respond fully. The questions were open-ended, so that the students could comment on aspects of the workshops which they considered to be important.

Three of the questions attempted to evaluate the students' opinion of the effectiveness of the workshops in addressing some of those lacks already documented. The first two questions of the questionnaire related to clinical decision making, while the third related to communication and personal coping skills. As the students' expectations of the sessions had been that they would assist them to prepare for their final examinations, this expectation was addressed in the fourth question. The final question invited them to make further comments on the workshops.

It was noticeable that students generally responded in more depth and detail to this questionnaire than they usually did during the brief feedback at the end of each workshop. A reason could be that they were not as pressed for time as they had been following the workshops. They might also have found it easier to respond to directed questions, as most of the feedback at the end of the workshops had been of a general nature.

8.2.1 Bias in feedback and responses to the questionnaire

Rowland (1993:128) suggests that there might be a tendency for students to indicate positive rather than negative opinions, particularly when the course tutor conducts an evaluation. The

feedback from both the staff and students was generally very positive (cf. pp.87-91). I have suggested possible reasons for this being the case (cf. p.91).

However, there were various factors which might have had a significant effect on the very positive responses received from the final questionnaire which was returned by seven of the ten students. These include the following:

- All of the students in this year passed the final examination. This was the first time that the whole class had been successful, with the result that they could have felt enthusiastic and positive about their training. Furthermore, I handed the questionnaire to the students just before the graduation ceremony, and requested that their responses be returned to me within a week. The affirmative emotions associated with graduation could also have contributed to their positive perceptions of the workshop.

- Although the students had been invited to answer the questionnaire anonymously, I had addressed each student by name at the beginning of the letter. By mistake I had included the first question on this page, with space left in which they could respond. Replies were therefore not anonymous after all.

However, the fact that the students had graduated, and that I no longer had any influence over their learning - or "marks" - should have reduced both the significance of the lack of anonymity, as well as their need to make positive comments.

8.3 DISCUSSION

The discussion which follows does not attempt to justify, or validate, the feedback obtained from students, staff or myself after each workshop. Each comment was offered as an individual's perception of the reality of the interactions and value of the workshops. However, in reflecting on the comments, and with reference to the research of others, I have offered possible explanations for some of the responses and observations being made.

In order to remain pertinent to the goals of the workshops, the following discussion will be limited to those categories of lacks (cf. pp.63-70) listed below:

- Related to clinical decision making
- Related to communication skills
- Related to personal coping skills
- Related to practical assessment and treatment skills
- Related to holistic patient care

In the discussion I will consider feedback following the workshops from the staff and students, as well as the responses to the questions included in the final questionnaire (see Appendix F). I will also quote these questions in the text where appropriate, in order to facilitate the reading of the discussion. I have also included a section on other relevant feedback, which I took into account when planning future workshops. Issues which influenced my planning of the next cycle of workshops, are identified with an asterisk.

8.3.1 Related to clinical decision making

> Integrating thought with action effectively has plagued philosophers, frustrated social scientists, and eluded professional practitioners for years. It is one of the most prevalent and least understood problems of our age.
>
> Argyris and Schon (1977:3)

The act of problem solving, or clinical decision making, was never directly referred to following any workshop. However, colleagues often commented on the variety of suggestions offered and motivated by students during the discussions, and on their ability to "work things out". I therefore included this aspect in the questionnaire as it was one of the inadequacies regularly referred to by colleagues (cf. pp.63-64).

There is an interdependence between knowledge and practice, and the integration of theory and practice is necessary to solve problems (Huddle, Bradley and Gerrans 1992:11-12). Considering their responses to the following two questions, the students appear to agree with this opinion.

Question 1

Do you consider that the practical sessions promoted the integration of theoretical knowledge and practical skills?

YES/NO
HOW?

Question 2.

Do you consider that the practical sessions encouraged clinical problem solving? YES/NO
WHY?

The responses to these first questions interested me, as the majority of students commented at length, and with a profoundness which I had not anticipated.

Those students who returned their responses agreed unanimously on two issues. One was that the workshops had encouraged the development of clinical problem solving, and the other was that, in their opinion, the related activity of integrating theory and practice had been promoted.

Although I was initially concerned that fourth year students might regard the preparation tasks as being a very elementary framework, they maintained that they had facilitated the integration of theory with practice. However, following the second workshop one student commented that the framework was too general, and that "We need specific guide-lines in what specifically to assess and treat, given to us." Other comments included:

- "[The tasks] encouraged me to read up ... build up a theoretical understanding ... this was not isolated as it would easily be in a lecture setting, but here you are forced to analyse it in terms of practical knowledge and skills, ie assessment, main problems and finally treatment, and more importantly in terms of the 'real' patient."

- "In order to integrate theory and practice, one first has to identify the areas in each where there is common ground or similarities. This is not possible when one does each section in isolation in class."

- "The revision you did beforehand helped you to connect the theory with the practical treatment ... knew beforehand what kind of patient was going to be used ... were able to read up on the theory ... then in the session apply the theory."

Magistro (1989:525) suggests that the base of theoretical knowledge and practical experiences, intellectually influence clinical decisions. Comments from students also refer to the value of practical experience when developing problem-solving skills:

- "When one discusses the theory ... and then experiences the practical way of dealing with it, you immediately make the connection, and this will always stay with you. One clearly sees how the theory really is the basis and backup of the practical problem solving thereof."

- "Clinical problem solving cannot be taught in any lecture. It is what one learns from experience, therefore it is important for lecturers to facilitate the growth of this skill during one's training. These practical sessions is (sic) one way of doing so, as you are allowed to assess and present the main problems of the patients to lecturers, peers and other clinicians who can provide input or guide you in solving the problems of the patients ... you then have various ways of tackling problems."

- "Through the process of these sessions, one can develop your own unique way of solving problems which is in fact what physiotherapy is all about!"

- "To effectively problem solve, one has to have the experience to identify, analyse and handle problems. The practical sessions were the ideal opportunity to practice this."

- "theoretically prepared ... knew the theory behind what you were doing ..."

As long ago as 1980, Barrows and Tamblyn (in Morris 1993:92) argued that problem-solving skills are more important than memory in clinical practice. Henry (1985a:1071-1072) suggests that the inability to recognise the scope of a problem as well as to problem solve, may result in ineffective practice, as it is impossible to plan or implement a successful patient evaluation and treatment without this skill.

The need to apply formal decision making theories in clinical practice was stressed by Norton and Strube (1989:594). The recognition of this need is not unique to the field of physiotherapy. Whittaker (1990:49-50) analysed the diagnostic "mistakes" of final-year

medical students from the University of Cape Town during their primary care internship. She suggested that the answer to the question of how students solve clinical problems lies at the heart of clinical teaching.

Stuhler, Hummel and Kunel (1987:47) claim that the intellectual solving of problems requires training in logical thinking. They suggested that conventional methods have proved inadequate to teach logical thinking. This opinion was echoed by one of the students in the final feedback: "Clinical problem solving cannot be taught in any lecture".

It appears to me, therefore, that the activities included in the workshops encouraged the students to interrelate information, and to re-arrange and apply knowledge in a critical manner. I would suggest that in this manner the workshops were more effective than demonstrations, the most common CE practice, in fostering problem solving skills. This opinion is reflected by the following comments relating to critical reflection, made by two of the students after the fourth workshop:

- "allowed us to assess the way we were taught, then given feedback regarding modifications for specific patients. Were taught that it is not always possible to follow textbook descriptions."
- "During the treatment you could see that the theoretical approach sometimes worked, but sometimes did not, you then had to improvise."

However, these activities and tasks require more time to complete than the average 30-45 minutes allocated to each CE session. This aspect of the workshops frustrated me, and also the students, as was reflected by feedback following workshops:

- "Need a stricter time limit ... discussions should be more structured."
- "Discussions should be more goal oriented ... this might save time."
- "We are too rushed at the end."

There is usually little discussion of the clinical decisions which students have made prior to performing a demonstration to a staff member, during an individual CE session. If it becomes obvious that the student has little knowledge or understanding of the patient's condition or treatment, the staff member commonly selects one of the following alternatives:

- Students are referred back to their books. The following CE session is usually a week later. The result is that this discussion is rarely continued, due either to lack of time, or to the development of another problem arising at the next CE session. Decisions are therefore often not clarified.

- The staff member, due to time constraints and the need for patient treatment to be effective, will often "take over" the treatment or part thereof. Students will then often copy the "specialist", rather than discussing, motivating or modifying their clinical decision.

When a practical group demonstration is planned, the students are usually informed about the subject of the demonstration. However, as no information concerning the patient is circulated prior to the demonstration, many students can be observed watching passively, rather than actively participating in the discussion or decision making.

However, Neville and Crossley (1993:459) claim that

> it is recognised that physiotherapists need to be able to assess, analyse, problem-solve and evaluate, and this is reflected in a more inquiring and student-centred teaching approach.

An example of such a teaching approach is that of problem-based learning, pioneered by the McMaster University medical school in Canada in the late 1960's (Neufeld and Barrows 1974:1040; Morris 1993:92). Component features of the "McMaster Philosophy" included self-directed learning, problem-based learning and small group tutorial learning, in which emphasis was placed on specific capabilities and characteristics, rather than on a store of knowledge.

Whittaker (1990:51) maintains that in order to train students in problem-solving, tutors should reassure students, and reduce clinical problems to elements which they are able to resolve. I therefore continued to set some tasks before and during the workshop, with the intention of reducing clinical problems to smaller elements. I hoped thereby to encourage students to develop both a model for problem solving, as well as confidence in their ability to do so in making clinical decisions. The tasks included the following:

- **Reading tasks**, set in the context of an authentic clinical experience, seemed to encourage students in the initial activities of problem-solving relating to the access of "new" as well as existing knowledge.

Feedback from staff emphasised the amount of knowledge which students displayed during discussions, and the enthusiasm with which they took part in discussion and debate. This would suggest that the students displayed the ability to identify the knowledge which they would need to make clinical decisions. In doing this they had in fact demonstrated the capability to problem-solve, when the "problem" was reduced to a resolvable element, as suggested by Whittaker (1990:51) They had identified a problem (the relevant knowledge needed for a particular workshop, based on the need to extend their existing knowledge) and then solved the problem in practice, by accessing this knowledge.

- **Written tasks** performed during the workshops appeared to encourage other activities of problem-solving, including the interpretation and re-arrangement of information in order to plan an effective assessment or treatment. One response to the final questionnaire was that:

- "We solved case studies theoretically on paper ... [then] practically assessed the patient and then saw how 'hands on' assessment and treatment can differ from theoretical assessment and treatment."

This recognition that "hands on" and "theoretical" approaches often differ was, in itself, in my opinion, a significant reason to continue with the workshops. Furthermore, the students displayed the ability to critically evaluate, and then modify, the classroom "theoretical" practice.

- **Participation in discussion** during the workshops was often referred to by staff members in terms of the liveliness of the discussion, and the involvement of the students.

French (1989a:613) states:

> Group discussion is an active, democratic teaching method where each participant has the right to contribute his or her ideas and point of view, and in which the teacher is not dominant. The members of the group pool their knowledge and learn from each other.

According to Higgs (1993b:197), clinical reasoning involves interacting with colleagues and patients through the communication and justification of clinical decisions. Whittaker (1990:49) suggests that clinical problem solving can be developed by "... helping students become receptive to other attitudes". The following comments reflect some of the students' perceptions of the value of the discussions as one way of encouraging them to consider other attitudes. They appeared to recognise a variety of possibilities to solving a problem, rather than the need to search for one "right" answer, as they had during the first workshop.

- "to discuss ... helped us as students to view problems from different angles."
- "members of the group had various methods of problem solving, ... opportunity of choosing one which suited one best."
- "If you have more than one technique to choose from, it makes it easier for one to have the most effective treatment given to the patient."
- "you are forced to think on your feet ... input received from those observing also forced you to see another point of view."

The feedback suggested to me that not only was students' knowledge increased by the discussion, but that they were also stimulated by the variety of possible solutions to a problem offered.

* Those elements from the workshops, therefore, which emerge as enhancing the development of clinical decision making included:

- reading and a variety of writing tasks, prior to and during the workshop; and
- group discussion.

8.3.2 Related to communication skills

> Effective communication skills have been shown to promote increased patient satisfaction with care, adherence to treatment regimens, and response to treatment.
>
> Wolf et al. (1987:33)

"Communication" can be defined as "the act of imparting ..., information given ..." (Concise Oxford Dictionary). It is evident, then, that both the concept of information transmitted, as well as skill in the act of communicating, are inherent in "communication". I would suggest that it is as much the information which is transmitted, as skill in the act of communication, which affects patients' perception of, and compliance to, treatment. It therefore appears to me now that "interaction", "education", "consultation" and "informing" are interdependent concepts, and refer to holistic patient management as much as to communication (cf. pp.64-65; 130-133).

Effective communication is considered to be an integral aspect of effective patient management. It appears to me that staff refer to those skills associated with the act of transmitting information, rather than in the quality of the information transmitted.

Communication "skills" have been incorporated into medical school curricula, although most of the programmes teach only basic techniques, related to listening, the asking of open-ended questions, and responding to answers, to foster communication (Hoppe et al., 1988:177). However, I have observed, especially in an informal environment, that the majority of physiotherapy students display highly effective and appropriate skills in the act of communication. They appear to be articulate, sociable and interactive. However, when demonstrating in a more formal setting during CP, CE or clinical examinations, these communication skills often seem lacking. Many students described this experience of demonstrating as "very stressful". One student expressed herself as follows:

- "If I demonstrate I am always nervous and I feel as if I am fumbling and falling over my feet and tongue. This is because of the audience ..."

The need to perform successfully in an examination or before an "audience" during CE, was the most common factor which students named as contributing to their stress. This raises the question of whether the students are so concerned about the amount of information that they need to extract from the patient, that they do not listen effectively to the responses to their questions. It seems to me that as lecturers need to encourage interaction with students, rather than attempting to ingrain content, we need to encourage students, first, to be more interactive with patients, rather than to concentrate on the questions to be asked in order to extract vast amounts of information.

I recorded in my fieldnotes that students offered clearer, more detailed comments in the final workshops, than they had during the first two, when their comments were often brief: "I think that was well done". However, I always requested that students motivated any comments

which they made. In the final sessions this motivation was usually offered by students without any further prompting, as they became more familiar with the format of the workshops. They also appeared to become more comfortable with their role of participation and contribution. Colleagues also noted the increasing participation of students in discussions (cf. p.90).

It seems to me unreasonable to expect nervous and inexperienced students to display proficient communication skills in situations which they describe as being "stressful". It appears that students' confidence is directly related to their observed communication skills. It is therefore appropriate to identify first those elements of the workshops which encouraged the development of confidence and personal coping skills in the students, before evaluating how the workshops might have contributed to their increased communication skills, which were recognised by the students themselves, as well as by colleagues and myself.

8.3.3 Related to personal coping skills

> Increase confidence (and) students' beliefs in their ability can be greatly enhanced.
>
> Dickson et al (1991:147)

Brookfield (1990:204-205) reports students as stating that "learning is highly emotional". He reasons that learning:

> involves great threats to students' self-esteem, especially when they are exploring new and difficult knowledge and skill domains.

When treating a patient during their fourth year of study, students are expected to effectively employ all of the knowledge and skills "learnt" during the first three years of their training. This could constitute a "threat to students' self-esteem". In addition, many students state that the responsibility which they shoulder during CP often causes them extreme stress. This is increased when working with "high risk" patients, such as those in intensive care wards, babies and patients experiencing pain. Many students have stated that they doubt their ability to treat these patients effectively, and fear that they will be "dangerous". This lack of confidence in their abilities, and their fear of being "dangerous" when treating a patient, was acknowledged by students during feedback following one of the workshops. This lack of self esteem could, in turn, be reflected in the lack of confidence and poor communication skills displayed by some students during CP.

Colleagues included the words "casual", "stressed" or "nervous", when referring to the lack of confidence displayed by students (cf. p.66). It has been suggested already that confidence is related to students' beliefs in their ability (Dickson, Maxwell and Saunders, 1991:147). These authors refer to Bandura (1989), who suggests that poor practice may be due to an "inadequate sense of self-efficacy" rather than a lack of skill.

The students' opinion that the workshops had contributed to the development of their confidence was overwhelmingly confirmed in feedback after most workshops, and again in response to the final questionnaire. Their perception that an increase in confidence was interrelated with an increased ability to perform effectively, can be noticed in the responses to the following question from the final questionnaire.

Question 3.

Do you consider that the practical sessions increased your level of confidence in your ability to:
a) assess and treat patients/clients?
YES/NO
b) demonstrate the above to your peers and staff?
YES/NO
IN WHAT WAY?

Six out of the seven students answered "YES" to this question. The student who replied "NO", however, did comment that the exposure to an "audience" had served as preparation for the examination. Her comment is included further on in this section.

One student commented on the value of discussions in increasing the confidence which she felt:

- "After discussions before the assessment and treatment, I felt confident to go and assess the patient the way I felt it should be done. I knew that my assessment/treatment would be discussed as we went along and that I would learn from it. I demonstrated to my peers and staff that I was confident in what I did."

Four of the students commented on the advantage of being regularly exposed to an "audience". Although this was identified by many students as initially being extremely stressful, it seems that as their confidence grew due to the familiarity of repetition, their stress level decreased, as is reflected by the following comments:

- "Being watched is certainly the most stressful experience for me as a student. These sessions was one way of developing confidence as one is being criticised and praised by peers and staff. Confidence improved as you become familiar with proceedings of sessions."

- "at the start the confidence is very low ... the more the sessions the better the chance of improving, ie the frequency is very important."

- "Once your confidence level is high, everything is very easy, because one is not worried as to who is looking at me [sic] but as to what the problem might be."

- "on a regular basis ... helped one become less nervous and more relaxed when demonstrating a technique to a group."

- "practice also makes the terrifying thought of presenting a demo less horrifying!"

- "Like everything else you get used to having others watch you."

Some students' comments suggested that an increased confidence resulted in their being less aware of the "audience" and more "focused" on the patient. An ability to "think on my feet" was given by one student as an advantage of increased confidence. These comments included:

- "my confidence level was higher up, ... as a result I was able to focus my attention to my patient."

- "I was more confident to assess a patient in front of others, and when questioned I was able to think on my feet."

Question 4 of the questionnaire relates to the examinations, as it was the students' expectation that the workshops would assist them in their preparation. Responses to this question suggest that students considered that their sense of increased confidence in their abilities, and their familiarity with the workshop format, which they perceived as being similar to a clinical examination situation, were the ways in which the workshops contributed to their success in these examinations. Thus the responses to questions 3 and 4 appear to be interlinked.

Question 4a.

Do you consider that the practical sessions contributed to your success in :
a) the final practical examination? YES/NO
IN WHAT WAY?

a) Practical examinations

Six students responded with a YES. The student who replied in the negative to both sections of this question gave no reasons for her answer. She also did not reply to the last question. It is my impression that this person had forgotten to reply to the questionnaire, and did so quickly while I was talking to her colleague when I collected her questionnaire at the hospital where she had commenced work.

Many students' comments related to their impression that it was beneficial to be regularly observed:

- "But an audience is good because it prepared [sic] you for the exam with two or three examiners."
- "this is nearly the same stresses as exam and therefore it prepares the students for the exam."
- "used to demonstrations and my confidence level was higher up and I did not have to worry a lot as to who is around, as a result I could focus."
- "You feel less nervous when you've done the same procedure before ... all you have to think about now is the examiner!" (my exclamation mark)

Developing the "ability to observe details" in the performance of techniques was also referred to as a way in which the workshops had contributed to improved CP. This suggested that in writing comments, students had been more actively involved in the demonstrations. The

discussions which followed the demonstrations always provided feedback on the detailed observations made by the students of the various techniques. The feedback from the workshops suggested that there were elements which could have enhanced the students' confidence in their abilities, and therefore, indirectly, to their demonstrating improved skills in the act of communication.

- **Taking part in regular demonstrations and discussions** appeared to many students to improve their confidence in communicating with both patient and colleagues. Their growing familiarity with these activities relates very closely to their impression of increased confidence in their skill in communicating. Each student who commented on the stressful nature of demonstrating remarked that, as they became familiar with this practice, they felt less nervous and more able to "focus" on what they were doing than on the "audience".

- **A "non-threatening", and familiar, environment** appeared to provide the students with a learning climate which fostered confidence, and could also have contributed to their demonstrating improved communication skills. As one student put it,

- "it was also good to develop confidence with people you are fairly comfortable with ie peers."

Brookfield (1990:204-205) states that the emotional sustenance students receive from a supportive learning community is reported as being crucial to their survival.

Another student stated that:

- "these sessions was one way of developing confidence as one is being criticised and praised by peers and staff, and it was not in an exam. setting, you were actually learning!"

This comment interested me for the following reasons:

- In first referring to her peers' feedback, it suggested to me that this student valued their criticism and praise at least as much as that of the staff.

- By grouping "peers and staff", this student suggested that a more democratic climate was noticeable during the workshops than was usual during CE sessions. The merging of the roles of teacher and learner represents a divergence from the traditional approach to teaching. The authoritarian relationship was, to some degree, replaced by one that is more democratic. During the workshops, the students became their peers' teachers, and the teacher became a "student". This could have contributed to the non-threatening atmosphere of the workshops, where everyone stood to gain from the learning process.

- This student appears to have associated feedback with an examination, rather than with "learning", and she appeared not to consider the "exam" to be a learning situation.

- It was implied by the comment that this student considered that she had grown in confidence during the workshops.

It is noteworthy that the student who made the above comment is the one who voiced her frustrations at her perception of the dichotomy between what was taught and what was expected during practice.

The "relaxed" atmosphere of the sessions was often referred to following the workshops, with students stating that they felt free to participate - "the atmosphere at these sessions were more relaxed and you felt free to practice your skills", wrote one student.

Warrender (1990:233) maintains that it is the supervisor's goal to create a climate which enhances the students' learning experience. I attempted to conduct the workshops in an informal, participatory and relaxed manner. However, at this stage I was not at all sure what elements of the workshop, or behaviour, wre contributing to the students' perception of such an informal or relaxed environment.

* Those elements from the workshops, therefore, which appear to emerge as enhancing the development of confidence, and indirectly, to the development of communication skills, included:

- taking part in demonstrations **regularly**;
- taking part in discussions **regularly**;
- an "atmosphere" where feedback from peers and staff is given, and in a learning environment which is perceived as non-threatening.

8.3.4 Related to practical assessment and treatment skills and techniques

> Computors and robot systems have provided good illustrations of the processes which may be involved in skilled activity. James (1993:65)

The meticulous implementation of assessment and treatment techniques are considered to be essential for the delivery of effective physiotherapy management, according to discussions which I have had with colleagues during the past years.

Observational skills are regarded as an important component of the effective performance of practical skills (cf. pp.67-69). This is based on the recognition that if the technique is observed to be ineffective, then modifications need to be implemented for the technique to be performed more effectively. The process of how one acquires a skill is quite well understood. However, the process by which we develop skills especially movement skills in others, is not widely understood at the practitioner level. This has implications for the education and practice of those who must help others to develop skilled movements (James, 1993:65). I would suggest that an understanding of this process holds as much relevance for physiotherapy educators as for the professional practice of physiotherapists. As educators we train students in the skilled techniques of patient assessment and treatment, and as clinicians we retrain movement skills in patients.

The mastery of physical skills and techniques was the perceived inadequacy of the students least addressed during the workshops. It became apparent from the feedback, as well as from

students' performance, that most of the students did not practise those practical techniques of assessment or treatment which they had predicted that they would use for the patient at the following workshop. I now regret that my questions did not attempt to probe the reasons for this. However, the development of the observation skills which are considered to be important in the performance of an effective technique, did appear to be facilitated during the workshops.

- **Recording their critical observations** was perceived by students as "learning to be more specific" with regard to a patient's needs, and to being "forced to analyse treatment in terms of practical knowledge and skills". It was also implied that by "critically observing other students' performance and writing comments", a student's ability to analyse and interpret observations was fostered. Other comments included the realisation that "I needed to improvise if a theoretical approach did not work"; that it was "not always possible to follow textbook descriptions"; and that there was a difference between "hands on and theoretical approaches".

* <u>Those elements from the workshops, therefore, which appear to emerge as enhancing the development of practical skills, were not effectively addressed during these workshops. The reasons for this included:</u>

- my ignorance of the process whereby these skilled movements are developed in students;
- the fact that students did not practise techniques prior to a workshop was not probed at all.

However, the students' opinion appeared to be that by recording critical observations during the workshops, their performance of practical skills was improved. A note from my fieldnotes at this stage was:

> If I plan to continue to investigate the development of practical skills and techniques in the next cycle of workshops, I will need to research further so that I might have some understanding of the process whereby these skills might be developed in students.
> (3rd January 1994)

8.3.5 Related to holistic patient care

> [Students] need assistance in developing a patient-centred rather than a disease-centred approach to patient care.
> Bickel (1987:377)

Implicit in the concept of holistic patient care is a social paradigm of health care that embraces the physical, social, emotional and other needs of an individual whether in hospital, at home or at work. Health care, therefore, extends well beyond teaching an individual merely to perform an activity effectively. In order that the traditional biomedical paradigm can develop into a social paradigm of health care, both the content and the strategies of physiotherapy education will need to reflect this shift.

The Working Group on Personal Qualities, Values, and Attitudes of the Association of American Medical Colleges Project Panel on the General Professional Education of the Physician and College Preparation for Medicine reported:

> The pace of medical education and of technology's increasing permeation of patient care is such that students need special assistance in perceiving the human dimensions of choices and in developing empathy with their patients.
>
> Bickel (1987:369)

Bickel further maintains that the "social, ethical and interpersonal dimensions of patient care are crucial to clinical skills ..." It has already been suggested that the technical aspects of the physiotherapy course are strengthened at the expense of encouraging students to develop the values and attitudes inherent in CP (cf. p.21).

Harden, Sowden and Dunn (1984:284) identified six education strategies relating to medical school curricula which they suggested could be represented on a continuum. One of the education strategies compared in their model of curriculum strategy analysis, was an information gathering approach, which was contrasted with a problem-based learning approach. The authors stated that the latter approach is usually associated with an innovative approach to learning, in which students grapple with a variety of "patient problems, health delivery problems, medical science or research problems", which act then as a stimulus for learning in the basic sciences or clinical medicine.

Physiotherapeutic techniques, rather than holistic patient care, usually form the core of demonstrations during CE. This could foster a reductionist approach to patient care. In reflection it appears that certain strategies promoted an holistic approach to patient care during the workshops.

- **Discussions,** especially those with the emphasis on "patient" problems as opposed to "medical" problems, are commonly associated with a problem-based learning approach.

During the workshops the patient, clinical physiotherapists, occupational therapists, and on one occasion, a family member, each with their own perceptions of a particular problem, were included in the discussions. As a result, many discussions centred on patient problems, problems in health care delivery and team management. One colleague stated that these demonstrations were "enriching for both students and staff". Another commented that the discussion:

- "contributed to my own growth and interaction with clinical and teaching staff working in the same environment."

The students and staff commented regularly on the value of the variety of opinions about, and approaches to, patient care. One colleague commented that "The variety of input was stimulating". I would claim that this "variety" was much richer than is usually the case during CE demonstrations, due to the participation of individuals other than the lecturer and students. I would therefore suggest that the opinions of a variety of individuals could have contributed to the understanding of the concept of holistic health care, of both students' and colleagues.

It is possible that having been exposed to the roles and opinions of other professionals, lecturers might introduce an added dimension of health care into the content of their particular course. If this dialogue were to occur on a more regular basis, holistic patient management and integrated course content might occur more easily in all courses. I also hoped that this

interdisciplinary discussion might become a model of professional practice for the students, and facilitate their becoming more effective members of a changing health care team. However, this is impossible to monitor in this research project.

- **The tasks set** for completion prior to the workshop appeared to stimulate the students to think in terms of patient problems, health care problems and team management.

The issues which they were encouraged to explore included the patient's lifestyle and family, as well as the home environment and the roles of other members of the health care team. From the discussions and feedback, it appeared that most students had been well-prepared and had given consideration to a wide range of health care issues, and not only to those related to "medical" problems.

* Those elements from the workshops, therefore, which appear to enhance the development of the philosophy of holistic patient care, included:

- discussions, especially relating to the inclusion of other members of the health care team; and
- setting of tasks prior to the workshop which encourage a problem-based and holistic approach to health care.

8.3.6 Other feedback for discussion

> It is right to give the judgements of students a central place in any course evaluation.
> Rowland (1993:131)

The responses to the second part of Question 4 suggested that some of the students thought that the workshops had also contributed to their success in the written examinations. As preparation for the final examinations was a stated goal of the workshops, some responses to this question will also be considered.

Question 4b.

Do you consider that the practical sessions contributed to your success in:
b) the written examination? YES/NO
WHY?

Four students - YES; two - NO; one student - YES/NO.

This latter student stated:

- "could contribute ... if it [examination] dealt with a condition that you would be examined on in theory. It is always easier to answer a theoretical question of a patient if you had treated a similar patient in practice. In this way students can deal with written examinations more efficiently if their practical teaching experience is broadened and more intense. These practical sessions were intensive ..."

Of the students who answered "no", one commented:

- "I studied hard ... most of the questions ... challenged my general knowledge that I had acquired throughout the blocks."

The other four students all referred to the value of learning from practical experience.

- "because I was used to problem solving, I thus pretended the paper patient was one of the real situations. I used the experience gained to tackle the problem."
- "if it was treated in the sessions it was easy to remember it."
- "always easier to answer ... if you have treated a similar patient in practice."
- "one was able to reflect on practical sessions, which would aid in remembering."
- "I rely more on what I learn from class discussions and clinical practice than on what I read when I study for exams."

It appears, therefore, that in their responses to Question 4a and 4b, the students did think that the workshops had contributed to their success in both the practical (cf. pp.124-125) and written examinations.

The responses to Question 5 of the questionnaire tended to refer to the workshops in general terms. Most of the negative comments were similar to those obtained following the workshops, and reinforced my opinion that I had not been successful in addressing some of the problematic aspects of the sessions.

Question 5.

Are there any other comments which you would like to make?

Rowland (1993:128) suggests that in allowing the students to define the agenda for evaluation, issues are raised beyond which the tutor could prespecify. The following are some of those issues raised by the students in response to this question.

- **Time management** was a recurring theme in the negative comments of both students and staff (cf. pp.86;90-91;94-95;103;114).

"Time management" was also the cause of most of the stress which I experienced in planning and facilitating the sessions, as I feared that by limiting any discussion a learning opportunity might be lost. I also came to realise that I lacked the skill, and experience, to contain discussions. Prior to the workshop most of the discussion during my classes or CE revolved around students' questions based on the topic of the "lesson". However, during these workshops the students were free to raise any relevant issue, and the discussions often became protracted as they explored ideas or motivated their decisions. This was obviously very time consuming. On the other hand, the feedback following workshops was always positive when referring to these discussions. I was therefore hesitant to rush the students, with the result that I often felt that the discussion had not been satisfactorily concluded.

- **The frequency of the workshops** was referred to by many of the students, who stated that the sessions should be more "frequent" or "more regular because we need time to be able to be comfortable in front of the others". However, it will be difficult to plan for these sessions to be more frequent, as the course is already overloaded. After the second workshop a student commented that "these workshops should have started earlier in our training". Similar feedback was given informally following many of the other workshops.

It appears to me that this is another area where research in CE should be undertaken, in order that appropriate decisions concerning course content and learning strategies may be made for

various stages of the curriculum (cf. pp.203;225). However, it was as a direct result of this feedback that I initiated the following cycle of workshops with students one year earlier, during their third year of study.

- **An ethical issue** was raised by one of the students who commented that "... it is extremely important that you take the patient's time into consideration."

On reflecting on this comment I became aware of the tension rooted in the conflict between the roles which I associated with "teaching or treating". I had not been fully aware of the ethical implications inherent in this conflict until I undertook this research project.

- **Student participation**, and the recommendations that all students should be "involved", "participating", "prepared", "committed" and "partaking" were commonly made, both following workshops and in the final questionnaire. This suggested to me that some students were concerned that there were those who participated less than others. Although staff had never remarked that this was the case, students often appeared sensitive to lack of, or excessive, participation by their peers. Occasionally students voiced a desire for a smaller group, or that each student should be given the opportunity, more often, of doing a session "in front of the others, because if you are personally involved, you learn more".

8.4 REFLECTIONS AND FUTURE PLANS

In Kolb's Model of Experiential Learning the emphasis is placed on concrete experience and active experimentation where learners must be able to involve themselves openly and fully in new experiences. They must be able to use concepts or theories in new situations in order to solve problems or make decisions (Van Schoor 1987:117). It appears to me that in the traditional classroom settings where knowledge and skills are taught, students are rarely involved "openly and fully in new situations" or in "active experimentation".

According to Higgs (1993a:244) CE has developed well beyond merely being the means of practising, in a clinical setting, those skills already learned in the classroom. She also claims that CE both extends prior learning and provides opportunities for creating new knowledge. This should, therefore, be an ideal occasion for students to be involved in new situations and, within reason, in active experimentation.

The feedback from students and colleagues following workshops and in the final questionnaire, suggested that the workshops did, in some measure, achieve its goals, and thus enhance CE. These goals were aimed at:

- assisting the fourth year students to prepare for their final examinations;
- initiating, and evaluating, alternative strategies in CE in order to address some of the difficulties demonstrated by students during CP and examinations.

* Other elements from the workshops, therefore, which needed to be addressed in future planning, included:

- time management;
- ethical issues concerning the "teach or treat" conflict;
- the initiation of the workshops with students earlier in their training; and
- the encouragement of regular participation from each of the students.

This cycle of workshops confirmed my opinion that CE is a setting in which lecturers should also be involved in appropriate "active experimentation", in order to assist students more effectively to develop as competent professional physiotherapists. I therefore decided to initiate a further cycle of workshops in cooperation with students in their third year of study in 1994.

In Part Three I have selected three or these further workshops, out of a cycle of six, for discussion. Each of these illustrates various issues that hold implications for effective CE.

PART THREE

THE SECOND ACTION RESEARCH CYCLE
THIRD YEAR WORKSHOPS 1994

Following the workshops which were documented in Part Three, I reflected on the feedback from the participating students and staff, as well as on my own fieldnotes. The CE component of the course appeared to me to be an appropriate area in which to continue research aimed at promoting my understanding of the effects of my teaching, through systematic observing, describing, documenting and analysing (Spencer, Krefting, Mattingly 1993:304).

It will hopefully have been noticed that the documentation of the first cycle of workshops took the form of comprehensive description. During these workshops certain recurring themes for investigation emerged as a result of feedback from students and staff. These proved to be the learning elements which stimulated me to continue critically analysing the interactions occurring during the workshops, and the structure of the sessions, in an attempt to enhance the CE component of the course. A number of these themes continued to arise during this second cycle of workshops. The importance which the students placed on a positive learning environment, and their perceptions of what constituted such an environment, are two examples of such issues which continued to be a source of interest to me. Criteria for selectivity thus arose in the documentation of Part Three, and I have chosen to concentrate on selected aspects of teaching practice (cf. p.48). During this second research cycle, I gathered especially that data that would tell me more about these selected aspects (cf. p.42).

Chapter 9 provides the context for this second cycle of workshops, including the initial negotiation and planning phases of the cycle. Chapters 10, 11 and 12 contain the documentation and discussion of three workshops in the phases of planning, observation, action, reflection, and re-planning. However, only selected issues, including those of time management, ethical issues, student motivation and participation and professional relationships, will be discussed in detail. The selected issues for discussion are listed in the introduction to each chapter.

CHAPTER 9

PLANNING THE SECOND ACTION RESEARCH CYCLE

9.1 BACKGROUND TO THE WORKSHOPS

> What particular elements of experience prompt teachers to learn from them? Russell (1992:3)

Feedback from the previous workshops suggested to me that the reading and writing tasks, group discussion, presence of resource persons and the informal "atmosphere", had appeared to be effective in enhancing the CE experience of the students. I therefore continued investigating these aspects during this cycle of workshops.

However, after reflecting on the previous workshops, added factors arose which I planned to attempt to address during this cycle of workshops. These included:

- time management, which was always a source of stress to me, and was regularly included in the negative feedback by the fourth year students;

- ethical issues relating to CE which were raised during feedback; the question of patient and students' rights became to me to be the "teaching or teaching tension"; and

- students' self-conscious reflection on written tasks as a learning strategy, as I was becoming more aware of my own learning through the process of reflection.

The third year class of 1994 consisted of 24 students. I had hoped that twelve students would be prepared to commit themselves to attending the workshops, as without the need to prepare for pending examinations, I presumed that students would not be motivated to take part in extra workshops on a voluntary basis. Furthermore, as the students had just commenced working full-time with patients, I assumed that they would not yet have been exposed to the stresses inherent in CP. I also was concerned that some students might assume my main goal of the workshops was to obtain their feedback as a vehicle for my own further study.

9.2 NEGOTIATIONS WITH STAFF AND STUDENTS

9.2.1 Negotiations - staff

During November 1993 I approached Mrs Mpofu, the Head of the Physiotherapy Department at UWC, with my request to initiate a further cycle of workshops in 1994, with the students in their third year of study. She agreed to my request on condition that the rest of the staff were in agreement. At the following staff meeting I outlined my goals for the workshops as follows:

- to continue an investigation into strategies to enhance the CE component of the course; and
- to collect data in order to write a research thesis for an M. Phil. degree.

The conditions set for this previous cycle of workshops included the following:

- Each student would be responsible for negotiating permission with the clinical staff to attend the workshops. The reason for this was that the third year students did not have research afternoons during the second term, as the fourth year students had had the previous year. The workshops would therefore take place during "clinical" time.

- Each student would take responsibility for completing the treatment of their patients, or arranging for this to be done, prior to attending each workshop.

An extract from my fieldnotes following this meeting is as follows:

> I am glad that these workshops seem to be recognised as valid CE by the staff, and not only as classroom teaching, as in the previous cycle ...
> (24th November 1993)

9.2.2 Negotiations - students

I had a short meeting with the third year students on Friday 15th April 1994, at which I outlined the workshops with the fourth year students during the previous year. I also outlined some of the feedback from the students and staff. Many students indicated that they knew that these workshops had taken place. I explained to them that certain teaching strategies had appeared to enhance CE, and that I wished to explore these further. I stated that I also wished to collect data for a masters research thesis.

I stressed that they would work co-operatively, that discussions would be an integral part of the sesseions, and that regular attendance was thus very important. I also requested that those students who decided to attend provide me with feedback after each workshop. I emphasised that it would be difficult for me to collect valid feedback and monitor the effects of various strategies, unless at least ten students attended regularly. I suggested that they consider the implications of volunteering to attend, and to inform me of their decision the next Monday.

A number of students seemed interested to attend the workshops. One student said "We will gain and you will gain!" Another suggested that the class indicate whether they wished to take part immediately, by a show of hands, rather than to inform me in three days time.

I felt a moment of great satisfaction when all 24 students enthusiastically raised their hands. However, satisfaction was rapidly transformed into panic, when I considered the large number of students who would participate in the workshops. However, I felt obliged to assure them that they were all welcome to attend, even though the group was much larger than I had anticipated that it would be. I immediately decided that the students would need to be divided into smaller groups. I asked them for their suggestions as to how the class could be grouped, so that they were involved in the planning from the start. I was also still somewhat flustered by their unexpected numbers and enthusiasm.

The students unanimously decided, again by a show of hands, that they would like to work in the groups into which they were already divided for their clinical "blocks". They felt that

this would facilitate their transport arrangements, and any preparation that they might need to do in groups.

The students decided that Thursday would be the most convenient day for the workshops, as the two days following the weekend were usually more busy, due to a high patient intake, often as a result of trauma, on Saturday and Sunday. On Wednesday afternoons I taught at UWC, and many of the students worked to earn money on Friday afternoons.

In reflecting on the meeting, I was surprised at the students enthusiasm for extra CE and support. The following is an extract from my fieldnotes, written on the evening of this meeting.

> The meeting went very well, but the large group of 24 students is a major challenge, although it is a much more realistic size than the 11 students of 1993, especially as the department is under pressure from the university to increase its intake of students to 40 in the first year of study, during the next few years. This increased number will be similar to the first year intake to the physiotherapy courses at some of the other universities in S.A.
>
> The students seemed so eager to talk about their patients, and how they were experiencing CP ...
>
> Questions that arise include:
> - Is there a need to offer the students more support during CP?
> - Do we give students enough time to verbalise their insecurities and feelings about clinical work?
> - How will I cope with the large number of students wanting to attend the workshops?
>
> The large group offers certain opportunities:
> - an evaluation of the feasibility of implementing

these workshops in the larger classes of the future
- an exploration of small group teaching and the co-ordination of these groups, as strategies to enhance clinical practice education

Disadvantages which I anticipate include:
- the lack of participation of students in the performance of practical demonstrations and discussions. Strategies must be investigated to encourage each student to remain an active participant in the workshops
- jeopardising the "atmosphere" of structured informality which had appeared to contribute to the positive learning environment, and development of the students' confidence.

(15th April 1994)

Each of the workshops discussed in the following chapters illustrates elements of experience from which I have learnt, but which I have not discussed previously. In order to avoid repetition in describing the workshops themselves, only those aspects relevant to the elements which I have selected will be included. Following the narrative and feedback from each workshop I have recorded my reflections on the workshop.

CHAPTER 10

THE FIRST WORKSHOP

Following the feedback from the previous cycle of workshops, aspects which I selected for further investigation in this cycle of workshops were the participation of the students, ethical issues and time management. However, two additional issues arose out of this first workshop. One of these was the learning environment, which now appeared to me to be closely related to the participation and motivation of the students. The other was my relationship with a resource person. The following aspects will therefore be discussed:

Student participation and motivation

Learning environment

Ethical issues

Time management

Relationship with a resource person

As in the documentation of the previous cycle, whenever reference is made to planning for future sessions, an "*" will precede the suggestion.

10.1 PLANNING THE FIRST WORKSHOP

The CP educator at Conradie Hospital, who had selected patients for the 1993 workshops, arranged for a patient who had been re-admitted with chronic tuberculosis (TB) to take part in this workshop. I decided that TB would be an appropriate choice to introduce holistic patient care during the first workshop. This condition raises many issues for group discussion, such as the possibility of associated conditions, e.g. AIDS, as well as social, financial and political factors.

The clinical supervisor who had been present at the workshops the previous year again agreed to be present as a resource person. As this was to be an introductory workshop, and I was very familiar with the subject of TB, I decided not to include another resource person. In an effort at more effective time management, I drew up an estimated "time plan" alternating small group discussions with plenary sessions. In order to structure the feedback from the large group, I planned to hand a questionnaire to the students for them to complete, in writing, after the workshop (see Appendix G).

10.2 THE WORKSHOP

This workshop took place on 21st April 1994.

Attendance: One student excused herself to keep a medical appointment. There were thus 23 students who were divided into four groups, each consisting of 5-6 members.

10.2.1 Introductory section

In an attempt to develop a democratic, interdependent and informal learning environment, I explained that the workshops were intended to be group learning experiences for all present, including myself, where we would be interdependent in our learning.

I outlined the roles of chairperson, secretary, time-keeper and demonstrators, in an effort to encourage all of the students to participate in group-directed discussion. The demonstrators might be requested to take part in conducting an interview, or an assessment or treatment technique. I requested that any decisions taken should be by group consensus, which would require students to motivate, negotiate, co-operate and reach consensus in their groups. In addition, if any student felt unsure how to perform a technique, the rest of the group should coach this student prior to the demonstration. The students appeared to agree that the group structure was a "good idea", and I then suggested that each group select a student to perform each of the above roles.

I informed the students that during the workshops there would be no judgement of a "right or wrong" opinion or technique, only one of "more or less appropriate or effective". If a situation should develop which could be detrimental to the patient, I would intervene.

10.2.2 Group task and discussion prior to patient assessment

A brainstorming session, relating to TB and the possibility of this person being HIV positive, followed. The students were then given a group task to plan a "subjective" and "objective" assessment for this patient, based on the information identified during the brainstorming. Two groups were to remain in the classroom, and two were to meet in the practical room. However, due to the noise level of enthusiastic discussion and debate, and the resulting disturbance to others, each group was given their "own" room.

I visited each group to confirm that the students understood the tasks. Most of the groups were noisy with animated discussion. Three of the four timekeepers complained that they found it difficult to constrain the group to the time limitations as there was "too much to say"!

While the students were in their groups, I went to talk to the patient, who had just been brought to the classroom in a wheelchair by a porter. She had an intravenous drip inserted into her forearm and was more ill than I had understood her to be. However, she said that she was pleased to get out of the ward. In response to my questions she said that she did not mind that 23 students would be present, nor that a number might ask her questions and, if necessary, examine her. I made her comfortable in a waiting area and gave her magazines to read while she waited for the students.

The groups re-convened in the classroom and a discussion took place concerning an appropriate assessment for this patient. Many students participated enthusiastically in the

discussion. The students who were nominated by their groups to be demonstrators, stated that they did not mind if their classmates interrupted the demonstration with questions or suggestions. The students then took their notepads at my suggestion and went to the classroom where the patient was waiting.

10.2.3 Assessment of the patient

As the room was crowded, a few students kept moving in an effort to see and hear the patient. The interview was conducted by a student who was interrupted by her peers during the interview if added information was needed.

The physical assessment was performed by another student. The interruptions and suggestions from the rest of the groups continued. Although the patient was shy, she co-operated willingly throughout the session.

10.2.4 Group tasks following the assessment

The students dispersed into their groups again, while the patient waited in the waiting area. Their task was to interpret the information obtained from the assessment, and then to decide on the problems of the patient, and a plan of physiotherapy management.

During this time, the clinical supervisor and I observed that the patient was tired. We therefore thanked her for coming, and organised for her to be wheeled back to her ward.

While the students were in their groups, I again visited each one to observe how they had interpreted their individual roles. In the majority of the groups, the time keepers again complained of their difficulty in limiting individual participation. Two of the chairpersons stated that they wanted to be more "involved" in the discussion than in "chairing". The students were reluctant to stop their group discussions, but as time was again running out, they re-convened for a plenary session.

10.2.5 Plenary session

Only one of the groups recognised that physiotherapy treatment had a limited place in the holistic management of this patient at the present time. The subsequent discussion centred around the appropriate care for this patient, and the fact that she had also tested HIV positive. The other groups entered into lively discussion when the extent of the patient's problems became evident to them.

Once again "time" was the limiting factor in the discussion, and students requested that they complete the feedback questionnaire at home. The majority of the class indicated that they were prepared to put their name to their feedback, although a few students seemed hesitant. As these students might have wished to make negative comments, it was agreed that all would answer anonymously.

10.3 FEEDBACK AND REFLECTIONS

The students appeared motivated and positive even while time was running out. Immediately following the workshop, the clinical supervisor commented that she felt the workshop had "gone well from the students' point of view", and that we should have a meeting later.

In the discussion which follows, I will document only those comments which refer to the "learning elements" stated at the beginning of the chapter, as they influenced my planning of future workshops. The responses to the questions will be included where appropriate. It soon became apparent to me that the categories of "learning elements" were interdependent, and no longer appeared to be unrelated to each other.

10.3.1 Written feedback - students

Sixteen of the 23 students completed and returned the questionnaires. Lack of time, "I forgot", and "I lost the form" were the most common reasons given by the students. The questionnaire was comprised of the following questions:

A. What did you enjoy most in this session?

This question was an attempt to identify some of the factors which motivated students and contributed to a positive learning environment.

B. What did you enjoy least in this session?

Very few negative comments were made. The reasons for this could have included their enjoyment of a novel situation and an afternoon free of treating patients. They might also have enjoyed meeting with their classmates again, as they were in full-time clinical placements, in a variety of settings.

C. What are your expectations for future sessions?

This question attempted to encourage students to take part in the planning of future workshops. However, feedback included few suggestions, with the majority of comments relating to a desire to continue with the sessions and to continue to increase their knowledge and skills.

D. Indicate, in the following columns, the sources of the knowledge, skills and attitudes which you used today? (Columns = 1st year, 2nd year, 3rd year.)

The Clinical Practice Course in first and second year, and Physiotherapy Theory and Practice course in all three years, were the most commonly referred to. Responses to this question will be excluded, as they are not immediately relevant to this discussion.

10.3.1.1 Student participation and motivation

Thirteen of the sixteen students who replied commented that they had enjoyed the discussion, participating as a group, and sharing ideas both in small groups and in the plenary session. Their comments included:

- "Group discussion and the different views the whole class gave, all related to the same patient problem."

- "By doing it as a class, we learned where we made mistakes and how certain things could have been done better."

- "and the help from fellow students."

- "The whole class was participating in the discussion and was helping each other."

- "working in a big group and brainstorming treatment ... and small group discussion."

- "Learning from fellow students also helps a lot."

- "Getting feedback from the group on what you're doing."

It appears that breaking into smaller groups is effective in encouraging participation, even if the plenary session occurs in a larger group. French (1989b:679) states that by dividing students into smaller groups:

> students who tend not to participate in larger groups may contribute their ideas and gain confidence. Students can also test their ideas on a few of their peers before presenting them to the whole group.

Ensuring that each member had a set role to fulfil within the group, could have encouraged a cooperative approach to the achievement of the tasks set for the group. In motivating the educator to structure "positive interdependence" as a basic element of co-operative learning, Miller (1993:1-2) suggests that students benefit from the "synergy" of the group, but that the will to co-operate results from them being dependent on each other in order to complete the assigned task. She suggests that one method to achieve this interdependence is to assign roles to group members. It appears that the "interdependence" could have encouraged the students

to participate in the plenary sessions, as individuals were no longer solely responsible for decisions or ideas, but had the support of their group.

One group of comments highlighted the authentic clinical aspect of the workshop, which appeared to provide enjoyment and motivation for learning:

- "It was interesting to see how different people of different blocks viewed the same problem differently, and how this different knowledge can join to form an effective assessment and treatment plan."
- "The exposure and feeling of working with a real chronic chest patient was fantastic."
- "the feeling and the idea of putting the skill that we learnt in theory into practice."
- "feeling of working with a real patient."

However, in identifying those aspects which they had enjoyed least, eight of the students referred to the number of interruptions and the noise level caused by the animated participation. Comments included:

- "the fact that some students talked while someone else was busy talking."
- "Everyone wanted to talk at the same time."
- "People not giving each other a chance to finish talking."
- "The way certain individuals would not give others a chance to complete their questioning. I found this to be extremely demotivating and irritating."

Another student appeared to feel excluded from the group. In response to that which had been enjoyed least during the workshop, this student commented:

- "I wasn't exactly able to see the chest assessment due to the large group ... I was too far from the patient."

Although only one student made this comment, I was aware that many of the students had had difficulty seeing the patient, as they kept changing their position. This must have frustrated and demotivated them, and their constant shifting probably disturbed the students around them.

Aspects to be considered when planning of the following workshop include:

* Attempt to address the volume of noise and interruptions from the students, before the disadvantages of free discussion outweigh the advantages, and a cacophony of confusing, and irritating, sound develops.

* Plan a different seating arrangement, and if necessary also a different venue, for the next workshop, so that no-one feels excluded.

10.3.1.2 Learning environment

The students' enjoyment of the workshop often appeared directly related to their perception of the "informality" of the session, which also seemed to encourage them to participate in discussion. Comments included:

- "It was also informal, and therefore one did not feel intimidated and could express ourselves freely."
- "I liked the informal way it was conducted. One wasn't really afraid to make comments."
- "I enjoyed being able to participate freely in the session."

Students appeared to experience the "informality" in a positive and empowering manner, in a setting in which they felt free to participate in the activities. In an effort to gain some understanding of the those elements which contributed to the students perception of "informality", the following definitions proved to be useful.

The Concise Oxford Dictionary defines the term "formality" as: "conformity to rules, ... procedure, ... requirement of custom ... ". French (1989c:509) suggests that even though times are changing, paramedical courses conform to the procedure of lectures, which are a major form of education in these courses. Students are often observed to be passive note-takers, absorbing volumes of facts. Lectures, demonstrations and other commonly employed CE strategies (cf. pp.24-30) tend to reflect the concept of the "formality" defined above. It is my opinion that the "rules" to which demonstrations conform can be outlined as follows:

- one person demonstrates, while the student "audience" tends to observe passively;
- the intention of the demonstration is to "teach" the "right" way to accomplish a task;
- the "audience" is expected to "learn" from the content of the demonstration;
- the "audience" is often observed to be passive note-takers, while attempting to absorb volumes of facts and skills.

The students' perception of the "informality" of the workshops could have been related to my intention not to conform to those rules, procedures or customs of teaching to which they were accustomed.

The "informality" could have been fostered by the following aspects of the workshops:

- The student "audience" providing critical feedback and support for their peers who performed the demonstrations. The notes which they made while actively observing the demonstrations formed the basis for this feedback and support.

- Encouraging debate and discussion related to alternative choices in accomplishing a task effectively.

- Encouraging the students to "learn" by making informed choices following discussions with the other students and resource persons, as well as referring to the literature.

- The active participation of the students in their own learning process, by writing, debating, discussing and motivating their comments and opinions.

* During the following workshops further explore aspects which could contribute to the "informal" atmosphere.

10.3.1.3 Ethical issues

It is noteworthy that only once in 1993 did a single fourth year student comment on the impact of a workshop on the patient. However, in this first workshop, three of the third year students expressed concerns about the feelings of the patient during the workshop.

- "I was worried about the patient. She must have felt intimidated by having all of us question her and watch her being examined."

- "I was concerned when we started the objective assessment that the patient may feel intimidated by 24 students watching her. I do however realise the importance of doing it this way."

- "students asking question from all directions to the patient."

The reasons for these comments could have been that with a large group taking part, there was a stronger sense that we were infringing on the patient's privacy. On the other hand, as the students had less experience of group demonstrations, they may have been more sensitive to the patient's feelings. This, then, could imply that students become less sensitive to the needs of a patient in a teaching situation - as I appear to have become. The ensuing extract is taken from my reflections on the students' written feedback from this workshop.

> ... I did not feel uncomfortable at the time, but now I do. Is this a reflection of my belief that students need "practice" and that in order for this to occur, "patient material" must be available - and willing? Patients are asked to take part in demonstrations, but I have never specifically informed them that they have the right to refuse to take part if they do not wish to do so. On the other hand, patients are not usually given a choice of whether or not they are prepared to be treated by a student, during CP.
>
> ... As lecturers, most of our choices reflect the value which we place on students learning to become effective physiotherapists. Teaching and learning has become the priority which governs most of my decisions relating to CE. I have expected the patient to be compliant ...
>
> (27th April 1994)

In the following workshops I need to:

* Consider, and become more informed of the ethical issues related to physiotherapy teaching during this cycle of workshops.

10.3.1.4 Time management

It could be significant that few students commented on a feeling of frustration at the lack of time, as the workshop had ended fairly abruptly. A reason for their lack of comment could have been that they had spent quite a lot of time in their groups. As there were only 5-6 students in a group, there would have been much more opportunity for interaction than in the group of 11 in the fourth year workshops. They might therefore have resolved more issues in their groups, and felt satisfied that they had been given the opportunity of participating fully. "Time" might also have had less significance, as they were third year students at the beginning of the CP experience, and not at the end of their fourth year faced with the stress, and time pressures, related to imminent final examinations.

However, I had felt pressure at the lack of time for the students to provide me with written feedback immediately following the session. I was also frustrated that the plenary discussion concerning the holistic management of the patient had been very limited.

It had appeared to me that as the role of the physiotherapist had been fairly limited in the care of this patient, an ideal opportunity for exploring holistic management had been missed.

* Continue to search for methods to utilise time more effectively.

10.3.2 Verbal feedback - resource person

On 3 May 1994 I met with the CP educator for a discussion on her impressions of the workshop.

10.3.2.1 Relationship with a resource person

While commenting positively on the students' participation and motivation displayed during the session, she questioned her role as a "resource" person. She felt that I had interrupted her when she was explaining the X-rays to the students, and this had increased her perception that her contribution had not been necessary.

She had felt that her role had been limited to organising a patient to be present, and to observing the interactions which occurred during the session. Furthermore, she stated that she had no idea beforehand of what I planned to do with this larger group of students, or what the aim of the workshop was to be. She suggested that, before the session, I should have explained the intention and format of the workshops and her role as resource person more fully.

The frustration of the CP educator regarding her lack of understanding of her role and the intention of the workshops troubled me, especially as I thought that I had described this to her. I thought that I had explained that I was investigating strategies to enhance CE, and was observing the effects of these in an atttempt to improve my teaching and complete a research project for a masters degree.

On 4th May 1994 I therefore had a discussion with Ms Mpofu, who was also a supervisor for this thesis, to attempt to clarify why this confusing situation could have arisen. We also discussed possible reasons why I felt threatened, and disappointed, by what I had perceived as a colleague's lack of understanding. However, following our discussion, it became evident to me that other colleagues had expressed a similar lack of understanding of my intentions for the workshops.

When the staff had agreed to my request to continue with the workshops with the third year students, I had felt that I had explained my intentions to them, and that they understood these. However, the understanding of my colleagues was that my main area of interest was in the writing process as a form of learning, as I had collaborated with the Academic Development Centre in this regard during the previous two years. They could therefore "not understand what the writing process had to do" with my research into CE.

Reflecting on this discussion it appeared to me that the process of innovation has inherent tensions and conflicts, especially if the areas to be researched are "indeterminate, swampy zones of practice ... where messy confusing problems defy technical solution" (Schön 1990:3).

My intention was that the role of the resource person should be very limited, as should my own. I obviously had not discussed this with sufficient clarity to those colleagues taking part as resource persons, since the first cycle of workshops. The decision to involve a resource person was more complicated than I had initially thought that it would be, as it appeared that their perceptions of their roles, were very different to mine.

However, it was obvious to me now that I still had a lot to learn in withdrawing from an active leadership role, as I was embarrassed by her comment that I had interrupted her explanations, as I was totally unaware of having done so.

* Consider the implications of requesting a colleague to act as a resource person CE.

A note from my supervisor, Owen van den Berg, which I received during the final stages of writing up this thesis, and which I found very encouraging, is as follows:

> They might "understand" it and yet feel different after the actual experience - and perhaps there's NO WAY you can actually "get them to understand" beforehand. It's not necessarily a "technique" problem on your part, more likely that the words mean different things - inevitably? - to different people. And THAT makes innovation SO difficult! (29th October 1996)

10.4 FUTURE PLANNING

A second workshop is documented in Chapter 11, in which issues discussed in this chapter are explored again, but in the context of modifications which I made in response to feedback received following the first workshop.

CHAPTER 11

A SECOND WORKSHOP

The first three issues listed below are the main focus of the following discussion, with the last two only being referred to. However, although I was now becoming aware that none of the issues are isolated from each other, in this documentation I have continued to artificially separate and address the items independently for the purposes of reflection:

Time management

Student participation and motivation

Ethical issues

Learning environment

Relationship with a resource person

I will first outline the relevant planning and content of the workshop, in order to place the themes to be discussed into the context of some of the strategies which I implemented.

11.1 PLANNING AND PREPARATIONS

The students requested that a patient with multiple fractures participate in the workshop.

On 28th April 1994, while reflecting on the comments concerning time management and

ethical issues which arose in previous sessions, I decided not to attempt to complete both an assessment and a treatment in this workshop. I hoped that this decision would result in more time for discussion and problem-solving activities, and that the patient would be less inconvenienced, by needing to be present for less time. I thus requested a fourth year student for permission to circulate her documented assessment of the selected patient to the third year students, prior to the workshop. I planned that this assessment would then provide the basis for discussion and problem-solving activities which would, in turn, result in the formulation of a physiotherapy treatment plan within a holistic health care context. The physiotherapy treatment would then comprise the practical section of the workshop (see Appendix H).

Although this student agreed that I could circulate her assessment, she was concerned that it was not be "very good". I assured her that any lacks would create topics for discussion and thus learning opportunities for the students. I delivered this assessment, with the patient's name removed, together with a task outline, to the students at their clinical placement areas.

The orthopaedic lecturer agreed to be present as a resource person. We met before the start of the workshop to discuss our roles and the goal of the workshop. She stated that she "felt comfortable" with a limited role, the students involving her when necessary. She agreed to observe and give feedback on her impressions of the interactions between the patient, students and ourselves during the afternoon. We agreed that if a potentially dangerous situation arose for the patient, we would intervene. We both recognised that the circulated assessment had significant lacks, and therefore decided that the workshop should begin with a task in which the students would evaluate the assessment.

The orthopaedic lecturer and I then arranged the seating in a bigger room which would accommodate the students more comfortably during the demonstration. We arranged some of the seating on cupboards at a slightly higher level behind a semi-circle of chairs. I hoped that all of the students would be able to see, without being too spread out, and that this seating plan would still provide an intimate, but less crowded, environment for the patient and students.

Before the workshop I introduced myself to the patient who had agreed to take part in the workshop, in his ward. I explained that I was a lecturer from UWC and thanked him for agreeing to take part in a teaching session. In answer to his question, I informed him that 24 students would be present. He agreed that more than one student could perform a treatment technique while the others watched. I explained that if he wished to return to the ward at any time during the session, or if he became tired, he could request to go back to the ward. He was a fairly unsophisticated man and appeared to appreciate being given the control of whether to remain as part of the group or not. He also thanked me for coming to speak to him.

11.2 THE WORKSHOP

Date: 3rd May 1994, at 2:00pm.

Attendance: 21 students. Three students excused themselves due to other commitments. It was significant to me that the students were sufficiently committed to attending the workshops that

they formally excused themselves. It is my experience that students rarely excuse themselves, unless they are to be absent from a number of classes. Furthermore, participation in the sessions was voluntary. It seemed that they enjoyed the sessions, and wanted to attend them.

11.2.1 Introductory section

At the beginning of the session a student suggested that "it will be nice to try out a different role in our groups and to be responsible for different functions." It was unanimously decided to change roles within the group.

I then suggested that the students write down only treatment procedure and the effectiveness of the performance of the technique, and not make comments until the end of the demonstration, in an attempt to minimise the interruptions during the demonstration. I stressed that the motivation for any comment was more important than the comment itself, as these notes would then form the basis of the discussion following the demonstration. However, if the students who were demonstrating needed help, they could still request this - preferably from their peers.

11.2.2 Group task and discussion prior to patient assessment

The initial consensus of the students was that the patient assessment which they had read before the workshop was adequately comprehensive. The class then divided into their groups and were asked to work individually and then co-operatively. Their task was to underline, on

their own copy of the assessment, any information which needed to be expanded, or which they felt was confusing or conflicting. Having pooled their ideas, the groups were asked to identify the main problem of the patient based on the assessment, and then plan an appropriate treatment programme. After 20 minutes the students re-convened for a plenary session.

11.2.3 Plenary session

A lengthy discussion followed, as the students had identified even more limitations and inconsistencies in the assessment than those noted by my colleague and myself. Students expressed the need to see the X-rays in order to clarify the assessment. Having done so, many of the inconsistencies in the assessment were confirmed. During a brainstorming session, the students identified the essential, additional information required before they could plan, and then perform, a physiotherapy treatment.

Just before the demonstration began I wheeled the patient into the room to be used. I stood at the door with him, and the students greeted him as they entered the room. He recognised some of them, with whom he then exchanged a few words as they went past.

11.2.4 Treatment of the patient

After introducing the students to the patient, they agreed that he select a student to perform the first technique.The patient and students appeared to enjoy this personal interaction.

Students displayed significant insecurity in handling the patient, attempting inappropriately to treat re-assess and treat him, while he was still in his wheelchair. The documented assessment had implied that the patient could walk with little assistance, but this was not a true reflection of the present situation. Another problem to the students was that the condition of the patient appeared to have altered significantly since the assessment had been done the previous week, especially in relation to the amount of pain which he experienced in both of his legs.

After a while, I suggested that the patient be transferred to the plinth. No student was prepared to offer to do so. It transpired that few of the students had ever transfered a patient with leg fractures from a wheelchair to a plinth. They were even more concerned about the pain which he was experiencing. The patient agreed that I assist the students to transfer him to the plinth so that we could attempt to ascertain the cause of his pain.

After performing a re-assessment and brief treatment on the plinth, the patient was wheeled back to the ward. I informed him that I would contact the clinical physiotherapist who was treating him in order to give her feedback on our evaluation and treatment.

11.2.5 Discussion following the practical demonstration

We re-convened for a brief discussion. Time was again running short, due to the lengthy discussion of the written assessment which we had had at the beginning of the workshop. One student remarked that she had been afraid to volunteer to move the patient on to the

plinth as "his pain frightened me" and "I was afraid that I would be dangerous, and injure him". Another student said that she had "learnt how to move a hemiplegic patient [paralysed on one side of the body], but not a patient in pain, or with a leg fracture". Many students stated their fear of having to move a patient in pain.

Another problem for the students appeared to be their feeling of inadequacy when they were confronted with "something that we have not learnt in class", and the "unexpectedness of real life." I suggested, therefore, that the patient at the next workshop be someone who had had an amputation. This was a subject which I taught, and I knew that the majority of the students had not yet come into contact with such a patient, and that this condition had not yet been "covered" in class. I hoped to demonstrate to the students how much they already knew and could work out for themselves, and in so doing promote their self-confidence. They agreed enthusiastically.

The students requested that the next workshop be brought forward to the Wednesday, as the following Thursday was to be a public holiday, and they did not want to "miss out" on a workshop. I agreed, and reminded them to request this permission from the clinical staff.

11.3 MY REFLECTIONS ON THIS WORKSHOP

The following discussion is limited to my reflections on the written feedback from the students, and interview with the resource person, pertaining to those themes listed at the beginning of this chapter. The activities which were intended to manage time more effectively

resulted in unexpected opportunities for student participation in reflective practice, which enhanced problem solving and clinical decision making. The ethical issue started becoming a more important aspect of CE than I had expected that it would be. On reflection, many of the difficulties which I experienced in CE became grounded in ethical concepts.

As in previous chapters, those aspects which affected the planning for subsequent workshops will be marked with an asterisk.

11.3.1 Time management

The intention of circulating the written assessment prior to this workshop was to allow for a longer period to be spent on discussion and practical treatment. In practice, circulating the written assessment of the patient did not save time, due to the incompleteness of the assessment. However, as this procedure resulted in considerable student participation in, reflection on, and discussion of the assessment, this strategy did provide an alternative learning opportunity. Furthermore, the time during which the patient needed to be present was significantly reduced.

* In future workshops continue to research other methods of managing time more effectively.

11.3.2 Student participation and motivation

During the feedback discussion immediately following this workshop, only one student admitted that she had not read the assessment prior to the workshop. The rest of the class acknowledged their initial acceptance of the assessment. There appeared to be consensus that each of them would have accepted, as accurate, this assessment had it been found in a patient's folder, or handed to them by a colleague. They agreed that they would have been prepared to plan treatment decisions based on the given information. One student commented that "an assessment that has been written down should be right - especially by a fourth year student." Many students laughed and appeared to agree with this statement. Another student stated that "I don't have time to analyse other people's assessments ... there is no time, so I accept them." The students appeared to be amazed that they had differed so much in their initial, and subsequent, opinion of the assessment. From the discussion it emerged that when they had reflected on the given information more thoroughly, and related the information to their knowledge and past experience, they were surprised, and excited, that they "knew" much more than they had realised.

On the evening of the workshop I spoke to the resource person by telephone. She expressed enthusiasm and surprise at the unexpected degree and quality of student participation in the discussions. We agreed to meet at UWC the following day.

At this meeting the resource person commented that it appeared to her that circulating information, and the preparation which the students had undertaken before the workshops, had

contributed to the quality of their involvement. She also felt that small discussion task groups, followed by a plenary session, were a "good idea" and that their value was reflected in the discussion arising out of the plenary session.

This person also stated that she was "very impressed by how well the students identified the problems in the assessment". We discussed a number of reasons why the students might have identified many of these problems after they had each initially accepted the assessment as being satisfactory. These reasons included being given a specific task of reflecting on and analysing the assessment, and then pooling their ideas in a group discussion following their individual analysis. The act of writing their comments on their own copy of the assessment could also have encouraged them to engage more actively with the written document. It appeared to me that this exercise, which had initially been planned as an attempt at more efficient time management, had also encouraged reflection, problem-solving and clinical decision making, which, in turn, had resulted in much student participation and discussion.

Comments from both the students and the resource person, suggest that the training of these students did not encourage them to analyse what they were reading critically. There also appeared to be a total acceptance of the authority and validity of the opinion of an individual whom they perceived as senior to them. The following is an extract from my reflections following this workshop:

> I am not sure where I am going here, but it seems an interesting observation. Was it the writing, the specification of a task, the group work that made the difference? Why was there such a big difference in their judgement of the assessment before - and

> during - the workshop? Many students regularly, almost invariably, hand in inadequate assessments. If one does not assess adequately them, an effective and safe, treatment can't be planned. Has anything changed in the last 25 years? Is it the course that makes students accept "higher authority", the school system, or is it just human nature? Is university too late to attempt to instil other attitudes in individuals? REFLECTION ! REFLECTION !
>
> (4th May 1994)

* At the next workshop continue to initiate other tasks to encourage student participation in reflection, as well as in activities of clinical, and critical, decision making.

11.3.3 Ethical issues

Clawson (1994:12) states that ethical dilemmas arise in many physical therapy situations concerning patient autonomy regarding treatment decisions. It appears to me that these ethical dilemmas arise too in many clinical practice teaching situations.

11.3.3.1 The patient

Introducing myself to the patient in the ward, his "home ground", pleased him. He also seemed to appreciate having the choice of whether or not to participate in the workshop.

Admitting the patient, first, to the room where the demonstration was to take place, appeared to relax both the patient and the students. A personal relationship appeared to develop between

the participants as they individually greeted each other. The students could also have appeared as less of an impersonal group to the patient. It appeared to me that the patient participated more fully in the demonstration than was commonly the case.

11.3.3.2 Teach or treat

During my meeting with the resource person following the workshop, she said that she had felt uncomfortable that the patient had not received an effective treatment. She admitted that she, too, often experienced a tension between her roles as clinician and teacher during CE. She was also aware that her clinical need for the patient to benefit, physically, from taking part in a teaching session, often conflicted with the seemingly opposing need to teach students.

I identified with her concern (cf. pp.160-161), and said that I had attempted to address this issue by meeting the patient in the ward prior to the session. I had explained the goal as being a "teaching session", with his treatment being the central theme. However, because of the issues emerging out of the assessment and the students' uncertainty when faced with this patient, the treatment element of the session was considerably reduced. The resource person and myself, therefore, sometimes intervened, so that the patient would also benefit from the session.

Clawson refers to Caplan et al. (1987:59) in the Hastings Centre Report, which asserts that patients have the "absolute right to make informed choices about the kind and degree of care they wish to receive". This "absolute right" should surely then also apply to informed choices

concerning the participation in teaching demonstrations. If the patient then gives "informed" consent, the issue of not receiving treatment would have been discussed, thus reducing the "teach or treat" dilemma.

I am in no doubt that patients are requested to participate in demonstrations, but I would question whether this request can be regarded as "informed consent". The type and amount of information which would constitute full and informed consent within a clinical practice teaching situation needs to be addressed. Patients' awareness of their right to refuse, or cease, to participate in a teaching demonstration; the goal of the teaching session; and the patients' explicit role in the session, are a few of the issues which could be considered as appropriate information on which patients could make an "informed" decision.

* In the following sessions address the question of "informed consent" more fully.

11.3.4 Relationship with a resource person

Meeting the orthopaedic lecturer before the session in order to discuss the goals of, and our limited roles during, the workshop seemed to facilitate our co-operation with each other. We shared the responsibility for observing the proceedings and interactions of all of the participants at the workshop. She stated that she understood the experimental nature of the workshop and accepted that I might interrupt her explanations to the students in order to encourage discussion. She also said that she had "enjoyed being part of the session". Her response to her role was that although she was not always sure what was expected of her, she

was not "particularly uncomfortable with the unknown element of when to talk and when to keep quiet". She stated that as we had taught in a class together previously, and liaise fairly regularly in order to attempt to integrate the second year subjects which we both teach, she stated that "I have some understanding of what you were trying to do". She also understood my difficulty in accurately defining both my role as facilitator, and hers as resource person. The following is taken from my further reflections on this workshop:

> Now that I have undertaken many workshops, I feel that I need to see what happens if I facilitate one without a resource person. There is no doubt that co-operating in a teaching situation with another colleague is a potentially difficult, if potentially enriching, experience. (7th May 1994)

* Facilitate the next workshop without the aid of a resource person.

11.3.5 Learning environment

It seemed that the "informal" atmosphere of the workshop was reinforced when all participants related to each other on a personal level (cf. p.170;176). Encouraging the patient to interact with the students, and including him in decision making by selecting a student to treat him, seemed to enhance the relaxed communication and interaction between all participants.

* Continue to investigate ways to promote an "informal" learning environment.

11.4 FUTURE PLANNING

Following this workshop, I conducted three more sessions with the third year students. The themes addressed in all of the previous workshops continued to remain pertinent, re-enforcing my belief that innovation with effective results was possible, and desirable, in CE.

The following chapter contains a brief record of a third workshop, which was fraught with difficulties which I had not anticipated, but which were "learning elements". They included problems which appear to me to be inherent to innovation. It seems appropriate to include this workshop here, as, in spite of being involved in innovation for over a year, I had not realised how easily misconceptions can cause controversy.

In this third workshop I also intended to provide the students with an opportunity to plan and perform an initial assessment and physiotherapy management plan, in spite of having had no formal "teaching" on the current condition. I hoped thereby to demonstrate to them their ability to effectively access and utilize their current knowledge, much of which they had accumulated during the physiotherapy course, as well as through their own life experiences. My expectation was that this process might develop in the students an increased confidence in their ability to make clinical decisions, even in situations which appeared to them to be "new". Furthermore, I hoped that this could promote their confidence in their own opinions and critical evaluation, even in the face of "senior" authority (cf. pp.172;175-176). I also decided to attempt another "time management" strategy, in which I would play the role of the patient, based on information from the medical folder, for the initial assessment.

CHAPTER 12

A THIRD WORKSHOP

On 9th May 1994, I reflected on the strategy of circulating a written assessment prior to the workshop, as a means of reducing the amount of time that the patient was required to be present. As an alternative to this strategy for this workshop, I planned to role play the part of the patient for a subjective assessment. It had proved to be too time consuming, and costly, to regularly photocopy and deliver a written assessment to students at various clinical placements.

The following themes from this workshop will be discussed in this chapter:

Student motivation

Time management

Ethical issues

Implications of having no resource person present

12.1 PLANNING AND PREPARATIONS

I did not inform the clinical staff of the change of plan at the various placement area, as the students had agreed to do so. I also did not inform my colleagues at UWC of the change in

plans, as students were not having lectures on campus during this "clinical" term. Furthermore, attending the afternoon sessions was the voluntary choice of the students.

On the morning of 19th May 1994 I was telephoned by Ms Mpofu, the Head of the Physiotherapy Department at UWC, as the students had not informed teaching staff who supervised them in various clinical placements until that morning of the change in the workshop date. In outpatient department's patients had therefore not been re-scheduled, leaving clinicians with a very large workload. Those students who worked in the UWC clinic, were, therefore, not given permission to attend the workshop. These students were concerned that they would "lose out on the teaching" of amputations, as this was to be the topic for the workshop. Both students and staff were worried that the workshop would replace the classroom theory.

I explained to Mrs Mpofu as best I could that the students had, by a show of hands, unanimously agreed that the goal of the workshop was for them to utilise prior and not "new" knowledge in approaching an "unknown" situation. The classroom teaching would definitely not be replaced. I had also circulated a brief letter to the students (see Appendix I).

The students working at other departments had already received permission to attend the workshop, as they had offered to work through their lunch-time in order to complete their patient load. It was agreed that the following workshop would also centre on a patient with an amputation, so that those students who were unable to attend would not feel disadvantaged.

Before the students arrived, I went to the ward to meet the ward sister, and reminded her that the patient would be taking part in a workshop in the physiotherapy department. I also introduced myself to the patient, a 70 year old Xhosa-speaking woman with some knowledge of English and Afrikaans. The patient in the bed next to her agreed to act as an interpreter, where necessary. I explained that the workshop was to be a "teaching" and not a "treating" session, with the result that she would be unlikely to derive any physical benefit from the session. I informed her that she would be free to interrupt with any information or suggestions which she wished to make. I also informed her that she had the right to refuse to attend the session, and could terminate the session at any time. At my request the patient repeated this information to the interpreter, in order to confirm that she had understood that there would be about 14 students present; that she would not receive any treatment during the afternoon; and that her presence would contribute to a learning experience for the students. She further acknowledged that she understood that she had the right to refuse to attend, and could request, at any stage, to return to the ward.

I then familiarised myself with the content of this patient's hospital folder, as well as the records kept by the physiotherapist. Some information I recorded briefly, in order to prompt my memory during my role-play.

12.2 THE WORKSHOP

Date: 19th May 1994, at 2:00pm.

Attendance: 14 students, which included all except two of the students who had permission to attend.

12.2.1 Introductory section

The students and I briefly discussed the misunderstanding between myself, and the staff and those students not present. I also explained that I would role play the part of the patient for the subjective assessment.

The students then brainstormed the general information which might be relevant when assessing a 70 year old woman who had required an above-knee amputation. They then divided into three groups, and discussed the reasons why this patient might have required an above-knee amputation. I suggested that if they found it easier to do so, they could discuss the condition in mechanical terms, rather than in medical terms. The students were then asked to plan a subjective assessment of this patient, taking into account the underlying mechanical/medical conditions which could result in amputation surgery being required. The group discussions appeared to be animated and intense. The students were relaxed, and laughter was often heard from the groups. Eventually the students re-convened, after being requested to do so a number of times.

The students decided that as the patient would not be present and the group was smaller than usual, any student could take part in the interview at any stage. However, two conditions were agreed upon:

- Students would raise their hands to indicate that they wished to ask a question, to prevent them from interrupting each other and all speaking at the same time, and
- they would listen to the preceding question and response, before posing a "follow on" question, rather than ask unrelated questions which occurred to them.

12.2.2 Role-played assessment and patient assessment

I initially assumed the role of the patient, and answered the students' questions concerning "my" present, past and social history with the information which I had gained about the patient prior to the workshop. Occasionally I prompted the students to consider certain relevant information. The students then spent ten minutes each writing up a proposed objective assessment, after which they re-convened into their groups and cooperated to plan an appropriate objective assessment.

While the students were in their groups, the patient was wheeled into the department. Each small group was then introduced to the patient individually, as the students gathered together to perform the objective assessment. This section of the workshop was conducted in a similar manner to those of previous workshops. All of students were observed to be actively involved in writing their observations of the demonstrator's techniques.

The patient co-operated fully with the students, even interrupting at times to suggest that they "try" a technique which the clinician had performed. A Xhosa-speaking student translated

when necessary. After a while, the patient said that she had enjoyed the session, but felt tired, and requested to return to the ward. A student accompanied her to the ward.

12.2.3 Discussion following the assessment

After the patient had left the department, the students divided into their groups for twenty minutes. During this time they shared the notes which they had made during the objective assessment, in order to provide feedback and discussion relating to the objective assessment. They were asked to identify those assessment techniques and skills which had been poorly performed, as well as additional knowledge, skills or techniques which they would need to learn in order to complete a full assessment and treatment on this patient.

On re-convening, the students entered into lively discussion on the above topics. The session ended 20 minutes late as the students wished to continue the discussion even after the time for the session was over.

The students then spent a short while on written and verbal feedback. The former was in response to two questions in which I had asked them to identify the positive and negative aspects of the session. The verbal feedback was an informal discussion of their impressions of this workshop. The following discussion includes those "learning elements" which arose out of this workshop, and the students' feedback which relates to the themes identified above. A student requested me to inform those students who had been unable to attend the session of the content of the workshop, and of the tasks which had been set for the following workshop.

12.3 FEEDBACK AND REFLECTIONS

Again I will refer only to the themes identified earlier (cf. p.181).

12.3.1 Time management

It has become apparent that the lack of time is always a cause for negative feedback in these sessions as, even in a smaller group, negative comments related to the time factor. Some comments included:

- "Time management needs to be looked at, there never seems to be enough time especially to rap things up at the end."
- "Other students brought ideas to be discussed which were not relevant to the topic ... consumed our time."
- "Time seems to run out too soon."
- "We always tend to run out of time and end the session in a 'haphazard' fashion."

This issue must continue to be addressed, but I now felt that the motivational implications inherent in these comments were significant. The fact that students were motivated to continue with in-depth discussions and demonstrations after a workshop has lasted for two and a half hours, often without a tea break, where attendance is voluntary, cannot be ignored.

It became apparent to me when reflecting on this workshop on 20th May 1994, that my role-playing the part of the patient did not contribute to more effective time management, as the circulation of the written assessment also had not done. However, both strategies had offered other valid learning opportunities for CE. The following is a comment from my journal:

> This session seemed better for a number of reasons:
>
> i. While role-playing the interview, much more immediate discussion could take place surrounding the relevance of the various aspects of the interview. It was also easier to facilitate the assessment, as I was able to ask a student why they had asked a particular question, or whether they would like to follow up a response to a question.
>
> ii. The patient was with us for a much shorter time, and therefore did not get as tired as she would have, being an older woman. (20th May 1994)

While role-playing the patient for the subjective assessment, it was possible for me to facilitate the clinical decision-making process by encouraging appropriate data gathering, knowledge accessing, and integrating prior knowledge into a new situation. The students displayed a strong ability to predict the effects of a medical condition and its implications for physiotherapy assessment and, therefore, also the implications for the planning of the treatment.

12.3.2 Ethical issues

Having discussed, in detail, the format and intention of the workshop with the patient, her participation and cooperation were significantly greater than those of patients at previous workshops. I was somewhat surprised at her level of involvement, as she had appeared to be a shy person, with very limited proficiency in English. Although one student could speak to her fluently in Xhosa, the patient displayed empathy with the students, and a desire to help them. I felt that this difference in approach could not just be due to this person's personality.

She appeared to enter into the spirit of "teaching" the students. One of the students commented that this had "made it easier for us".

A further ethical implication relates to the freedom to indulge in in-depth discussion during the assessment, without the patient being present. Furthermore, a detailed and authentic interview could be conducted without tiring the patient, or subjecting her to questions from the students. This is particularly significant for patients who are in a teaching hospital, as medical students, physiotherapy and occupational therapy students, amongst others, might ask similar questions of the patient. These questions are often a repetition of those asked by other students or clinicians.

The other ethical issue which arose from this workshop relate to ethical decision making, and was the misunderstanding with my colleagues at UWC. An active and very busy staff with limited time, can experience communication gaps and misunderstandings. These relate not only to administration tasks, but also to the sharing of professional opinions and expertise. The total load of classroom teaching and administration, combined with the CE, creates significant stress in the physiotherapy teaching staff at UWC. Colleagues at other universities have often commented similarly. Furthermore, this lack of time makes it difficult to discuss and explain innovations. Perhaps, even more significantly, it is very difficult to find time for staff development, discussion of educational issues, support for new staff members and reflective teaching practice. Although the implication of this situation is significant, and is one of the reasons why I embarked on this research project to support my own professional development, it is not within the scope of this thesis to investigate this aspect further.

However, I would suggest that there are ethical decisions that need to be reviewed in relation to an overloaded course content and teaching programme which sometimes results in extreme, or even pathological, stress for both students and staff.

12.3.3 Implications of having no resource person present

I welcomed the opportunity of being "alone" with the students during this workshop. In some of the first few workshops especially, I had felt torn between my various roles. These included that of lecturer facilitating students' learning, physiotherapist needing to consider the needs of the patient, and researcher, implementing teaching strategies and collecting data. When a resource person was present, especially one with whom I had not worked with closely before, or who did not understand the intention of the workshop, I felt the need to assume, to some extent, the added role of "performer". It was, therefore, sometimes stressful to have an "outsider" who was not attuned to the intention of the workshops as part of the proceedings. On the other hand, the comments and the questions from these resource persons contributed significantly to my learning. It is also apparent from the comments of the students and staff that the "input from other staff" was enriching. It appears that including physiotherapy and other colleagues contributes to "holistic patient care".

12.4 FUTURE PLANNING

During the workshops conducted with fourth year students in 1993, and third year students in 1994, I implemented a variety of strategies during workshops in an attempt to monitor their

influence on the difficulties of students during CE, as observed by lecturers, clinicians and examiners. Furthermore, I attempted to monitor the effect of these strategies, in order to increase my understanding of the learning process, and thereby improve my teaching practice. I further hoped to facilitate the training of effective physiotherapists who would be equipped not only to practice in a shifting paradigm of health care, but who would also be able to assist in the development of this paradigm.

In Part 4 the implications of some of these strategies for physiotherapy lecturers and CE will be discussed, as well as the implications of the results of this research for future undergraduate physiotherapy CE. Future research possibilites for curriculum design and course content in physiotherapy education will be proposed.

PART FOUR

MY REFLECTIONS ON THIS ACTION RESEARCH STUDY

> Therefore, the term "action research" is understood mainly as research by higher education teachers into their own teaching practice, with the aim of social change and of improving higher education learning, teaching and the curriculum.
>
> (Zuber-Skerritt 1992a:121)

The focus of Parts Two and Three of this thesis was on providing a narrative of an action research project which I undertook with physiotherapy undergraduate students at UWC from 1993-1994. I embarked on this project in an attempt to improve my teaching. I hoped that in so doing it would be possible to enhance student learning during CE.

During Part Four I will reflect on the implications of this research for my own praxis, which has sought to be reflective practice informed by theory. In relating these reflections to existing theories, both during this, and previous sections, I have attempted to operate in the manner of Zuber-Skerritt (1992b:105), who stated:

> At the most I have been influenced by my tacit knowledge of certain theories, but I have read most of them after the development of this case in practice and I then recognised their relevance to this kind of action research.

This process appears to be inverted when compared to the traditional approach to education, in which practice follows theory (cf. pp.22-23). Implications of this "inverted" process for the training of students within the current South African context will be discussed below.

Various teaching strategies implemented during CE workshops have been documented in preceding chapters. The feedback from participants at these workshops, as well as my own reflections, have also been included.

I have found it difficult to limit my selection of those issues for further discussion in this section, as I now recognise that the teaching and learning process is much more complex, and contains many more variables contributing to its effectiveness, than I previously imagined to be the case. Staff discussions, literature and staff development workshops focus on one or other aspect of education, offering a "quick" or "effective" solution to a problem. I consider myself as a "victim" of this technocratic approach to education during the period when I implemented the techniques and strategies of other "expert" researchers. This procedure very often resulted in little improvement in my practice and much personal frustration. I consider, therefore, that it would be extremely inappropriate for me to suggest that my research has developed techniques which colleagues should adopt if they wish to enhance the CE experience of students!

The personal, and professional, implications of this project for myself - and I would suggest for both physiotherapy educators and clinicians - are well explained by Oja and Smulyan (1989:207). They maintain that teachers who are engaged in action research emphasise that

personal and professional growth result from participation in the process of collaborative action research. Furthermore, these teachers frequently suggest that their understanding of the process of action research was ultimately a more valuable outcome than the research project itself. The authors therefore suggest that "... the value [of action research] lay in individuals' increased feelings of confidence, expertise, and understanding of both research and the school context" (1989:81).

It is in the act of acknowledging my increased feelings of confidence, expertise and understanding that I feel empowered to focus on the significance of the process of action research for the profession of physiotherapy. In Chapter 13 I will discuss some of the general implications for professional development, before dealing more specifically with physiotherapy educators and clinicians, in the current context of the changes occurring in South Africa.

Chapter 14 will be limited to a brief discussion of the implications of the ethical issues arising from the workshops, as well as the learning environment and student motivation. These issues will, hopefully, further demonstrate the scope for professional development offered by action research. My interaction with these issues during repeated cycles of research has had a great impact on my approach to physiotherapy education in general, and CE in particular.

CHAPTER 13

ACTION RESEARCH AS PROFESSIONAL DEVELOPMENT

> It is conventionally held that even in times of violent social change, universities serve to propose explanations for what is happening, rather than contribute to the happenings themselves. The role we academics are thus presumed to have assumed is one of generators of theory about action rather than practitioners of theories **in** action. This apparent reluctance to mix it in the "real" world have us confined to our ivory towers, proffering advice that can only be of academic interest.
>
> (Bawden, in Zuber-Skerritt 1992a:xv)

13.1 INTRODUCTION

I would suggest that universities need to be compelled to contribute, and respond, to the "happenings" taking place in so many different arenas in South Africa today. This situation is perhaps especially true of the health care arena.

Schön (1989:12-13) recommends that the

> question of the relationship between practice, competence and professional knowledge needs to be turned upside-down ... [We] should ask not how to make better use of research-based knowledge, but by asking what we can learn from a careful examination of ... the competence by which practitioners actually handle indeterminate zones of practice ...

I submit that much of the current practice of physiotherapists in South African universities takes place in such "indeterminate zones of practice", in which very little research-based knowledge exists. In education, this uncertainty has been increased by the changing demography, and expectations, of the student groups entering the physiotherapy training programme, or the curriculum development exercises being undertaken by many physiotherapy departments at South African universities. In the service delivery of physiotherapy, too, there are many aspects which are indefinite. Not only are the roles of the physiotherapist undergoing change, and so have not yet been clearly defined, but the institutional location of service is shifting, and the population to be served, their needs, and enormous numbers add further stress to the professional practice of physiotherapists. I submit that the following comment by Deckard and Present is as valid for educators as for clinicians:

> Today's turbulent health care environment will continue to impose constraints and restrictions that, more than likely, will increase the incidence of role stress among physical therapists. Physical therapy directors and staff therapists alike should take an active role in efforts to reduce the causes and consequences of role stress. (1989:216)

These authors claim that the insecurity created by an uncertain organizational environment is a potent source of stress for individual therapists, particularly for those who experience differences between the expectations of hospital or organizational administrations and their own personal and professional ideals. In South Africa, both in education and in health care, these administrative expectations are either unclear, or appear to many physiotherapists to be unattainable in the near future. This situation is unlikely to be resolved either in education or service in the foreseeable future. The stress caused by staff shortages, differing expectations

within the education or health care structures, financial constraints in both situations, and new demands on the traditional role of educator or clinician, are often verbalised at formal and informal gatherings as giving rise to increasing amounts of stress and dissatisfaction with current professional practice. An innovative, and creative, approach to managing the emerging role of physiotherapy associated with current changes, needs to be developed.

Winter (1989b:4) suggests that action research is

> a way of asserting the real value of small-scale research and development projects carried out by practitioners on a part-time basis, concurrently with their professional work.

However, Elliott (1991:49) claims that the basic aim of action research is to improve practice rather than to generate knowledge. Zuber-Skerritt (1992b:15) appears to agree with Elliott and maintains that the main benefits of action research are the improvement of practice, the improvement of understanding of practice by its practitioners and the improvement of the situation in which the practice takes place. However, I would suggest that the development of new knowledge about one's practice, and the improvement of practice, are interdependent. Two of the reasons why action research can be put forward as a valid process for professional development, for educators and clinicians, follow.

First, I would suggest that action research offers the opportunity of undertaking small-scale research projects at the same time as practising in the "real" world of professional physiotherapy commitments, whether this be as educator or clinician. This is especially relevant when contemplating the changes occurring in education and health care in South

Africa today (cf. pp.9-14). I would suggest that physiotherapists in South Africa have never before had such a unique opportunity - or responsibility - to develop small-scale research projects as a foundation for future professional competence.

Argyris and Schön (1977:157) state that if the foundation for future professional competence seems to be the capacity to learn how to learn, then this "requires developing one's own continuing theory of practice under real-time conditions".

Professionals often function while ignoring what they have learned from previous situations (Argyris and Schön 1977:144). This opinion suggests that professionals, rather than reflecting on their own practice, and generating new theories of practice, depend on the theories and practices of other researchers. The following statement of Zuber-Skerritt (1992a:5) appears to be as relevant to physiotherapy service as to education:

> My research and that of others suggests that it is not a question of knowing the ideal state of good teaching practice (and of following prescriptions of good practice), but that the problem is one of changing and improving the current practice of teaching in particular areas.

The physiotherapy profession could develop as a result of the new theory created out of practice. A further effect could be increased motivation and satisfaction resulting from being an agent, rather than a victim, of change. The following two sections of this chapter will include some suggestions for small-scale research in the fields of both education and service.

A second reason why action research is an effective method of professional development is raised by Elliott (1982:1):

> The total process [of action research] - review, diagnosis, planning, implementation, monitoring effects - provides the necessary link between self-evaluation and professional development.

The improvement of practice and professional development is a goal commonly sought by members of the physiotherapy profession. This need is reflected both in the literature and in the number of post-graduate courses held regularly. It is my observation, however, that a technocratic approach to professional development tends to predominate in both educational and clinical fields, one in which a "surface" approach to learning is related to the acquisition of factual knowledge and skills by memory and reproduction. A more appropriate approach would be a "deep meaning" orientation in which one aims at understanding, relating ideas to one's own existing knowledge, and transferring the acquired knowledge and skills to new situations. This approach would include experiential learning and learning by discovery (Zuber-Skerritt 1992b:10). It seems to me that action research is a powerful means of achieving such an approach to professional development for both physiotherapy educator and clinician.

Practice does not occur in a vacuum, but is dependent on the historical, social, political, economic and ideological context in which it takes place (Zuber-Skerritt, 1992a:23-24). It appears to me that this is particularly true of the situation in South Africa in which physiotherapy educators and clinicians must practice today. She also suggests that the view of social transformation being an ongoing process requires the active participation of staff and

students in the process of education. I would add that a further implication for our profession could be the active participation of clients and carers (including physiotherapists) in the process of health care.

Zuber-Skerritt (1992a:89) refers to the role of action researcher as including the responsibility of explaining the need for an "ongoing, continuous, cyclical process" resulting in understanding and an improvement of practice, whereas Winter (1989:3-4) states that action research is "part of the general ideal of professionalism, an **extension** of professional work, not an **addition** to it". I will now argue my view that we physiotherapy educators and clinicians should recognise and adopt action research as a valid extension of our role.

13.2 ACTION RESEARCH AS AN EXTENSION OF THE ROLE OF THE PHYSIOTHERAPY EDUCATOR

> Education's dual role in a democracy is to provide opportunities for personal and social advancement for all who seek it, and to set realistic, clear standards for educational achivement ... Because all students learn differently, different environments provide positive learning experiences for different students.
>
> (Ratcliff 1995:9;6)

In 1994 the people of South Africa voted to become a democracy. Much has changed, and much will still change, in education and health care delivery during the remainder of this century. I would suggest that the above scenario holds huge implications for physiotherapy

educators regarding who we teach, how we teach and what we teach - and whether universities will continue to provide the education of physiotherapy professionals equipped to provide an appropriate service for a wide range of clients. However, the question of what constitutes "appropriate" physiotherapy service needs to be investigated together with the community to be served. It is clear, therefore, that "Effective teaching and professional development clearly have important implications for effective student learning (Zuber-Skerritt 1992b:77). The gap between the academic perception of professional knowledge and the actual competencies required of physiotherapy practitioners, is a concern voiced by educators with increasing frequency (Schön 1989:10). Argyris and Schön (197:157) maintain "Whatever **competence** means today, we can be sure its meaning will have changed by tomorrow".

Cummings (1985:231) argues that it is part of the professional responsibility of every teacher to attempt some assessment of what they are teaching.

I refer to the following two questions that I asked earlier (cf. p.31):

> Is the lack of development of the role of CP educators contributed to by the limited physiotherapy teaching education for lecturers and clinicians involved in CE?
>
> Is the limited number of lecturers and clinicians who are effective role models during CE a factor in this lack of development?

I would now propose that both the limited teaching education and the lack of role models contribute to the lack of development of the role of the clinical educator, especially within the South African context. There are no role models today as we are all operating in a new

situation. There is also limited experience of the new health system on which to base appropriate choices for course content which would be relevant in a changing environment.

Zuber-Skerritt (1992b:14-15) used the acronym CRASP to suggest that action research at the level of higher education is appropriate for, at least, the following reasons: it promotes a **C**ritical attitude, **R**esearch into teaching, **A**ccountability, **S**elf-evaluation and **P**rofessionalism.

I would recommed that, as professionals in education and physiotherapy, we need to develop a critical attitude towards our professional practice in both of these areas. In order to improve our practice, we need to evaluate ourselves and the effectiveness of our teaching strategies in promoting student learning. Research is that part of the role of physiotherapy educator, employed by a university, which is often stated by colleagues as being the most difficult to fulfil. The most common reason given is the lack of time, given a heavy teaching commitment, for research. It has already been mentioned that action research offers a method of undertaking valid, relevant small-scale research which can result in the added advantage of improved practice and a subsequent increase in confidence.

Kemmis and McTaggart (1988:10) maintain that informal contemplation on one's actions is common to practitioners, although they then suggest that

> ... to do action research is to plan, act, observe and reflect more carefully, more systematically, and more rigorously than one usually does in everyday life; and to use the relationships between these elements in the process as a source of both improvement and knowledge.

Elliott (1991:50) equates Schon's "reflective practice" with "action research", stating that "Improving practice ... necessarily involves a continuing process of reflection on the part of practitioners". Previously I have referred to the co-operative aspect of action research in which the researcher is not alone responsible for reflecting, and providing feedback, on the practice (cf. pp.37-38). The researcher might collaborate with "participants" (Carr and Kemmis 1986; Ebbutt 1985), or a community (Oja and Smulyan 1993). In education, students will take part in this collaboration.

Ramsden (1992:161) states that "Good programmes, like good teachers, are designed to listen and learn from students as part of the process of instructing them". In discussing the value of student feedback, Rondo and Lenze (1994:49) encourage instructors to reflect on teaching behaviours, and this activity can assist both in constructing more meaningful questions, and in interpreting and enacting the results. Although not discussing action research per se, these authors imply that the process of collecting and reflecting on student feedback is not a linear process. In answer to the question of whether Early Term Student Feedback (ETSF) is time-consuming, they state that "the time spent on ETSF is only half the story. The information you gather will save you time in the long run" (1994:2-3). This suggests that reflecting on student feedback enhances the educator's understanding of the classroom situation. This, in turn, could lead to new action, or strategies, being implemented by the educator in order to improve the students' learning and the educator's practice.

However, Argyris and Schön (1977:4) state:

> All human beings - not only professional practitioners - need to become competent in taking action and simultaneously reflecting on this action to learn from it.

I would propose that in order to equip students to become effective, both personally and professionally, in a changing environment, an understanding of action research would be an appropriate tool. This could assist them to become life-long learners and be responsible, to some extent, for their own professional development.

It appears to me that by undertaking small-scale action research projects, reflecting on, and improving our teaching practice while developing theory, which is embedded in practice, we will become appropriate role models for physiotherapy students. This cyclical process of action research, which is as relevant to professional physiotherapy practice as to education, will be discussed below.

13.3 ACTION RESEARCH AS AN EXTENSION OF THE ROLE OF THE PHYSIOTHERAPY CLINICIAN

I would suggest that the opinion that the concept of professional competance changes over time (Argyris and Schön 197:157) is as relevant to clinical practice as to educational practice.

There is an urgent call from many sources for the development of a primary health care approach to service delivery, with the emphasis on the prevention of disease and the

promotion of health (cf. pp.9-10). A large part of the curriculum content at present focuses on the technical skills and techniques appropriate for the treatment of the effects of various pathologies. It appears to me that some of the knowledge and skills which physiotherapy students in South Africa have mastered on graduation may not be effective in equipping them for current professional practice. It is my opinion that proportionally little time is spent on developing, in the student, those values, attitudes and skills appropriate to the promotion of health and prevention of pathology and its complications. Schön (1989:10) states a similar concern.

The responsibility for the clinical decisions which physiotherapists make has increased in accordance with the expansion in the scope of professional practice (Myers and Rose 1989a:523). The improvement of a practice consists of realizing those values which constitute its ends, and for medicine this value would be that of patient care (Elliott 1991:49). Today the term "patient care" has different connotations, depending on whether it refers to preventative, promotive, curative or rehabilitative health care.

It has been implied that not only do clinical decisions present a difficult challenge to physiotherapists, but that these decisions are often made under conditions of great uncertainty (Watts 1989:569). Schön (1989:13) states that applied science and research-based technique occupy a critically important though limited territory, in professional practice.

While recognising the vital importance of scientific research and the application of physiotherapeutic skills and techniques, it appears that these skills are no longer sufficient to

offer effective service in the new health care paradigm. There is currently much discussion in physiotherapy meetings of the professional concern and personal feelings of inadequacy and stress caused, to a large extent, by the uncertainty of the current health care situation; the limitation of the traditional skills and techniques of our profession; the rapid expansion in medical knowledge; and the need to develop a new role in the health care team, especially at primary health care level.

Deckard and Present (1989:713-716) suggest the existence of two forms of role stress, due to either role conflict or role ambiguity. They describe role conflict as "a response to incompatible demands, such as the desire and expectation to provide a high quality of care in the face of an excessive caseload and increased documentation and paperwork". Role ambiguity is characterised as "a response to unclear expectations or uncertainty regarding authority and responsibilities". They state that a key role stressor is the perception that one's time is not allocated effectively, and that there are inadequate staff and resources. Moreover, they observe that clinicians voice complaints which focus on the lack of time to give all patients adequate treatment and suggest that this creates a drain on an individual's emotional resources and coping capabilities. This situation is a reflection of the current situation experienced in health care in South Africa.

I would suggest, therefore, that the physiotherapy clinician has been afforded an excellent opportunity to be an active and creative agent in defining a professional role, and the necessary knowledge, skills, attitudes for the future. Small-scale action research projects - in order to improve practice, and create new physiotherapy theory grounded in practice, which

is related to the current concept of health care - are one way of achieving this goal. In so-doing, physiotherapists would become proactive agents of change, rather than victims flailing in a tide of change.

Argyris and Schön (1977:144) state that "professionals often function without considering what they have learned from previous situations". I would suggest that few clinicians rigorously reflect on previous situations, but rather make connections during an assessment or treatment session. One reason for this is the lack of time available for in-depth reflection. However, the cyclic nature of the action research process is directly related to the therapeutic process, of plan, act, observe, reflect. In the therapeutic process, the term "re-assess" would be similar to the term "reflect". The former term suggests to me a holistic, in-depth, and questioning process (cf. pp.41-42). In the therapeutic process, re-assessment is often referred to by physiotherapists in merely physical terms, relating to the physical effect of a therapeutic technique. This implies that it is in reflecting that understanding develops and leads to improved practice, and to the development of theory grounded in practice.

Winter maintains that theory and practice are not separate entities, but interdependent and complementary phases of change:

> The theorizer-researcher is engaged in a set of practical activities: collecting data, classifying materials in ways that look as though they are going to be useful ... He or she does this as a person interacting with other people in a context full of psychological and institutional pressures ... Theory and practice are thus not distinct entities which confront one another across an unbridgeable gulf: each contains each contains elements of the other. (1989a:66)

Thus, in undertaking small action-research projects as an integral aspect of the practical component of professional practice, the clinician can integrate theory with practice. In this way, ongoing research could evaluate, and develop, innovations implemented while forging an appropriate role for physiotherapists.

However, another reason for motivating action research as an extension of professional practice for the clinician in South Africa today is provided by McNiff (1988:3):

> The social basis of action research is involvement; the educational basis is improvement. Its operations demand changes. Action research means ACTION, both of the system under consideration, and of the people involved in that system.

The people involved in the current health care system are not only the professionals, but a wide range of non-professional carers, family members and the client. Traditionally, the provision of health care was the domain of the "professionals." The rest of the people implicated in this system now also need to change in order to take responsibility for their own health needs and that of their communities, together with the professionals. It is only in this way that the limited professional human resources available will be able to disseminate their skills and knowledge in order to empower the huge South African population to take some responsibility for their own health care.

Small-scale action research projects, undertaken in collaboration with various types of communities, might be one way of facilitating this change. As Ramsden (1992:161) might have put it: good physiotherapy clinicians should be equipped to listen and learn from **clients**

and **carers** as part of the process of serving them. This would imply a much more democratic approach to health care, developing partnerships of involved people actively involved in the improvement of a practice or a service. Furthermore, the new theory grounded in this action might pave the way for meaningful development of the knowledge, skills, attitudes and the role of the physiotherapy clinician.

In this chapter I have motivated for action research to be accepted as an extension of the practices of both physiotherapy clinician and educator. Both the professional development of the individual and of the profession could be fostered in this process. I would suggest that the final objective of the process should be to empower the physiotherapy professionals to play a leading role in transforming the health care service.

In the following chapter I will discuss two further implications for CE that arise from this project.

CHAPTER 14

TWO FURTHER IMPLICATIONS

In this chapter I will again reflect on the role of the physiotherapy instructor in considering the implication of two further issues related to CE, namely ethics, and the classroom environment and its effect on student motivation.

14.1 ETHICAL CONSIDERATIONS

> First conflicts may arise between an individual's private convictions and his conception of the requirements of his professional role. Second, ethical dilemmas may be encountered when the attitudes, values, and goals of one profession conflict with those of another.
>
> (Guccione 1980:1264)

Much has been documented concerning the ethical issues related to the clinical practice of health care professionals, including physiotherapists. Ethical issues located in CP include patient confidentiality, telling the truth, meeting patients' reasonable expectations and basic respect and following the professional code of conduct (Purtilo 1993:21-23).

On the other hand, there appears to have been very little documented, or discussed either formally at conferences and congresses or informally amongst colleagues concerning the

ethical issues arising out of CE, and the conflict which can arise between the roles of clinical educator and professional physiotherapist.

In South Africa, patients traditionally admitted to the teaching hospital complexes fell into two categories, namely those who received free or highly subsidised treatment, and those who, due to the nature of their pathology or treatment needs, required the highly specialised care only available at these complexes. I would suggest that on admission to the hospital, many of these patients were aware of the fact that they were likely to be evaluated or receive treatment from a student, whether nurse, medical student, physiotherapist or other health care professional trained at these complexes.

This situation has undergone change in recent years, with the large "teaching" hospitals no longer being the only sites for the training of physiotherapists. There are a number of reasons for this development, including:

* the changing role of physiotherapists necessitating a wider training;
* increased numbers of students accepted into physiotherapy training programmes, requiring experience in CP; and
* the reduction of patient numbers, for a variety of reasons, at the traditional teaching hospitals, and now admitted to private and other hospitals.

Training now occurs in clinics, peripheral and other hospitals as well as in community areas not directly related to the academic complexes. Most recently negotiations have been under

way for the placement of students in private hospitals and physiotherapy private practices. However, many of these private hospitals and practitioners are reluctant to allow students to treat patients.

The reasons given include:

* these patients pay a lot for their treatment, and students should therefore not treat them;
* the patients would object to being treated by a student; and
* the clinician has insufficient time to supervise the students adequately.

This situation raises interesting issues when compared to the attitude and practice of CE at the state-subsidised hospitals where students have received most of their training. Students wear a name badge which identifies them as student physiotherapists. However, a significant number of the patients in these hospitals are unable to read. Furthermore, it is my experience that the patients are usually not given a choice of whether or not they are prepared to be treated by a student. Furthermore, I would suggest that in those instances where patients are requested to take part in CE or in student examinations, they are not aware of their right to refuse to do so. Even if they were, I would suggest that within a social context which is traditionally authoritarian and paternalistic, many of the patients might be hesitant to refuse to do so. There appears to me to be an unspoken belief that students need "practice" and that in order for this to occur, "patient material" must be available - and willing. Schön (1989:5-7) states:

> Some problematic situations are situations of conflict among values ... When professionals fail to recognise

> or respond to value conflicts, when they violate their own ethical standards, fall short of self-created expectations of expert performance ... they are increasingly subject to expressions of disapproval and dissatisfaction ...

During the six years prior to undertaking these workshops, I had only had one or two patients refusing to take part in a CE session. The reason given in both situations was that the patient was in excessive pain following recent trauma. However, since undertaking this project, and reflecting on student feedback, I now specifically inform patients of how many students will be present, that they are not compelled to take part in a teaching session, and that they have the right to refuse to do so if they so wish. I find it interesting that about 10% to 15% of patients do now refuse to take part in a teaching session. The most common reasons for not wishing to take part include pain, tiredness, shyness of a large group or general malaise. All of the patients appear to appreciate the choice of taking part in a teaching session or not.

While recognising that it is imperative that students do have the opportunity to gain clinical experience, I think that it is useful to refer to the opinion of Magistro (1989:531-532) that "The key issue is for the physical therapist to recognise which components of a situation have moral qualities to them". In discussing physiotherapy practice Guccione (1980:1265) suggests that recommendations for particular behaviours are no more compelling than remarks on professional etiquette, if the underlying principles are not made explicit, and that "There has been little discussion of the moral principles behind these expectations".

I would suggest that those components of CE and student examinations which have moral qualities to them should be identified and examined more carefully in order that the underlying moral principles in CE be exposed. South Africa is entering a more democratic era, in part reflected in the acceptance of an extensive Bill of Human Rights. It appears to me, therefore, that the physiotherapy teaching profession, and indeed all medical teachers responsible for professional training, should give serious consideration to patient rights and how these might best be addressed in integrating them with training needs. Guccione (1980:1265) states:

> ... ethics, or moral philosophy, is critical, analytical thinking about the behavioral expressions of human interdependence and what is the morally right thing to do ... In order to select a defensible choice, a decision-maker first adopts a point of view from which to interpret the facts. Any point of view adopted will emphasize one kind of fact over another, perhaps equally important, kind. The moral point of view is distinguished from others by the kind of justification given in support of a particular choice ... each point of view is unique in the kind of questions it asks about a proposed action. When an alternative is compatible with one point of view and incompatible with another, the uniqueness of different viewpoints is more obvious.

Davis (1988:88-91) states that most decisions are influenced by personal values, often at an automatic, unthinking level, and that most choices result from prioritising values. Furthermore, she suggests that the more we know about our values, the more we learn and understand our science, and the more we know about the facts of the situation, the easier it is to make a decision that seems best.

As lecturers, most of our choices reflect the value which we place on the students learning to become effective physiotherapists. Teaching and learning have become the priority which governs most decisions relating to CE. On the other hand, most lecturers were clinicians before becoming educators. As already suggested, there appears to be a conflict of values occurring between the professional practice which would best benefit the patient, as reflected in the concerns relating to those patients treated in a private practice or hospital, and the need for students to receive adequate and appropriate clinical experience, CE and examinations.

Purtillo (1993:39) suggests that an ethical dilemma involves at least two morally correct courses of action, from which only one course of action may be selected. In discussing an approach to ethical decision-making, she advocates the collection of as much sound information as possible from which the widest range of options can be explored when selecting the best course of action (1993:56).

Furthermore, Guccione (1980:1265) states that

> All moral dilemmas occur within a context of proposed action [and] continuing dialogue is needed to determine more adequately the range of morally sound solutions ...

14.2 THE LEARNING ENVIRONMENT AND STUDENT MOTIVATION

> Student motivation is an intangible, but influential factor ...
>
> Slaughter et al. (1989:445)

It appears to me from student and staff feedback that motivation and the learning environment are closely related. Argyris and Schön (1977:96) state that it is the responsibility of the instructor to create the learning environment.

When originally planning the workshops to investigate strategies to enhance CE, I did not recognise the learning environment and its effect on the motivation of students as contributing to the students' learning. However, this aspect was repeatedly mentioned in feedback by most of the students and staff participating in the workshops. The comments were reiterated by students in both the fourth and the third year of training, during sessions held in 1993 and 1994. It appears, therefore, that students' perception of those aspects which motivated them and enhanced their learning, was to a large extent influenced by their perception of a positive learning environment or climate.

As described earlier, those aspects which formed the basis of the workshops were:

* the presence and co-operation of a patient
* a practical component of assessment or treatment

* a variety of reading and writing tasks to be completed prior to, or during, the workshops
* a large amount of group discussion followed by plenary sessions
* an attempt at promoting a structured, and informal atmosphere
* regular written or verbal feedback

Rondo and Lenze (1994:109) state:

> Once a teacher has a handle on the classroom climate he, [sic] ... can do something to change it ... conditions can be comfortable behind the desk and very uncomfortable out in the classroom ... Climate affects all aspects of the classroom experience.

Following the documentation of the workshops I reflected on the effectiveness of those strategies to enhance clinical practice. However, it now is clear to me that some of those aspects contributed to the students' perception of a positive learning environment, and in a way of which I had previously been unaware. I will briefly mention three factors which could have resulted from the above aspects of the workshops and contributed to what was perceived by the students as being positive and motivational, in the environment of the workshops.

14.2.1 Validation

Ratcliff (1995:9-10) states that prior research has indicated that student involvement in the learning process is important and suggests that "validation" is the distinguishing element between student participation and non-participation. The Concise Oxford Dictionary supplies "confirm" as a simile for "validate". This would suggest to me that Ratcliff implies that when

students participate in the learning process, their knowledge and opinions are established more firmly. Ratcliff (ibid.) also contends that this "validation" is increased when students frequently receive feedback that tells them of their deficits, inadequacies, and areas where they need further education. I would suggest that completing tasks, and receiving immediate discussion and feedback from staff and peers, contributed to the validation of the students' knowledge and opinions. Throughout the workshops the students were requested to offer opinions and suggestions, and to take part in demonstrations. The feedback solicited was required to be constructive, and aimed at more effective practice, rather than at correcting perceived "wrongs".

Nearly twenty years ago Argyris and Schön stated,

> Thus we see the need for a climate of psychological safety ... Such a climate does not ... deny failure and whitewash poor results but examines them to see how they can be eliminated or reduced. The reinforcement that comes initially from others and later from oneself is the knowledge that one has made a genuine attempt and that failure occurred only because one's goals were beyond one's current abilities. Failure to perform beyond one's limits is not the same as failure to perform what one is capable of performing. (1977:100)

On the contrary, Ratcliff (1995:7) maintains that

> achievement is heavily influenced by the extent to which individual students encounter a challenging, engaging, and empowering learning that builds upon their interests, abilities, and prior learning.

It appears to me that some of the reading and writing tasks did engage the students in building on their prior learning, and stimulate their interest. This was also commented on during student feedback. Futhermore, the staff present confirmed that the students appeared motivated and participated freely in discussion throughout the workshops,.

14.2.2 Democracy

Rondo (1994:1) contends that teachers need to see students as vital sources of information about teaching, in order to learn from them. In the process of eliciting students' ideas and opinions, teachers become students of their own teaching. In this way Rondo suggests that learning partnerships are formed. Co-operative learning is characterised by both students and lecturers being involved in a joint intellectual venture in which positive interdependence, interpersonal skills and group processing where students are given the time and procedures for reflection and analysis (Miller 1993:2). The fact that the students were aware that I too was reflecting on the sessions and hoping to learn as much, or even more, from the workshops as they were, might have contributed to an atmosphere which was favourable for student participation. My role of lecturer was supplemented by that of a student. I sensed the students' awareness that we "were all in this together". I was trying to understand that which was occurring in a classroom, and they could have felt less threatened in attempting to make sense of the information acquired from the patients in order to make clinical decisions.

According to Rondo (1994:113)

> our efforts to gather information will have effects on our classes that go beyond our intentions ... the act of asking for students' input and the students' realization that their concerns mattered were more powerful than the data that were collected.

It has been suggested that the process of gathering information from students can increase student involvement and interest in the life of the class. Furthermore, it has been observed that when students notice that their input leads to changes in classroom system, then their experience in the educational process becomes one of pride and ownership (Rondo 1994:3).

I would suggest that the learning partnerships, co-operation and the process of change described above, reflect the philosophy of collaboration which is inherent in action research (cf. pp.37-38). Both of these features, which suggest a democratic and participatory approach to education, appeared to contribute to a positive learning environment being experienced by the students during the workshops.

Group discussions can also reinforce a democratic approach to learning. French (1989:613) describes group discussion as

> an active, democratic teaching method where each participant has the right to contribute his or her ideas and point of view, and in which the teacher is not dominant.

In order to contribute to an atmosphere where all of the students felt free to take part, I tried to relinquish a dominant role. While students expressed the positive value of their participation in the discussion, a negative aspect is in the interruptions and distractions which can occur, especially if the "teacher is not dominant". The democratic right of everyone to take part needs to be balanced against the protection of the democratic right of others to be heard.

14.2.3 Diversity

Advocates of co-operative and syndicated learning groups stress the advantage of peer discussion, the exchange of ideas and the rich divergence of opinion and experience in promoting, amongst others, student motivation and increased involvement in their work (Hartman 1989:99).

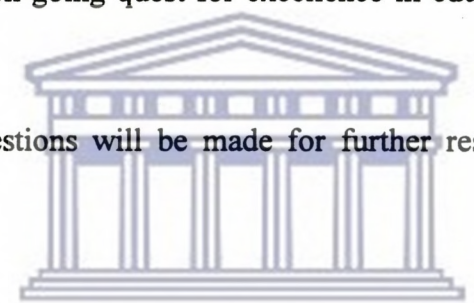
It was apparent from students' feedback that, while working in their groups, they "enjoyed" a high level of involvement and enthusiasm, and appreciated the variety of opinions of group members. The resource person and myself observed this involvement of the students in their difficulty in limiting their group discussions to the suggested time period, as well as in the numbers of students taking part in discussions. The noise level was often very raised due to the animated discussion.

However, discussion was also described as "extremely irritating", and even as "though there was a sense of competitiveness in being heard." French (1989:614) maintains that the teacher must prevent arguments from developing or students will no longer be exchanging ideas and

learning from each other. It appears that even if an argument does not develop, there is a danger that overly enthusiastic participation on the part of some students can result in others feeling intimidated, irritated and marginalised.

The above reinforces the claim by Rondo and Lenze (1994:109) that conditions can be comfortable for some students, and very uncomfortable for others. Just as the personalities and needs of students differ, so do those of educators. This would suggest that there are many different needs, revealed by many different personalities and which require many different approaches to education in an on-going quest for excellence in education and learning.

In the following chapter suggestions will be made for further research in order to strive toward this goal.



CHAPTER 15

SUGGESTIONS FOR FURTHER RESEARCH

I believe that there are many areas of small-scale research which could be undertaken into teaching practice by physiotherapy educationalists, and which could lead to an improvement in the practice of the educator, as well as to the effectiveness and relevance of physiotherapy education. The following are suggestions for five areas that I believe would benefit from such research:

15.1 CURRICULUM AND COURSE CONTENT

> We plan courses for students in which we stuff stuff enormous amounts of medical knowledge into their heads. We examine them for recall of that knowledge as they seek admission to the world of practice ... The problem is that the "voltage drop" in information across this type of system is enormous. Indeed, the entire premise that education can bring the world of knowledge to everyday actions is wrong and is a form of educational malpractice.
>
> Weed and Zimny (1989:565)

Schön (1989:8) refers to the "rigor-or-relevance-dilemma" and observes that professional schools appear least able to teach what aspiring practitioners most need to learn. He also suggests that a problem facing medical education and, I would suggest, physiotherapy

education, is of keeping up with and integrating into the curriculum all of the potentially useful research results. Difficulties are thus created by the fast changing and proliferating mass of knowledge relevant to professional practice (1989:11). Schon states that the assumption that the professional knowledge taught in the schools prepares students for the demands of real-world practice, is repeatedly called into question. Foreman (1986:18) claims that new approaches to CE are necessary in order to teach the "thoughtful, ethical evaluation and treatment" within today's healthcare environment.

Slaughter, Brown, Gardner and Perritt (1989:441) are of the opinion that extensive teaching at the application level is precluded by the need to give students the vast amount of "theoretical" knowledge necessary to function as a physical therapist. They stress that it is essential for students to develop the ability to shift the learning process from the mere accumulation of facts to creative and critical analysis of those facts, in order to adequately evaluate and treat patients, as well as for the growth of the profession.

There is a need for serious consideration to be given to selecting the knowledge and skills which are necessary for undergraduate students to learn. As the role of physiotherapy continues to develop, the skill of management and budgeting, problem-posing and solving, communication and marketing, as well as of adult education, are being added to the ever-growing list of manual therapeutic skills which are included in the curriculum. If choices are not made by educators, the raised stress levels and the superficial approach to learning often observed in students is likely to become critical. It appears that research is urgently needed to determine the pathologies, and appropriate basic promotive, preventative, curative and

rehabilitative skills which are most **commonly** required at all levels of health care. Less basic and less commonly required skills should then form the basis of post-graduate study.

A further curriculum concern is recorded by Schön, who states that:

> The professional schools of the modern research university are premised on technical rationality. Their normative curriculum ... still embodies the idea that practical competence becomes professional when its instrumental problem solving is grounded in systematic, preferably scientific, knowledge. So the normative professional curriculum presents first the relevant basic science, the relevant applied science, and a practicum in which students are presumed to learn to apply research-based knowledge to the problems of everyday practice ...
>
> (1989:8-10)

Students tend to reflect the concern of many of their lecturers that they are unable to treat a part of the body, or a patient with a condition that has not yet been "covered" in class. This suggests that individual pathologies and technical skills are the focus of curriculum, rather than principles of treatment and of empowering students to become independent learners. This is essential when one considers that when they are once qualified to practice in a rapidly developing field of medicine, it is these latter aspects which are likely to determine whether graduates will practice, and continue to develop, as effective practitioners.

15.2 THE EFFECTIVENESS OF TEACHING STRATEGIES

Ramsden (1992:152) states that although there are no "best" teaching methods, some methods and combinations of methods are indisputably better than others at realising the sort of constructive engagement with learning activities that leads to changes in understanding.

Individual educators, as well as individual students or classes, each have their own special characteristics. It would thus follow that strategies which "work" for one educator, student, class or situation are often not transferable to another individual or situation. It can become enormously frustrating to practice in ignorance of factors which could have effected the change in efficacy. It is my experience that this frustration often results in lecturers, students, or the new situation becoming the scapegoat for ineffective practice.

In claiming that ground that is supposed to be "covered" by the lecturer is often not "covered" by students, Ramsden remarks that "few, if any, philosophical, educational and psychological theories" accept that there is any direct relation between what is taught and what is learned. As already discussed, the action research process, as a deliberate, self-conscious cycle of planning, action, observation and reflection, is an appropriate choice of method through which to gain greater understanding into and, therefore, improvement of practice.

15.3 CLINICAL DECISION MAKING

> ... it is a misconception to believe we can think in the amount of detail needed to solve a complex task at the same time we are performing it.
> Weed and Zimny (1989:566)

These authors (ibid.) also state that the research of psychologists who study medical decision-making suggests that the mind copes with the problem of "information overload" by generating hypotheses in the earliest moments of encounters with patients, and thus prematurely biases the steps in the search for data. I would suggest that this situation provides an argument for the pursuit of educational research in at least two directions. The one direction would lead to the pursuit of appropriate decision making processes which could be taught to undergraduate students. The other direction would be to research which knowledge and skills which are really essential for students to master and, following this, an appropriate method in which the detail and complexity of this mastery might be evaluated in CE.

Weed and Zimny (1989:568) also suggest that there will always be much uncertainty in complex biological situations and that, under any circumstances, the first choice of a diagnosis is only a hypothesis. They maintain that in order to make good clinical decisions, the question of "How are we doing?" should be regularly asked. Furthermore, they assert that clinicians need to "accept the initial ambiguity present in the patient's situation, learn to recognize errors in judgement, re-evaluate when we are wrong".

Myers and Rose (1989a:523) state that it is time to address the clinical decision making of physiotherapy in a more formal sense. Magistro appears to agree, and suggests that a substantial challenge for educators will be to

> successfully educate current and future generations of practitioners in the methods and intricacies of clinical decision making ... The degree of success we experience in meeting the challenges of implementing a larger decision making role for physical therapy practitioners will determine the degree of our future professional enhancement ... The ability to make sound clinical decisions becomes, in my opinion, the keystone to this entire process.
>
> (1989:525-526)

Various models of problem-solving and clinical decision making have been developed. Some examples to be used as teaching tools include the hypothesis-oriented algorithm for clinicians (Echternach and Rothstein, 1989:559); clinical decision analysis (Watts, 1989:573); and the Single Subject Experimental Paradigm (Gonella, 1989:601). However, although many of these models are too time-consuming to be regularly used during CP:

> ... of greater importance for the practitioner is the hope that through use and dialogue we may improve upon the practicality of the models.
>
> Rose and Myers (1989a:616)

Argyris and Schön (1977:3-5) refer to the need for creative decision making in a real world situation. They suggest that, often, problematic situations present themselves as unique cases which are "not in the book". The need for improvisation, inventing and testing in the situation strategies which have been devised, becomes necessary in order for practice to be effective.

I would suggest that more of the current physiotherapy practice in South Africa takes place in a "swampy lowland" where the messy, confusing problems of the greatest human concern lie, and which defy technical solutions (Schön 1989:13), than on the high, hard ground where manageable problems may be solved by applying research-based theory and technique.

Winter (1989b:66) argues that although practical decisions are never totally lacking in theoretical justification, these justifications can never prove that the action was absolutely correct. He suggests that the reason for this is due to the vast and heterogeneous amount of potentially relevant considerations with are available. It is impossible during any action to simultaneously take all of these considerations in to account, and so

> any given action must always ignore or presuppose certain factors in order to respond carefully to others ... In taking a particular decision one always excludes certain possibilities, and one's reasons for excluding these possibilities can never be more than "good enough for the time being".
>
> Winter (1989b:66)

I would suggest that, as educators, it is necessary that we acknowledge and become more tolerant of the uncertainty of our professional diagnoses, and research methods of encouraging students to do the same, so that we, as well as the students, will have the freedom and the time to accept ambiguity, recognise the inevitable errors in judgement and re-evaluate where we have gone wrong. In this way we might encourage students to develop confidence in their abilities and creatively solve complex problems.

15.4 THE ROLE OF PHYSIOTHERAPY EDUCATORS

Many physiotherapy educators have not had training in tertiary education. I would suggest that it would be fitting for future researchers to investigate the features which would contribute to the effective practice of the role of CP educator. Argyris and Schön (1977:98) suggest that educators who stimulate effective learning display certain characteristics, including:

- values individuality and expression of conflicts
- has more faith in the participants than they may have in themselves
- recognises the limits of participants' learning methodologies
- whose idea of rationality integrates feeling and ideas
- who can encourage spontaneity
- encourages the attainment of goals that are challenging
- attempts to encourage participants through a process of confirmation

Research into the ways in which physiotherapy educators might reflect these characteristics, and in so doing encourage effective learning in students, could promote the professional practice of physiotherapy educators.

15.5 THE WRITING PROCESS

Much has been researched and published on the value of writing as a process of learning. During the process of writing ideas and interpretations are clarified and explored, and greater

sense is made of the experience. Writing up a report is thus an act of learning. It is suggested that in one sense, therefore, we write for ourselves, and when we read what we have written, we find out what, in the end, we have learned. This process reinforces the notion of the active learner (Winter 1989b:75-76).

I close this thesis with the suggestion that an investigation into appropriate writing tasks for ourselves and our students, and the process of action research, would be rewarding research for physiotherapy educators. This research is especially challenging in the light of our professional practice which tends to favour a technical rationality, often at the expense of philosophical and intellectual reflection.

Through my participation in action research, and the act of writing of field notes, reflections of the workshops and this research project, I have come to recognise the power of these two exercises for professional development. The discipline, co-operation and reflection inherent in participatory action research, as well as in re-reading and re-drafting my notes, in an attempt to simplify and clarify my thoughts, has introduced me to a whole world of experience which I would never otherwise have explored. As Winter (1989b:66) argues:

> Theory questions practice and practice questions theory ... It is important that we emphasize that this mutual questioning between theory and practice is strictly unending.

APPENDIX A: PHYSIOTHERAPY DIPLOMA COURSE OUTLINE - 1967 (UCT)

SYLLABUS FOR DIPLOMA IN PHYSIOTHERAPY

The three year course includes the study of Biology, Anatomy, Physiology, Elementary Physics and Chemistry, Kinesiology, Medical and Surgical conditions treated by Physiotherapy and the theory and practice of Physiotherapy.

The first year is devoted to the study of the Basic Sciences and an introduction of Physiotherapy techniques.

During the second and third years the student spends part of each day in the School of Physiotherapy and part in the wards and Out-patient departments of Hospitals, where supervised treatments are carried out under the direction of medical practitioners.

BIOLOGY:

An introductory course of lectures and practical classes for one full term designed to prepare the students for the study of human physiology.

CHEMISTRY:

An introductory course of lectures and practical classes for one full term to enable the student to understand the fundamental principles governing—

(*a*) The composition of matter.
(*b*) Metabolism.
(*c*) The Chemical Reactions of Living Tissues to Physical Stimuli.

PHYSICS:

A course of lectures and practical classes for one academic year in the physical principles governing—

(*a*) Bodily movement.
(*b*) Therapeutic currents and radiations used in Physiotherapy.

ANATOMY:

A course of lectures and practical classes for one academic year which includes the examination of dissected specimens and the living body. Special attention is paid to the study of the Locomotor and Respiratory Systems and to Living Anatomy. Teaching in Applied Anatomy will continue through the second and third years of study.

PHYSIOLOGY:

A course of lectures and practical classes for one academic year. Special attention is paid to the neuromuscular system. Histological structure is studied primarily in relation to function.

ELEMENTARY NURSING:

A course of lectures in elementary nursing procedures given at the end of the first year. Some time is spent observing and assisting with nursing duties in Medical and Surgical wards.

ELEMENTARY PATHOLOGY AND ELEMENTARY SURGERY:

A course of lectures and clinical demonstrations given during the second and third year. The course is designed to give the student a sound appreciation of the signs and symptoms of conditions for which physiotherapy is used; and to enable her to apply physiotherapy in co-operation with other therapeutic measures. Attendance at teaching clinics and ward rounds is included.

PHYSIOTHERAPY TECHNIQUES:

There is regular instruction in the theory and practice of movement, massage and electrotherapy throughout the course.

CLINICAL PRACTICE OF PHYSIOTHERAPY:

Throughout the second and third years of training a proportion of each week is devoted to the treatment of patients under the supervision of qualified physiotherapists.

If desired a holder of the diploma may qualify for an endorsement of her certificate by undertaking not less than four weeks full-time clinical practice of physiotherapy under supervision in selected hospitals.

REGULATIONS FOR THE DIPLOMA IN PSYCHOLOGICAL MEDICINE

1 A period of not less than four years shall elapse between the attainment by the candidate of a medical qualification registrable by the South African Medical and Dental Council and his admission to Part II of the examination for the diploma.

2 Every candidate must, before commencing his studies, be registered as a postgraduate student of the University. Every candidate shall renew his registration annually as long as he continues to be a student.

3 Before admission to the examination for Part II of the diploma, a candidate must produce evidence satisfactory to the Senate

(*a*) that subsequent to graduation in medicine, he has satisfactorily completed the prescribed intern year* and has been registered by the South African Medical and Dental Council as a medical practitioner;

(*b*) of having held, after registration, in a hospital or hospitals, recognised for the purpose by the Senate, resident appointments extending over not less than

*Not applicable to those who obtained their bachelor degree before the introduction of compulsory internship.

Family Study 325

Physiology 211 and 221
Family Study 215 and 225
Microbiology 215 and 225

Calendar 1117

SYLLABI: B.Sc.(PHYSIOTHERAPY)

ANATOMY FOR REHABILITATION (208)

(20 credit points)

Lectures per week: 3

Practicals per week: 2

Examinations: One 3-hour paper, one practical examination and one oral examination.

Contents

1. Introduction to embryology.
2. Introduction to systems of the body.
3. Regional anatomy with special attention to the anatomy of the locomotor systems.
4. Neuroanatomy.
5. Basic histology.

APPLIED PHYSIOTHERAPY

COURSE	304	404
Lectures per week	12	4
Tutorials per week	1	

Examinations

Course	304	Paper 1	June
		Paper 2	November
Course	404	Paper 1	November
		Paper 2	November

COURSE 304

(25 credit points)

Module 1	Medical and surgical cardiorespiratory conditions.
Module 2	Orthopaedics
Module 3	Physiotherapy in primary health care Research in physiotherapy
Module 4	Medical and surgical conditions Physiotherapy in the intensive care unit
Module 5	Neurological conditions
Module 6	Paediatrics

COURSE 404

(30 credit points)

1. Discussions and seminars on selected topics that were covered in Applied Physiotherapy to expand and deepen the student's knowledge and understanding of the application of physiotherapy principles in defferent situations and settings.
2. Physiotherapy management and administration.
3. Community-based rehabilitation.

KINESIOLOGY

COURSE	203	303
Lectures per week	6	4

Examinations

Courses	203	Paper 1	June
		Paper 2	November
Course	303	Paper 1	June
		Paper 2	November

COURSE 203 (20 credit points)

Module 1 Motor control, learning and development
Module 2 Exercise physiology

COURSE 303 (20 credit points)

1. Biomechanics of movement
2. Functional anatomy of joints and muscles
3. Analysis of gait

PHYSICS (115, 125 & 105)

(115 & 125: 10 credit points each)
(105: 5 credit points)

COURSE	115	125	105
Lecture per week	4		
Tutorials per week	1		
Practica	1		

Evaluation:

Course	115	June - written class tests and assignments counts 33,3% of the final mark. 1 X term test - counts 33,3% of the final mark. 1 X written examination - counts 33,3% of the final mark.
Course	125	November - written class tests and assignments counts 33,3% of the final mark. November - final mark 1 X term test - counts 33,3% of the final mark. 1 X written examination - counts 33,3% of the final mark.
Course	105	Continuous evaluation of practical ability and practical examination.

PHYSIOLOGY (218, 228) (20 credit points)

COURSE	218	228
Lectures per week	5	5

Examinations

Course	218	June - One 2-hour paper
Course	228	November - One 2-hour paper

COURSE 218 (10 credit points)

Syllabus
Introduction and the basic chemical and physical concepts
The theory of the cell, structure of the cell organelles
The concept of homeostasis
Body fluids, fluid compartments and exchange between the cell and environment
Blood physiology (including immunity)
Cardiovascular physiology
Renal physiology

COURSE 228 (10 credit points)

Gastro-intestinal physiology
Nutrition
Nerve physiology
Special senses
Endocrinology
Reproduction

PHYSIOTHERAPY

COURSE	101	201	301	401
Lectures per week	4	6	12	4
1 Hour practicals per week	2	2		
Tutorials per week	1			

Examinations

Course	101	Paper 1	June
		Paper 2	November
Course	201	Paper 1	June
		Paper 2	November
Course	301	Paper 1	June
		Paper 2	November
Course	401	Paper 1	November
		Paper 2	November

COURSE 101 (17,5 credit points)

Module 1 Terminology
Mechanics of movement and posture
Analysis of normal movement sequences

Module 3 [illegible]
Module 4 Passive movements

COURSE 201 (17,5 credit points)

Module 1 Passive movements and massage
Module 2 Exercises for strengthening, fitness and mobility
Module 3 Introduction to electrotherapy and respiratory therapy
Module 4 Re-education of movement

COURSE 301 (30 credit points)

Module 1 Principles of respiratory physiotherapy
Module 2 Principles of management of spinal musculoskeletal disorders
Module 3 Electrotherapy
Module 4 Principles of physiotherapy management of peripheral musculoskeletal disorders
Module 5 Management of hand and peripheral nerve injuries
Module 6 Principles of management of movement disorders
Module 7 Management of musculoskeletal disorders

COURSE 401 (30 credit points)

Discussions and seminars on selected topics that were covered in Physiotherapy 301 to expand and deepen the student's knowledge and understanding of the principles of physiotherapy practice.

PHYSIOTHERAPY CLINICAL PRACTICE

COURSE	102	202	302	402
Lectures per week	4	2		
1 Hour practicals per week	2	4	6	25

Examinations

Course 102 Paper 1 November
Course 202 Paper 1 November
Course 302 2 Clinical practical examinations in November.
Course 402 3 Clinical practical examinations in November:
Assessment of patient previously assessed
Presentation of a patient treatment

A student who obtains a final mark of 45 - 49% in Clinical Practice 302 or 402 will be required to complete an additional semester of practical work before being eligible for a supplementary examination.

COURSE 102 (17,5 credit points)

1. Development of communication, interviewing, observation and report writing skills in a variety of hospital and community-based settings.
2. Introduction of physiotherapy in primary health care.

COURSE 202 (17,5 credit points)

1. Basic patient evaluation and handling in a variety of hospital and community based settings.
2. Application of physiotherapy techniques in the rehabilitation of patients.
3. Basic hospital and nursing procedures.

COURSE 302 (25 credit points)
and
COURSE 402 (30 credit points)

1. Evaluation and treatment of patients under supervision in a variety of hospital and community based health care settings.
2. Attendance of ward rounds and clinics.
3. Patient presentation.

RESEARCH PROJECT (405) (10 credit points)

Research project on an approved topic.

PSYCHOLOGY 111, 121 (20 credit points)

COURSE	111 and 121 (I)	211 and 221 (II)
Lectures per week	4	5
Practicals per week	1	2

Examination

Course 111 One essay assignment and one 2-hour paper
Course 121 One essay assignment and one 2-hour paper
Course 211 One 3-hour paper
Course 221 One 3-hour paper

N.B.: The following are coupled courses: 111 and 121;
211 and 221.

Prerequisites

Credit for Psychology 111 and 121 is a prerequisite for Psychology 211 and 221.

COURSE 111, 121

These introductory courses consist of modules which aim to provide the basis upon which later courses are developed. Secondly, an attempt is made to offer an appropriate theoretical framework, more suited to an understanding of Third World experiences.

Students are required to submit the essay component before the examination sitting.

Course 111 (10 credit points)
(a) Introductory workshops and bridging courses
(b) Cognitive Psychology
(c) Affective-Intrapsychic Processes

Course 121 (10 credit points)
(a) Social Psychology
(b) Developmental Psychology
(c) Research Methodology and Descriptive Statistics

Practical
Compulsory Structured Essay-type Project which forms an integral part of the final mark.

COURSE 211 (16,5 credit points)

First semester: Paper 1 (211)
(a) Developmental Psychology
(b) Social Psychology
(c) Research Methodology

COURSE 221 (16,5 credit points)

Second semester: Paper 2 (221)
(a) Counselling Psychology
(b) Abnormal Psychology
(c) Statistics

B.Sc. (PHYSIOTHERAPY) HONOURS

Curriculum

Modules
1. Research Methodology and statistics.
2. Motor control and motor learning.
3. Human physical and motor development.
4. Functional anatomy of the spine and limbs.
5. Exercise physiology.
6. Sports injuries.

7. Physiotherapy in primary health care.
8. Community-based rehabilitation.

The module on research methodology and statistics is compulsory. Any FOUR of the remaining modules being presented in a particular year may be chosen.

Course work shall comprise discussion classes as well as appropriate seminars and practicals.

Syllabus
Lectures per week: 6

Examinations
1. Presentation of a research protocol.
2. Four papers of three hours each.
3. An oral examination.

M.Sc. PHYSIOTHERAPY

1. A thesis on an approved subject.
2. An oral examination may be required.
3. Additional courses in physiotherapy or a related subject may be prescribed.

SOCIAL WORK

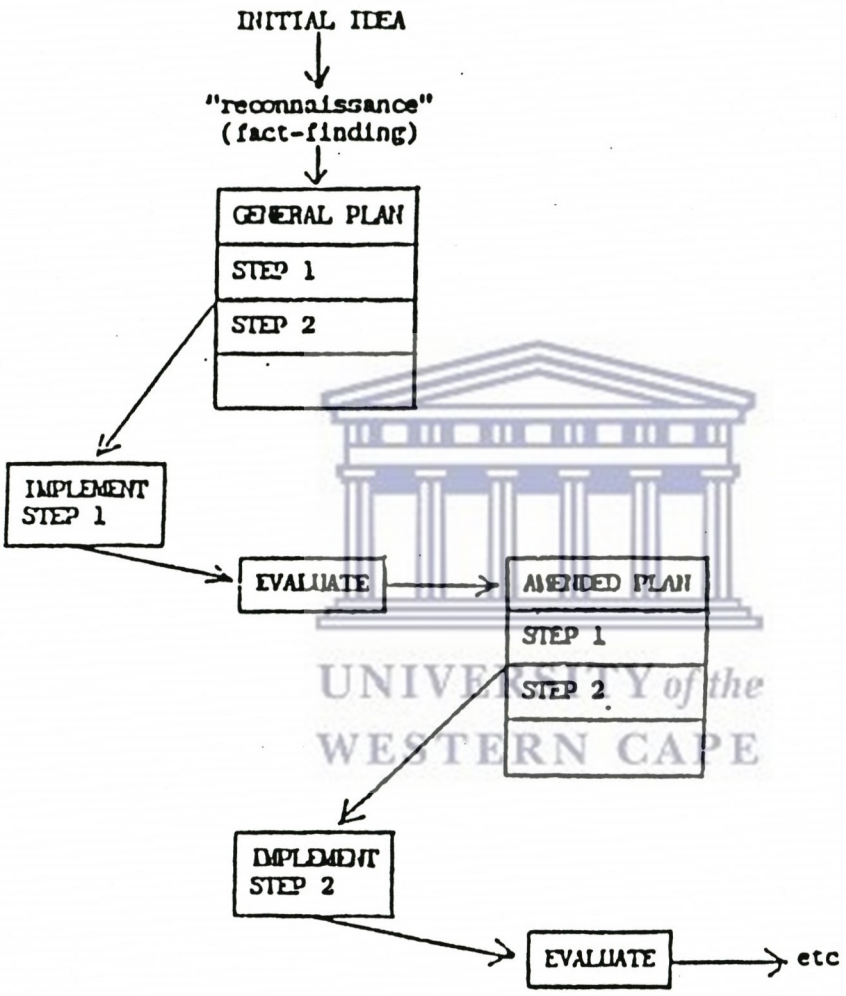
B.A.(S.W.)/DIPLOMA (S.W.)

Note: At the beginning of the academic year, students shall be provided with detailed course-content sheets.

AFRIKAANS

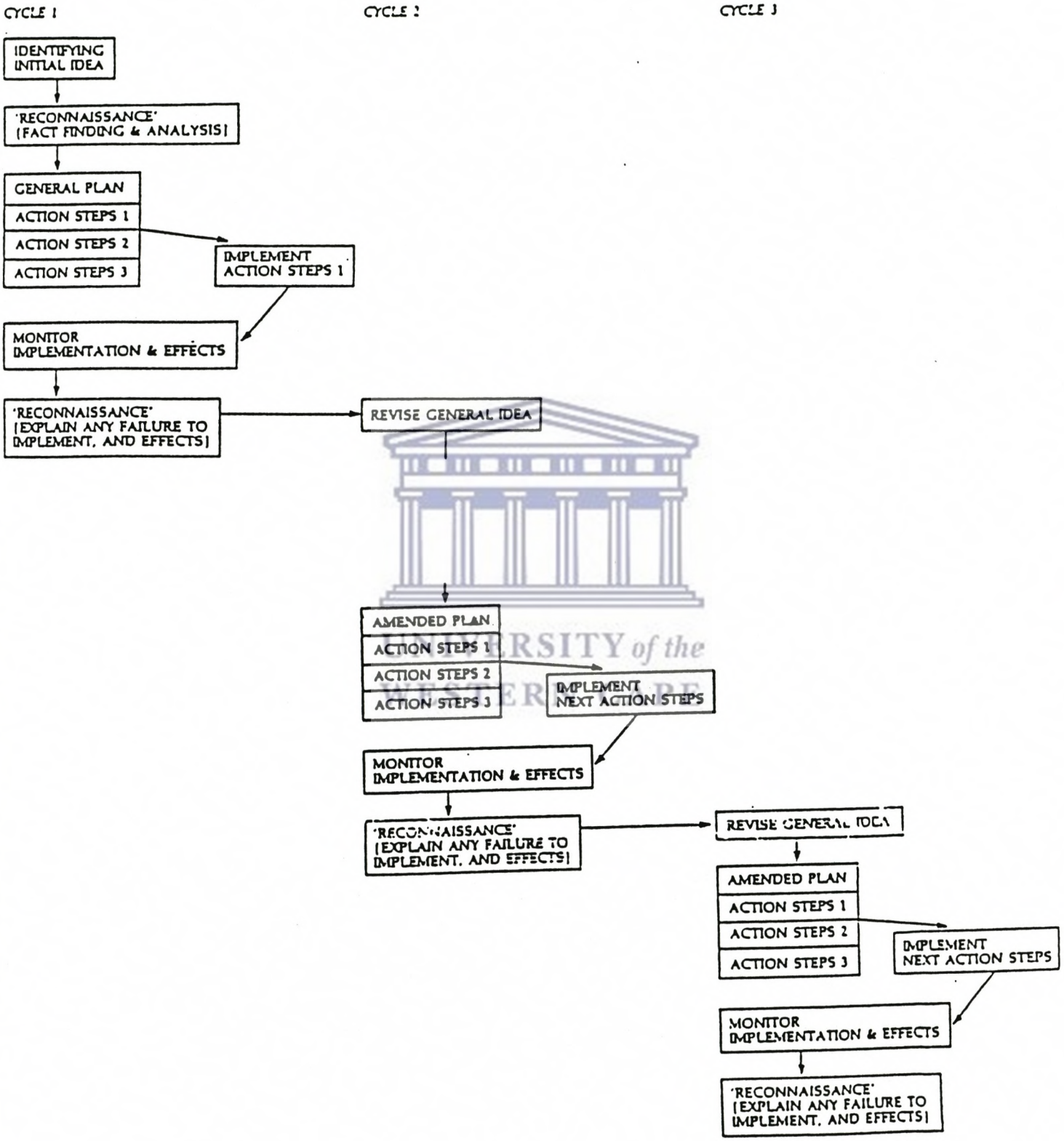
1. Die kursus word aangebied vir studente vir wie Afrikaans 'n vreemde taal is, bv. studente wat nie Afrikaans vir die Senior Sertifikaat aangebied het nie, en veral dié wat Afrikaans vir sekere studierigtings benodig. Studente word gekeur op grond van uitslae behaal in 'n intreetoets.
2. Die doel van die kursus is om basiese kummunikatiewe vaardigheid in Afrikaans te ontwikkel deur gestrukteerde blootstelling aan die geskrewe en mondelinge woord. Die klem val op gebruikstaal (Afrikaans as kummunilasiemiddel op sosiale gebied) en 'n begrip van Afrikaans as 'n onderrigmedium.
3. Aanvullende doelstellings sluit in die bevordering van selfvertroue en die ontwikkeling van 'n positiewe houding ten opsigte van die gebruik van Afrikaans.
4. Evaluering vind deurlopend plaas. 'n Semestertoets word afgelê aan die einde van die eerste semester, gevolg deur 'n omvattende eksamen in Oktober/November.

APPENDIX C: LEWIN'S MODEL OF ACTION RESEARCH



Elliott, J. (1981)

APPENDIX D: ELLIOTT'S REVISED MODEL OF ACTION RESEARCH



Elliott, J. (1981)

APPENDIX E: FIRST WORKSHOP 1993 - BRIEF MEDICAL NOTES AND TASKS

Mr M.P. is a 25 year old patient in B4.
The folowing is relevant information extracted from his folder:
On 12/12/92 this man was involved in an MVA and was admitted to GSH. He sustained the following injuries:
- compound # L humerus
- proximal and distal #'s L femur
- compound # L tib/fib

02/93: The # humerus did not unite (non-union), -> upper arm amputation.
02/93: An intermedullary nail and screws were inserted into the femur.
30/03/93: Referred to Conradie. He had a septic left shoulder which responded well to treatment.
16/04/93: Discharged home.
20/05/93: Re-admitted to Conradie. On follow up, X-rays showed oligotrophic non-union of the tib/fib #.
21/05/93: Bone graft was sone anad a Hoffmaan's Apparaatus was applied.

His condition is stable, but he complains of severe phantom pains in his L arm, due to a neuroma.
Mr M.P. is in hospital to be rehabilitated home, to Paarl.

TASKS to be completed before attending the Practicum.

1. Identify, and briefly list the : i) **knowledge**
ii) **skills**
which you predict thaat you will need in order to assess, and treat this patient effectively.

2. Ensure that you have revised and are familiar with the above.

3. Briefly write down the full assessment which you would do on this patieht if had limitless time to do so. (As time is never limitless, you will be asked to make certain choices!)

4. Give some thought to: i) the roles of the other health professionals who you would be working with, in the management of this patient, and
ii) the possible problems/ referrals
which would be necesary when Mr M.P. is discharged home to Paarl, where he lives with his parents and 6 other family members.

APPENDIX F: LETTER AND FINAL QUESTIONNAIRE
4TH YEAR STUDENTS - 1993

Dear .....

I would be very grateful if you would answer the following questions concerning the clinical group sessions which we had last year at Conradie Hosital.

Your input will greatly assist me in continuing and modifying the sessions this year. I am planning to extend these groups into research for a Masters research thesis. At this stage, I plan to investigate methods of facilitating the integration of theoretical knowledge and practical skills in a clinical segging.

You may send off the information anonomously if so wish - and I really would appreciate an 100% response. If you would like any inmformation from me, please feel free to contact me at UWC. As I am at presesnt planning next terms course, I would value your returning the replies within a few days, in the envelope provided.

I wish you everything of the best for your future professional - and privaate - life!!

Yours sincerely,
Mary Faure.

Please answer the following questions, and briefly explain in whihc way the sessions either did, or did not, contribute to each answer. (I apologise if this sounds much like an exam question, it is not the intention!!)

Do you consider that the practical sessions:

1. promoted the integration of theoretical knowledge and practical skills? YES/NO

how?

2. encourage clinical problem solving? YES/NO

why?

3. increase your level of confidence in your ability to :
   a) assess and treata patients/clients YES/NO
   b) democstrate the above to your peers and staff YES/NO

in what way?

4. contribute to your success in :
   a) the finaal practical examination YES/NO
   b) the written examinations YES/NO

why?

5. Are there any comments which you would like to make?

APPENDIX G: FEEDBACK ON FIRST WORKSHOP
3RD YEAR STUDENTS - 1994

1. What did you enjoy most in this session?

2. What did you enjoy least in this session?

3. What are your expectations for future sessions?

4. Indicate in the following columns, the sources of the knowledge, skills anad attitudes which you used.

	COURSE	INFO
1st yr		
2nd yr		
3rd yr		

APPENDIX H: TASK OUTLINE FOR WORKSHOP ON 3RD MAY 1994
3RD YEAR STUDENTS

Please find attached the doctors notes, and physio assessment for Mr S.

Familiarise yourself with this assessment, and any added information which you might need before treating this patient.

On Thursday:
* we will identify the main problems,
* design a treatment/rehabilitation plan - (short and long term) and then
* carry out an appropriate treatment session for this specific patient.

APPENDIX I: MY LETTER TO STUDENTS PRIOR TO WORKSHOP HELD ON 19TH MAY 1994

This session will be held at G.F. Jooste Hospital, and we will be assessing a patient who has had an amputation.

I would again like to reinforce that the causes, predisposing factors, treatment and management of the rehabilitation of a patient with an amputation will still be dealt with during your regular classes. This practicum is **not** going to replace any part of your ongoing curriculum.

The aim of the session is to facilitate problem solving and critical thinking processes, so that by accessing that knowledge which you already have acquired over the past 2 1/2 years, you will discover that you are able to plan and carry out an initial assessment and treatment session in those situations where you have not yet received "lectures" or "demonstrations".

You therefore, do **not** have to do any preparation for this session.

NB PLEASE RETURN ALL QUESTIONNAIRES WHICH ARE OUTSTANDING ON THURSDAY. YOU HAVE ALL AGREED TO COMPLETE THESE FOR ME AND I WOULD GREATLY APPRECIATE YOUR DOING SO AS THEY ARE VERY IMPORTANT TO ME !!! (The majority of the class have handed these in, but there are a few students who still have two or three outstanding.)

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