

**A CHANGE IN PERSPECTIVE:  
LEARNING IN TRADITIONAL  
CHINESE MEDICINE**

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## **ABSTRACT**

Learning in Traditional Chinese Medicine has been given a higher profile with the establishment of several government accredited higher education courses over recent years within Australia. Learning a system of health care with a basis in Traditional Chinese thought raises particular issues for contemporary students in Western tertiary institutions. This thesis addresses the nature of these issues and how they may be addressed to the benefit of students and ultimately their future clients.

Literature and qualitative field research were used to establish fundamental directions for this study. These suggested that a significant change in perspective occurs in the learning of Traditional Chinese Medicine for Western students. This was investigated through qualitative field research carried out with final year Traditional Chinese Medicine students. Informants were interviewed on their background and experience of learning before completing a case study problem solving exercise.

Change of perspective was considered in terms of paradigm and examined in three aspects; construct, sociological and metaphysical. These aspects of paradigm were applied to Traditional Chinese Medicine education. Findings from the field research suggest that learning of construct and sociological aspects of paradigm can be considered an incremental process and learning of the metaphysical paradigm as a transformational change process.

Pedagogical recommendations are made to support learning through each of the aspects of the paradigm of Traditional Chinese Medicine. The importance of academics encouraging a deep student approach to learning and providing practical experiences of Traditional Chinese Medicine are emphasised.

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# CHAPTER ONE

## BACKGROUND AND ORIENTATION

### ***1.1 THESIS OVERVIEW***

This thesis describes:

- Chapter One; the background to this study from the context of the Traditional Chinese Medicine profession, the researcher's Traditional Chinese Medicine background, and research literature,
- Chapter Two; development of the research question.
- Chapter Three; the field research methodology.
- Chapter Four; findings with examples of data used to determine themes which emerged.
- Chapter Five; discussion of the findings.
- Chapter Six; conclusions of this study.

It is noted that the perspective of the researcher is particularly important in qualitative research where the investigator is the main instrument of the study. A researcher who does not perceive the perspective of informants is limited in undertaking in-depth interviewing. The author's perspective on this research was based on fifteen years experience practising and teaching in Traditional Chinese Medicine. To be further informed on the context of this study, pilot interviews were carried out with academics at the site of the primary field research.

### ***1.2 BACKGROUND TO THE RESEARCH***

As a research instrument in this qualitative study (Patton 1990) the author's background forms an important aspect of this report. In using this approach the aim is to consider the data of the research without presumption about outcomes, but acknowledging that previous experience and study of the subject provides the subjective starting point. This includes my educational and clinical experience together with influence from the reading of relevant literature. This experience and literature may provide a 'recognition factor' which allows "discriminating access to the phenomenon of inquiry" (Sandelowski, Davis & Harris 1989:79). From a wider perspective my view point on Traditional Chinese Medicine is also the product of the development of Traditional Chinese Medicine from its origins in China to the developments of professional practice in Australia. The information in this section thus provides the context to this research study.



## **1.2.1. BACKGROUND OF TRADITIONAL CHINESE MEDICINE AND THE PROFESSION IN AUSTRALIA**

### ***1.2.1.a. Historical Development***

Whilst based in traditional philosophy and theory Traditional Chinese Medicine is not a fixed system of health care unchanged from ancient times. It has continually developed over at least 2,500 years. This history has been well documented in the classical medical texts of China since the 'Huang Di Nei Jing' (c. 250 BC).

Traditional Chinese Medicine has a recorded history stretching back over two thousand years in China and developed from philosophical concepts going back much further than that. The immense size of China and diversity within it led to many variations in the development of Traditional Chinese Medicine. Around the time of the writing of the 'Huang Di Nei Jing', various philosophical and theoretical developments were debated and found their place within the contemporary philosophical perspective (Unschuld 1985). This process was part of the formation of the Traditional Chinese Scientific paradigm which has been the basis for the development of Traditional Chinese Medicine since that time (Zaslowski 1995:57).

The continual development of Traditional Chinese Medicine has occurred both in China and in neighbouring countries to which it has spread. The development of trade links with the Orient over recent centuries from other parts of the world has led to the spread of Traditional Chinese Medicine much further afield. The dramatic changes in China in the last hundred years have affected all aspects of life including the practice of Traditional Chinese Medicine. Since 1949 a particular form of Traditional Chinese Medicine has been promoted within China which emphasises particular theoretical aspects. This simplified the process of Traditional Chinese Medicine education and provision of health care to a huge population, a large proportion of which had previously little or no state provided health care. The impact of the Cultural Revolution during the 1960s and 1970s also contributed further to suppression of some perspectives of Traditional Chinese Medicine. Since that time many of the traditional theories and perspectives have re-emerged within contemporary Traditional Chinese Medicine in China as freedom in expression has increased.

### ***1.2.1.b. Traditional Chinese Medicine Profession In Australia***

Significant growth of the Traditional Chinese Medicine profession in Australia has developed since 1969. At that time formal courses were begun through private colleges (Rogers 1986:99) which resulted in a major increase in the supply of practitioners. The programs offered by these colleges developed significantly from 1969 to the present day in both length and content of their courses. In the 1970s educational source material was initially fairly limited and came mainly from Europe, Taiwan and Hong Kong. During the 1980s much more information became available with the opening up of The Peoples' Republic of China to the outside world and a great increase in the publication of Traditional Chinese Medicine references from both China and other countries. This information was progressively integrated into programs in Western countries.

As a step towards integration of Traditional Chinese Medicine into the mainstream of higher education moves were made by some Australian colleges during the 1980s to establish links with government tertiary institutions for the provision of Western Bioscience education. In Sydney in 1986 Acupuncture Colleges (Australia) became the first Australian Traditional Chinese Medicine educational institution to have its program government accredited at a tertiary level (the Diploma of Applied Science - Acupuncture). This was re-accredited in 1991 as a full degree (Bachelor of Applied Science - Acupuncture). In 1990 the National Health and Medical Research Council established a committee named the 'Working Party on the Role and Requirements for Acupuncture Education' which found that "Acupuncture is currently practised as a primary care modality, and emphasised the need to ensure a high standard of safe practice in its continuation" (Rogers 1990:26). Further to this the working party recommended "... the provision of Acupuncture education in suitably staffed and equipped universities in the tertiary education sector at the undergraduate level ..." (Rogers 1990:27).

The need for Acupuncture programs at an undergraduate level and within the university system, as a way of ensuring a high standard of professional practice was thus recognised. Soon after this, university undergraduate degrees in Traditional Acupuncture were established at the Victoria University of Technology (Melbourne) and the University of Technology, Sydney. The Royal Melbourne Institute of Technology University has since also introduced a double degree program in Human Biology/ Chinese Medicine involving Traditional Acupuncture and Chinese Herbal Medicine. In addition private colleges such as the Australian College of Natural Medicine (Brisbane) and the Melbourne College of Natural Medicine have received government accreditation of courses up to degree level.

The establishment of Traditional Chinese Medicine programs in Australian universities has attracted considerable interest in China which has resulted in the formation of the Collaborative Committee on Higher Education in Traditional Chinese Medicine with the Chinese State Administration of Traditional Chinese Medicine, the Victoria University of Technology and the College of Acupuncture, University of Technology, Sydney. The objectives of this committee include "cooperation between the Colleges of Traditional Chinese Medicine in both countries ... [and the development of] ... cooperative academic research programs" (Watson 1992:39).

Technical And Further Education (TAFE) level Traditional Chinese Medicine courses have also been approved by Australian government agencies. The significance of program approval at two different levels of education for the same profession is at present unclear. Current moves towards the registration of Traditional Chinese Medicine (Victorian Department of Health and Community Services 1996) may stipulate a minimum standard of training which resolves this anomaly.

### ***1.2.1.c. Ethnic Chinese Practitioners***

The influx of Chinese nationals to the Australian goldfields during the mid Nineteenth Century included practitioners of Traditional Chinese Medicine. Evidence of Traditional Chinese Medical practitioners from the 1850s through to the 1930s has been documented by Loh (1994). In the early 1900s Chinese herbalists were established in Melbourne inner suburbs and country towns with a predominantly non-Chinese clientele (Loh 1994:2). The restrictions on immigration together with the limitations of herbal

supplies during the second world war led to decline in practitioners numbers of this first phase of Traditional Chinese Medicine activity in Australia. The reputation they established and part they played in middle class Australian life through to the 1930s (Loh 1994:7) has helped establish the path for the current development of Traditional Chinese Medicine as an important part of the health care industry. The presence of ethnic Chinese practitioners has expanded considerably in recent years with an influx from the Peoples' Republic of China, many with degrees from universities and colleges of Traditional Chinese Medicine.

### **1.2.2 PERSONAL BACKGROUND OF AUTHOR**

I was born in 1960 in Melbourne, of English emigrants and grew up in the Melbourne outer eastern suburbs. My first contact with Traditional Chinese Medicine and its philosophy was at nineteen years of age, when I consulted an acupuncturist. Later that year I commenced the Practitioner Diploma of Acupuncture course at the Australian Acupuncture College.

Over the last fifteen years I have been involved in both the clinical practice and teaching of Traditional Chinese Medicine. My development in these has occurred during considerable developments within the profession in Australia over that time. I now feel that I can contribute to the continuing development of the profession with research into issues which I feel are important in the understanding of Traditional Chinese Medicine education.

During my basic Traditional Chinese Medicine education at the Australian Acupuncture College I found a strong personal sense of connection developing with the Traditional Chinese Medicine world view. This was in marked contrast to my experience of the perspective of the world presented at high school in the science subjects I predominantly studied. This sense of connection I feel is a fundamental component in my Traditional Chinese Medicine learning. Whilst concepts involved in the college course were very different from those previously presented to me and as such I found them a little foreign and difficult to accept intellectually, I found I soon became comfortable with their general thrust. I do not feel that I became fully aware of the nature of the perspectives being presented during my training, yet I did realise that I had been introduced to a fundamentally different perspective on the world. This provided not only a new way of perceiving health and disease, significant to my ultimate practice of Traditional Chinese Medicine, but to the whole way I looked at the world. The process then of learning Traditional Chinese Medicine has been for me one of a changing of perspective. I am aware the process has influenced my depth and breadth of world view as well as my Traditional Chinese Medicine understanding and that it has continued since my graduation from the college. Other life experiences which I recall as involving a fundamental change in perspective were sojourns in China and in India.

At the Australian Acupuncture College there was great emphasis on creatively exploring Traditional Chinese Medicine theory and philosophical understandings. Academics pursued their own intellectual investigations into theory which they presented to students during classes for discussion and debate. Participation, however peripheral, in the experience of academics actively learning, encouraged me to be challenging and 'lateral' in my approach to learning in Traditional Chinese Medicine. This

environment of creatively investigating Traditional Chinese Medicine stimulated my own interest to explore intellectually and intuitively. This approach has carried over into career long learning and to practice.

I felt clinical training, including clinical application of theory, was underdeveloped in my course at the Australian Acupuncture College. At the completion of my diploma in 1984, I travelled to China to further develop these clinical skills. I worked primarily in the outpatients clinic during a three months placement at a Traditional Chinese Medicine training hospital. This provided an intense experience of Traditional Chinese Medicine as practiced in hospitals in China. The experience enhanced my professional confidence and increased my awareness of significant differences in practice of Traditional Chinese Medicine between Australia and China. It also emphasised for me differences between individual practitioners.

To summarise, in China I found that the approach to Traditional Chinese Medicine practice:

- varied across practitioners,
- appeared to not include aspects of theory and philosophy which were covered in my course,
- commonly applied simpler and generally standard treatments, which allowed a maximum of clients to be seen within the time constraints of hospital practice.

This experience emphasised for me the importance of context in the approach to practice of different practitioners. The priorities of hospital practice in China are quite different from those in the predominantly private practice environment of Australian Traditional Chinese Medicine. In Australia Traditional Chinese Medicine is seen more as a speciality, where the expectation is for a maximum of attention and therapeutic results for individual clients.

Another contextual difference between China and Australia is societal perception of individual versus group responsibilities and freedoms. In China an emphasis is placed on the community rather than the individual, which contrasts with the emphasis on freedom and self determination for the individual in the West. This provides a different emphasis in clinical practice. In my experience and in a recent survey (Ferrari 1995:7) an important reason for Australians' choice of seeing a Traditional Chinese Medicine practitioner is the time spent with clients. This time allows for the consideration and discussion of personal and psychological issues around relationships, emotions and/or spiritual aspects of a client not often provided in the predominantly public clinics of China.

My Chinese experience emphasised to me the variety in approaches to practice of Acupuncture amongst traditional practitioners both in Australia and overseas. Observing the importance of contextual influences on approach to Traditional Chinese Medicine practice has stimulated my interest into the nature of the range of Traditional Chinese Medicine practice and contextual influences on that range. My own personal transformational experience has always influenced my conception of students' learning in Traditional Chinese Medicine. The experience of the Traditional Chinese Medicine philosophy in becoming my own has also interested me. My involvement in Traditional Chinese Medicine education has thus naturally involved questions about how this experience has been for the

students I have taught.

Soon after returning from China I began private clinical practice and late in 1984 started teaching practical workshops in Traditional Chinese Acupuncture. Since that time the clinical and academic aspects of my career have developed hand in hand. I have tried to communicate my perception of the Traditional Chinese Medicine paradigm in teaching because of the importance I feel it has held in developing understanding. I have done this with the material I have presented and the way in which I deal with students both in and out of programmed classes.

My background in Traditional Chinese Medicine stimulated the direction of my research interest in this project. I have had many questions about the experience for students of learning a system of medicine originating in a culture in many cases quite different to their own. Such questions as:

- What impact does the contextual background of students have on their Traditional Chinese Medicine education?
- What is the process of learning the Traditional Chinese Medicine system for those without a Traditional Chinese background?
- Is Traditional Chinese Medicine being learnt within its traditional basis or within a 'Westernised' way of thinking?
- Do students with a Chinese background experience learning differently to those without?

Such queries provided impetus and direction for development of the research question for this project.

# CHAPTER TWO

## DEVELOPMENT OF THE RESEARCH QUESTION

### **2.1 INTRODUCTION**

Development of the research question was begun by surveying Traditional Chinese Medicine literature for material on the nature of learning Traditional Chinese Medicine in the West. Pilot interviews on this topic were also conducted with Traditional Chinese Medicine academics and students.

As a research instrument of this study my development of perspective on the topic is important to the understanding of the project. A considerable part of this was in developing my understanding of the definition of Traditional Chinese Medicine and educational perspectives on learning, which provided context for and support in the forming of a research question. Whilst there have been many texts published recently on the theory and application of Traditional Chinese Medicine, there has been little published on issues in education around epistemology, or the application of the philosophy of science of Traditional Chinese Medicine in training practitioners. The consideration of Traditional Chinese Medicine literature together with pilot interviews with Traditional Chinese Medicine academics and students provided insights for the further review of literature on educational research in the areas of learning and change processes.

The development of my understanding of learning and processes possibly relevant to Traditional Chinese Medicine education in the West, formed the basis for the framing of my research question and subsequently its investigation.

### **2.2 TRADITIONAL CHINESE MEDICINE LITERATURE AND PILOT INTERVIEWS**

#### **2.2.1 Traditional Chinese Medicine Literature**

In reviewing Traditional Chinese Medicine literature two predominant areas of significance to education emerged. The first is a contentious debate which has occurred on the depth to which Traditional Chinese Medicine should be taught to Western undergraduate students. The second is an interesting development of authors considering the defining of Traditional Chinese Medicine.

##### ***2.2.1.a Depth of Traditional Chinese Medicine Education***

Flaws (1992) expresses the belief that most students in the West are unable to develop a deep understanding of Traditional Chinese Medicine due to the limitations of program length and the need as he sees it for Chinese medical language skills. He refers to an historical dichotomy of practice in China as a model for current day Western professional practice.

Throughout much of the history of Traditional Chinese Medicine in China there has been two streams

of practitioners, defined by the *Zhou Fang Yi* (*Fang Shi* in current literature) and *Ru Yi* approaches (Lu & Needham 1980). The first being a larger stream which used therapeutic formulae to treat conditions on the basis of a limited diagnostic approach. The second which represented a smaller elite group of practitioners, selected more individual treatment based on a diagnosis drawing from a much more extensive body of knowledge and skills. Flaws (1992) applies this historical situation to contemporary professional practice and thus to the education of undergraduates, by suggesting that the majority of students should only be trained in a simple form of practice, perhaps leaving a deeper understanding to postgraduate education. He supports this proposal with his personal experience of student difficulties in gaining a deep understanding of the more advanced aspects of Traditional Chinese Medicine theory and practice.

Ryan (1995a) points out that curriculum selection is best based on the needs of the society which it seeks to serve, rather than on historical precedents. He criticises as simplistic and somewhat misleading, the application by Flaws of the historical dichotomy of practice to the current situation in China and for even more compelling reasons its application to Traditional Chinese Medicine education in the West. Whilst a dichotomy of practice exists in contemporary China, the current form of simpler practice derives from the full Traditional Chinese Medicine theoretical base, rather than developed as a result of a limited knowledge base (Ryan 1995a:12). A further contrast with the historical past is that practitioners of the more complex approach in China today have been trained in degree programs at the universities and colleges of Traditional Chinese Medicine with access to far greater diversity of knowledge than previously. Ryan states that contextual differences between China past and present also weaken the validity of using this historical precedent in designing curriculum (1995a). When differences between ancient China and the West are considered the contrast is even more significant. The views Flaws (1992) expresses about student learning reflects those reported by lecturers in other academic fields (Entwistle 1984, Ramsden 1992:29) which have tended to provide a narrow view of student learning and factors influencing students. It has been the qualitative researching of students perspectives on learning which has revealed a much richer perspective. In fact many salient issues in the learning process have emerged which can help explain student difficulty in learning. These are most significant when the development of understanding is the fundamental aim rather than simple rote memorising (Ramsden 1992). It is the development of understanding of theory and practice which Flaws has criticised in contemporary Traditional Chinese Medicine students. I suggest the view point of Flaws may be criticised in the same way that lecturers in other disciplines have been criticised for their limited perspective (Entwistle 1984, Ramsden 1992). The limited view point alone of a lecturer can underestimate the process of learning and simply place the blame for poor performance at the feet of such things as students' laziness (Ramsden 1992) or incompetence (Flaws 1992). Other Traditional Chinese Medicine commentators such as Deadman (1992) and Ryan (1995a) have expressed the belief that Western students are capable of learning the complexities of Traditional Chinese Medicine at an undergraduate education level.

### ***2.2.1.b Defining Traditional Chinese Medicine***

Another recent trend in the literature is for authors to attempt to define Traditional Chinese Medicine as a basis for discussion on topics such as research, education and future directions (Ryan 1995b, Watson 1991, 1995b, Zaslowski 1995). This is I feel a step forward in the development of the literature of the profession which may in part reflect increased resources becoming available for research and academic development. In the past the implications of the perspective which authors bring to their discussions of Traditional Chinese Medicine have not been acknowledged. This acknowledgment represents a step forward in recognising that any view point is contextual and dependent on the fundamental starting point of the author.

Traditional Chinese Medicine can be defined in terms of an underlying world view, theory and the basic patterns of client/practitioner interaction including therapeutic techniques. A common pattern in recent Traditional Chinese Medicine literature is a reference to 'paradigm'. In doing this the term 'paradigm' has been used in different ways. A not uncommon feature of discussions involving paradigm has been unstated conceptual differences in the use of the term, creating problems for the reader in determining meaning. This difficulty can be sourced back to the first enunciation of the concept of 'paradigm' by Kuhn (1970), who himself applied it in as many as twenty one different ways (Masterman 1978:60). Masterman (1978) found the various concepts of paradigm used by Kuhn can be placed into three groupings. These she terms metaphysical, sociological and construct. They can be applied to the understanding of the paradigm of a Traditional Chinese Medicine practitioner as follows:

**1. Metaphysical:** this is the philosophical concept of paradigm as a world view, influencing understanding at all levels. In this way 'paradigm' is considered as the basic strata or ground from which one views the world generally, including in this case a system of medicine. The significance of this concept of 'paradigm' is that it has a fundamental defining influence on the theories, philosophies and practice of Traditional Chinese Medicine. Thus to try to understand Traditional Chinese Medicine without the type of paradigm in which it developed would at best provide limited insight and at worst misunderstand it completely. This type of paradigm can be referred to as the Traditional Chinese Scientific paradigm (Lu & Needham 1980) and in this thesis is termed the 'Traditional Chinese Medicine metaphysical paradigm'.

Aspects of the Traditional Chinese Medicine metaphysical paradigm are;

**Holism:** this can be described as the oneness of all phenomena in the universe. This view implies that essentially all things are one and the differences between them are secondary. Acceptance of a diversity of cultural views can be a valuable way to recognise this perspective in people. When another cultural view is accepted, judgemental attitudes such as right versus wrong and modern versus primitive are released as a person comes to accept and appreciate differences.

All phenomena are interrelated and interdependent (Watson 1995).

**Patterning:** the nature of the universe is that all phenomena form patterns in their relationships.



**Macrocosm/microcosm:** the patterns formed by all phenomena repeat in a consistent way throughout all levels of the universe.

**Process:** all phenomena are in constant change process.

It has been noted by authors such as Capra (1982) that Oriental philosophical perspectives such as these are common to branches of modern physics such as Quantum theory and Systems theory. This indicates that this type of metaphysical paradigm is not unique to the East, but available to those of other cultural backgrounds.

**2. Sociological:** this could also be called the cultural paradigm. This aspect of paradigm is more specifically guiding to particular activities than the metaphysical paradigm.

The following may be considered to be part of the sociological paradigm of a practitioner of Traditional Chinese Medicine representing specific understanding of the universe as maybe applied to clinical practice:

The application of Holism in Traditional Chinese Medicine is very broad encompassing all levels of a person. This means the anatomical, physiological, mental and spiritual aspects of a person together with their total environment are considered in a Oneness involving constant interaction and interdependence. By contrast Holism can be limited to the Oneness of anatomical and physiological aspects of a person in a Western Scientific view of medicine.

**Yin/yang:** duality is considered to be a dynamic interplay between phenomena polarised into opposites. These opposites support and transform into each other in a relationship constantly seeking balance. In Traditional Chinese Medicine this can manifest as the understanding of how therapeutic interventions may be contraindicated at one stage of a disorder and become of benefit at another. By contrast duality may represent independent and mutually exclusive opposites in a Western Scientific view where a particular therapeutic intervention is by nature always contraindicated in a particular disease.

**Wu xing (Five Elements or Five Phases):** the *wu xing* represents a theory for the further individuation of phenomena into five patterns, at all levels of observation of the universe. As with *yin/yang* theory, the *wu xing* patterns each support and transform into each other in a relationship constantly seeking balance. In Traditional Chinese Medicine the emotions are considered to be in such a relationship.

**Fundamental Bodily Substances:** the blood, fluids, *qi*, and even *shen* (spirit) of a person are considered to form the substances of the body. In the context of the Traditional Chinese Medicine metaphysical paradigm these are interrelated and mutually supportive in maintaining and protecting each other.

**Qi:** can be considered the vital life energy of all living things. In Traditional Chinese Medicine it is primarily perceived by what it does. Functions include warming, protecting, assisting metabolism and ensuring the distribution of other Fundamental Substances throughout the body.

**Zang fu:** the organ system of Traditional Chinese Medicine. Viewed from the metaphysical paradigm of Traditional Chinese Medicine the concept of the organs is quite different from that of modern Western Medicine. *Zang fu* are recognised primarily by their functions and functional interrelationships rather

than a physical structure. The *Spleen* refers for example to functions of digestion and thought process. For this reason the organs of Traditional Chinese Medicine will be referred to in this thesis in *italics* to differentiate them from the organs of Western Medicine.

*Jing luo*: the system of circulation of Fundamental Substances, particularly *qi* which forms a network throughout the body.

View of Health and Illness: this is based on the concept that the individual is in a relationship to all things. Health is the maintenance of a constant change process balanced within and without oneself. Maintenance of this balance is considered to be a daily concern, not just considered when one has 'become ill'. In the sociological paradigm of a practitioner of Traditional Chinese Medicine this can be considered in two ways; firstly the harmonious balance of each functional aspect of a person and secondly the balance of all the influences internal and external upon a person (Lu & Needham 1980:8, Ryan 1995b:67-68, Watson 1995:).

It is important to recognise that each of the above examples of the sociological paradigm are understood in the context of the Traditional Chinese Medicine metaphysical paradigm. Each represent models for understanding the patterns and interrelationships within the whole. These are not static patterns but represent the constant change process of all phenomena in the universe. They are understood to manifest at all microcosmic levels of the universal macrocosm. It is worth noting the consideration of the metaphysical paradigm in the context of the sociological paradigm is fundamental to epistemology as there are many terms, such as holism and duality discussed above, which are understood in significantly different ways between different metaphysical paradigms.

**3. Construct:** this paradigm represents the practice of Traditional Chinese Medicine together with the texts and therapeutic tools which both support and are applied to practice. It includes such things as the patterns of practitioner thinking, the ways in which practitioner/client interaction occurs and the settings in which practice is carried out. The construct paradigm of a practitioner of Traditional Chinese Medicine could be described in terms of a medical practice carried out through application of the Traditional Chinese Medicine sociological paradigm and being viewed from the Traditional Chinese Medicine metaphysical paradigm. This statement acknowledges that the construct and cultural paradigms are embedded in the metaphysical paradigm. As Lu & Needham state the techniques of Traditional Chinese Medicine have an underlying cosmological philosophy (1980:13). Thus it is the metaphysical and sociological paradigms which define the understanding brought to the construct paradigm.

Practitioners of Traditional Chinese Medicine have a variation of construct paradigms due to their individual differences. Whilst acknowledging this the following could be considered common on the basis of the metaphysical and sociological paradigms defined above:

Holistic understanding: this involves the acknowledgment of physical, energetic and spiritual aspects to all things (Lu & Needham 1980:12).

Patterning: the consideration of client signs and symptoms in forming diagnosis and selection of

treatment within patterns such as the philosophical models of *yin/yang* and *wu xing* or the physiological models of *Jing Luo* and *Zang fu*.

*Ben/Biao*: the concept that all disorders have an underlying pattern (*Ben*) and a pattern of manifestation (*Biao*). This is an expression of the holistic perspective of Traditional Chinese Medicine.

Traditional Chinese Medicine can be identified in different countries such as China, Japan and Korea linked by similarity of metaphysical paradigm. The varying influences of each country have created distinct sociological forms each effective in their own context. Suggestions that Traditional Chinese Medicine is not appropriate to Australians because it developed in China may hold some currency in the context of the differences in beliefs and practices between each. The historical precedent of countries developing distinct forms of Traditional Chinese Medicine suggests such a pattern is possible for Australia. The process of the Westernisation of Traditional Chinese Medicine is under way with the forming of interviewing techniques more appropriate to Western culture (Kaptchuk 1989) and texts such as those proposing a Traditional Chinese Medicine with greater emphasis on the psychology of the individual (Hammer 1990). Such variation in the sociological and construct paradigms can suit differing cultural and professional needs whilst retaining an essential Traditional Chinese Medicine identity.

Some authors are seen to apply both the metaphysical and sociological concepts, as defined here together in referring to 'paradigm'. Watson (1995b) for example describes a unified philosophy and theory which he terms the 'Traditional Chinese Medicine paradigm'. In a similar way Unschuld (1985) states that the profession has a 'hard centre' [or paradigm] (formed by its philosophy and theory) and 'soft edges' [or construct paradigms] (indicating variation in the application of the former).

Developmental change of Traditional Chinese Medicine has occurred continually in the sociological and construct paradigms. Traditional Chinese Medicine development did not follow the pattern described by Kuhn of metaphysical paradigm replaced by paradigm through radical change, as can be applied to Western Scientific Medicine (Zaslowski 1995). This may be understood by reflection on the nature of the Traditional Chinese Medicine metaphysical paradigm as one 'which tolerates diversity' (Ryan 1995b:37). The concepts of holism, interrelatedness of all aspects of all things and constant change have proved to be remarkably resilient over at least 2,000 years. This may in part be due to the way this metaphysical paradigm has allowed developmental change of the sociological and construct paradigms in an inclusive way. Forces for development of Traditional Chinese Medicine have been transmission into other cultures, the transmission of different cultural influences into China, changing sociopolitical circumstances in China and various environmental influences including disease plagues. As theory and practice were developed to deal with these influences, it was those which resonated with the core metaphysical principles (Ryan 1995b:38), with some exception (Unschuld 1985) which were incorporated into the body of knowledge. The contrasting viewpoints found within the Traditional Chinese Medicine body of theory are testament to the influence of its philosophically eclectic view of oneness. In this way the metaphysical paradigm has preserved Traditional Chinese Medicine in a recognisable form over the past two millennia.

In summary the metaphysical paradigm provides the world view and foundation upon which Traditional

Chinese Medicine operates. The sociological paradigm provides theoretical concepts which underlie and direct the nature of practice and both of these find expression in the practice which forms the construct paradigm of Traditional Chinese Medicine.

### ***2.2.1.c Relevance of Traditional Chinese Medicine Literature to this Research***

Difference of opinion exists between respected authors on the potential for Western students to deeply learn Traditional Chinese Medicine. The viewpoint that such learning is beyond students is based in part on the perceived limitation that lack of Chinese language creates. This suggests the cultural perspective of Western societies does not involve concepts that are present within the Chinese viewpoint, as expressed in the Chinese language. The development of understanding with issues such as these is an aim of this research. This debate within Traditional Chinese Medicine suggests that literature on the experience of students encountering another culture would be of use as further background to this research.

In the consideration of learning Traditional Chinese Medicine the importance of the metaphysical paradigm is suggested as significant for students of a Western university. As the Western Scientific paradigm is often influential within education in Western countries, there may well be a significant shift involved in learning for many students studying Traditional Chinese Medicine. There is support in the literature for there being such an important change process in the learning of Traditional Chinese Medicine in the West. Leading authors in the field such as Kaptchuk (1983) and Beinfield & Korngold (1991) have discussed a fundamental change in perspective on health and world view experienced during their learning of Traditional Chinese Medicine. Academics have expressed their view of a change in outlook and thinking which occurs as a part of student learning (Kailin 1983:159, Rogers 1983:246). Further to this is recent research into learning in Traditional Chinese Medicine at the University of Technology, Sydney (Ryan 1995b) which supports the significance of learning of the paradigm. This also suggests that research literature which considers the process and outcomes of people experiencing significant change in perspective, would be of use as further background to this research.

Two points of significance to this research can be drawn in regard to the Traditional Chinese Medicine literature. Firstly the influence of context on curriculum considerations raised by Ryan (1995a) suggests that research into understanding learning in Traditional Chinese Medicine will be done best in the situations where it will be utilised. In this research the collection of data will occur at the Victoria University of Technology, located in the suburbs of Melbourne, Victoria, Australia. Secondly the paradigm in which Traditional Chinese Medicine is viewed is suggested as fundamental to its understanding. For students learning at Western universities this may involve a significant shift in perception. The Traditional Chinese Medicine literature suggests that issues to be pursued with student informants in this research will include:

- the world view of informants,
- any change in world view was acknowledged during the time of Traditional Chinese Medicine

study, and if so what this involved.

The review of Traditional Chinese Medicine literature suggests further background to this research would be appropriate from other literature considering:

- the experience of students encountering another culture, and,
- the process and outcomes of people experiencing significant change in perspective.

### **2.2.2 Pilot Interviews**

At the same time as considering the Traditional Chinese Medicine literature I decided to seek the views of academics and students in the field. The aim was to gain background on the experience of learning Traditional Chinese Medicine in a Western university. This was used to inform the selection of further literature for investigation, framing of the research question and development of specific questions to be used in the primary interviews. Ancillary benefits to doing this were the development of my in-depth interview skills and access to local jargon used at the institution in which I would be collecting the primary research data. Five of the six full time Traditional Chinese Medicine academics and final year students at the Victoria University of Technology were interviewed using a semi-structured guide. The guide provided a basis for consistency of areas covered in each interview, whilst allowing flexibility in the order and content of questions (Patton 1990). Academics were individually interviewed, whilst most students were interviewed in focus groups, with some individually.

The academics were asked about their insights into:

- what defined Traditional Chinese Medicine,
- issues in learning Traditional Chinese Medicine,
- current students' experience of learning.

Two important findings from the academics were that:

- although there are many theories which can be incorporated into Traditional Chinese Medicine practice, it is difficult and probably inappropriate to define Traditional Chinese Medicine using these. A better basis for defining Traditional Chinese Medicine would be the philosophical perspective which is considered to be more pervasive.
- students' approaches to solving clinical problems is an important indication of the philosophical perspective in which they view Traditional Chinese Medicine.

These findings suggest issues to be pursued with student informants in this research. What have students found to be important in the learning of Traditional Chinese Medicine? What are students' approaches to solving a Traditional Chinese Medicine clinical problem and what does this indicate about their understanding?

The academic interview findings suggested further background to this research could be found in literature on:

- gaining a new philosophical perspective, and on,
- students approaches to learning problems.

For the students two focus group interviews were conducted in a private meeting room at the St. Albans campus of the Victoria University of Technology. Interview dates were arranged in association with the students convenient to their course timetable. The intention was for seven or eight students to be present at each interview, but in practice four students attended the first, nine students the second and two students who were unable to attend the focus groups were interviewed individually. All interviews were audio-taped and later transcribed to facilitate data analysis.

The questions to students were focussed on their perspective on the world and what they considered to be influences on this. It was considered that to simply ask students for their world view would have produced little data, so a three step process was developed:

Firstly each group was asked what they considered to be influences in general on the world view of people, to increase the students consciousness of this issue.

Each group was then asked about their own background, important influences in their lives and if they could reflect on how these may have effected their view of the world.

They were then asked if there had been any change in their view of the world since beginning the Traditional Chinese Medicine program. This may have included influence from the program or any other influences.

The students' response to the first question indicated they felt that a wide range of sources would influence the world view of a person, such as the following:

- nationality
- parents/family
- trans-cultural, intercultural experiences
- personal growth experiences
- becoming independent
- religion
- community
- media
- financial

However in the second stage of the interviews when students were asked for the specific influences in their own lives, they discussed a much more limited range as indicated in the tables below.

**Table 2.1.****Focus Group 1: Significant Influences on Students**

| Student          | Influence   |
|------------------|---|
| Bella – female   | Chinese village culture, Australian suburban culture. |
| Suzanne – female | Mother Finnish and father Australian.                 |
| Annie –female    | Indian/Fijian culture                                 |
| Paula – female   | Anglo-Saxon Australian culture                        |

**Table 2.2.****Focus Group 2: Significant Influences on Students**

| Student         | Influences   |
|-----------------|--|
| Angela – female | Religion (Non-denominational Christian)  |
| Jim – male      | Lebanese culture, Australian culture.  |
| Derek – male    | Indian/Fijian culture  |
| Mike – male     | Yugoslavian culture, Australian culture. Father Bosnian, mother Montenegrin.           |
| Joy – female    | Medicine: Western orthodox, Western alternative.                                       |
| Finbar – female | Mother German/Russian, Father Sri Lankan.  |
| Rick – male     | Greek culture, Australian culture.<br>Medicine: Western orthodox, Western alternative. |
| Eugene – male   | Italian culture, Australian culture.   |
| Cameron – male  | Anglo- Saxon Australian culture, Asian culture.  |

**Table 2.3.****Focus Group Absentees Individual Interviews: Significant Influences on Students**

| Student        | Influences                                       |
|----------------|--|
| Andrew – male  | Australian culture, Asian marshal arts.          |
| Maria – female | Medicine: Western orthodox, Western alternative. |

These tables of data provide an overview of the range of background of the target group, which can be seen to be diverse. There is a balance of gender and the influences indicated as significant show that the Traditional Chinese Medicine program is attracting a wide range of students not limited to or dominated by any particular background. This suggests that:

- for most students a Traditional Chinese view point will be a new sociological perspective for them,
- no one particular sociological paradigm in a student's background is significant in selecting the Traditional Chinese Medicine course or progressing through it,

- the experience of learning the Traditional Chinese Medicine sociological paradigm could be quite different for students.

In the primary interviews the issue of students' backgrounds will be pursued to elucidate how this may or may not contrast with Traditional Chinese Medicine perspectives, so as to provide a basis for considering if background is a variable in regards to students' experience of learning.

The third stage of questioning was for insight into the students' views of whether they had experienced changes in their views of the world since starting the program. Apart from insufficient data from one student who left early from the second focus group, all students indicated they had incorporated a new perspective on looking at their world. For example Suzanne stated "I guess my tolerance of other people has increased" and later "I think I'm more open minded and more accepting of different kinds of people". Bella said that other people had found her to be quite different saying she had "opened up a bit more of herself". Derek also found that he had developed an "holistic way of looking at things, looking through all aspects of my life". Cameron said "I was really influenced a lot during our clinical which we go and see practitioners. Just the way they interact with people and how they diagnose and all the rest of it". Change in perspective as a part of learning in the course was supported by these pilot student interviews.

In the primary interviews the student informants were asked to elaborate on their experience of changing perspective during their Traditional Chinese Medicine studies. This included the content of change, as well as their awareness of any specific influences in creating this change from either within or without the program.

These student pilot interview findings suggested further background to this research could be found in literature on:

- the experience of people encountering a new sociological perspective,
- the process and outcomes of people experiencing significant change of perspective.

## **2.3 EDUCATIONAL RESEARCH LITERATURE**

The review of Traditional Chinese Medicine literature, together with the pilot interviews conducted with academics and students, were useful in suggesting literature which would be relevant as further background to this research. Literature was explored that considered:

- the process and outcomes of people encountering new sociological and philosophical perspectives, and,
- students' approaches to learning.

### **2.3.1. What Is Learning?**

Learning can be considered the simple acquisition of knowledge at a behaviourist level. A consensus however amongst many academics (Ramsden 1992:17-37) to consider learning as involving changing



students' understanding, experiencing or conceptualising of the world around them contrasts to this. In this view students' learning takes them towards a perspective on the world as of an expert in their profession. This contrasts to learning as just memorising facts and details without understanding their context or how to apply them in real life situations. Such a view is congruent with issues in Traditional Chinese Medicine learning emerging from the review of Traditional Chinese Medicine literature and the pilot interviews. It is well applied to Traditional Chinese Medicine education with learning involving the acquisition of a type of viewpoint, as well as theoretical and practical detail.

### **2.3.2. Change Process**

In using the concept of learning as *change* in the way in which students view the world around them, I looked at literature which incorporated a change of insight for implications in learning in Traditional Chinese Medicine.

#### ***2.3.2.a. Sociological Literature***

Sociological literature brings a shift of perspective from some other fields of Western scientific endeavour with the acknowledgment of people as social beings and the implications of this. The discussion in this literature was based around the optimising of life within our society, through understanding the influences and forces which affect our attitudes. Attitudinal change is considered with the aim of empowering people to resist undesirable influences and to enable us to exert our own influence on others through changing attitudes (Zimbardo & Leippe 1991:2). An holistic view has been applied within the sociological literature (Zimbardo & Leippe 1991:34) in seeing that the changing of attitude will create change within other components of society such as patterns of work. Similarly attitude is seen to be changed as a result of changes in approach to such things as immigration levels. It is apparent that sociology takes a perspective to people and society which may be more holistic than a traditional Western Scientific view. This is valuable for empowering people within the boundaries of our Western society through considering such things as traditional attitudes to work, approaches to relationships and what constitutes success. However the holistic perception of the Traditional Chinese Medicine metaphysical paradigm appears to transcend these issues. Thus in searching for understanding of the change process which may be involved in learning Traditional Chinese Medicine for Western university students, perspective which was broader in conception was sought.

#### ***2.3.2.b. The 'Intercultural Transformation' Model***

To find a broad perspective on change I considered literature on intercultural experiences. This indicated that a significant change in perspective in people, which went beyond cultural boundaries, could occur during a sojourn in a foreign country.

A wealth of literature exists about 'intercultural experiences' which are increasingly common due to factors such as growth in international student exchange, multinational trade and international migration. Significant life events such as relationship breakdown, role and career changes can also create this kind of experience (Adler 1975:13). The model of 'Intercultural Transformation' (Kim and

Rubens (1988:299-321) was developed to explain the transformational changes occurring in people exposed to extensive intercultural communication in foreign cultures. This model was developed by Kim and Ruben (1988:299-321) by incorporating the two main approaches on intercultural experiences they identified in literature since the 1940s. The two approaches can be termed 'intercultural communication-as-problem' and 'intercultural communication-as-learning/growth'. Literature on the former approach has often described the response to intercultural experiences as 'culture shock'. As most of this literature is aimed at sojourners in foreign lands, the authors have focused on understanding of the process of adjustment to and acceptance of a new culture. Emphasis is on a "concern for minimizing the psychological difficulties and maximizing effective performance" (Kim & Ruben 1988:303) within the new culture. In contrast the later approach views 'culture shock' during intercultural experiences as a stage in a learning, or growth process (Adler 1987). Through the incorporation of these two approaches the 'Intercultural Transformation' model accepts there will be discomfort experienced during intercultural experiences, whilst incorporating a potential for transformational change and growth out of that discomfort.

The change process discussed in this literature seems likely to be relevant to Traditional Chinese Medicine students in a Western university, as for many this will involve learning about a new cultural paradigm. Through the intercultural transformational process a person encounters a new culture and as a result

*(1) examines the degree to which he is influenced by his own culture and*

*(2) understands the culturally derived values, attitudes, and outlooks of other people.*

(Adler 1987:30)

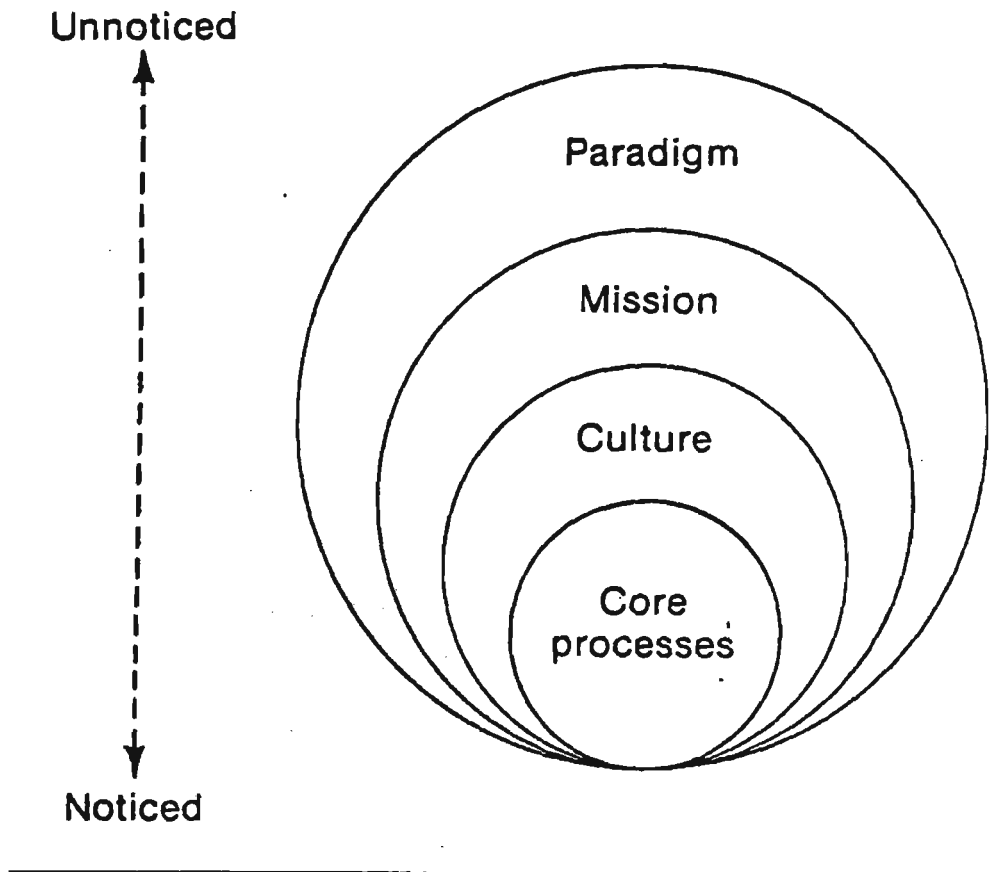
This understanding of how values, attitudes and outlooks are culturally derived can be seen as an outcome of a shift in metaphysical paradigm involved in the acceptance of another cultural paradigm. The legitimising of other cultural frameworks means they are no longer seen in such judgemental or evaluative ways as good versus bad or underdeveloped versus developed (Adler 1987:32).

Intercultural Transformation forces a person into "new levels of consciousness" (Adler 1987:30) in a change which seems to equate to that which may be involved in Traditional Chinese Medicine students. This idea will be investigated with student informants to explore, that if in the study of Traditional Chinese Medicine they experienced:

- learning of a new cultural perspective, and if so,
- whether this involved a shift in metaphysical paradigm. That is, were new levels of consciousness for example reached on the culturally derived values and outlooks of themselves and others.

This literature provided a basis to search for further literature which described the nature and process of transformational change.

**Diagram 2.1 The Content (What) of Transformational Change, modified from Levy 1986:16.**



### ***2.3.2.c. Transitional and Transformational Change***

Levy (1986) has identified two distinctive patterns of change through the review of literature in disciplines from an extensive range of human experience. These two types of change are not separate but together form a whole which represent the continuous change process which is common to all human systems from the individual, to communities and large organisations. These represent a "system capable of both creating and sustaining itself... [through] self-transcendence" (Levy 1986:10). In the individual this could be seen as the natural change process through life. These patterns are referred to as Transitional and Transformational Change which are characterised as follows:

- **Transitional or First-Order change.** This is characterised by minor improvements and adjustments which do not change the fundamental basis on which the person or organisation operates and views their world. This is the usual continuous process which occurs in natural growth and development. First Order Change provides for the adjustments and improvements necessary for dealing with the normal variety of experience and change within our daily lives.
- **Transformational or Second-Order change.** Levy's model also states that periodically individuals and organisations of individuals will find another type of change process occurs. This pattern of change equates to that discussed by Schon (1973) in application to individuals, organisations and social institutions. The process is characterised by discontinuity. Multi-dimensional and multilevel change create a new context which in turn leads to change in all aspects of behaviour. This is a revolutionary jump involving irreversible change which is seemingly irrational based on the old logic. Such change results in a new world view and state of being (thinking and acting) (Levy 1986:11). This model suggests the ability to undertake such change when it is necessary is a fundamental part of the lifelong process of an individual or organisation. Kuhn (1970) has emphasised the significance of alternate ways of considering what is real in his discussion of paradigms. In this light "Transformation entails learning to create or discover a reality beyond the one that currently exists..." (Levy 1986:11).

Levy has considered why Transformational Change occurs, the process by which it occurs and what is changed, in addressing understanding of change in organisations of people. In the following I have considered these issues as they could be applied to learning of individuals in Traditional Chinese Medicine at a Western university.

#### **What: The Content of Transformational Change**

Levy (1986) has summarised the content influenced by Transformational Change according to four dimensions of a person or organisation, termed Paradigm, Mission, Culture and Core Processes. These dimensions overlap and Levy suggests that each dimension is embedded and shaped by each other as discussed below and represented in the adjacent Diagram 2.1 'nested framework'. Awareness of the existence and functioning of the elements of each dimension varies from the generally unnoticed paradigm to the most noticeable core functioning processes. I will describe elements of Traditional Chinese Medicine which could be seen as examples of the content of Transformational Change as defined by Levy (1986).

## **1. Paradigm**

Levy defines paradigm "as the 'metarules', propositions or underlying assumptions that unnoticeably shape perceptions, procedures and behaviours" (1986:16). Each of the following dimensions is considered to be embedded in this one. As stated earlier for the purposes of this research the metaphysical paradigm of Traditional Chinese Medicine is considered the basic strata within which theory is considered.

## **2. Mission and Purpose**

This is the basic purpose the individual or organisation sees for itself. For example for a practitioner of Traditional Chinese Medicine their purpose may perhaps be the elevation of pain in others or perhaps supporting the personal growth process of others. There can be greater awareness of this dimension than of paradigm. Each practitioner will have their own basic mission or purpose, but the embedded nature of their purpose within the metaphysical paradigm means that there will be a broad similarity between practitioners of Traditional Chinese Medicine.

## **3. Culture**

This includes beliefs, values and norms as well as ritualistic behaviours, the physical arrangement of the environment and relationship practices. The culture will include the sociological paradigm defined by Masterman (1978) and as described for Traditional Chinese Medicine earlier. Beliefs and values of practitioners and the style in which they operate their practice, including the arrangement of the physical setting will reflect the culture. The metaphysical paradigm as well as the missions and purposes of Traditional Chinese Medicine practitioners will influence the culture of professional practice, once again producing a broad similarity.

## **4. Core Functioning Processes**

This includes the patterns of behaviour with clients and therapeutic interventions of practitioners. Therapeutic techniques which are commonly used in Traditional Chinese Medicine are Acupuncture, herbal medicine and Tui Na (including massage and other physical techniques) (Watson 1995a). The dimension of Core Functioning Processes is embedded in and fundamentally influenced by the each of the previous dimensions.

Each of these dimensions can be used to understand differences between practitioners in conception of Traditional Chinese Medicine. Significantly though it is the Traditional Chinese metaphysical paradigm which will have the most profound influence on the understanding and experience of what is Traditional Chinese Medicine and forms the basis for a unifying definition.

## **Why: Forces for Transformational Change**

Levy (1986) describes the forces which will create Transformational Change under the headings of Permitting, Enabling, Precipitating and Triggering. I have considered each of these in terms of how they may apply to learning in Traditional Chinese Medicine.

**1. Permitting conditions:** aspects of the internal environment which will permit change to occur.

'Internal' would refer in Traditional Chinese Medicine learning, to aspects of a student which will permit change in their view of the world around them. Levy notes that "too great an incongruence between the system [subjected to change, in this case a student] and its domain will probably make the transformation seem overly risky" (1986:12). This suggests that the background of students will be important to the likelihood of change occurring.

**2. Enabling conditions:** external conditions that increase the likelihood of transformational change occurring.

In Traditional Chinese Medicine learning these conditions would include those created by the educational program, but could also include vicarious forces from other aspects of a student's life.

**3. Precipitating conditions:** conditions which indicate within the system that change is required.

In Traditional Chinese Medicine learning such conditions would suggest that the current perspective of the student lacks viability for the purposes of understanding the material being presented. This could begin a conflict in fundamental aspects of the way in which they consider things in their world.

**4. Triggering events:** events which act as a driving force to transformational change.

These are events based on the presence of the preceding conditions which could create the change. Levy notes that in his review of case studies, a real or perceived crisis almost always appears as a driving force to transformational change (1986:12). In learning Traditional Chinese Medicine this may be a challenge to religious or culturally held beliefs, a lack of understanding of course material with an assessment looming, or negative assessment results. In different students these examples may be either Precipitating or Triggering events depending on their stage within such a change process.

### **How: Stages and Process of Transformational Change**

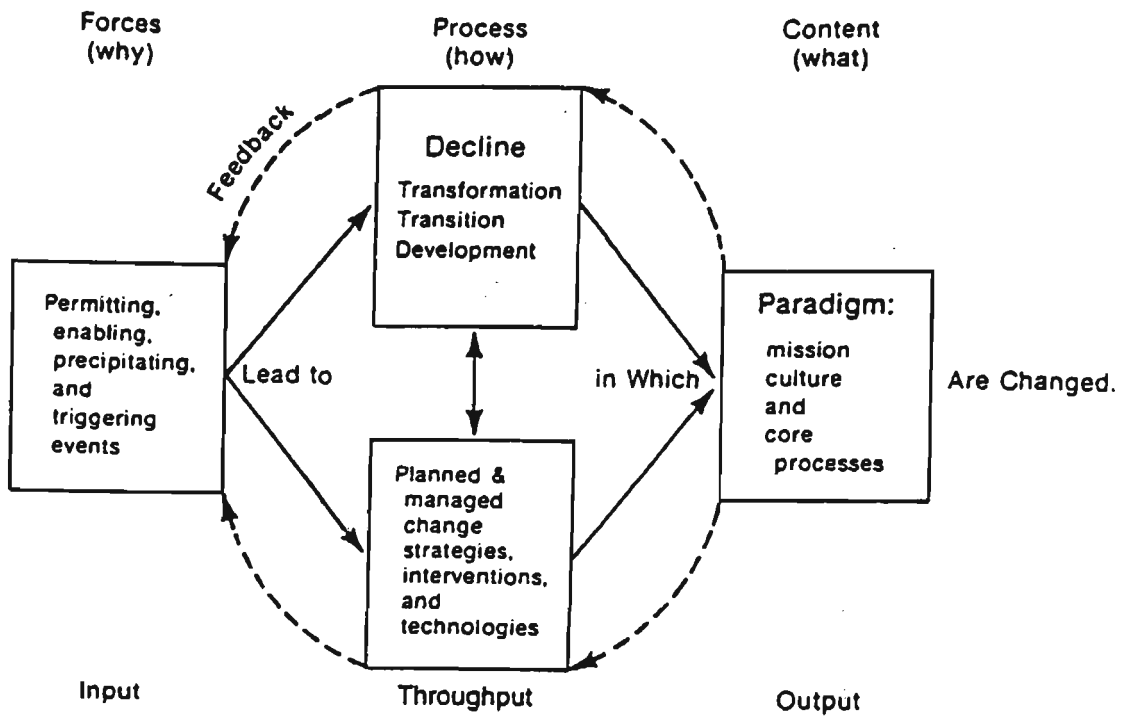
Levy describes four stages in the process of Transformational Change, which are here considered in the way they could manifest in Traditional Chinese Medicine learning.

#### **1. Decline**

In this stage the viability of the old paradigm of a student, would be declining in the context of their needs as demanded by the Traditional Chinese Medicine program. Difficulties arising from normal Transitional change approach to learning, could eventually result in resistance to learning, procrastination, crisis and perhaps anger. In this stage of Levy's model, there would be ever-increasing fluctuation of stability in the person's approach to study reaching a critical point (1986:13). This could occur if the program material culminates in the experience of such a significantly different paradigm, that a student experiences disorientation and a temporary disintegration of their personal world view. The Precipitating Conditions are in action creating the decline in the viability of the student's perspective on the material. The inter-cultural transformation literature describes an equivalent stage involving the 'disintegration of personal structure' (Adler 1975:16). This view states that at the point of crisis a person may choose to either incorporate the new challenging perspective in a transformational change, or revert back to their previous viewpoint. In a Traditional Chinese Medicine program reverting

**Diagram 2.2 Model for Understanding Transformational Change, from Levy**

1986:16.



to the old viewpoint could involve the student withdrawing from the course which is responsible for the precipitating conditions. This may also manifest in the student continuing the course but with ever increasing instability in their approach, until the next triggering event again confronts them with a crisis.

## **2. Transformation**

This stage includes acceptance of the need for change, a sudden shift in perception and emergence of a new direction both quantitatively and qualitatively different from the old one. The acceptance of a need for change here is important, in that a choice needs to be made to allow change to occur. Whilst this stage involves a choice, it may seem like an inevitable one, for example to a student who is failing assignments and yet is committed to completing the course. The stage involves a process of 'letting go'. This and the next stage are equivalent to the 'reintegration of personal perspective' discussed in inter-cultural transformation terms (Adler 1975:16-17), involving the incorporation of the new perception and producing a new understanding of the world.

## **3. Transition**

Whilst Transformational change may involve a sudden shift in perception, this does not mean the person involved is ready to apply their new view immediately. The transition stage in which the implications and possibilities of the new perspective are discovered and applied takes time and effort. Levy states that by understanding the principles of Transformational Change facilitators can here play an important role in "managing the transition from an unstable state to a new stable state" (1986:14). Whilst facilitation is valuable to the transformational change process, it is noted that the nature of any change ultimately remains in the hands of the person involved.

## **4. Development**

Through Transitional changes involving minor improvements and adjustments, the person will continue onward development of their understanding and application of Traditional Chinese Medicine. This would continue until circumstances if and when precipitated another transformational change process. As there are several aspects to the Traditional Chinese Medicine metaphysical paradigm which are significantly different from the Western Scientific paradigm a transformational change process could be expected to occur more than once. Adler (1975:18) suggests that the experience of transformational change engenders a capability for further 'transitions' in the future which may be a significant factor in the learning of Traditional Chinese Medicine students.

The adjacent Diagram 2.2 represents the above model for understanding transformational change.

Considering learning in Traditional Chinese Medicine in the context of change literature then has several implications. The discussion of the forces for transformational change suggest that the role of the program could be significant in enabling change, but also indicates that Permitting Factors from the students' own personal perspectives on the world would also influence this change and thus learning.

Of further potential significance from this literature is the process of transformational change. Whilst



learning, involves a "slow process of changing our understanding of a topic" (Ramsden 1992:4), it is suggested in Levy's work that this process involves several stages, including a transformational stage which in itself involves a phase of rapid shift of perception or consciousness when necessary.

The literature also provides suggestion of the content of change in learning of this type. Not only would the basic skills level of professional practice be developed, the culture of the profession, the professional purpose of students and most profound of all the metaphysical paradigm from which theory and knowledge are viewed would all be involved.

These ideas from Levy's (1986) transitional/transformational model of change will be explored with student informants. Student expressions of learning and change in perspective will be considered in the context of the content, process and forces for transformational change described by Levy (1986) and interpreted for Traditional Chinese Medicine above.

Up to this point I have considered literature for insight into learning of the Traditional Chinese Medicine metaphysical paradigm through the concept of learning as a transformational change process. In the next section I look at a concept which Ramsden (1992:39) has described as one of the most significant to have emerged in higher education research in recent decades and which is particularly significant in the context of learning as change in the perspective of students (Biggs 1988, Marton & Saljo 1984, Ramsden 1992).

### **2.3.3 Students' approaches to learning**

Research into students' learning processes has been based historically on the observations of lecturers, psychologists and educational researchers (Entwistle 1984). Since the mid 1970s though, research has been done into learning from the students' perspective. A leading expert in this field is Marton who conducted original studies at Gothenburg University (Marton & Saljo 1984) which have provided insight into the approaches of students to learning. Whilst this research focused on the reading of academic texts, the concept of Students' approaches to learning has since been broadened to many different sorts of tasks. Major findings from this research have been the categorisation of students' approaches into the patterns of 'Surface Approach' and 'Deep Approach'. A third category of approach identified has been termed 'Achieving', however in this study I will emphasise the first two which refer to students' ways of engaging in a learning task (Biggs 1988:129). An 'approach' to learning is not a characteristic of a particular student, in that everyone is capable of both Surface and Deep approaches. As Ramsden states "one cannot be a Deep or Surface learner; one can only learn the content in a Deep or Surface way" (1992:49).

'Approach' to learning is understood as the combination of a students motive to learn and the strategies they employ (Biggs 1988). Motives and strategies tend to occur in congruent packages, which have been shown in research across many different subject areas to be significantly important in determining the outcome of learning. The Deep and Surface approaches can be defined in motive and strategy terms as:

*Surface*, where the motive is to meet institutional requirements minimally, and the congruent strategy is

limiting the target to essentials that may be reproduced through rote learning;

*Deep*, where the motive is intrinsic interest in the content learned, and the congruent strategy is discovering meaning and acquiring competence by reading widely, inter-relating with existing knowledge, etc.

(Biggs 1988:129).

### ***2.3.3.a. Students' approaches to learning: Motives***

#### **Surface Approach Motive**

In higher education the motive of a student using a Surface learning approach is generally passing an assessment task with the minimum possible involvement. Interestingly the research with students has shown that to consider such an approach as just laziness is far too simplistic. Research from the students' perspective gives insight into lecturers' input into this learning approach. Pressure on students and the creation of cynicism about the educational process are the major inducements to Surface learning. Assessment and work load are the most likely influences in this (Ramsden 1984). Other perceived stressors include "authoritarianism, poor personal relations, closed government (particularly on decisions close to the student, such as grading procedures, return of marked papers, etc.) and pointless busy work arising out of pedantic course requirements" (Biggs 1988:134). A predominance of Surface approach to learning amongst a group of students, suggests then at least as much about the learning environment created by academics as anything about the students.

#### **Deep Approach Motive**

The Deep motive is to understand and find the meaning in the learning task material. When students' interest in a topic is aroused the potential is then created for a Deep learning approach. The consideration of motive is the starting point in encouraging Deep learning in students (Biggs 1988:134). Biggs suggests an affective 'hook' is the key to encourage this, with techniques such as guided self learning and the use of other students as a resource in small group work (1988:135).

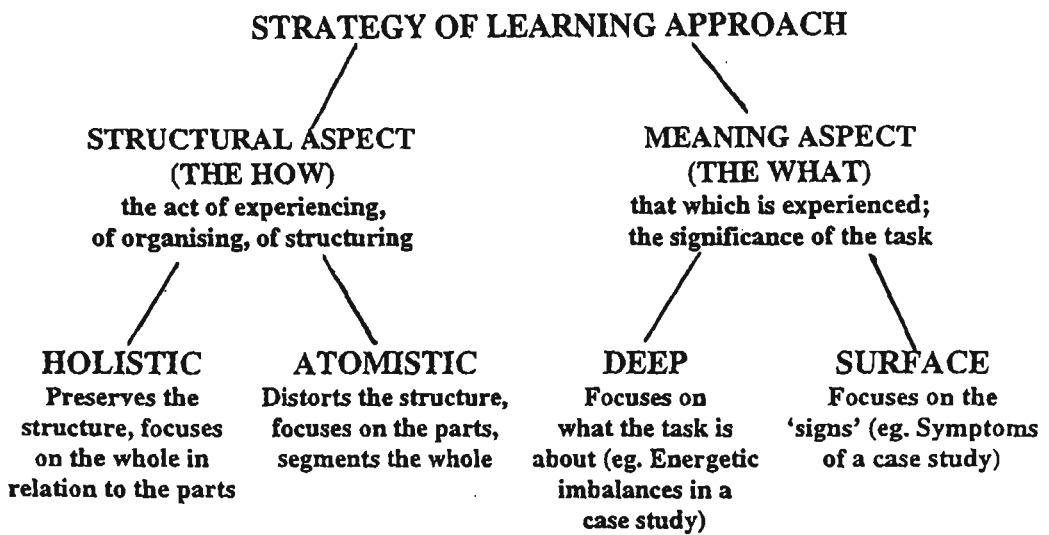
### ***2.3.3.b. Students' approaches to learning: Strategies***

Two aspects have been identified in the strategy of students' approaches to learning. These have been termed Meaning and Structural. I have considered these aspects of strategy for the Deep and Surface approaches in the following, both in general and as they maybe applied in Traditional Chinese Medicine learning. The later is considered in the context of a student's approach to solving a clinical problem.

#### **Meaning Aspect of Strategy**

The Meaning aspect was the first identified in the original research at Gothenburg University (Marton & Saljo 1984) and was used to categorise the students' approaches into Deep and Surface. In a Deep approach a student's intention is leading them to seek the meaning and understanding of the learning task. In solving a clinical case study problem a Traditional Chinese Medicine student using a Deep approach would be expected to seek understanding of for example both the *Biao* (manifestation) of a

**Diagram 2.3 Logical Structure of Strategies of Learning Approach, modified from Ramsden 1992:43.**



disorder and the *Ben* (underlying pattern). In a Surface approach a student is not seeking meaning. They are only interested in the details of the learning task material, generally with the intention of reproducing them as accurately as possible. Using such an approach to a clinical case study problem a student may, for example, search for what they consider to be the most significant signs and symptoms suggesting a diagnosis. The key to recognition of a Surface approach would be the lack of explanation of the meaning of the signs and symptoms referred to. In diagnosing, a student will tend to take a more literal approach, restating the case signs and symptoms with only a superficial diagnostic understanding.

### **Structural Aspect of Strategy**

The Structural aspect refers to how the information of the learning task material is organised in students' learning approach. If the students' intention is to become aware of the overall structure of the learning task and in working with it interpret both the parts and the whole, this is termed Holistic (Ramsden 1992:42). A Traditional Chinese Medicine student using an Holistic approach to clinical problem solving, could be expected to search for the interrelationship of signs and symptoms which reflected the whole picture of the case. Their diagnosis would take into account how each piece of information contributed to the diagnostic picture.

Alternatively if students' intention is not awareness of the overall structure of the material, it can be distorted as they focus on the parts, segmenting the whole. This is termed an Atomistic approach (Ramsden 1992:42). In this approach to Traditional Chinese Medicine clinical problem solving a student may suggest a diagnosis from individual signs and/or symptoms without seeing how other information either supported or contradicted the diagnosis. They would also miss the significance of the relationship of signs and symptoms in understanding the case.

Just as Motives and Strategies tend to operate in congruent packages Meaning and Structural aspects of students' strategies in approach to learning will operate in a synchronistic way. As Ramsden states "it makes no sense to talk about the meaning attributed to something unless one also talks about how the meaning is constituted" (1992:44). Thus a Deep approach to the meaning of a learning task naturally occurs together with an Holistic approach to its structure. Similarly a Surface approach to meaning is associated with an Atomistic approach to structure. The fusion of the Meaning and Structural aspects of students' strategies in approach to learning means they are often linked together and referred to simply as the Deep and Surface approach Strategies. The consideration of Meaning and Structural aspects of Strategy is useful though in analysing and understanding student approaches to learning. This is explicated in Diagram 2.3.

#### ***2.3.3.c. Outcomes of Deep and Surface Approaches***

A Surface approach done well will provide the desired result in memorising a collection of details, usually for the purpose of a recall based assessment task. In addition it seems this outcome can often successfully dupe academics into believing that these students have developed understanding of the material. However the research has shown that a Deep approach is necessary to *understanding* in learning (Marton & Saljo 1984:46). In using a Surface approach a student tends to learn a series of

unrelated facts. In a Deep approach the student will learn the facts in the context of the concepts and meaning of the learning material. Continuous research into these approaches in a wide range of subject areas has shown that learning derived from a Deep approach produces a higher level of long term recall of the facts, as well as understanding of the concepts, which are indicated by the ability to apply material in practice and engage in conceptual discussion. Therefore a Surface learning approach is not concatenate to low ability (Ramsden 1992:44) and a Deep approach to high ability. The differences in outcome more likely result from differences in intention or motives of students.

Ramsden, Whelan & Cooper (1989) have done qualitative research into the approaches to learning taken by Australian Western medicine students. The researchers analysed students' clinical case study problem solving. Ramsden, Whelan & Cooper (1989) concluded that a deeper approach to learning involved a conceptual structure as a means to working with the clinical information. It was suggested there are similarities between this approach and that used by clinical experts. In the case of a student solving a Traditional Chinese Medicine clinical problem a deeper approach would involve a conceptual structure formed from the various models of the sociological paradigm described in chapter one. This would occur within the context of the metaphysical paradigm, which includes for example physical, mental and spiritual aspects of a person.

Solving a Traditional Chinese Medicine case study problem using a Deep approach would include attention to the imbalances indicated by the case within the models of Traditional Chinese Medicine, taking into account the significance of all the information presented and how the interrelated nature of the information defines the diagnosis. A Surface approach would result more likely in the selection of a diagnosis from a sign or symptom recognised by the student, not linked with other information and not constituting an holistic picture of the case.

In pedagogical terms, recognition that only a Deep approach results in *understanding* is important. Academics can take advantage of this knowledge by reducing factors which engender Surface motivation and by encouraging a Deep motive in the form of a personal interest in students for the subject of learning (Biggs 1988:134-5).

### ***2.3.3.d. Metacognition***

Student awareness of the significance of their motivation and strategies in learning, together with the exercising of choice in applying them, constitutes Flavell's concept of 'Metacognition' (1976). Biggs (1988) has emphasised the encouragement of the process of metacognition in empowering students in their learning. Metacognition can allow a student to effectively utilise a Surface approach in situations where they consider memorising of information is all that is required. However it is in their increased ability to choose a Deep approach which is likely to be of substantial benefit to their learning of Traditional Chinese Medicine. Transformational change process is indicated as involving a development of metacognition. Adler comments that as part of intercultural transformation process a person "becomes aware of his own growth, learning and change" (1987:30). This suggests that support for the process of transformational change in students will have advantage through increasing application of metacognition in their studies.

Student informants in this research will be evaluated for their approach to solving a Traditional Chinese Medicine clinical problem. This will be to consider if there is correspondence between their approach and the level of their Traditional Chinese Medicine understanding of the clinical problem.

## **2.4 CONCLUSIONS**

The review of literature and pilot interviews have developed my personal perspective on the topic (Sandelowski, Davis & Harris 1989:79). The process of this has been fundamental to development of the research question for this project and the formation of the semi-structured interview guide to be used in the primary research interviews.

Several significant points have arisen in regard to the understanding of Traditional Chinese Medicine and the learning process. The paradigm from which Traditional Chinese Medicine is viewed influences and is influenced by learning strategies and clinical practice. Educational literature suggests that higher education can be considered a process of change of conceptualisation of the world from neophyte to expert professional. This is supported in the Traditional Chinese Medicine literature where the change process is viewed as particularly important for many students in the West. Having a Traditional Chinese Medicine like metaphysical paradigm is central to understanding and this maybe very different from the existing perspective of many Western students. Literature considering change processes indicates that exposure to different paradigms can stimulate change processes and provide models for understanding change. Literature about students' approaches to learning suggests there are differences in the ways in which students engage in learning tasks and that these produce important differences in the outcomes of learning. These are fundamental to student understanding and change in perspective.

Because of the dearth of field research in Traditional Chinese Medicine students many of the conclusions from literature have been drawn from areas other than Traditional Chinese Medicine. In an attempt to bring into focus the field work with Traditional Chinese Medicine students a qualitative approach will be taken in this study. This will allow for an open ended inquiry with flexibility to respond to themes in the data as they arise. Literature suggests that research into issues affecting curriculum considerations are best done in the immediate context in which they will be applied. The pilot interviews with Traditional Chinese Medicine academics at the site of this study indicated students' approach to solving clinical problems is an important indication of the paradigm in which they view acupuncture. Clinical problem solving has been used in qualitative research evaluating Western medical students' approaches to learning. The approach of informants to solving a clinical problem will be considered to evaluate if this is as significant to the depth of understanding in Traditional Chinese Medicine students as it was with Western medical students. Specific questions for inclusion in the primary interviews have been suggested through the literature research and through the findings of the pilot interviews. These will form the basis of the semi-structured interview schedule which will guide the collection of data.

## **2.5 RESEARCH QUESTION**

The review of literature in Traditional Chinese Medicine, student learning and change processes, as

well as interviews with Traditional Chinese Medicine academics, provided direction for this study. Acceptance of the value of a qualitative design and articulation of the following research question occurred:

What is the nature of learning the Traditional Chinese Medicine paradigm in an Australian university in the context of a possible difference of paradigm between the material learnt and that of the students?

# CHAPTER THREE: RESEARCH PROCESS

## 3.1 INTRODUCTION

The research process proceeded with a qualitative approach in the investigation of the research question ‘What is the nature of learning the Traditional Chinese Medicine paradigm in an Australian university in the context of a possible difference of paradigm between the material learnt and that of the students?’ Thus understanding was sought of students’ learning of the Traditional Chinese Scientific paradigm. As discussed in chapter two, research into student learning has traditionally been from the perspective of lecturers and researchers, but in more recent times it has been from the perspective of the student. This shift has resulted in insights into the learning process which have led to significant developments in understanding and pedagogy (Ramsden 1992). These more recent studies have utilised a qualitative approach to methodology in researching students’ views of learning. I decided to follow these developments by focussing on students’ perceptions of learning in seeking to answer the research question. This chapter outlines the research group, ethical considerations in this research, data collection and preliminary data analysis which influenced the sampling process. The data analysis process is described including considerations and questions indicative of those reflected on whilst searching for themes in the data.

## 3.2 TARGET GROUP

### 3.2.1 The Program

The selection of a target group required informants who had been enrolled in a Traditional Chinese Medicine educational program which was based in the Traditional Chinese Medicine metaphysical paradigm. Students from the Victoria University of Technology Traditional Chinese Medicine program were selected.

The Victoria University of Technology formed in 1992 with the combining of the Footscray Institute of Technology and the Western Institute to form a university particularly aimed at the needs of Western Melbourne metropolitan area. It has been in a phase of rapid expansion since that time in terms of infrastructure, development of courses and research.

The Department of Health Sciences is within the Faculty of Human Development and located at the St. Albans campus of the university. Its origins are with the Western Institute which opened in 1986, with the department providing education for nursing students. A Traditional Acupuncture course titled Bachelor of Health Sciences (Acupuncture) was established in the department the same year as the formation of Victoria University of Technology (Victoria University of Technology 1992) and in 1995 a course in Osteopathy titled Bachelor of Science-Clinical Sciences (Osteopathy) was established. Soon after the gathering of data for this research the Traditional Acupuncture course was expanded into two streams and was renamed Bachelor of Health Sciences (Traditional Chinese Medicine) with students majoring in either Traditional Acupuncture or Traditional Chinese Herbal Medicine.



Similar government accredited programs in Traditional Acupuncture are available in Australia at the University of Technology (Sydney) and the Royal Melbourne Institute of Technology University. Other government accredited programs overseas can be found in China, Japan, Korea, Taiwan and the United States of America (Department Education, Training & Youth Affairs 1995-6, National Accreditation Commission for Schools and Colleges of Acupuncture and Oriental Medicine 1990).

The Victoria University of Technology program is based on that taught at the Australian Acupuncture College Inc. until 1992. The Australian Acupuncture College Inc. program developed and expanded from its origins in 1969 as a one year course taught in Sydney (Rogers 1986:99). As stated earlier the source material for programs at that time came mainly from Europe, Taiwan and Hong Kong. With the opening up of The Peoples Republic of China to the outside world during the 1980s, much more information on Traditional Chinese Medicine became available and was progressively integrated into the program. The Victoria University of Technology program, whilst having significant historical development through the Australian Acupuncture College Inc., has now moved into a new stage with the movement into the mainstream higher education system. The Australian Council of Acupuncture and Traditional Chinese Medicine Education was the major body advising on the development of the Victoria University of Technology program from the Australian Acupuncture College Inc. program (VUT 1992:136). The following major curricular areas were evaluated and advised upon by the Australian Council of Acupuncture and Traditional Chinese Medicine Education (Australian Council of Acupuncture and Traditional Chinese Medicine Education 1989a, ACATCME 1989b) in the development of this program:

- Traditional Chinese Medical philosophy and all aspects of theoretical knowledge,
- skills in diagnoses and treatment methods,
- Western biomedical sciences,
- facilities,
- staff qualifications and development opportunities,
- teaching techniques,
- student assessment.

The involvement of the Australian Council of Acupuncture and Traditional Chinese Medicine Education in the development of the program ensured independent evaluation of a Traditional Chinese basis to the curriculum.

### **3.2.2 The Informants**

Students in the 1995 final year of the four year program were selected as the target group for this research because of their maximum exposure to and experience of current Traditional Chinese Medicine education. The number of students involved was eighteen with an age range from early 20s to middle 30s. This was the first cohort to go through the program at the Victoria University of

Technology.

### **3.3 ETHICAL CONSIDERATIONS**

#### **3.3.1 Ethical Risks**

Two predominant ethical considerations were apparent in this project. Firstly confidentiality of the data collected (Lipson 1994) which would include the students sharing information about their personal backgrounds. Secondly my position as a sessional lecturer in the Department of Health Sciences (though I had never taught this cohort of students) placed me in a special position regarding information students may provide about their knowledge and skills in Traditional Chinese Medicine. Students needed to feel that any information shared would not be used in any way in their course assessment process. Another implication of this situation was students feeling free and without obligation to participate in the research (National Health and Medical Research Council 1992:9). To deal with these issues the potential informants needed to give fully informed consent before they agreed to participate.

#### **3.3.2 Addressing the Risks**

To allow informed consent to be given, the target group was given information about the project and its ethical implications, both verbally and in written form. The project was introduced to them by myself in a presentation where I explained the aims, format and ethical aspects. Any questions at this stage were answered directly and at the end of the presentation all students were invited to participate. Those who indicated interest were given written information about the project (see Appendix A.) and a consent form (see Appendix A.) which they were asked to take home and consider for at least seven days. The students were invited to contact myself with any queries regarding the project in the interim. Those who still wished to be involved were asked to return the signed consent form.

To maintain the confidentiality of the students and their contributions to this study the following procedures were used:

- \* the students' work on the case study and subsequent interviews were conducted in private,
- \* the only people to hear the audio tapes were myself, my two supervisors and the student (of their own session) if they wished,
- \* a coding system was used for the audio tape recordings and transcriptions of the interviews to identify subjects. The coding was only known to myself,
- \* the signed consent forms , audio tapes and transcripts of interviews have been kept in my possession at all times and when not being used are held in a locked drawer in my home. They will be kept for the required five years from the completion of the research after which time they will be destroyed.

Students were not paid to participate in the study but drinks and snacks were provided at the interviews as a token of thanks to the informants and to assist them to relax.

The ethical risks involved in any research needs to be weighed against likely benefits which may flow. I

believe substantial benefit from this research will be available to future students and teachers of Traditional Chinese Medicine from increased understanding of student learning. Little research has been previously undertaken in this area with Traditional Chinese Medicine students. A copy of the final research report will be available in the Victoria University of Technology library for all participants, future students and academic staff to read.

This project was undertaken at the Victoria University of Technology in accord with the university's Code of Conduct for Research (VUT 1993) including the approval of the Human Research Ethics Committee (Approval No. HREC 94/148).

### **3.4 DATA COLLECTION**

#### **3.4.1 Primary Interview Format**

An interview format and semi-structured interview schedule were developed to guide the primary in-depth interviews.

The interview format involved two principle stages. The first involved seeking data about:

- information on primary influences in a student's background and personal world view, and
- students' experience of Traditional Chinese Medicine education.

The second, followed the student's consideration of a clinical problem and involved seeking data about:

- what the student had learned about the 'client', in particular their traditional Acupuncture diagnosis,
- the student's reasons for arriving at that diagnosis, and
- how the student went about solving the clinical problem.

The clinical problem consisted of a case study based on a client known to the researcher. This written case study format is familiar to students from classroom presentations and was assessed as being representative of clinical problems within current Traditional Chinese Medicine undergraduate programs by two Victoria University of Technology academics. The clinical problem was presented in this way to ensure that each of the informants had available the same information in problem solving the case. This research is interested in the way in which informants *handle* the clinical information, rather than their ability to collect it. Students were allowed as long as they liked to read, think about the case study and make notes. When the student was ready I discussed the case study with them using the semi-structured interview guide. Students were able to refer to the case study and their notes to stimulate recall during the interview.

#### **3.4.2 The Semi-Structured Interview Guide**

The development of the interview guide was informed by the previously collected literature research and pilot interview data. The literature and pilot interviews suggested issues to be pursued with the primary interview informants. The issues raised in the literature and pilot interviews are described

below and related to questions within the interview guide.

Each interview guide is different as it takes advantage of the information already available about the relevant informant from the pilot interviews. In addition as the primary interviews proceeded insight gained was incorporated into subsequent interviews. This led to interview guides which pursued the same themes whilst acknowledging the differences of each informant and the growth in awareness of the researcher during the process of data collection.

The interview guide commenced with a statement of the research aims and information that questions in the interview would draw on data already gained from the pilot focus group interviews.

### ***3.4.2.a Informant Background and Experience of Traditional Chinese Medicine Education***

This section of the guide was directed to the interviewer seeking data about:

- information on primary influences in a student's background and personal world view, and
- students' experience of Traditional Chinese Medicine education.

#### **3.4.2.a.i Informant Background**

The interview guide had questions for the informants about place of birth, where they lived, their family, extended family, community, religion and any other possible significant influences emerging during the pilot interviews or subsequently during this interview (see Appendix B). A number of sources suggested that previous experience of informants, particularly exposure to different cultural perspectives may provide information useful to the understanding of paradigm and change of paradigm in Traditional Chinese Medicine students. Questions were included in the interview guides to further the identification of cultural influences and perspectives already recorded in the pilot interview data. Thus in the Interview Two guide (see Appendix B.) questions included:

In the In the focus group you said where you were born. How old were you on migrating? What influenced your parents to migrate?  
Family? Brothers, sisters, extended family? As influence?  
In the focus group you also mentioned your parents as an influence.  
Can you tell me anything about their work, interests, any other background?  
Did they influence you in any particular direction re. education or career, apart from English?  
Have friends been an influence in your life?  
Interests at school, out of school? What did you enjoy doing?  
What did you spend your time at?  
Things you didn't like?

Interview Five guide (see Appendix B.) included:

Born in Australia?  
Grew up? Community participation? As influence?  
Your family? Parents already mentioned in focus group, brothers, sisters?  
Extended family? Mentioned uncles, anything else?  
Have friends been an influence in your life?  
Can you describe the influence of school on you?  
Interests at school?  
Out of school? What did you spend your time at?

What did you enjoy doing?

I also wished to consider evidence of change in world view prior to the course. The literature on intercultural transformation suggested that exposure to a new culture can create a change in world view and gave suggestions of outcomes identifying this. These included a person examining the degree to which they are influenced by their own culture and understanding of the culturally derived values and attitudes of others. The literature of Levy (1986) also suggested particular process, content and forces for transformational change. Thus questions were included about how informants experienced and have been influenced by exposure to new cultures and perspectives. For example in the Interview Two guide (see Appendix B.):

You said that moving to Australia was a significant change in culture for you. In particular you mentioned racism. Would you like to say anything more about how you handled that? You also mentioned that people here were more for themselves and more competitive. How has that influenced you?

Finding yourself in amongst a mixture of different cultures was also a learning experience you said. What have you learnt?

Were there any other significant aspects you noticed in migrating?

In the Interview Six. guide (see Appendix B.):

In the focus group you discussed the way in which you viewed and have come to terms with the different cultural background of your parents. Are you aware of your own process in coming to your current view? Was it gradual or do you see phases to that? What was your parents influence? Other influences?

#### **3.4.2.a.ii Traditional Chinese Medicine Education Experience**

The Traditional Chinese Medicine literature was supported by the pilot student interviews in suggesting that change can occur in the world view of students during their education. The focus of this research is to further understanding of the learning of Traditional Chinese Medicine students in the context of a possible difference of paradigm between the material learnt and that of the students. Questions about the experience of learning were thus important in the interview guide.

The Traditional Chinese Medicine literature indicated a change in world view could occur through the educational process. Thus questions were included regarding conceptions of Traditional Chinese Medicine prior to the course and the informant's current perspective. The intercultural transformation literature suggested exposure to a new culture led to learning at a sociological level and also created change in metaphysical paradigm. That is new levels of consciousness regarding cultural influence on oneself and others. Levy's (1986) transitional/transformational change model also provided a basis to consider the type of change occurring for students in their learning. Questions were included in the interview guides about the views of the informants from the beginning of the course through to the final year. These were to explore their views on Traditional Chinese Medicine as well as their broader life. Thus the Interview One guide (see Appendix B.) questions included:

What appealed about acupuncture when writing the essay and reading the article at school?

Can you tell me any more about what you have learned about yourself and relationships with people in the clinic?

How would you now describe acupuncture to a friend with no prior knowledge?

The pilot interviews with academics indicated that in defining Traditional Chinese Medicine the philosophical perspective is most important. Informants were asked about what they considered the most important part of their training. The students' pilot interview data indicated change in world view during the course. The interview guide thus included questions to further understand their experience of changing perspective during Traditional Chinese Medicine study. These questions sort the content of change, as well as their awareness of any specific influences in creating this change from either within or without the program. Thus the Interview Two guide (see Appendix B.) questions included:

Are there any pivotal experiences you can recall while learning Traditional Acupuncture?

Do you have anything you feel is important to the study and learning of Traditional Acupuncture?

Can you say anything about studying Traditional Acupuncture as a broader influence in your life?

Interview Four guide (see Appendix B.) included:

You said in the Focus Group that the course has made you more aware of an holistic way of looking at things generally. Would you be able to give any more examples of this in your life? Has the course created any other significant changes for you?

The questions in this section about the experience of learning were important to provide information on informants view of Traditional Chinese Medicine and to allow a view of how their background may have influenced their education.

### ***3.4.2.b Clinical Problem Solving Exercise***

A clinical problem was selected and questions formulated as a guide to interviewing each informant.

#### **3.4.2.b.i The Clinical Problem**

A case was selected from my own client base to form the basis of the research clinical problem. The clinical problem was structured within the context of the Traditional Chinese Medicine paradigm as defined in chapter two. Physical, mental, emotional and spiritual aspects of the 'client' case were provided to incorporate the holistic perspective of Traditional Chinese Medicine. The information was presented in a way familiar to the informants from class exercises during their course (see Appendix C.). The name 'Su' was selected as this is used within a range of cultures and left open the possible background of the client in the clinical problem.

To diagnose in the Traditional Chinese Medicine perspective, information about a client is considered in a search for patterns of disharmony. This can be done with each aspect of the client (such as physical, mental, emotional and spiritual) and most importantly between each aspect creating the whole. In the case presented to the informants, disharmony can be seen at the dimensions of:

spiritual; Su presents as being comfortable with her inner world, enjoying being alone and at ease when in a meditative state. However she experiences discomfort relating to her outer world in the form of personal relationships such as those with her ex-partner, her boss and her sister before she died. In Traditional Chinese Medicine this discomfort would be interpreted as a disturbance of *Shen* or

consciousness.

mental; Su undertakes large amounts of thinking and study. In Traditional Chinese Medicine an excess of any activity is considered to be an imbalance and leads to depletion of an individual's resources, in this case the functional *qi* of the *Spleen*.

emotional; Su exhibits signs of emotional stagnation, overwhelm and at times outburst. These are particularly present with the emotions of anger, frustration and grief.

physical; symptoms include low body weight, abdominal pain, operation scars, appetite/thirst, menstrual symptoms, low energy, poor circulation and headaches. Additionally traditional pulse and tongue diagnostic information form part of this dimension in observation.

To create a holistic view of the case each of these aspects is considered together in a search for patterns of disharmony within the theoretical systems of Traditional Chinese Medicine. It is often the case that practitioners may choose to apply different theoretical systems in arriving at a pattern or complex of patterns of imbalance, particularly with an involved case such as this one. For the purposes of this research it was necessary to structure a case of some complexity so as to involve as many personal dimensions as possible. The case represents the typical breadth of information elicited from a client utilising Traditional Chinese Medicine information gathering techniques. A satisfactory diagnosis is achieved when all or most of the information available can be seen to have a place within the pattern or patterns of disharmony described. Theoretical systems of differentiation relevant to this case are *Zang Fu*, Fundamental Substances (*Qi* and *Blood*, Fluids, et cetera), Pathogenic Factors, *Wu Xing* (Five Elements) and Eight Principles. The following are possible patterns of imbalance within these systems for 'Su':

*Liver Qi* Stagnation and Fire, with some *Liver Yang* Rising; holding onto and repression of emotions particularly anger and frustration will stagnate the *Liver qi* and in time this will generate fire. Other indications of this pattern are the menstrual pain, the amount of mental concentration, headaches, the benefit from walking and relaxation, tense and wiry pulse signs and purple/red body tongue signs. This incorporates *Zang Fu*, Eight Principles and Pathogenic Factors theoretical systems.

*Heart Shen* (Consciousness) Disturbed; severe and/or prolonged emotional disturbance as in this case will unsettle the *Heart Shen* and in time deplete the heart, further undermining emotional stability. This incorporates *Zang Fu* and Fundamental Substances theoretical systems.

*Stomach* Fire; the pattern of appetite suggests fire affecting the *Stomach*, which with the difficulty in gaining weight may involve some *Yin* Deficient fire. Prolonged use of supplements such as ginseng may also generate fire affecting the *Stomach*. This incorporates *Zang Fu*, Eight Principles, Fundamental Substances and Pathogenic Factors theoretical systems.

*Spleen Qi* Deficiency; mental activity, inability to gain weight, poor circulation to hands and feet, regular use of cannabis and general demanding lifestyle of work and study. This incorporates the *Zang Fu* and Eight Principles theoretical systems.

*Kidney* and *Lung* Tending to *Yin* Deficiency; inability to gain weight, emotions of anxiety, grief and sadness, working late shifts, general demanding lifestyle of work and study, drinking often and medical history of kidney disorder when young. This incorporates *Zang Fu*, Eight Principles and Fundamental Substances theoretical systems.

*Wu Xing* imbalance; within this theoretical system imbalance is expressed in terms of excess and deficiency of the *Zang Fu*. The following patterns may be observed. *Heart*, *Liver*, *Stomach* excess are indicated by such things as the emotional excesses, pain, excessive appetite, pulse and tongue signs. *Spleen*, *Kidney* and *Lung* deficient are indicated by such things as inability to gain weight, tiredness and demanding of work and study.

In describing a diagnosis a practitioner will not only be able to identify patterns of disharmony but also explain mechanisms which create and sustain these patterns (Flaws 1989). Such explanation is indicative of the practitioner having a deep understanding. In this clinical problem there a number of mechanisms which can be observed within the possible patterns of imbalance. To maintain harmony the *Liver Yang* needs to be balanced by the *Liver Yin and Blood*. The pattern of *Spleen qi* deficiency tends to lead to deficiency of *Blood* including *Liver Blood* and *Kidney Yin* Deficiency tends to lead to a *Liver Yin* deficiency. In this case a deficiency of both these aspects of the *Liver* could contribute to the upward and outward movement of *Liver Yang* with concurrent disturbance to other *Zang Fu* functions. Such disturbance could include contribution to the *Heart Shen* imbalance, *Stomach* Fire and reduction of *Spleen* function. *Stomach* Fire especially when associated with *Stomach Yin* deficiency can contribute to deficiency of other *Yin* in the body including *Kidney* and *Lung*. When the *Heart Shen* is disturbed it is more difficult for a person to be both aware of and take action on appropriate behaviours which may improve their health. These may include modifying diet, amount of rest and other lifestyle activities. Mechanisms of imbalance within the *Wu Xing* system can be seen in the contribution of *Liver* excess to that of the *Heart* and *Stomach* at the same time as blocking the function of the *Spleen*. Deficiency of *Spleen* can contribute to a deficiency of *Lung* and *Kidney*. Description of mechanisms such as these is indicative of a depth of diagnostic understanding.

The case study presented to informants (Appendix C.) represents a clinical problem in a format familiar to informants and structured within the context of the Traditional Chinese Medicine paradigm.

### **3.4.2.b.ii The Interview Guide**

The pilot interviews with Traditional Chinese Medicine academics at the site of this study indicated students' approach to solving clinical problems is an important indication of the paradigm in which they view acupuncture. Clinical problem solving has been used by Ramsden, Whelan & Cooper (1989) in qualitative research evaluating Western medical students' approaches to learning. The questions in the interview guide for the clinical problem solving exercise were selected to obtain data on the approach of informants to solving a Traditional Chinese Medicine clinical problem. This was to evaluate if it holds the significant to the depth of understanding in Traditional Chinese Medicine students as has been shown to be the case with Western medical students.



Once the clinical problem had been considered by an informant the interview guide was used with the aim of seeking data on:

what the informant had learned about the 'client', in particular a Traditional Chinese Medicine diagnosis,

the informant's reasons for arriving at that diagnosis, and

how the informant went about solving the clinical problem.

Each informant was asked questions such as (Appendix B.):

I'd like you to tell me about the client, as if this was a person you had just seen.

What is your Traditional Acupuncture diagnosis?

Follow up questions depended on the response of each informant and included questions such as:

Would you have liked further information? What?

Is there anything else which informed you in coming to this understanding and diagnosis?

What would you say were the most important aspects of coming to your understanding and diagnosis of the client?

Can you tell me any more about how you came to this understanding and diagnosis (the process)?

Some questions were asked to help in particular illicit the informants view of the emotional/spiritual aspects of the case, such as (Appendix B.):

Do you have any feelings or thoughts that you would like to add about them as a person or as a client?

These questions were aimed at providing as much data on the informant's view of the clinical problem as possible. This data was sort to consider the meaning informants found in the information provided and the structuring they used in forming a diagnosis. Students' approaches to learning literature suggests this material may be used in consideration of the approach to and the understanding of a learning problem.

In addition questions were included to obtain further datum which maybe of use in evaluating informants' Traditional Chinese Medicine view and the value they found in their education, particularly clinical problem solving. Such questions were (Appendix B.):

How serious would you say this clients condition is?

How well or unwell would you say this person is? Why? How would you define unwell?

Do you feel acupuncture is likely to be useful for Su's presenting complaints? Any other modality or treatment?

Do you feel you would be comfortable with this client and any responses likely to arise during treatment?

How do you find this case study compared to those you have in classes?

How do you find case studies as a learning tool? Strengths, weaknesses?

These questions provided additional datum in the consideration of informants view of Traditional Chinese Medicine and of their course.

### **3.4.3 Selecting The Target Group Sample**

Sampling of the target group was used to allow in-depth interviewing of informants within the resource constraints of this research project. Combination Purposeful Sampling (Patton 1990) was used with the primary aim of having a maximum diversity of student experience in learning the Traditional Chinese Scientific paradigm. Two sampling criteria were decided on:

gender and,

experience of different paradigms.

The first criterion was selected on the basis that males and females may have a different experience of learning of the Traditional Chinese Scientific paradigm. Much has been written on the significance of gender in all aspects of life experience including learning which suggests that it may be an important criteria for data analysis in this project. The second criterion was selected on the basis that there may be a difference in the experience of learning the Traditional Chinese Scientific paradigm between students with exposure to two or more paradigms and those who had not. The experience of integration of two or more paradigms may influence subsequent incorporation of a further paradigm (in this case the Traditional Chinese Scientific paradigm) into a student's personal paradigm as suggested by Adler (1975:18).

### **3.4.4 Focus Group Interview Data**

Data were needed from the informants to enable me to make sampling decisions on the basis of students having had significant experience of more than one paradigm during their lives or not. This data was drawn from the focus group interviews conducted with the target group. Data gathered on background influences and environment were analysed for paradigms students had experienced and collated to allow the grouping of the students into the following categories:

Category I. Background Non-Diverse

Category II. Background Diverse

The categorisation was based on whether one or more predominant sociological paradigms could be seen in the influences indicated by students. Students were assigned to the Background Non-Diverse category if one sociological paradigm was predominantly indicated. If they indicated experiencing two or more substantially different sociological paradigms they were assigned to the Background Diverse category. The following tables show the grouping of the students into the two categories with the data used to make these decisions.

**Table 3.1.**

**Category I. Student Background Non-Diverse**

| Student         | Influence                               |
|-----------------|---|
| Paula - female  | Anglo-Saxon Australian culture          |
| Annie -female   | Indian/Fijian culture                   |
| Derek - male    | Indian/Fijian culture                   |
| Angela - female | Religion (Non-denominational Christian) |

**Table 3.2.**

**Category II. Student Background Diverse**

| Student          | Influences   |
|------------------|--|
| Bella - female   | Chinese village culture, Australian suburban culture.                                  |
| Suzanne - female | Mother Finnish and father Australian.  |
| Maria - female   | Medicine: Western orthodox, Western alternative.                                       |
| Mike - male      | Yugoslavian culture, Australian culture. Father Bosnian, mother Montenegrin.           |
| Jim - male       | Lebanese culture, Australian culture.  |
| Joy - female     | Medicine: Western orthodox, Western alternative.                                       |
| Andrew - male    | Australian culture, Asian martial arts.  |
| Finbar - female  | Mother German/Russian, Father Sri Lankan.  |
| Rick - male      | Greek culture, Australian culture.<br>Medicine: Western orthodox, Western alternative. |
| Eugene - male    | Italian culture, Australian culture.   |
| Cameron - male   | Anglo- Saxon Australian culture, Asian culture.  |

A sample of six informants for the primary interviews were selected to proceed on the basis of:

- alternate gender
- alternate categories I. and II.

The initial selection I considered for sampling of the target group for the primary interviews is shown in the following table.

**Table 3.3.**

**Selection of Informants on Initial Sampling Criteria**

| Informant | Gender | Category     |
|-----------|--------|--------------|
| Angela    | Female | category I.  |
| Cameron   | Male   | category II. |
| Bella     | female | category II. |
| Derek     | male   | category I.  |
| Annie     | female | category I.  |

### 3.4.5 Pilot Individual Interviews

So that all potential informants in the target group would have similar exposure to undergraduate Traditional Chinese Medicine education, three students with previous formal training were excluded. It was decided to use the excluded students for piloting the primary interview format and semi-structured guide.

The aims of the pilot student interviews were:

- development of the semi-structured interview guide,
- further identify issues relevant to the learning experience,
- opportunity for the researcher to become further immersed in the contextual scene of the target group,
- development of in-depth interview skills, particularly with the target group.

Two individual pilot interviews were carried out. These were conducted as if they were the primary interviews, except that the informants were advised their data would not become part of the research findings.

Changes to the interview guide were predominantly around language used in talking with the informants. It was found that students did not identify with some terms and in these cases a different approach was developed to elicit information. For example in gathering data on students' backgrounds I found there was little identification for them with the word 'culture'. In place of this I focussed more on asking students to describe their experiences of their life, including the things they noted as being important influences on their everyday lifestyle. The case study was also modified for language used and clarification of symptomatology.

This was an important phase of the project for me as I found that I became more immersed in the language used by the target group of informants and aspects of the environment in which they had studied.

### 3.4.6 Primary Interviews

The primary interviews were conducted in a private room at either the university campus or another location convenient to the student. The format followed that described earlier. The semi-structured interview schedule was modified for each student (see Appendix B.) based on data from the focus group interviews and issues raised as the primary interviews proceeded. Each interview was audio taped and later transcribed.

### 3.4.7 Modification of Sampling Process

The sampling process was influenced by the data analysis after the first four informants (Angela, Bella,

Cameron and Derek) were interviewed. Data were arising that supported the proposition that previous experience in dealing with different cultures was influential in learning the Traditional Chinese Medicine paradigm but also that the qualitative nature of students' backgrounds was important in the experience of learning as well.

Keeping in mind my sample aim of maximum diversity of student experience in learning the later emerging theme influenced me to modify the sampling criteria. I wished to continue with the original criteria but to now also seek sample diversity of students' personal paradigm. Annie would have been the next female informant in my original selection. She had an Indian/Fijian background, similar to Derek already interviewed and as I was now interested in gathering data from an informant with a background different from those already interviewed I looked for another choice. Paula being the only other Background Non-Diverse female, would have been next but for her background being Anglo-Saxon Australian, making it similar to Cameron, already interviewed. Thus I was in some dilemma choosing between criteria for selection of the next female informant, with the practical situation of the research not allowing me to incorporate them both. I also considered another possible path of research with an interview of Annie and analysis of data from Derek to explore themes of learning of the Traditional Chinese Medicine paradigm between a male and a female both with Indian/Fijian background. Whilst this would have been interesting the limitations of my resources encouraged me to stay with the criteria I already had established. In the end I made my next sampling decision based on the criteria from the theme emerging in the data so far.

Finbar was my next female selection for the sample for two reasons. Firstly Finbar indicated her parents were an important influence and they individually came from cultures different from those previously identified from the informants in my sample. Secondly Finbar had indicated a stronger metacognition of the nature of their influence than other students which I felt could be valuable to investigate. As there were no further males in the Category I. group my selection for the next male informant was Eugene, with his Italian background being different from the informants already sampled. The actual order of interviews varied from that indicated in the initial sample list, indicated in the table above, due to practicalities of arranging interviews with the informants. The final sample and order of interviews together with the details of criteria for selection are indicated in the following table.

**Table 3.4.**

**Final Interview Sample**

| Interview | Informant | Gender | Category     | Influences                                      |
|-----------|-----------|--------|--------------|---|
| 1.        | Angela    | female | category I.  | Religion (Non-denominational Christian).        |
| 2.        | Bella     | female | category II. | Chinese village culture, Australian culture.    |
| 3.        | Cameron   | male   | category II. | Anglo- Saxon Australian culture, Asian culture. |
| 4.        | Derek     | male   | category I.  | Indian/Fijian culture.                          |
| 5.        | Eugene    | male   | category II. | Italian culture, Australian culture.            |

## **3.5 DATA ANALYSIS**

### **3.5.1. Overview Of Analysis**

At the conclusion of the interviews emphasis swung to completion of transcription of the audio-tapes, as I had found the process of analysis was enhanced for me when I could visually consider the data.

An iterative process of analysing data (Miles & Huberman 1994) which began during the pilot interview phase continued throughout and following the primary interviews phase. During the collection of data notes were made on observations and kept in separate files for analysis of data and personal reflections on the research. The first file became the beginnings of the data analysis and the second provided a valuable source of learning for me on the research process itself, including specific approaches to dealing with this project and general reflections on the nature of the qualitative research process. The specific reflections on this project were invaluable in the development of the interview schedules and in the selection of the sample of informants.

It would have been easy to allow the themes emerging from one informant to colour the observations from the next. The challenge for me was to note each observation within the boundaries of that individual case and be informed of that observation as a possible theme for subsequent informants, without necessarily expecting it to be present. Re-reading the data continued to reveal further insights over time, informed by the data of other informants and a continual process of thematic development. This continued until I felt well acquainted with the data and comfortable with my findings.

Analysis of the primary interviews was carried out by searching for categories of description which described variability in the data (Lincoln & Guba 1985, Miles & Huberman 1994). Extracts from the interviews were used to develop the meaning of each category. Differences within the themes to emerge relate to differences in the content of the interview data. From part one of the interview themes on transformational change, paradigm and learning emerged and from the second part themes on transformational change, paradigm and students' approaches to learning emerged. The focus of analysis for the part one data was on the process of change which may have been involved in learning for each student, as well as their current paradigm in relation to Traditional Chinese Medicine. For the second part of the interview the focus was on differences in the ways of manipulating the data of the clinical problem indicative of students' approaches to learning and awareness of Traditional Chinese Medicine paradigm. It is worth noting the process of case study problem solving involves little of the construct paradigm of the informants, as the procedures involved in gathering clinical information and the subsequent carrying out of treatment are not carried out. Thus sociological and metaphysical aspects of paradigm are emphasised in the data. Analysis of the data revealed the different ways informants were manipulating the case study information was similar to structures first described by Svensson (1984) as 'atomistic' and 'holistic'. Svensson states that the difference between these "is one between merely

delimiting and ordering parts of the material interacted with, compared to integrating parts by the use of some organising principle” (1984:64). The informants using an atomistic structure were able to group information but there lacked a unifying principle in their diagnosis.

Findings were considered within the context of within-case analysis and then cross-case analysis.

Two academics from the Victoria University of Technology Traditional Chinese Medicine program, not otherwise involved in the research, also analysed a sample of the interviews to provide a check for reliability of my findings.

The literature had provided a basis for analysis of change in the informants as being either transformational or transitional (incremental). My focus on the learning of paradigm as described in Chapter Two brought me to interest in change process and eventually to particular interest in transformational change as it may manifest in Traditional Chinese Medicine students. I considered that change of world view during learning maybe transformational as the paradigm of Traditional Chinese Medicine is fundamentally different to that commonly accepted in the institutions from which students are coming. Masterman (1978) describes such change in the context of Metaphysical Paradigm altering the view of Sociological and Construct Paradigms and Levy (1986) as change to Paradigm influencing Purpose, Culture and Core Functioning Processes. In each case such change is suggested as fundamentally influencing the view and behaviour of those involved. Literature on Transformational Change provided understanding of those aspects of people influenced, the forces for such change and the process by which it occurs. I used this understanding during data analysis to help search for evidence of Transformational or alternately Transitional Change.

In addition to searching for evidence of Transformational Change, I also searched for indications of the paradigm in which informants viewed Traditional Chinese Medicine. Initially I found that I had difficulty in developing themes from the data on this. The resolution was through approaching paradigm as three aspects. On returning to the Traditional Chinese Medicine literature I found there to be inconsistency in the use of the term ‘paradigm’. The difficulty emerged as being a common one across a range of disciplines, as the term has been used in many ways, including in the original work of Kuhn (1970). This literature led me to the work of Masterman (1978) which suggests the concept of paradigm as the three aspects discussed in Chapter Two. Describing Traditional Chinese Medicine in terms of these three aspects allowed me to form a more sophisticated view. It helped me understand that the term ‘paradigm’ has been confused between the conception of metaphysical paradigm (world view) and sociological paradigm (models of theory) which I found evident in Traditional Chinese Medicine literature. This approach to understanding paradigm also proved to be far more successful in the identification of themes in my research data for both the Traditional Chinese Medicine paradigm and the process by which students learn and change paradigm. Change in metaphysical paradigm or world view has greatest significance for the informants, yet understanding of the sociological and construct paradigms was also significant in identifying the former in the data. The embedded nature of these three aspects of paradigm provides this interdependence.

The following sections show considerations and questions indicative of those reflected on whilst

searching for themes in the data.

### 3.5.2. Analysis Of Interview on Background and Experience of Learning

#### 3.5.2.a. Paradigm

Here I was interested in the construct, sociological and metaphysical paradigms (Masterman 1978) informants' held in regards to Traditional Chinese Medicine. The following were considered:

**Construct Paradigm:** What was their approach to the practice of medicine? Did it accord with the construct paradigm of Traditional Chinese Medicine? The following checklist shows how relevant data was interpreted for evidence of the presence or absence of a Traditional Chinese Medicine construct paradigm.

| Construct Paradigm Present  | Construct Paradigm Absent  |
|---|--|
| Diagnostic process considers emotional, mental & physical levels of a person.                             | Diagnostic process considers only one or two levels of a person.   |
| Diagnostic process considers each client as a unique individual.  | Diagnostic process is limited to considering people within fixed criteria.   |
| Diagnostic process considers the person and their total environment in an inter-woven way.                | Diagnostic process does not consider the relevance of a person within their total environment.   |
| Treatment selection may vary dependent on the Traditional Chinese Medicine theoretical perspective taken. | Treatment selection is disease or symptom focused, rather than variable with the Traditional Chinese Medicine theoretical perspective taken. |

**Sociological Paradigm:** Did informants indicate a sociological paradigm in accord with Traditional Chinese Medicine? The following checklist shows how relevant data was interpreted for evidence of the presence or absence of a Traditional Chinese Medicine sociological paradigm.

| Sociological Paradigm Present   | Sociological Paradigm Absent  |
|---|---|
| Refers to health and illness as relative balance within the theoretical and philosophical models of Traditional Chinese Medicine. | Refers to health and illness in non-Traditional Chinese Medicine theoretical terms.       |
| Accurately applies the theoretical and philosophical models of Traditional Chinese Medicine.                                      | Refers to Traditional Chinese Medicine theoretical and philosophical models inaccurately. |

**Metaphysical Paradigm:** Was their practice and consideration of theory and philosophy in accord with that of the Traditional Chinese Medicine metaphysical paradigm? The following shows how the responses on this topic were interpreted as evidence of outcomes for metaphysical paradigm being present or absent.

| Metaphysical Paradigm Present   | Metaphysical Paradigm Absent   |
|---|--|
| The theories of Traditional Chinese Medicine seen in a relative way each being valid within their own context even when they may contradict in any given circumstance | The theories of Traditional Chinese Medicine seen in an absolute way with conflict experienced where there is apparent contradiction |
| A perspective other than Traditional Chinese Medicine (such as the Western Medical  | Different perspectives seen as 'right' or 'wrong' dependant on comparison to Traditional Chinese                                     |



|  |   |
|--|---|
| perspective) seen as valid within its own context even though it may provide a different understanding   | Medicine  |
| People considered in a holistic way in terms of their emotional, mental, spiritual as well as physical aspects and inter-actively with their environment                             | People considered in a way not allowing for all of the aspects relevant within a holistic Traditional Chinese Medicine viewpoint            |
| The theories for understanding health seen as being in constant process.   | Theories for understanding health seen as fixed and absolute  |
| The theories for understanding health seen as interrelated and interdependent.   | Theories for understanding health seen as independent of each other   |
| The theories for understanding health seen as patterns such as <i>Yin/Yang</i> , <i>Wu Xing</i> , <i>Zang Fu</i> or <i>Fundamental Substances</i> .                                  | Theories for understanding health seen in linear ways which do not acknowledge the patterns of Traditional Chinese Medicine                 |
| The theories for understanding health as applied to the microcosm of a human being, seen as equally applicable to the greater macrocosm of the environment within which people live. | World view inconsistent with the Traditional Chinese Medicine view that everything is a microcosm of a greater macrocosm in which it exists |

### 3.5.2.b. Learning Of Traditional Chinese Medicine Paradigm

#### 3.5.2.b.i. Learning Of Construct And Sociological Traditional Chinese Medicine Paradigms

The learning of paradigm is discussed in the context of the groupings of construct, sociological and metaphysical paradigms (Masterman 1978). What does the experience of learning the Construct and Sociological Paradigms reveal about the metaphysical paradigm of informants? I sought out whether this learning was transitional or transformational in nature. Learning of a Transformational type would suggest the informant was experiencing a change in metaphysical paradigm in the process of learning the practice and theory of Traditional Chinese Medicine. Transitional change would suggest the informant already had a metaphysical paradigm in accord with Traditional Chinese Medicine. Specifically, evidence was sought for the presence or absence of the process of transformational change in the learning of the Construct and Sociological Paradigms. Forces, outcomes and process of Transformational Change could have been considered in relation to this learning, however process was the relevant variable to consider in this case. The course was the force for change being considered and all informants indicated outcomes of transformational change. The following checklist shows how the responses on this topic were interpreted as evidence for the presence or absence of Transformational Change processes.

| Transformational Change Process Present                             |  | Transformational Change Process Absent                  |   |
|---|--|---|---|
| Evidence of a crisis of perspective created by learning experience. | Emergence of a new view point allowing diversity of perspective. | No evidence of a crisis of perspective having occurred. | No evidence of emergence of a new diversity of perspective. |

### 3.5.2.b.ii. Learning Of Metaphysical Traditional Chinese Medicine Paradigm: Transformational Change

Has the informant experienced Transformational Change prior to or during their Traditional Chinese Medicine course? Specifically I sought out evidence of forces, content and process indicating Transformational Change in the background and Traditional Chinese Medicine course experience of informants. Transformational Change will influence all levels of paradigm including the metaphysical. I will refer to the metaphysical paradigm created by such change as a ‘Traditional Chinese Medicine like metaphysical paradigm’ referring to that sought by academics in the course. Thus in data analysis the following was considered:

**Forces:** Situations and influences that could have created the need for Transformational Change. These may have been in the background of informants prior to the course as well as having been aspects of the course itself. The experience of these forces was considered in the context of the views and previous experiences of the informants, to consider the potential forces for Transformational Change in the light of their existing paradigm.

The following checklist shows how the responses on this topic were interpreted as evidence of forces for transformational change being present or absent.

| Forces Present  |  | Forces Absent   |  |
|---|--|---|--|
| Initiating  | Supporting   | Initiating  | Supporting   |
| Has experienced a powerful diversity of culture (sociological paradigms) which has been difficult or impossible to evade. | Felt significant support from family or friends, etcetera, which could be important in the momentous experiences of transformational change. | Background basically within one particular cultural pattern. Has not had a powerful experience of cultural diversity. | Felt alone without significant moral support in life’s challenges. |

**Outcomes:** Changes in the way informants viewed the world suggestive of Transformational Change. Transformational Change of metaphysical paradigm can allow diversity which permits a person to accept more than one cultural view of the world. This could be described as an ‘inter-cultural metaphysical paradigm’ as it allows a person to have an intercultural personal sociological paradigm. The following checklist shows how relevant data was interpreted for evidence of the presence or absence of outcomes of Transformational Change.

| Outcomes Present   |   | Outcomes Absent                                     |   |
|--|---|---|---|
| Evidence of more than one cultural view (sociological paradigm). | Increased awareness of the influence of cultural predisposition on behaviours, values, attitudes and outlooks of oneself and others.          | World seen basically from one cultural perspective. | Other cultural perspectives described in judgemental or value based ways. |
|  | Other cultural paradigms no longer seen in such judgemental or value based ways, such as good versus bad, or underdeveloped versus developed. |   |   |

**Process:** Indications of any the stages of transformational change process. The following checklist shows how relevant data was interpreted for evidence of the presence or absence of Transformational Change process, through identification of the transformation and transition stages.

| Transformation (Crisis) Stage                                     |  | Transition (Integration) Stage                          |  |  |
|---|--|---|--|--|
| Process Present   | Process Absent   | Process Present   | Process Absent   |  |
| Evidence of a crisis of perspective created by life circumstance. | Emergence of a new view point allowing diversity of perspective. | No evidence of a crisis of perspective having occurred. | Evidence of the learning of new perspectives on an informant's life and environment. | No evidence of the learning of new perspectives. |

### 3.5.3. Interview About Case Study Problem Solving

#### 3.5.3.a. Paradigm

In examining an informant's paradigm through data of the case study problem solving, the following were considered;

**Sociological Paradigm:** did informants consider disorders to be imbalance in the theoretical and philosophical models of the Traditional Chinese Medicine sociological paradigm? Were these models accurately applied? The following shows how informants diagnoses of the case and their reflections on their diagnostic process were interpreted as evidence of outcomes for sociological paradigm being present or absent.

| Sociological Paradigm Present                                  | Sociological Paradigm Absent  |
|--|---|
| Accurate diagnosis of <i>Zang Fu</i> disharmony                | Application of non-Traditional Chinese Medicine theory or principles        |
| Accurate diagnosis of <i>Wu Xing</i> disharmony                | Inaccurate application of Traditional Chinese Medicine theory or principles |
| Accurate diagnosis of Fundamental Substances disharmony        |   |
| Accurate diagnosis of disharmony using Eight Principles theory |   |
| Accurate diagnosis of Pathogenic Factors                       |   |

**Metaphysical Paradigm:** Was informant consideration of theory and philosophy in accord with that of the Traditional Chinese Medicine metaphysical paradigm? The following shows how informants diagnoses of the case and their reflections on their diagnostic process were interpreted as evidence of outcomes for metaphysical paradigm being present or absent.

| Metaphysical Paradigm Present   | Metaphysical Paradigm Absent   |
|---|--|
| The theories of Traditional Chinese Medicine seen in a relative way each being valid within their own context even when they may contradict in any given circumstance | The theories of Traditional Chinese Medicine seen in an absolute way with conflict experienced where there is apparent contradiction |
| Case considered in a holistic way in terms of emotional, mental, spiritual as well as physical  | Case considered in a way not allowing for all of the aspects relevant within a holistic Traditional                                  |

|  |   |
|--|---|
| aspects and inter-actively with environment  | Chinese Medicine viewpoint  |
| Theories for understanding health seen as being in constant process.   | Theories for understanding health seen as fixed and absolute  |
| The theories for understanding health seen as interrelated and interdependent.   | Theories for understanding health seen as independent of each other   |
| The theories for understanding health seen as patterns such as <i>Yin/Yang</i> , <i>Wu Xing</i> , <i>Zang fu</i> or <i>Fundamental Substances</i> .                                | Theories for understanding health seen in linear ways which do not acknowledge the patterns of Traditional Chinese Medicine                     |
| The theories for understanding health as applied to the microcosm of the 'client' in this case, seen as equally applicable to the greater macrocosm of 'client' total environment. | World view inconsistent with the Traditional Chinese Medicine view that a 'client' is a microcosm of the greater macrocosm of their environment |

### 3.5.3.b. Students' approaches to learning

The data from informants solving of the clinical problem was evaluated for evidence of their using a more Deep or Surface approach. The understanding they showed of the case was also evaluated to allow consideration of a correlation between their approach and level of understanding. The following shows how informants diagnoses of the case and their reflections on their diagnostic process were interpreted as evidence of their using a more deep or a more surface approach.

| Deep Approach   |  | Surface Approach  |  |
|---|--|---|--|
| Meaning   | Structure  | Meaning   | Structure  |
| Seeking aetiology of the case                                 | Seeking interrelationships of the signs and symptoms | Lack of or inaccurate explanation of the meaning of signs or symptoms   | Lack of understanding of how signs or symptoms relate to each other                    |
| Seeking understanding of the case within appropriate patterns | Maintained the holistic structure of the case        | Ignoring inconsistent signs or symptoms                                 | Segmenting structure of the case through focus on individual parts (signs or symptoms) |
| Consistency in explanation of signs and symptoms              |  | Unable to justify patterns included in their diagnosis                  |  |
| Clear explanation of each pattern referred to in diagnosis    |  | Contradictory statements made about diagnosis                           |  |
|   |  | Justifying a diagnostic pattern from only one or two signs and symptoms |  |

The following shows how informants diagnoses of the case and their reflections on their diagnostic process were interpreted as evidence of their level of understanding. Refer to section 3.4.2.b.i for the Traditional Chinese Medicine diagnostic description of the case.

| <b>Good Understanding</b>                                    | <b>Poor Understanding</b>                                |
|--|--|
| Use of appropriate theoretical models.                       | Inappropriate theoretical models used.                   |
| Correct patterns of imbalance described.                     | Incorrect patterns of imbalance described.               |
| Correct concordance of case information with patterns.       | Incorrect concordance of case information with patterns. |
| Sufficient relevant information used in describing patterns. | Lack of relevant information in describing patterns.     |
| Correct description of aetiology of patterns.                | Incorrect description of aetiology of patterns.          |

Using these evaluations a comparative analysis was made of relationship between informant approach to the clinical problem and their level of understanding.

# CHAPTER FOUR: FINDINGS

The field research findings are presented as ‘within-case’ analysis describing themes identified within the data collected from individual informants and secondly as ‘cross-case’ analysis describing themes which emerged across the data of all informants involved. Themes emerging were:

- forces, outcomes and processes of transformational change;
- informants’ paradigm analysed in the three levels suggested by Masterman (1978);
- students’ approaches to learning, and;
- experience of learning Traditional Chinese Medicine.

Two academics from the Victoria University of Technology Traditional Chinese Medicine program, not otherwise involved in the research, analysed a sample of the interviews to provide a check for reliability of my findings.

## 4.1 WITHIN-CASE ANALYSIS OF INFORMANTS

### 4.1.1 Angela

Angela did not seem to relax as much as others during her interview and she did not seem as comfortable and open as others with expressing her personal feelings and perspective. I feel that this together with her interview being the first of the primary interviews, limited the data which I collected from Angela in comparison to the other five interviews in this research. Angela was a school leaver who had selected the Traditional Chinese Medicine course when she saw a newspaper advertisement. The course appealed to her as she had wanted to do a health science course but didn’t expect to achieve enough academically to do Western Medical training.

#### 4.1.1.a. *Paradigm*

##### 4.1.1.a.i. Traditional Chinese Medicine Construct Paradigm

Interview data indicated that Angela’s paradigm of practice is within the context of the Traditional Chinese Medicine metaphysical paradigm. This is indicated in her diagnostic process which involves consideration of the mental, emotional and physical levels of people. For example she appreciated the drug withdrawal centre where she practised for the breadth of discussion and reflection she could have with the clients across these levels.

##### 4.1.1.a.ii. Traditional Chinese Medicine Sociological Paradigm

In the interview Angela indicated she used the theory of Traditional Chinese Medicine to understand health and illness. To describe Acupuncture she referred to imbalance within the theoretical system of

the *jing luo*.

Angela indicated she had incorporated the Traditional Chinese Medicine theoretical understanding of how a person works into her personal sociological paradigm through the way that she has come to apply it in maintaining her own health. “In the Traditional Chinese Medicine ... I have gained an understanding of how I work, how things affect each other, so if I’m not feeling well then I can stop eating this or that, or I can stop doing something else to feel better. So it has helped me know about myself in this way.”

In the case study problem solving Angela showed a deep understanding of the Traditional Chinese Medicine sociological paradigm. She applied the theoretical systems of *zang fu* and fundamental substances to consider the case ‘client’. Imbalance within these was accurately applied along with patterns of pathogenic substances to form a comprehensive diagnosis.

#### **4.1.1.a.iii. Traditional Chinese Medicine Metaphysical Paradigm**

The data from Angela’s interview indicated she had a Traditional Chinese Medicine like metaphysical paradigm. Evidence of this included her:

- equal acceptance of both the Traditional Chinese Medicine and Western Medical sociological paradigms. She found that each were valuable in providing understanding of people;
- incorporation of mental and emotional aspects into her understanding of people. She found that the course taught her “mentally how emotions and thinking affect me”;
- understanding of the importance of the environment of people to their health patterns. This assisted in working with clients at a drug withdrawal centre. “It helps me realise that they are just ordinary people and they do these stupid things because of the situation they’re in.”

Angela’s case study problem solving incorporated mental, emotional and physical indications into her understanding of the case ‘client’ within the context of their environment, supporting the above analysis of her metaphysical paradigm.

#### ***4.1.1.b. Learning Of Traditional Chinese Medicine Paradigm***

##### **4.1.1.b.i. Learning Construct And Sociological Traditional Chinese Medicine Paradigms**

Angela describes the course as four years of being “taught a lot about the theory and philosophy of Acupuncture and spend a lot of time needling each other in training.” Her experience of learning the theories and practice of Traditional Chinese Medicine suggests it was of the incremental type throughout. Angela’s Traditional Chinese Medicine like metaphysical paradigm allowed her to accept the new sociological paradigm of Traditional Chinese Medicine during her training.

#### **4.1.1.b.ii. Learning Metaphysical Traditional Chinese Medicine Paradigm: Transformational Change**

##### ***4.1.1.b.ii.a. Initiating Forces For Transformational Change***

Angela's background was of living in the same suburb all her life with little involvement in her community, "people don't talk to each other in our street." Family life with an older brother and particularly her younger sister was important for her. At school she liked reading (often a book a night, romance adventure especially) and playing clarinet (which she no longer plays). It appears a significant influence in her life was her family's religion. Whilst her religion has its own culture (sociological paradigm) it is the metaphysical paradigm in which it operates which is most significant to this research. As a non-denominational Christian church it is open to different views on Christianity. This suggests a metaphysical paradigm which is open to a diversity of perspective. Angela's activities with her church were and still are an important part of her life. She stated that her religion was a guiding influence in her daily activities and thus many of the parts of her life are seen within this context.

The interview with Angela did not reveal clear evidence of how she gained her Traditional Chinese Medicine like metaphysical paradigm, other than suggestion that it involved her religion. Two possibilities were considered as to how her religion may have influenced her in this:

- firstly that Angela may have experienced a transformational change earlier in her life in the study of her religion but that this was not revealed in the interview. This may have been due to more development being needed in my interview skills in identifying relevant issues to the research, this being the first of the primary interviews conducted. It may have been due also to the reticent nature of Angela in discussing personal issues.
- secondly that Angela acquired her metaphysical paradigm without a transformational change. In this case it may have occurred through growing up immersed in a religion of a metaphysical paradigm with similarities to that of Traditional Chinese Medicine.

Angela indicated that her family and particularly her sister "who is like my best friend" were important for her. This would have provided valuable support in her moving through a transformational change process.

##### ***4.1.1.b.ii.b. Outcomes Of Transformational Change***

Angela provided indication of adjusting her perspective to people on the basis of their culture or background. "Working with people in drug withdrawal I started saying 'I am working with druggies' to friends, but after a few weeks I say 'working with people who abuse drugs because these people cannot deal with life very well. Like me, I can deal with life, but these people cannot, so resort to drug abuse; they often have been abused at home, etcetera.'" Here she is relating to the significance of the background (sociological paradigm) of herself and others and how this influences her and others behaviour and outlook. Such a perspective is recognised as an outcome of transformational change.



#### **4.1.1.b.ii.c. Process of Transformational Change**

There was no evidence observed of the various stages of transformational change process in Angela's interview. She did not indicate having experienced the crisis of perspective leading into a transformational change, nor did she indicate the changes of awareness involved in the integration of such a process.

#### **4.1.1.b.iii. Students' approaches to learning**

Angela showed a deep type of approach to the case study problem. This was indicated in her:

- seeking of understanding of the imbalances. She was able to explain an aetiology of the case which produced a comprehensive picture of understanding of the diagnosed patterns,
- searching for interrelationships of the signs and symptoms in forming the patterns of diagnosis,
- maintained the holistic structure of the case in forming a diagnosis.

The good understanding of the case she showed is consistent with the deep approach she applied.

Angela also showed a metacognition of learning. She indicated in her interview that she both used and understood the approach required for deep learning of course material. In referring to classes where she didn't learn much (due in her words to poor teaching) she stated that this was not too critical as "by knowing the material [basic concepts] you can go out and study and learn." The regular use of a deep approach to learning during the course is also suggested in the depth of understanding of the theoretical models shown by Angela.

#### **4.1.1.c. Summary**

Angela has been analysed as having a Traditional Chinese Medicine like metaphysical paradigm and a good knowledge of the sociological paradigm. Her awareness of the significance of cultural background suggests transformational change experience but there was no evidence found of the characteristic process. The influence of her religion was identified only as a possible force. There was no other conclusive analysis of how she gained her metaphysical paradigm.

Angela showed a deep approach to the case study problem solving which resulted in a good understanding of the case problem. If such an approach was applied consistently during her training it would be consistent with the deep knowledge she showed of the theory of Traditional Chinese Medicine.

Some inconclusive findings with this informant may originate from the interview. This may have been due to a lack of insight on my part on relevant themes and to the somewhat reticent manner of Angela regarding personal issues.

#### **4.1.2 Bella**

Bella was a school leaver who was encouraged to select the Traditional Chinese Medicine course by her

sister. Once she relaxed with the interview she was quite open with her expression.

#### **4.1.2.a. Paradigm**

##### **4.1.2.a.i. Traditional Chinese Medicine Construct Paradigm**

In discussing the practice of Traditional Chinese Medicine Bella emphasised using an individual approach and consideration of the mental, emotional and physical aspects of each client. This is indicative of her construct paradigm of practice being within the context of a Traditional Chinese Medicine like metaphysical paradigm.

##### **4.1.2.a.ii. Traditional Chinese Medicine Sociological Paradigm**

Bella indicated awareness of theoretical constructs of the Traditional Chinese Medicine sociological paradigm during her interview. For example in describing Acupuncture she referred to imbalances in the theoretical systems of *jing luo* and *qi and xue*. Bella also indicated having incorporated Traditional Chinese Medicine theories of health into her personal sociological paradigm through changes created in her daily life. "I think its been a great influence on my lifestyle." However in the case study problem solving she exhibited weaknesses in her depth of knowledge of such theories.

For the case study problem solving Bella used *zang fu* and fundamental substances theory to diagnose the case 'client'. Whilst these are appropriate systems to apply and she refers to some major aspects of the diagnosis, she also includes patterns which are not significant to this case 'client'. There are also inaccuracies in the signs and symptoms she applied to the patterns.

Bella indicates that she is operating within theories of the Traditional Chinese Medicine sociological paradigm but has not shown a deep understanding of these patterns.

##### **4.1.2.a.iii. Traditional Chinese Medicine Metaphysical Paradigm**

There were indications from her interview that Bella held a world view in accord with the Traditional Chinese Medicine metaphysical paradigm and that she understood the Traditional Chinese Medicine theory in this context. Her view of looking at a person as a whole in diagnosing involves considering symptoms such as "pain and the person as well ... get into their lifestyle, their environment...". In discussing the theory of Traditional Chinese Medicine Bella emphasised that she "really liked the way interaction was stressed" and she considers an holistic view to include the mental and 'transpersonal' aspects of the person. These are indicative of her applying a Traditional Chinese Medicine like metaphysical paradigm.

Analysis of the case study problem solving of Bella was also supportive of her having a Traditional Chinese Medicine like metaphysical paradigm. Evidence for this involved the following:

- her holistic view of the 'client' includes considering the physical, the *qi* balance and emotional aspects
- her view of the 'client's' disorder is based on identifying where balance has been lost

- her diagnosis is based on recognition of patterns of imbalance
- she recognises the interrelated and interdependent nature of emotions and physical aspects of the ‘client’.

#### ***4.1.2.b. Learning Of Traditional Chinese Medicine Paradigm***

##### **4.1.2.b.i. Learning Construct And Sociological Traditional Chinese Medicine Paradigms**

Prior to the course Bella viewed Traditional Chinese Medicine with her Western cultural perspective including the scientific view of medicine despite exposure to Traditional Chinese Medicine from her father. However as she was learning during the course she came to see the theory as similar to that of some of her parents’ ideas and to her experiences of Chinese village life. As she adjusted her way of viewing the course material to the Traditional Chinese Medicine sociological paradigm “it felt, oh, God my parents were right!” Thus a result of the course was that Bella learned to apply some of her previous knowledge to the practice of Traditional Chinese Medicine.

Her learning of the sociological paradigm of Traditional Chinese Medicine was without any reported difficulty. It was “just like every other course ... you do similar things, like you go to clinical and you learn, you go to lectures, but its just something different that you’re learning.” As there was no evidence of a transformational change crisis, her learning is suggested as having been incremental in nature. During the course she was able to choose from the range of perspective of her personal sociological paradigm in moving between the Western and Traditional Chinese Medical subjects. This indicates development of a metacognition of the process involved in studying a course which involves two different sociological paradigms.

For Bella the most memorable learning came from practical experiences of Traditional Chinese Medicine. “The first [time] I put a needle in, or the first time we actually started going into the practical classes and finding points and things, that was the first time I found it really interesting, like really caught my attention.”

##### **4.1.2.b.ii. Learning Metaphysical Traditional Chinese Medicine Paradigm:**

###### **Transformational Change**

###### ***4.1.2.b.ii.a. Initiating Forces For Transformational Change***

Bella’s experience of migrating when she was six years old from a small village in southern China to a western Melbourne suburb was a significant force for transformational change. Her recollections of China are dominated by her experience of a strong supportive community which was “like a large family”. When she arrived in Melbourne she found life to be a very different experience within the general community. People locked their doors, kept their own things, it was “more of a closed environment everyone in own little families”. In particular she found there to be a far greater emphasis on competition between people. As well as these significant cultural differences she experienced racism which appears to have emphasised that she was in a new environment and needed to adjust. On arriving

in Australia “... there was a lot of racism back then and that really perturbed me”. The description she gave of her response to this suggests it involved change for her of the transformational type. At first for Bella “... it hurt, but after awhile I’d see it just as their loss not knowing me.... You can learn so much from people in general, not just because of this race or that culture...”.

Both Bella’s immediate and extended family were and continue to be important support for her. “They are like the base for you, they are always there .... they’re sort of like part of you”. Such support can help a person move through transformational change.

#### **4.1.2.b.ii.b. Outcomes Of Transformational Change**

Bella indicated outcomes of transformational change during her interview. In coming to terms with the Australian culture and in particular racism, she developed a view of the inherent value in all people’s perspectives including her own. Bella was able to move freely into Australian cultural life especially during high school years. She began working in her family’s restaurant communicating more with others and at the same time becoming strongly influenced by her non-Chinese school friends. “They taught me all things done in Australian culture, parties, out to dinner, buying presents here and there, not done in China.” Through this time she incorporated the Australian cultural life into her personal sociological paradigm. This ability to accept a new culture is characteristic of having experienced transformational change. Bella said that she felt “half Chinese and half Australian”, indicating that she felt she had integrated the perspective of both Chinese village and Australian suburban life into her personal sociological paradigm. In regard to the Traditional Chinese Medicine course she expressed that appreciation of diversity of people was one of it’s strengths. These are indicative outcomes of transformational change process.

#### **4.1.2.b.ii.c. Process of Transformational Change**

The crisis stage of transformational change process appears to have occurred for Bella on migrating to Australia during her childhood. Bella indicated her experience of learning in the course was an incremental process of learning the Traditional Chinese Medicine sociological paradigm. There was no indication observed of furthering of transformational change process for Bella by the course through such things as development of perspective on the influence of cultural predisposition on people or altering judgemental views on the cultural perspective of others. It appears Bella predominantly completed this process prior to the course.

#### **4.1.2.b.iii. Students’ approaches to learning**

Bella indicated a surface type approach to the case study problem solving. This was suggested through the following:

- the structure of her diagnosis is not holistic as it distorted the picture of the case by focusing on the *Liver qi* stasis pattern. Signs and symptoms of other patterns were not included, or assigned to the *Liver qi* stasis pattern. In this way the structure of patterns was segmented and the holistic picture lost;

- lack of explanation of the meaning of some of the signs and symptoms, particularly as they related to each other in understanding the case 'client'.

Bella showed a partial understanding of the case which is consistent with a surface approach to problem solving.

#### **4.1.2.c. Summary**

Bella indicated forces, outcomes and process of transformational change which have influenced her perspective on the people and cultures in her life. Her view of the world reflects a Traditional Chinese Medicine like metaphysical paradigm which allowed the acceptance of the theory and practice of medicine taught in the course. Her learning of the theory and practice of Traditional Chinese Medicine was related back to her family and earlier cultural experiences in China. Whilst this provided some benefit during her studies it did not flow through to an advantage in her theoretical knowledge by the final year of the course. Her metacognition of the process of selecting between aspects of her personal sociological paradigm as required for different subjects was also an assistance in her learning. However Bella indicated a lack of depth of understanding of the sociological paradigm of Traditional Chinese Medicine and this can be understood if the approach to learning applied in the case study was commonly applied during her training. Bella showed a limited understanding of the case study consistent with the identification of her applying a surface approach to this problem solving.

#### **4.1.3 Cameron**

Cameron was also a school leaver. He had for some time had an interest in “the mysteries of Asian culture” which influenced his attraction to the Traditional Chinese Medicine course when he saw it advertised.

##### **4.1.3.a. Paradigm**

###### **4.1.3.a.i. Traditional Chinese Medicine Construct Paradigm**

The interview data indicated that Cameron’s paradigm of practice was broadly within the context of the Traditional Chinese Medicine sociological and metaphysical paradigms. Cameron indicated that in diagnosing and selecting treatment he would focus on a search for patterns of disharmony from within the Traditional Chinese Medicine sociological paradigm and indicated a Traditional Chinese Medicine like metaphysical paradigm perception of these patterns.

###### **4.1.3.a.ii. Traditional Chinese Medicine Sociological Paradigm**

Cameron indicated awareness of the theoretical constructs of the Traditional Chinese Medicine sociological paradigm during the interview but showed variation in depth of understanding of them when asked to apply these in the case study problem solving. During the interview he referred to a range of the Traditional Chinese Medicine theoretical systems which he learned during the course stating his preference was for the *wu xing* and *zang fu* theories.

In the case study problem solving Cameron applied the *wu xing* and *zang fu* theory in forming a diagnosis. He was able to form a basic diagnosis which covered the predominant pattern of the case study 'client' through understandings of *wu xing* disharmonies. However he showed a weak grasp of *zang fu* patterns with inconsistencies and misunderstandings evident as indicated by the following:

- “crying and screaming” indicating *Lung Qi Xu*. This primarily indicates a *Heart Shen* disturbance.
- “depression is due to *Lung Qi Xu*”. Depression can involve a range of patterns but *Lung Qi Xu* would be a minor consideration.
- “I can’t find anything to suggest anything really wrong with her earth”. The case study indicates appetite disturbance with uncomfortable and full upper abdomen after meals indicating an earth imbalance.

Cameron has a broad awareness of the Traditional Chinese Medicine sociological paradigm but lacks depth of understanding of some of the material.

#### **4.1.3.a.iii. Traditional Chinese Medicine Metaphysical Paradigm**

Cameron sees Traditional Chinese Medicine theories in a relative way indicating a Traditional Chinese Medicine like metaphysical paradigm. He found he must be flexible with Traditional Chinese Medicine theory, as it is not absolute, “you have to adapt it to different people, no one’s ever the same”. In this he expresses the Traditional Chinese Medicine metaphysical paradigm concept that all people are a microcosm of the holistic interaction of the universe and as such the theory can (with a flexible approach) be applied to all. In emphasising flexibility he is also acknowledging the constant change process in all people which is fundamental to the metaphysical paradigm.

In the case study problem solving Cameron shows application of the following concepts of a Traditional Chinese Medicine like metaphysical paradigm:

- holism; in the integration of physical and mental aspects of the case 'client',
- functioning and imbalances referred to in terms of patterns of interrelationship; in the systems of *wu xing* and *zang fu*,
- life as constant process; he sees the case 'client' as being basically healthy as she is “moving along” in her life process.

Cameron provided evidence of a Traditional Chinese Medicine like metaphysical paradigm through both the interview and case study problem solving.

#### **4.1.3.b. Learning Of Traditional Chinese Medicine Paradigm**

##### **4.1.3.b.i. Learning Construct And Sociological Traditional Chinese Medicine Paradigms**

Though Cameron came into Traditional Chinese Medicine through an interest in Oriental philosophies and with experience of martial arts he had virtually no knowledge of theoretical bases prior to the

course. On being exposed to the theory he found the “first week here I was totally perplexed with everything they said, they started talking about *Qi* and *Xue* and stuff like that, it probably took me the first year to understand those concepts.” However though they were new Cameron was able to gradually learn and incorporate these into his personal sociological paradigm; “it is part of my life now.” Cameron indicated the acceptance and learning of this new sociological paradigm was an incremental process.

Cameron found that for learning actual experience of Traditional Chinese Medicine was the most powerful aspect of the course. For example “I was really influenced a lot during our clinical [placements] when we go and see practitioners. Just the way they interact with people and how they diagnose and all the rest.”

#### **4.1.3.b.ii. Learning Metaphysical Traditional Chinese Medicine Paradigm: Transformational Change**

##### ***4.1.3.b.ii.a. Initiating Forces For Transformational Change***

An initiating force for transformational change was identified in Cameron’s early life. Cameron spent his childhood moving with his family regularly about the state of Victoria following the job placements of his father. He described this experience as being in “foreign environments” regularly and of having to adapt. He found the “starting off at new schools is a bit scary .... [but] I think I’ve grown from it”. Thus he experienced a diversity of viewpoints and people from a young age. It appears this early experience of Cameron’s was similar to that described in the literature of international sojourners who experienced a type of culture shock and transformational change process.

Whilst Cameron was experiencing new environments through regular physical relocations he was supported by a sense of security he felt in his family. “I suppose I owe a lot to where I have got to now to them”. He felt that his family “is that ‘Family Ties’ type” which seemed to help maintain his feeling of confidence in himself. For Cameron then family support can be seen as a force for assisting in Transformational Change.

##### ***4.1.3.b.ii.b. Outcomes Of Transformational Change***

In describing his experience of the outcome of moving regularly into new environments Cameron says it “makes up part of your persona or your character”. This suggests he is conscious of these experiences changing the way he sees himself and his world. Through the experience of seeing life from the perspective of those who live in a large regional centre and those living in a smaller seaside locale he was able to acknowledge the influence the different culture of each had on people. He found the environment of life in the country for young people offers “nothing as diverse to what you have down on the peninsula”. Cameron showed an ability to accept both these cultures (sociological paradigms) rather than rejecting one to accept the other. In integrating the perspective of both of these environments into his own sociological paradigm he developed the viewpoint that “the people are different, [but] actually not that different, everyone [is] sort of basically the same”. This type of

perspective is indicative of having experienced transformational change.

Another indication of his acceptance of diversity is the strong interest he developed in investigating various philosophies and religions, whilst not becoming attached to any particular one. Instead he was “always fascinated how there can be so many different religions in the world and that they offer the same underlying beliefs or characteristics”.

Perspective such as this is indicative of outcomes of transformational change and through this expansion of metaphysical paradigm.

#### **4.1.3.b.ii.c. Process of Transformational Change**

The learning of the theory and practice of Traditional Chinese Medicine for Cameron was an incremental process. In terms of transformational change process the course appears to have been integrating of the changes experienced earlier.

Whilst Cameron indicated having had a Traditional Chinese Medicine like metaphysical paradigm prior to the course it appears he was still in the process of integrating it. The course has helped him to now see health care within the sociological paradigm of Traditional Chinese Medicine. This has provided an application of his metaphysical paradigm in a practical way, continuing the integration process.

Cameron had already integrated his metaphysical paradigm into his view of sport such as surfing involving balancing the forces of nature and in his martial arts experiences. However the course acted as an integrating influence through carrying this into his perspective of health. He experienced this for example as becoming “very aware of my body and ... [how it is] relating to ... the environment”.

Cameron found the course to be a facilitation of the transformational change process which was initiated by the relocation experiences of his childhood.

#### **4.1.3.b.iii. Students' approaches to learning**

Cameron showed a relatively limited appreciation of the case study in describing a diagnosis. In his approach there is a failure to maintain the original structure of the case study through an ordering of the information rather than structuring it a way consistent with the original ‘client’ picture. His diagnosis identified some fundamental aspects of the ‘client’, applying the theory of *wu xing* with the *zang fu* system, however:

- within the *wu xing* patterns described there is a lack of relevant information, and
- within the *zang fu* patterns there are incorrect concordances as well as again gaps in the diagnostic picture.

Specifically a superficial approach is evident in the following:

- ignoring inconsistent material; “Appetite is ... ok”. Case study indicates the subject’s appetite is very strong and can cause severe hunger pains.
- including diagnosis of which he is unsure, such as *Spleen Qi Xu* for which he finds little data to



support and makes the comment “[you] can’t go wrong really tonifying earth, a lot of people need that”.

- making contradictory observations about the case data as for example diagnosing *Liver Qi Stasis* and later “she doesn’t seem to be stagnant”.
- not acknowledging how other information supported or contradicted his conclusion “... she’s fairly straight forward. Excluding the [signs of] damp-heat, which I didn’t really include in my diagnosis”.

#### **4.1.3.c. Summary**

In summary whilst Cameron definitely indicates having a Traditional Chinese Medicine like metaphysical paradigm, he has shown some weakness in his grasp of the sociological paradigm theory as applied to case study problem solving. For example whilst he is clear on the need for balance (metaphysical paradigm) within examples of these systems, his understanding of the signs and symptoms of some of these imbalances (sociological paradigm) is deficient.

It appears that Cameron entered the course with a Traditional Chinese Medicine like metaphysical paradigm. The course influence is suggested as being integrating of transformational change and developing of his metaphysical paradigm. This occurred through the teaching of the theories and practice of Traditional Chinese Medicine. The data suggests that Cameron had a limited understanding of the case study in using a relatively superficial approach to problem solving. If this was the type of approach he applied to learning Traditional Chinese Medicine theory during the course it would help explain the gaps apparent in his knowledge. It is worth noting that with an open metaphysical paradigm Cameron has the potential in future to deepen his understanding of the theory. This may well be motivated by future experience if he finds limitations in his clinical results. Metacognition of the relationship between the depth of approach he uses and understanding of theory and case problem solving would be of clear benefit to Cameron in this process.

#### **4.1.4 Derek**

Derek was of Indian/Fijian cultural background and as part of this had an important influence from his religion. He entered the course as a school leaver, partly encouraged by his father who is a practitioner of Acupuncture and naturopathy. In the interview he seemed quite relaxed and generally expressed himself confidently and assertively.

##### **4.1.4.a. Paradigm**

###### **4.1.4.a.i. Traditional Chinese Medicine Construct Paradigm**

Whilst no actual observations were made of Derek’s practice of Traditional Chinese Medicine, interview data indicated that Derek’s paradigm of practice is within the context of the Traditional Chinese Medicine sociological and metaphysical paradigms. Derek indicates he uses a broad holistic

approach to diagnosis in his practice. He found the course “developed that stand back and take a look at things attitude... to take everything into account, not to go on a few things, just to take in everything”. For him this was a development of an attitude he formed in his earlier life experiences of dealing with people of different culture. In this he also indicates metacognition of the process of taking a broad view to form a comprehensive diagnosis in Traditional Chinese Medicine.

#### **4.1.4.a.ii. Traditional Chinese Medicine Sociological Paradigm**

The interview data indicates Derek has an appreciation of the Traditional Chinese Medicine cultural perspective. Derek used appropriate theories to explain how Traditional Chinese Medicine works, specifically referring to balance within *Yin/Yang* and the *Jing-Luo* system.

Derek indicated he had taken the Traditional Chinese Medicine theory and philosophy on as part of his personal sociological paradigm when describing its influence in “looking through all aspects of my life, choosing something to eat at the cafe to complex things...”.

Derek also indicated a strong understanding of theoretical models of Traditional Chinese Medicine through his consideration of the case study as imbalance in the systems of the fundamental substances and the *zang fu*. He also considered patterns of pathogenic substances. These systems were applied accurately within the frameworks of Traditional Chinese Medicine.

#### **4.1.4.a.iii. Traditional Chinese Medicine Metaphysical Paradigm**

Derek indicates he has a Traditional Chinese Medicine type of metaphysical paradigm from the way in which he understands and applies the theory and practice of Traditional Chinese Medicine. Derek sees the theories of Traditional Chinese Medicine as being “just used to a classify things ... to reach a picture of what is going on and understanding”. He was “more inclined not to stick to one [Traditional Chinese Medicine] method or one framework”. In these things he is relating to the way in which no theory is considered to have an ultimate reality in Traditional Chinese Medicine, as he says “there are no absolutes, right?!” His perception of an interrelated and interdependent holistic view in which everything is relative is indicative of a Traditional Chinese Medicine like metaphysical paradigm.

Derek also showed that he has a Traditional Chinese Medicine like metaphysical paradigm in his consideration of the case study. He did this through consideration of mental, emotional, physiological and environmental aspects in his diagnostic understanding.

#### **4.1.4.b. Learning Of Traditional Chinese Medicine Paradigm**

##### **4.1.4.b.i. Learning Construct And Sociological Traditional Chinese Medicine Paradigms**

Derek had exposure to Traditional Chinese Medicine through his father but entered the course with virtually no knowledge of its theoretical basis. For him learning of the theory and practice of Traditional Chinese Medicine was an incremental experience rather than the crisis type of experience of transformational change. It was only a challenge when he chose to make it so “basically I think, the

times when I have put a lot of energy into it, it was challenging.” Derek expressed that the most important influence on his experience of learning was the attitude he had to it. “There were periods where it was challenging, periods where it was not as challenging and that reflected pretty much how much energy I was putting in.”

The most influential aspects of the course for Derek were practical experiences. “When I started practice, clinical practice, observing other practitioners... just to see Acupuncture in progress, at work ... take part in interacting with it”. In the same way classroom experiences such as “when you begin needling ... the excitement I found then, it is still with me now”.

#### **4.1.4.b.ii. Learning Metaphysical Traditional Chinese Medicine Paradigm: Transformational Change**

##### ***4.1.4.b.ii.a. Initiating Forces For Transformational Change***

Derek seems to have experienced a transformational change in his early years. At the age of about two years he immigrated with his family from Fiji. As a child growing up in Australia he was exposed to racism which led to changes in his perspective on people. He found this to be a difficult challenge, “just like a painful stimulus or something, first there is a shock but then you learn to adapt and then you can learn to grow on that, if you handle it the right way”. The influence of growing up in a family culture quite different from that of the broader community, emphasised by elements of that community in racism, appears to have been a significant force for transformational change in Derek.

Transformational change is encouraged when the person feels a sense of security and acceptance of themselves. Derek expressed a strong sense of support from the Indian/Fijian community in Melbourne. “Myself and my family there’s like a net, that sort of formed around us and that net’s like people who’ve ... the same sort of story as us ... I think my family derives everything it needs from that net, like maybe eighty percent”. This network helped provide support for Derek which facilitates transformational change.

##### ***4.1.4.b.ii.b. Outcomes Of Transformational Change***

Outcomes indicative of transformational change were also present in the interview data. For him the ‘shock’ of the intercultural experience in time led to “understanding where people are coming from and why they are doing it”. He became more aware of the influence of his and other’s cultural dispositions on attitudes and behaviours. “These people know what they know because they’re from that environment, I know what I know because I am from this environment”. In regard to racists this led to a view that “maybe they have not seen my environment and understand where I am coming from, that’s why they are doing it, [for them] it’s the simplest way to handle it”. There were other indicators that Derek’s life experiences had included a transformational change such as data indicating him having an inter-cultural sociological paradigm. Derek felt connections with the cultures of both the Islam religion and of Australian suburban life. His religion “has channeled a lot of his energies” yet he also feels affiliated to his local suburban community. “I like to support the area I am in, I like to get behind it ... if

they have clean up days and all that, I would take part”.

Derek feels free to select from the different cultural aspects of his sociological paradigm as appropriate. For example when questioned about any conflict between his religion and Traditional Chinese Medicine views, he stated “I’m not strict down the line Hindu ... I’m sure if my religion was restricting me in that way I wouldn’t follow the religion”. Such signs of an inter-cultural sociological paradigm together with the increased awareness of the influence of culture on behaviours and attitudes indicate Derek has experienced transformational change.

#### **4.1.4.b.ii.c. Process of Transformational Change**

It appears that Derek was still in the integration stage of transformational change process on entering the course. He feels the program has contributed to him being more open to a range of perspective. “If you’re discussing a topic with someone ... I would be more inclined to hear what everybody has to say, if somebody does not say anything, I would ask them, what do you think? I would give my bit and then in the end try and make the best decision.” The concept of balance, in accepting a variety of views of people, was previously a part of Derek’s paradigm and since commencing the course he has increasing awareness. This appears to have been an incremental process of the type involved in integration of transformational change. The effect of the course was to deepen his awareness and application of this type of perspective into more areas of his life and in particular Traditional Chinese Medicine practice. This is indicated in his increasing awareness of the perspective associated with outcomes of transformational change during the course. It appears from his interview data that Derek has largely completed this process and is now in the stage of deepening his knowledge of the range of cultural perspective he is aware of (particularly Traditional Chinese Medicine at this time) referred to as stage four of transformational change process in the literature. This suggests that Derek has largely completed a process of transformational change and integration of a new metaphysical paradigm.

#### **4.1.4.b.iii. Students’ approaches to learning**

Derek showed a good understanding of the case study in applying a deep type of approach to the problem solving. This is indicated in his:

- intention to see the whole picture of the case, “initially I wanted to look at things as broadly as possible, stand back, not get into too much detail, because when you start doing that you ignore things”,
- seeking of understanding of the imbalances. He formed a clear aetiology of the case which produced a comprehensive picture of understanding of the diagnosed patterns,
- searching for interrelationships of the signs and symptoms in forming the patterns of diagnosis,
- maintaining the holistic structure of the case.

Derek indicates a metacognition of the process by which he arrived at a comprehensive evaluation of the case study problem. “Standing back I just wanted to maybe start classifying according to the eight

principles, did you notice that? ... then start looking at any organs involved, maybe looking at things from how she developed ...". This has allowed him to discuss the process of forming his diagnosis in a clear and effective way.

A deep approach to learning during the course is consistent with having a deep understanding of the theoretical models and their appreciation which has been shown by Derek.

#### ***4.1.4.c. Summary***

It seems that Derek experienced transformational change in his youth whilst dealing with cultural differences and racism. The Indian/Fijian community 'net' facilitated this change through providing him with a sense of security and support. The process of integration of transformational change was furthered by the course. This was facilitated through practical application of Traditional Chinese Medicine and the peer support of others at the university. Derek recognised the Traditional Chinese Medicine viewpoint as being similar to that which he had formed earlier and observed a deepening of awareness. The course can be said to have facilitated integration of such principles as holism, balance and the acceptance of diversity while teaching the theoretical concepts and practice of Traditional Chinese Medicine. These concepts were already a component of Derek's thinking but now have been accepted more fully and their application broadened to much more of his experience of life.

Derek showed a good understanding of the case study consistent with the analysis of him applying a deep approach to the problem solving. He indicates a relationship between having a Traditional Chinese Medicine like metaphysical paradigm and the application of a deep approach to training in having a deep understanding of the theory of Traditional Chinese Medicine.

#### **4.1.5. Eugene**

Eugene was a school leaver who had no definite idea about a career whilst at school. He was looking into the sciences area but also wanted to work with people. After some reading about Acupuncture he applied for the course. He was born in Australia of an ethnic Italian background.

##### ***4.1.5.a. Paradigm***

###### **4.1.5.a.i. Traditional Chinese Medicine Construct Paradigm**

Eugene indicated he has a construct paradigm of practice in accord with that of Traditional Chinese Medicine. An indication of this is his acceptance of individual variation in practice between practitioners' clinical treatments of the same client. Eugene expressed the that "there's no exact right or wrong answer. Maybe there's good about everything, I'm thinking about treatments ... in clinical practice ... everybody's got, probably going to hit the same problem, just taking it from a different end, angle." Such a view is in accord with the understanding of the Traditional Chinese Medicine metaphysical paradigm in accepting diversity of perspective. In this view appropriateness of treatment is seen from the context of the perspective taken to the diagnosis, rather than one absolute answer to any

clinical problem. Eugene's advice to others was "if you're going to study Acupuncture just make sure you consider as many things as you can in terms of what could be happening to the person, because there's not just one or two things impacting on them." This shows that Eugene's view of practice reflects a Traditional Chinese Medicine construct paradigm.

#### **4.1.5.a.ii. Traditional Chinese Medicine Sociological Paradigm**

Eugene indicated through the interview and confirmed in the case study problem solving an understanding of theory in accord with the Traditional Chinese Medicine sociological paradigm. Throughout the interview he referred to Traditional Chinese Medicine in terms of six divisions, zang-fu, jing-luo and other theoretical systems. In the case study problem solving Eugene showed a good understanding of these. He made appropriate use of the zang-fu system and was able to evaluate the state of all the primary *Yin* organs (Zang) in his diagnosis. In doing this he showed how the imbalances were linked to form an overall imbalance of the zang-fu system.

#### **4.1.5.a.iii. Traditional Chinese Medicine Metaphysical Paradigm**

Eugene indicated in his approach to differences in medical perspective a Traditional Chinese Medicine like metaphysical paradigm. Eugene felt there was an imbalance in the curriculum with not enough emphasis on Western Biosciences. "All the traditional stuff should stay, but I think along with ... bringing Western stuff along ... I'm considering now doing another course which will have a lot stronger Biosciences so I can explore that more." This confirms that the process of learning the Traditional Chinese Medicine sociological paradigm for him was not a case of replacing his Western scientific perspective with another, but of the expansion of his personal sociological paradigm to incorporate another view. Thus he showed an acceptance of both Traditional Chinese Medicine and Western Medicine views (sociological paradigms) though these can at times provide different understanding. This is a characteristic of a Traditional Chinese Medicine like metaphysical paradigm.

In describing Acupuncture Eugene stated "it is a form of medicine which is come from a perspective about how people observed nature and the way that was, and then applied what they saw in the world around them to the human body. From there they would sort out what sort of problem you had in terms of a pattern." In this Eugene relates to the concept of a human being as a microcosm of the world they live in and to the identification of disorders as patterns disharmony, both of which are indicative of a Traditional Chinese Medicine like metaphysical paradigm.

The case study problem solving was supportive of the above evaluation of Eugene's metaphysical paradigm. In this he referred to physical, mental and emotional aspects of the 'client'. In forming a diagnosis of imbalance he incorporated the impact of the environment within the patterns of the zang-fu theoretical system. These are indications of the holistic perspective of a Traditional Chinese Medicine like metaphysical paradigm.

### ***4.1.5.b. Learning Of Traditional Chinese Medicine Paradigm***

#### **4.1.5.b.i. Learning Construct And Sociological Traditional Chinese Medicine Paradigms**

Eugene had no knowledge of the Traditional Chinese Medicine sociological paradigm prior to the course, “I suppose I thought Acupuncture was going to be a more mechanistic type approach ... totally different to what I actually found out it was.” However through already having a Traditional Chinese Medicine like metaphysical paradigm Eugene was open to this new cultural perspective on health when it was presented to him. On finding a new perspective was being presented, he recalled thinking “what they’re saying isn’t totally out of this world that it couldn’t be true. It sounded feasible at least.” The learning of the theory and practice of Traditional Chinese Medicine preceded through an incremental process as he gradually increased his knowledge.

#### **4.1.5.b.ii. Learning Metaphysical Traditional Chinese Medicine Paradigm: Transformational Change**

##### ***4.1.5.b.ii.a. Initiating Forces For Transformational Change***

Eugene grew up in a family of Italian parents in a Melbourne suburb with a diversity of Italian and Australian suburban cultures. Unlike other children of immigrants in this study he did not report the experience of racism. Instead he seems to have found the different responses of his mother and his father to this diversity as confronting. This appears to have been acknowledged especially in his teenage years as he was establishing his own identity and approach to life. He found that “sometimes it gets confusing, which way to go ... I think my mum and dad are totally different. My dad is very Italianised. He doesn’t really agree with much that goes on here in Australia, doesn’t really like the place that much. My mum is probably more Australianised, even though she knows the Italian culture as well, she’s more accepting and she’s happy to fit in here.” In terms of paradigm it can be seen that his father had the Italian culture predominant in his sociological paradigm, whilst his mother had accepted both. This suggests the metaphysical paradigm of his mother was much more accepting of diversity than that of his father. It was apparent the difference in the paradigms of his parents had been a ‘conflict’ for him. Was he an Italian or an Italian-Australian? This can be seen as having been a challenge to the metaphysical paradigm of Eugene and a force for transformational change.

A feeling of support has been identified as an important influence assisting in the process of transformational change. Eugene found his extended family has helped him “in terms of knowing where I’ve come from; I was born in Australia, but where my roots are ...”. “What’s important is the fact that they’re there, people to rely on one day, that support thing ...you can tell if you were ever in trouble one day ... they would be there if you ever needed them”. Friends were also involved in this role for Eugene. An important part of this relationship was “... the support; we all accept what we do is different, if we can help each other we do”. Such support is an assistance in transformational change process.

##### ***4.1.5.b.ii.b. Outcomes Of Transformational Change***

Increased acceptance of the different perspective of others is an important outcome of transformational

change. Eugene shows his increasing acceptance of his parents, through reference to his own approach to situations of disagreement with them when he “just accepted they wanted to think that way”. This is also expressed in regard to his view of his brother and sister. “We’re all different ... still I think we appreciate each other for that.”

Eugene had only a limited involvement outside of his family earlier in his life, suggesting the Italian influence was dominant and of having a narrower metaphysical paradigm through that time. At home Italian language is still spoken sometimes and the diet is Italian oriented. By the end of his secondary education however Eugene was looking for different perspective in his life expressed through his interest in different academic subjects. During his final high school year he selected humanities subjects, but on completing wanted to expand his view into the sciences area “ ‘cause I wanted to see that other side of the coin”. He also indicates this interest in different perspective in his approach to people. “Its interesting when I talk to others about their religions ... it interests me something different to what I had ... I’m mostly interested with the way people think and their ideas.”

Eugene thus indicates he has a Traditional Chinese Medicine like metaphysical paradigm and is in the process of continuing development of an intercultural sociological paradigm incorporating his Italian heritage, the Australian suburban culture he grew up in and that of Traditional Chinese Medicine.

#### **4.1.5.b.ii.c. Process of Transformational Change**

The course has facilitated Eugene in the integration of the transformational change initiated through the above forces. It has provided a basis for manifesting more openness to different views through the application of Traditional Chinese Medicine theory in practice. Integration of the metaphysical paradigm by Eugene was experienced in the course as “opening up my mind”. Eugene’s comment can be understood as indicating the course was important in bringing this perspective into his consciousness. Eugene did not express any experience of the crisis characterising transformational change during the course. The process during this time was integration and consolidation of transformational change involving incremental learning.

#### **4.1.5.b.iii. Students’ approaches to learning**

Eugene showed a good understanding of the case study along with a deep type of approach to the problem solving. This is indicated in his:

- seeking of understanding of the imbalances. He formed a clear aetiology of the case which produced a comprehensive picture of understanding of the diagnosed patterns,
- searching for interrelationships of the signs and symptoms in forming the patterns of diagnosis,
- maintained the holistic structure of the case in forming a diagnosis.

A deep approach to learning during the course is consistent with having a deep understanding of the theoretical models and their appreciation which has been shown by Eugene.



#### **4.1.5.c. Summary**

Eugene was analysed as having a Traditional Chinese Medicine like metaphysical paradigm with a strong understanding of the sociological and construct paradigms. This was in accord with the evidence of transformational change experienced prior to the course and integrated whilst studying Traditional Chinese Medicine. It is also indicative of a deep approach to learning during his studies.

Eugene indicated the different perspective on his Italian-Australian heritage presented by his parents was a force for transformational change and showed a perspective and indicated process associated with transformational change having occurred. The course facilitated integration of transformational change, whilst the opening of his metaphysical paradigm provided by this change aided his learning, with the potential for acceptance of the sociological paradigm of Traditional Chinese Medicine.

Eugene's good understanding of the case study was associated with the use of a deep approach to problem solving. Such an approach applied to learning throughout the course is in accord with the deep understanding he showed of the Traditional Chinese Medicine sociological paradigm.

#### **4.1.6 Finbar**

Finbar was a school leaver who found the course through seeing a newspaper advertisement. She had an existing attraction to natural therapies and was encouraged to apply by a friend.

##### **4.1.6.a. Paradigm**

###### **4.1.6.a.i. Traditional Chinese Medicine Construct Paradigm**

Finbar's conception of practice of Traditional Chinese Medicine emphasised the metaphysical paradigm concepts. In discussing her experience of practice she described "realising how distant I am [and] how sort of interwoven I am." This reflects the nature of reality expressed by the Traditional Chinese Medicine metaphysical paradigm in which people, though individuals, are also intimately interconnected, as with all phenomena. This is in accord with Finbar's construct paradigm being within the context of the Traditional Chinese Medicine metaphysical paradigm.

###### **4.1.6.a.ii. Traditional Chinese Medicine Sociological Paradigm**

Finbar appeared to have emphasised the metaphysical paradigm in her learning of Traditional Chinese Medicine and this was reflected in her interview in which she almost exclusively referred to those concepts in her discussion. However she referred to the sociological paradigm theory of *zang fu* when discussing learning and this was viewed from the context of her Traditional Chinese Medicine like metaphysical paradigm.

The case study problem solving indicated that Finbar did not have a deep understanding of the Traditional Chinese Medicine sociological paradigm. Whilst she used the theoretical systems of *wu xing*, *zang fu*, pathogenic substances and fundamental substances these were applied in a way indicating a surface understanding. This was suggested by the small sample of case study information referred to

in establishing the patterns and the lack of understanding of how these related to each other.

#### **4.1.6.a.iii. Traditional Chinese Medicine Metaphysical Paradigm**

Finbar was identified as having a Traditional Chinese Medicine like metaphysical paradigm from the interview data and her case study problem solving. She related to “the world view that Acupuncture brings out ... that there’s a place for everything ... nothing is right or wrong ... nothing’s set in stone, nothing’s black and white.” She felt comfortable with this “because that was my perception of everything around me, the world.” Finbar showed a ready sense of humour and appears to have come to the conclusion that life is bit of an act, not to be considered serious all the time. Such perspective could flow from having the holistic perspective of a Traditional Chinese Medicine like metaphysical paradigm which allows that all things are relative, rather than absolute in any way.

In the case study problem solving Finbar referred to emotional, mental and physical levels of the ‘client’ as well as the impact of environment in her consideration of a diagnosis supporting the above analysis of her metaphysical paradigm.

#### ***4.1.6.b. Learning Of Traditional Chinese Medicine Paradigm***

##### **4.1.6.b.i. Learning Construct And Sociological Traditional Chinese Medicine Paradigms**

Prior to the course Finbar had “no idea of what Acupuncture was really ... had no idea of the theory behind it.” In her learning Finbar indicates she focussed more on developing the metaphysical paradigm perceptions than the theories of the sociological paradigm of Traditional Chinese Medicine. Learning “Acupuncture is like an acquired thing that you get from somewhere else, I don’t know, like you cannot read Maciocia [a text on fundamental theories of Traditional Chinese Medicine] and be a good acupuncturist, not for what I think Acupuncture is.”

In the course Finbar found “the first three months very difficult ... because of Western medicine [Bioscience subjects] slamming you back into Western society when you’re just really trying to feel your way around Chinese medicine.” Her learning suggested an incremental process as she found “it took me awhile, it just became more realistic.”

##### **4.1.6.b.ii. Learning Metaphysical Traditional Chinese Medicine Paradigm: Transformational Change**

###### ***4.1.6.b.ii.a. Initiating Forces For Transformational Change***

Finbar found the different perspectives offered by her parents was a dichotomy that had to be resolved in establishing her own identity. “My parents were from completely different cultures. My father’s Sri Lankan and my mother is German-Russian and she was brought up here.” The different ethnic cultures of her parents provided a diversity to resolve in forming her own self identity. In addition the different perspective of her parents and herself on how to live within Australian society was a significant dichotomy. “My father is very conforming to the way you have to behave, act, to get the sort of job, to

have certain sort of friends.” “I went through the teenage stage struggling to be popular, struggling to be the same, it just sort of occurred to me, why am I doing this? I am not the same.” The resolution of these dichotomies appears to have been a transformational process for Finbar.

Finbar’s friends have been an important support for her. “I have always had a few friends, very few friends, but deep friends that I would do everything with, talk about everything with, that’s the way I have done it all along and still do it.” Such support can help the process through transformational change.

#### **4.1.6.b.ii.b. Outcomes Of Transformational Change**

Finbar indicated outcomes of transformational change in the development of an acceptance of diversity in people from her relationship with her parents. In reflecting on the result of dealing with this dichotomy she states “I can sort of feel for the both [of them] and its sort of ... I think its good because it seems that I can see ... maybe more sensitive to like the differences. Instead of thinking everything is this way, sort of more there are different ways to be and they can exist together.” Such acceptance of the different behaviour and views of others with acknowledgment of how their background (or culture) creates these are outcomes indicative of transformational change.

#### **4.1.6.b.ii.c. Process of Transformational Change**

The process of transformational change for Finbar appears to have involved a dark period she referred to in her life during high school years, when she “was interested in being morbid (laughs)”. At this time she was “severely into ‘Nick Cave’ and ‘The Smiths’, I don’t know whether you were familiar with their lyrics, I liked the lyrics very much. They were fascinating, morbid and bleak, ‘wallowing in your own sorrow’.” It maybe that the result of finding she was “not the same, nobody is the same” led to this period out of which she was able to transform her perspective.

There was indication that the course provided further facilitation of the integration stage of transformational change process for Finbar. She found that “as you go through the course it provides, well for me anyway, a lot of answers ... it’s sort of given me a grounding actually, I don’t think I had before.” This may have occurred through the practical application of Traditional Chinese Medicine grounding the new metaphysical paradigm she developed through her earlier experience. This process involves the viewing of one’s cultural knowledge within the new metaphysical paradigm. The personal construct and sociological paradigms of a person are adjusted to fit into the context of the new metaphysical paradigm.

#### **4.1.6.b.iii. Students’ approaches to learning**

Finbar indicated a limited understanding of the case study whilst taking a surface type approach to the problem solving. This is suggested by:

- her diagnosis which does not form a holistic overview. The diagnosis has a segmented structure which has distorted the picture. It was based on a *Liver qi* stasis pattern in which signs and

symptoms of other patterns were not included. In this way the structure of patterns was segmented and the holistic picture not seen.

- lack of explanation of the meaning of the signs and symptoms, particularly as they related to each other in understanding the case 'client'.
- arriving at patterns of diagnosis through only one or two case 'client' signs or symptoms.

#### ***4.1.6.c. Summary***

Finbar has indicated having a Traditional Chinese Medicine like metaphysical paradigm through her discussion of her understanding of Traditional Chinese Medicine and life generally. However her understanding of the theory shows a lack of depth which may reflect the emphasis she put on the development of awareness of the metaphysical paradigm conceptions. In doing this she may have taken a superficial approach to learning of the sociological paradigm knowledge. This suggests that whilst she has a deep appreciation of the broad world view of Traditional Chinese Medicine she has not learned the theory to a similar depth.

Findbar's theoretical understanding of the case study was limited by the surface approach used in her problem solving. Her experience of transformational change suggested by concomitant forces, outcomes and processes supports her beginning development of her metaphysical paradigm prior to the course. In her training the course material and pedagogy was indicated as facilitating the integration of her transformational change.

## **4.2 CROSS-CASE ANALYSIS OF INFORMANTS**

### **4.2.1. Paradigm**

#### ***4.2.1.a. Traditional Chinese Medicine Construct Paradigm***

Evaluation was made of informants' construct paradigm through the context of their sociological and metaphysical paradigm. It was also analysed from their approach to the case study problem solving.

All informants were analysed as having a Traditional Chinese Medicine like construct paradigm. This was assessed through the evidence of their referring to Traditional Chinese Medicine sociological and metaphysical paradigm theories and conceptions in considering practice. It was recognised through their reference to theoretical construct patterns of Traditional Chinese Medicine and conceptions of the metaphysical paradigm such as using a broad holistic approach to diagnosis, consideration of mental, emotional and physical levels of people, acceptance of diversity in diagnostic approach and the interconnected nature of all phenomena.

#### ***4.2.1.b. Traditional Chinese Medicine Sociological Paradigm***

The application of the theoretical bases of the Traditional Chinese Medicine sociological paradigm were sought in the interviews and in case study problem solving to evaluate informants' personal Traditional Chinese Medicine sociological paradigm. All informants were analysed as practising their medicine through the application of Traditional Chinese Medicine theoretical models however the depth of understanding of these varied across the sample. Three informants showed a deep understanding of the sociological paradigm of Traditional Chinese Medicine using a mixture of *zang fu*, fundamental substances and pathological substances theory in arriving at their diagnosis. The other three informants whilst also referring to Traditional Chinese Medicine theoretical models, showed a lack of understanding and ability to apply these in a case study situation.

Three of the informants referred to the impact of learning about the theories of Traditional Chinese Medicine on their own health care maintenance, especially diet. Two of these had indicated a deep understanding and one a more surface understanding of the theory. This supports the evaluation of their learning the theoretical perspective of Traditional Chinese Medicine but is not suggested as a valid measure of the depth to which they have gained understanding.

#### ***4.2.1.c. Traditional Chinese Medicine Metaphysical Paradigm***

In considering informants metaphysical paradigm the interview data and case study problem solving were analysed for the characteristic concepts of a Traditional Chinese Medicine like metaphysical paradigm as described in chapter three. All informants were analysed as having a Traditional Chinese Medicine like metaphysical paradigm. This was indicated in the interviews through a range of characteristics such as:

- acceptance of the diversity of perspective of both Traditional Chinese Medicine and Western Medicine,
- a holistic perspective of people including mental, emotional, spiritual and physical aspects,
- an interactive perspective of people and their total environment,
- viewing illness as imbalance within functional patterns,
- a flexible understanding of Traditional Chinese Medicine theories as relative and not absolute, and,
- viewing people as a microcosm of the world and environment in which they live.

In the case study problem solving the informant group considered emotional and spiritual as well as physical levels of the 'client' supporting the interview data analysis of their metaphysical paradigm.

## **4.2.2. Learning Traditional Chinese Medicine**

### ***4.2.2.a. Learning Construct And Sociological Paradigms***

All informants indicated that learning of the theory and practice of Traditional Chinese Medicine was a transitional process. Most found that the basic theories were making sense within the first year. Some referred specifically to awareness of needing to move between their Traditional Chinese Medicine way of thinking (sociological paradigm) and their Western scientific way of thinking as they attended different subjects. This refers to an awareness of the difference in these sociological paradigms and metacognition of the process needed to find understanding within each.

It was noted that each of the informants indicated an openness to the new construct and sociological paradigms of Traditional Chinese Medicine which was important to potential for learning. This was interpreted through the context of their metaphysical paradigm. Each informant was analysed as having a Traditional Chinese Medicine like metaphysical paradigm open to diversity of perspective.

Practical experiences were dominant in informants view of the most significant learning components to the course. These included point location classes, therapeutic classes, observation of experienced practitioners and their own clinical practice in students clinics. The informants found these to be the most enlivening and capturing of their interest.

Informants with prior experience of Oriental martial arts or with some prior exposure to Traditional Chinese Medicine through their parents, commenced with little theoretical knowledge and found learning to be a similar experience to the others. One informant with experience of an ethnic Chinese background related learning back to this experience, although this did not indicate a different level of understanding from the others by the final year of the course.

## ***4.2.2.b. Learning Metaphysical Paradigm: Transformational Change***

### **4.2.2.b.i. Initiating Forces For Transformational Change**

Initiating forces for transformational change were identified for the informants as being experienced prior to the course. There were clear influences distinguished for five of the informants and a possible one for the first informant Angela. Each of the identified forces for transformational change involved a meeting of cultures for the informants. For some it occurred through themselves immigrating and for the others occurred through being born into a family of ethnic grouping. Cameron's migration experience was moving around the state of Victoria which for him provided significant cultural difference. For Eugène and Finbar the approaches their parents took to dealing with cultural difference was important in their experience. The process of establishing personal identity and the experience of racism were both identified as contributing to transformational change. It appeared that the process of looking at self identity focused attention to cultural differences within the lives of informants. Likewise racism forced some informants to focus on cultural perspective leading to a transformational change. For the reasons covered in 4.1.1 above it was unclear as to the manner in which Angela gained her metaphysical paradigm and whether this involved transformational change. However the experience of her religion was certainly powerful in her life and is likely to have contributed to her world view.

Support available to the informants as distinct from the forces initiating transformational change, seems to have been significant to the transformational change process proceeding. Finbar felt her friends accepted her unconditionally, which proved significant as she attempted to resolve the conflict she felt with her parents. Eugene felt he had a strongly supportive extended family as he dealt with the conflict he felt with his parents. Bella found her immediate and extended family were a constant support while she developed perspective on the new culture she found herself in. Derek found the 'net' of his family and ethnic community provided a strong support, whilst Cameron was conscious of having a close knit immediate family as he moved regularly about the state of Victoria. Angela found her family, particularly her sister who was her best friend, to be important support for her. Feelings of support whilst not a direct force for transformational change are a significant influence in creating the circumstances in which it may proceed.

### **4.2.2.b.ii Outcomes Of Transformational Change**

All informants had personal perspective indicative of having experienced transformational change. Acceptance of more than one cultural perspective was common to all the informants. For most this was based on different perspectives derived from their cultural environment prior to the course. All informants were identified as having learned the theories of Traditional Chinese Medicine within an appropriate metaphysical paradigm whilst also having a Western scientific type of perspective on health. Most informants also indicated a recognition of the role of culture in influencing the behaviour and outlook of people. Finally some of the informants showed a vital interest in diversity of perspectives observed in different cultural backgrounds, actively seeking them out for contemplation. These types of views and behaviours are indicative as outcomes of having experienced transformational

change.

#### **4.2.2.b.iii. Process of Transformational Change**

Evidence of the characteristic stages of transformational change were identified in five of the informants. As discussed above a process of transformational change was not clearly identified with Angela. The other five informants indicated the stage of personal crisis and transformational change occurred prior to the course within the context of the forces described above. Of these Bella indicated no further process of transformational change during the course. It appears she primarily completed integration of this change before commencing Traditional Chinese Medicine study. For each of the other informants however changes of perception discussed by them suggested transformational change process continuing during the course. As all suggested their learning was of a transitional type the stages of transformational change process occurring during the course are indicated as being integration and further development. The data indicated for these informants the course facilitated integration of transformational change that was only partially completed beforehand.

#### **4.2.2.c. Students' approaches to learning**

Three of the informant group showed deep approaches to the case study problem solving and the other three a surface approach. Deep approach was indicated by informants in the intention to seek understanding of the case study revealed through the holistic structure of the diagnosis they formed. These informants were also able to explain the relationships between signs and symptoms in forming their diagnosis. Attempts were made at describing an aetiology for the patterns identified. The informants identified as applying a surface approach had a segmented (atomistic) structure to the diagnosis they formed. In these cases signs and symptoms were ordered without reflecting the original holistic picture. Signs and symptoms were either not adequately explained or inaccurately described in relation to each other. Other indications of a surface approach were the diagnosing of patterns of imbalance from only one or two signs and inconsistent or contradictory statements about the case. These indicated a lack of deep understanding of the overall holistic structure of the case and how the individual parts contributed to forming the whole.

It was interesting that the informants using a surface approach to problem solving indicated less understanding of the Traditional Chinese Medicine theory as well as lack of understanding of the case. The correlation in depth of understanding between these suggests for these informants that a more surface approach to learning was applied generally during course studies as well as to the case study problem solving in this research.

#### **4.2.2.d. Gender**

No themes emerged in the analysis of data in this research which indicated gender issues specific to the learning of Traditional Chinese Medicine.



# CHAPTER FIVE: DISCUSSION

## 5.1 INTRODUCTION

The outcomes of the findings of this research have been insights into the nature of learning in Traditional Chinese Medicine with particular emphasis on the meaning of 'learning the paradigm'. This discussion considers paradigm in the context of three aspects. Each of these has been considered in relation to students' approaches to learning. Based on these insights pedagogical suggestions are made to assist in the learning of Traditional Chinese Medicine students.

## 5.2 PARADIGM

Paradigm has been considered in the context of the three groupings of construct, sociological and metaphysical described by Masterman (1978:65). In reference to Traditional Chinese Medicine the construct paradigm is equated with the everyday practice of professionals. Sociological paradigm is defined as the theoretical and conceptual basis to professionals' Traditional Chinese Medicine practice. These first two are contextual to the metaphysical paradigm which has the philosophical conception of paradigm as a world view which influences understanding at all levels. It is the basic strata from which a professional views the world generally and in particular here the system of Traditional Chinese Medicine.

### 5.2.1 Construct Paradigm

The practice of professionals is contextual to the sociological and metaphysical paradigms in which they view Traditional Chinese Medicine. To successfully practice Traditional Chinese Medicine in the way sought by academics requires a good depth of understanding of the Traditional Chinese Medicine sociological paradigm. It is also dependent on having a metaphysical paradigm appropriate to Traditional Chinese Medicine. With awareness of the sociological and metaphysical paradigms of Traditional Chinese Medicine, a student taking a deep approach to learning is able to develop the necessary practical skills in gathering information and therapeutics to become an effective practitioner.

### 5.2.2 Sociological Paradigm

The theoretical and conceptual foundations of a professional's practice are contextual to the metaphysical paradigm held. A particular sociological paradigm can be learnt in different ways in the context of varying metaphysical paradigms between those learning. For example the Traditional Chinese Medicine sociological paradigm could be learnt in a way which emphasises the theory as linear and encourages practice as a reductive process. Alternatively it could be learnt in a way which emphasises the interrelationship of the theory and predisposes practice to an inductive process. The later approach is that sought by academics.

The understanding of the sociological paradigm learnt by students is dependent both on their approach

to learning and on the metaphysical paradigm in which they conceive the theoretical concepts. Students will have less deep understanding of the sociological paradigm if they use a superficial approach to learning. The consideration of literature suggested two possible groupings of students who may use a more superficial approach to learning:

- those who had a relatively narrow type of metaphysical paradigm and who withdrew from a deep immersion in the course material in response to difficulty with the Traditional Chinese Medicine metaphysical paradigm.
- those indicating an appropriate metaphysical paradigm but for other reasons used a superficial approach to learning.

The field research in this study found each of the informants had a Traditional Chinese Medicine like metaphysical paradigm. Thus those found using a superficial approach to learning were in the second category above. Literature on student approaches to learning suggests reasons why students tend to take a more superficial or deep approach to learning. Academics can an important role through encouraging motivation to a deep approach.

The relationship of metaphysical paradigm to the learning of sociological paradigm is dealt with in the next section.

### **5.2.3 Metaphysical Paradigm**

The Traditional Chinese Medicine metaphysical paradigm is defined here as being of the 'systems' type in which the conception of holism involves the interdependence and interrelationship of all things. Learning of Traditional Chinese Medicine in the context of this metaphysical paradigm is identified as a key aspect of the course outcomes sought by academics. "The Department of Health Sciences is dedicated to the teaching of traditional Chinese acupuncture with its foundation firmly rooted in Chinese philosophy..." (Victoria University of Technology 1992:2).

The embedded nature of the three groupings of paradigm indicates that significant variation in metaphysical paradigm between students will result in consequential differences between them in competence of theoretical understanding and practice. An important aspect of the Traditional Chinese Medicine metaphysical paradigm is acceptance of diversity within a broadly inclusive conception of holism. Students' openness to diversity will influence how deeply they accept a new sociological paradigm of Traditional Chinese Medicine involving theoretical diversity which is complementary, even whilst at times seemingly contradictory. Acceptance of diversity within the sociological paradigm is likewise important to the construct paradigm of practice. Within the context of the Traditional Chinese Medicine metaphysical paradigm all phenomena are seen as one and interrelated. When practicing in this context all information about a client, even when seemingly contradictory, is relevant in forming a diagnosis. Possibilities for the selection of treatment within any one diagnosis are also diverse. Such openness of perspective on practice would be limited if the metaphysical paradigm of a student is not accepting of diversity. The metaphysical paradigm of students then is central to their view

and practice of Traditional Chinese Medicine.

## **5.3 LEARNING AND PARADIGM**

Field research into the learning of Traditional Chinese Medicine students involved difficulties in interpreting the place of paradigm. During the focus group interviews some students said they had not changed their world view, despite going on to make comments about how they were looking at things differently. Whilst I noted this at the time, the significance emerged later as I struggled to find themes within the primary interviews data. This led to my going back to references to find a deeper conception of paradigm which involved three different groupings (Masterman 1978:65). With this I was able to understand how a student could find new ways of looking at the world in learning the Traditional Chinese Medicine construct and sociological paradigms, yet still not experience great change in their metaphysical paradigm. In other words some students already had a metaphysical paradigm which left them open to the incorporation of a new sociological perspective into their lives. The learning of the Traditional Chinese Medicine sociological paradigm broadened their perspective on the world, while not creating a significant change in their metaphysical paradigm.

Awareness of the influence of paradigm in people varies from the largely unconscious metaphysical to the everyday construct paradigm (Levy 1986). An outcome of transformational change is increased awareness of the influence of culture (Adler 1986) or sociological paradigm in peoples' lives. With this change also comes greater acceptance of different cultural perspectives which would assist the learning of students of Traditional Chinese Medicine.

### **5.3.1 Learning Construct and Sociological Paradigms**

Where only the construct paradigm of learning material is new to a student, the skills or information are learned within their existing sociological and metaphysical paradigms. Learning will therefore be a transitional process rather than transformational.

Where the sociological paradigm but not the metaphysical paradigm was new to the student, learning will also be a transitional process. This was the situation found with informants in the field research of this study. However some of the informants reported an initial challenge in acceptance of the sociological paradigm of Traditional Chinese Medicine. The challenge in learning the new theory and concepts did not lead onto the 'crisis' type experience indicating transformational change, rather they indicated that with consideration the theory seemed to make sense to them. These students had previous experience of transformational change but little contact with the sociological paradigm of Traditional Chinese Medicine. Whilst all informants were identified as having a metaphysical paradigm according with Traditional Chinese Medicine, those that reported this challenge are seen to have had less experience of the 'integration' or 'stage three' of the transformational change process. This lack of integration of transformational change meant a relatively less open perspective to diversity than for others. Importantly though the extent to which they *were* open predisposed them to consideration of the Traditional Chinese Medicine theoretical concepts. The extent to which they were *not* open predisposed

them to being challenged by the difference of this new sociological paradigm. Learning for these students was through a transitional process assimilating the new sociological paradigm of Traditional Chinese Medicine, concurrent with a further integration of their metaphysical paradigm (stage three of transformational change process).

The other informants in the field research experienced learning the Traditional Chinese Medicine theory without any reported difficulty. Thus their learning involved a gradual and transitional process. For these informants the integration of their transformational change process is seen as having been essentially complete prior to the course.

Where learning material is of a sociological paradigm different from that of a person's own sociological paradigm, learning forms an addition to the perspective available within the person's own sociological paradigm. Two main ways of learning were identified from this research as possible for students in an Australian higher education course:

- a student could learn the Traditional Chinese Medicine sociological paradigm within an existing inappropriate metaphysical paradigm. This learning would be transitional and serve to provide meaning other than that sought by course academics,
- a student could learn the sociological paradigm within a metaphysical paradigm according with Traditional Chinese Medicine. This could happen in two ways:
  - involving a transformational change, or expansion of their metaphysical paradigm connate with development of their personal sociological paradigm,
  - within a pre-existing Traditional Chinese Medicine like metaphysical paradigm. In this case previous experience of transformational change has already expanded the metaphysical paradigm of the person. This previous experience of transformational change creates a greater openness to acceptance of a new cultural perspective (Adler 1986) such as that of Traditional Chinese Medicine. This experience was identified through informants in this research.

### **5.3.2 Learning Metaphysical Paradigm**

Where the metaphysical paradigm of the person learning is similar to that of the learning material there is no force for change. However potential for change exists if the metaphysical paradigms differ. This may apply in a situation where the person learning has a relatively narrow metaphysical paradigm accepting only one 'correct' way of seeing the world, whilst the learning material is based in a metaphysical paradigm which accepts diversity. It is suggested that to develop world view to accept such diversity would involve transformational change. Whether such change occurs would depend on the forces and circumstances for transformational change having sufficient impact.

The outcomes of transformational change process seem to be very similar to the description of metaphysical paradigm sought in Traditional Chinese Medicine students. From this I have concluded that the metaphysical paradigm sought in Traditional Chinese Medicine students may by its nature involve a development of their metaphysical paradigm or transformational change. If developing a

Traditional Chinese Medicine type of metaphysical paradigm involves a transformational change process then there needs to be consideration of what may be required to create this in a higher education course. This is discussed in the next section.

## **5.4 TRANSFORMATIONAL CHANGE PROCESS**

### **5.4.1 Transitional Change**

The type of change identified in learning in the course was transitional. In learning the most common type of change is transitional, referring to gradual increase in knowledge of the subject. This is also the type of learning involved in three of the four stages of the process constituting transformational change (Levy 1986). In the first stage of transformational change process, transitional change is involved in student attempts to learn the new sociological paradigm from within their existing inappropriate metaphysical paradigm. This is indicated by characteristic stress or tensions which can lead to the 'crisis' of stage two. It is stage two of the process which involves actual transformational change. This is then followed by transitional change involved in the stage three learning of the new sociological paradigm which occurs concurrently with integration of their new metaphysical paradigm. Stage four involves transitional change through further development of knowledge of the new sociological paradigm. Transitional change in stages three and four of the transformational change process was identified as occurring with the informants in this research.

### **5.4.2 Transformational Change**

Transformational change identified in informants in this research occurred prior to and not during the course. This was understood through the resultant expansion of their metaphysical paradigm allowing acceptance of the new Traditional Chinese Medicine sociological paradigm without the need for further transformational change. It was found that student experience of two or more sociological paradigms, with the exception of one unclear case, had correspondence with indications of transformational change having occurred. This supports the literature that it is the experience of incongruent cultures (sociological paradigms) that is the catalyst for transformational change. When as a result of such experience a person broadens what they consider to be acceptable in terms of culture they expand what constitutes both their own sociological and metaphysical paradigms. The shift in their metaphysical paradigm constitutes an increase in the possibility of acceptance of another cultural perspective (sociological paradigm). It has been identified by Adler (1975) that transformational change experience engenders future change. This may in part be through an increased sense of self confidence coming with the successful handling of transformational life experiences and expanding of cultural perspective which allays fear of the process of accepting yet another cultural view. In the context of this research such experience provided heightened possibility of informants accepting the Traditional Chinese Medicine sociological paradigm.

The presence of forces for transformational change, including influences supportive to the person experiencing change, are central to the process proceeding. These forces for change and support for the

person play a significant role about if and when the critical point of transformational change is reached. The more forces for change the more likely it is to occur. The more supported the person feels the more likely the process of transformational change is to proceed. The extent of force for transformational change is constituted by the significance of the experience of an incongruent sociological paradigm. The more overwhelming the force for change the less it will seem to be a matter of choice.

The more supported a person feels the less force will be needed for transformational change. This research suggests that the existing feelings of self confidence and self esteem a person has, together with immediate availability of moral and practical support all contribute to the progression of transformational change process. As the third stage integration of metaphysical paradigm was identified as occurring during the course, it is suggested that academics be aware of this process and the importance of support for students.

It is suggested that to successfully complete the course a student new to Traditional Chinese Medicine would need to have experienced transformational change. As the course is not seen as a sufficient force to create this, such change process would need to have occurred prior to commencing studies or during studies but from other influences.

### **5.4.3 The Course As Force For Transformational Change Process**

In its present state it seems the course would not be capable of creating enough impact to force a student to the critical point of transformational change within the transformational change process. It seems that it would be too easy in most cases for students to withdraw from the program if they experienced the type of crisis encountered in this stage of transformational change process, removing themselves from the forces for transformational change. The situations that create transformational change discussed in the literature are notable for involving little or no escape for the people involved. Common examples are the international exchange student who is totally surrounded by the environment of a different paradigm from which there is no ready escape, or the employee of a business involved in fundamental change who feels they cannot leave for reasons of financial security.

It is worth noting that withdrawal could refer to students actually removing themselves from the program and it could refer to withdrawal from full immersion in the material whilst remaining a student of the course. If students are taking the latter path and yet successfully graduating it has implications for the efficacy of assessment in regard to course objectives. If a course is to generate the force required for transformational change there is a need for assessment of the sociological *and* metaphysical paradigms of students. If such assessment does not occur students can withdraw from deep immersion in the course and graduate with a surface understanding of the sociological paradigm.

Data from this research indicate that the course can facilitate the integration (stage three) of transformational change process (Levy 1986). Some informants indicated characteristic outcomes of transformational change without evidence of the stage two type of transformational 'crisis' occurring during the course. This was identified from informants across a diverse range of backgrounds which indicated prior experience of transformational change. The data suggests that some informants had

limited experience of integration of transformational change prior to the course. It suggests that for these informants there were forces for the first and second stages of transformational change process but less support and facilitation for the integration of the new sociological and metaphysical paradigms. The learning of the sociological paradigm of Traditional Chinese Medicine was indicated as being concurrent with integration of their metaphysical paradigm. Supportive encouragement for learning and experience in the *application* of the Traditional Chinese Medicine cultural perspective has helped integrate their metaphysical paradigm. The deeper the approach to learning of the student the greater the breadth and depth of integration indicated. The data indicate practical exercises including observing clinical experience and internship were particularly important to learning. This supports the findings of research undertaken with Western Medical students (Ramsden, Whelan & Cooper 1989). Concurrent with the process of learning the Traditional Chinese Medicine sociological paradigm is the integration of previous transformational change and the resultant metaphysical paradigm.

The integration stage of transformational change process may also be facilitated by secondary school subjects based in a systems type of metaphysical paradigm. Examples of such subjects are environmental science, sociological sciences and the arts subjects which involve environmental studies or otherwise have a broad holistic context to their learning material. If students study these subjects deeply they can experience a perspective and type of thinking of the holistic 'systems' kind. In doing so such study could act in this way of facilitating integration of transformational change and a broader metaphysical paradigm as identified with the Traditional Chinese Medicine course. This could be contrasted with subjects based in the Western scientific reductionist approach as may be the case in 'traditional' science subjects such as physics and chemistry. Study in these areas would be unlikely to facilitate the integration of a broadened metaphysical paradigm. It is interesting to note that most secondary students aiming to enter a health science course will focus on these science subjects and that these are part of the prerequisites for the Traditional Chinese Medicine course. It is suggested that prospective students would be best informed to include subjects such as those mentioned earlier along with the more 'traditional' science subjects as the best preparation for Traditional Chinese Medicine education. Studies and hobbies which could provide this type of experience outside of formal secondary education could also be recommended. These could include oriental martial arts, other arts and even outdoor recreation which includes the experience of nature such as bushwalking. These experiences may facilitate a process of integration of transformational change in preparation for the Traditional Chinese Medicine course.

Actual life experiences which are at variance with the personal sociological paradigm of a person are an important impetus to sociological and metaphysical paradigm change. Levy (1986) in discussing such change describes how new experience in the work environment can be an initiating influence for transformation in people. Adler (1987) refers to change process initiated by new experiences in foreign countries. In education change is sought through the pedagogical influence of the course. Experience which is not able to be integrated with one's sociological paradigm produces a conflict which needs to be resolved if learning is to occur. The process of resolving this conflict is the process of change of personal sociological paradigm and if need be metaphysical paradigm. Stages three and four of the

transformational change process were identified in this research as occurring during the course. When asked for the most significant learning moments of the course informants predominantly indicated the practical subjects. These included acupuncture point location, therapeutic skills training and clinical experience. It appears that experience of Traditional Chinese Medicine in this way is most likely to facilitate learning of the sociological paradigm and integration of metaphysical paradigm. This provides support for the importance of practical subjects in the course and other experiences of Traditional Chinese Medicine such as problem based learning exercises.

The data has indicated the role of the course in the facilitation and support of people involved in transformational change process. It appears the course has assisted students in these ways to proceed through the integration and development phases of transformational change process. The facilitation was provided as stated above through the experience of application of a relevant paradigm. But there was also indication that the support of staff and peers in an individual sense and possibly through the shared experience of transformational change process was also important. If this is the case the Traditional Chinese Medicine course is providing a valuable role in the personal development (of metaphysical paradigm) of students, whilst facilitating their professional education. This is done in assisting completion of a transformational change process initiated through the previous life experience of students.

Literature research suggested that students without prior development of metaphysical paradigm would either be forced into transformational change or tend to withdraw either literally from the course or from deep immersion in the course material. The latter pattern of behaviour would lead to avoidance of learning the theory and concepts within the metaphysical paradigm sought by academics (VUT 1992:1-4). No direct evidence was found in the field research of these patterns of behaviour. However there is circumstantial evidence of students without a Traditional Chinese Medicine like metaphysical paradigm having withdrawn literally from the course. If it is accepted that it is likely some course entrants did not have a Traditional Chinese Medicine like metaphysical paradigm, then the question arises about what happened to them? All the field research informants (final year students) had a Traditional Chinese Medicine like metaphysical paradigm developed prior to the course. Without evidence of transformational change occurring during the course, developing an appropriate metaphysical paradigm, it is suggested that students without this background withdrew.



#### **5.4.4 Metacognition**

The experience of transformational change has been shown to involve increased consciousness of the importance of one's perspective on the world. In particular Adler (1987) discusses an increase in awareness of the influence of culture (sociological paradigm) on oneself and others. Greater awareness of the basis of beliefs and behaviours is involved in the concept of metacognition discussed by Flavell (1976) and promoted by Biggs (1988) as being beneficial to the process of learning. It is suggested that academics' support for the integration of transformational change, will benefit students in facilitating development of metacognition.

The data from this research indicate that the informants were able to choose from the variety of perspectives within their personalised paradigms to apply in the various course subjects. This suggests they were conscious of the variation in the perspectives of sociological paradigm they had gained. This type of metacognition has implications important to the outcomes of learning of these students. With such understanding students are able to exercise the type of metacognition discussed in students' approaches to learning literature, whereby they take a significant control over their education process. It also helps explain students ability to study subjects originating from quite different paradigms as occurs in Traditional Chinese Medicine education. The data indicates that as the informants moved between Western Bioscience and Traditional Chinese Medicine subjects they were able to select from and apply differing perspectives. The data also suggested that not only were these informants much more open to differing views they were motivated to actively seek diversity of view. Informants saw this as contributing to quality of life. For learning this is effectively an increase in their motivation to learn which is fundamental to a deep approach to learning and the depth of understanding which comes with this. Such an approach to diversity of view is also of great practical benefit to the practice of Traditional Chinese Medicine. In the diagnostic process the role of the practitioner is to build up a detailed as possible picture of the client. The greater the perspective on the client sought the more details may be gathered and thus the enhancement of understanding. In the same way the selection of therapeutic intervention is enhanced by a practitioner actively seeking options.

Previous experience of transformational change is suggested as an advantage to those coming into the course in both learning Traditional Chinese Medicine and in potential depth of understanding of their clients when they are in practice. In contrast it may be that difficulty with making a shift of perspective is a reason for students dropping out of the course. Further research with those leaving the course would help to confirm this.

### **5.5 STUDENTS' APPROACHES TO LEARNING**

Having a Traditional Chinese Medicine like metaphysical paradigm involves an holistic perspective of people which includes the aspects of physical, mental, emotional and spiritual. However an holistic approach to practice also includes the structure of how these interrelate to form the whole. The literature on students' approaches to learning suggests that it is the approach to a given task which will determine how a student structures their understanding of the material. Taking a superficial approach

involves fragmenting the structure of the case and the way in which the parts interrelate with each other (forming an atomistic structure). In terms of students' strategy they are taking a literal approach to reproducing the material rather than seeking meaning. An holistic structure is related to a deep approach.

Literature research into case study problem solving with Western Medicine students associated holistic structure with a deep approach to learning. It is interesting to note that whilst the conception of holistic structure is equally relevant to Traditional Chinese Medicine and Western Medicine students the material organised into this structure is different within the Western Scientific paradigm. In the latter case only the range of physical signs and symptoms needed to be considered in creating an holistic structure (Ramsden et al 1989).

Field research in this study indicated students having a Traditional Chinese Medicine like metaphysical paradigm featured a cross section of students' approaches to learning not dissimilar to that of Western Medical students (Ramsden et al 1989). Thus no direct relationship was indicated between students' metaphysical paradigm and their approach to learning. This surprised me as I had expected the greater breadth of holistic conception of Traditional Chinese Medicine vis `a vis Western Medicine would have encouraged a greater appreciation of holism in practice. As the data indicated common experience with students' approaches to learning across metaphysical paradigm lines, the factors influencing students' approaches to learning discussed generally within the literature and specifically with Western medical students are indicated as being of relevance to students of Traditional Chinese Medicine.

This research suggests that to take an holistic perspective on learning material as sought by Traditional Chinese Medicine academics involves two components. Firstly having a Traditional Chinese Medicine like metaphysical paradigm which determines the relevant content. This can include the physical, mental, emotional and spiritual aspects of a person when considering a case study. Secondly it involves students taking a deep approach to learning of the material. In considering a case study this involves being motivated to a deep approach and use of a strategy which seeks the meaning in the case data supplied and the structuring of that data in a way which is consistent with the integrity of the case. When both of these components are satisfied it is possible for a student to have a full understanding of a case study and any other Traditional Chinese Medicine learning material.

Diagram 5.1. Suggested outline of learning experience for students with a prior Traditional Chinese Medicine like metaphysical paradigm.

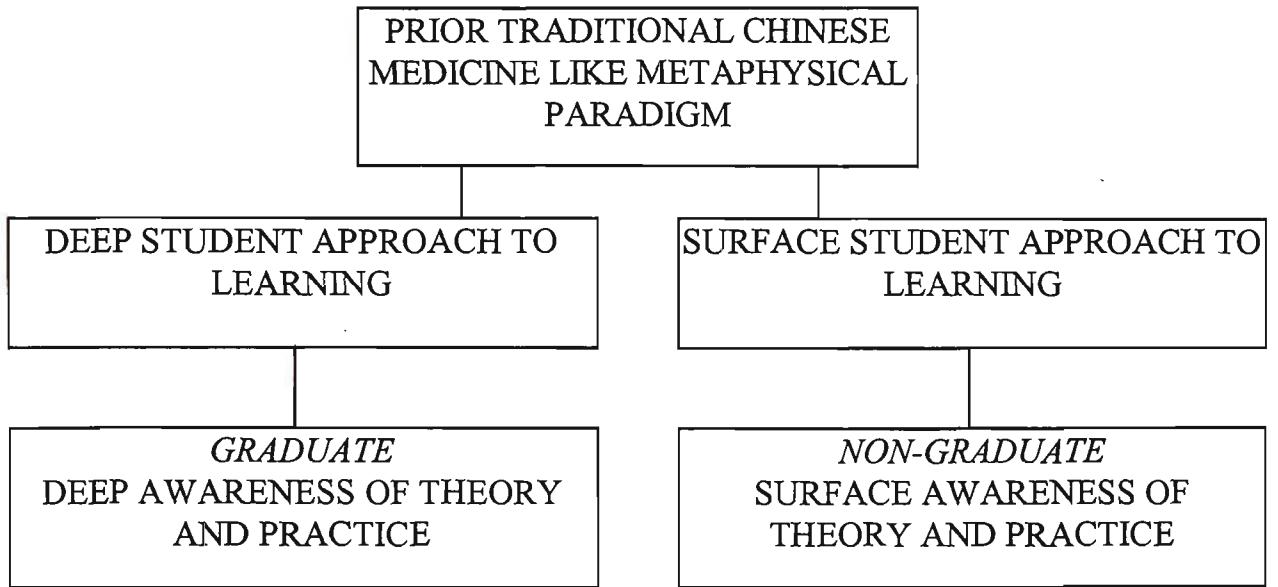
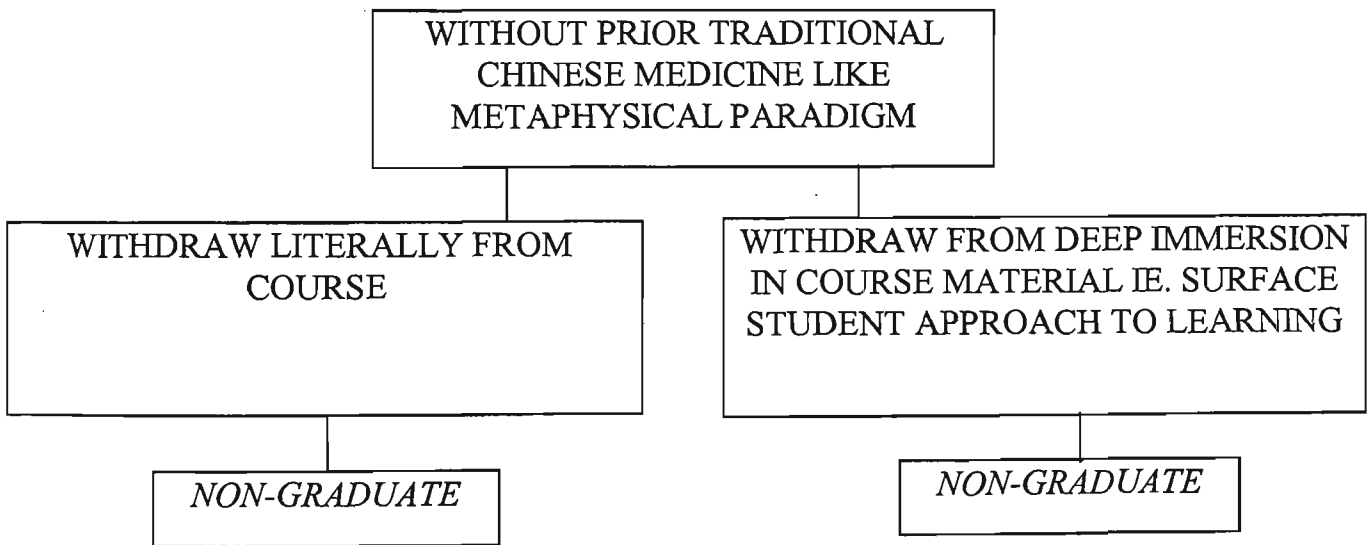


Diagram 5.2. Suggested outline for students without prior Traditional Chinese Medicine like metaphysical paradigm.



In a course which educates and assesses within the Traditional Chinese Medicine paradigm the adjacent Diagrams 5.1 and 5.2. indicate a summary of the suggested learning experience of students in the context of their metaphysical paradigm and their approach to learning. Diagram 5.1 shows an outline of the suggested learning experience of students with a prior development of openness of their metaphysical paradigm and Diagram 5.2, a suggested outline for students with a prior non-openness of metaphysical paradigm.

## **5.6 PEDAGOGICAL SUGGESTIONS**

Based on findings from the literature and field research of this project, suggestions are made here for the facilitation of learning in Traditional Chinese Medicine students. These are described in the context of paradigm as construct, sociological and metaphysical (Masterman 1978: 65). An important outcome of this research is the embedded nature of paradigm when considered in the three groupings being used. To understand the practice and theory of Traditional Chinese Medicine deeply, these need to be learnt in the context of the metaphysical paradigm. The focus of pedagogical suggestions is thus on ways in which the practice and theory maybe learnt within that context. That is learning and assessment of that learning, which incorporates the aspects of metaphysical paradigm listed in chapter two. It is suggested that given the forces required for transformational change, in a higher education course facilitation of transformational change process will be limited to the (stage three) integration of new metaphysical paradigm and (stage four) development of understanding of Traditional Chinese Medicine. Levy (1986) states that it is at this stage of transformational change process that there is a role for facilitation. Pedagogical suggestions are made with this in mind.

The learning of the construct paradigm of Traditional Chinese Medicine can be considered in two ways. Firstly as learning the basic practical skills of diagnostics and therapeutics applied in professional practice. These skills are best learnt through practical classes providing opportunity for student practice. Student approach will be significant in this learning. Secondly the understanding of the construct paradigm involves learning of the ways of thinking which underlie the consideration and application of the above techniques. This includes such things as the patterns of practitioner thinking, the ways in which the practitioner/client interaction occurs and the settings which are created for practice. The construct paradigm, embedded within the sociological and metaphysical paradigms, is defined by them. Thus the state of awareness and learning of the later two cannot be separated from and is fundamental to the consideration of construct paradigm learning.

Learning of the sociological paradigm involves the theories and perspective on health of Traditional Chinese Medicine. The quality of the pedagogical approach and students' approaches to learning are both significant to learning outcomes. The sociological paradigm is not learnt in a vacuum but within the context of the Traditional Chinese Medicine metaphysical paradigm. A pedagogical approach maintaining consistency with the Traditional Chinese Medicine metaphysical paradigm is most important to the quality of learning of the sociological paradigm.

Evaluation of the literature and the evidence of the field work suggested stages three and four of

transformational change process are those likely to be involved in a higher education course. The primary requirements suggested to facilitate this process in Traditional Chinese Medicine students are the following:

- a maximum of exposure to the Traditional Chinese Medicine construct and sociological paradigms in the context of the metaphysical paradigm,
- student assessment which includes the metaphysical paradigm,
- teaching about the nature of paradigm,
- supportive culture within the teaching department be maintained, aimed at the encouragement of students through the integration of transformational change process,
- management of resistance to change, and
- encouragement of a deep approach to learning.

### **5.6.1 Learning Traditional Chinese Medicine Construct and Sociological Paradigms within the Metaphysical Paradigm Context**

The construct and sociological paradigms aimed at here involve practice, theories and perspective on health contextual to the Traditional Chinese Medicine metaphysical paradigm. This involves maximising the experience of the Traditional Chinese Medicine metaphysical paradigm in as much of the environment of the educational institution and course content as possible. It is suggested strategies be as experiential as possible as practical learning experiences were indicated as being the most influential by informants in this study.

The following aspects of the metaphysical paradigm, referred to in chapter two, need to be reflected in learning strategies:

- Holism; this can be described in terms of the oneness of all phenomena relating to a client and their environment. This implies that essentially all things are one and the differences between them are secondary. Clinically any information about a client is important and relevant to diagnosis and treatment selection.
- Interdependence and interrelatedness of all phenomena related to a client and their environment.
- Patterning; tendency for the formation of patterns in the relationships between phenomena. This includes the physiology and pathology of a client and the environment in which they live.
- Macrocosm/microcosm; the nature of patterns of harmony and disharmony to repeat in a consistent way throughout the dimensions of a client and their environment.
- Process; all aspects of a client and their environment are in constant change process. Deviation from this is understood to be a fundamental cause of disharmony.

It is important to acknowledge that whilst it is possible and valuable to differentiate each of these aspects of the metaphysical paradigm, in practice they are themselves so interrelated as to be inseparable. The educational strategies suggested for each of these aspects in the following are thus inevitably of value for each of the others.

### ***5.6.1.a Holism***

The physical environment of a learning institution can provide experience of the holistic perspective of the Traditional Chinese Medicine paradigm. Traditional Oriental artwork and calligraphy can be used to decorate the institutional spaces and an Oriental garden may be established nearby. Student exercises could identify the holism reflected in the artwork and traditional garden design.

A reflection of the holistic perspective is the acceptance that different theoretical perspectives on a client from within Traditional Chinese Medicine, even when seemingly contradictory are equally relevant in practice. This acceptance of diversity is important for students to be able to utilise the full range of options within Traditional Chinese Medicine. A learning strategy could involve students participating in inter-group debates on the relevance of different perspectives on a particular clinical case study.

Another dimension to the acceptance of diversity is the variety of perspectives and understanding within the community on health and ill health. Role plays could be utilised to express different ways in which clients with the same condition may present themselves. For example a similar severity of condition maybe described quite differently between clients dependent on gender or cultural background. The acceptance of these differences provides greater potential for understanding of the diversity of clientele.

Direct encounters between students and academics can be of primary importance to learning (Kim & Ruben 1988:305) both within lecture/tutorial learning situations and during out of class interactions. Academic/student encounters could be encouraged as far as possible to reflect the Traditional Chinese Medicine respect for all aspects of a person, by involving a sense of mutual regard for each other. This reflects the holistic perspective that all parts of the whole (in this case students and academics) are of equal importance and relevance in learning.

### ***5.6.1.b Interdependence and Interrelatedness***

An example of this aspect of the paradigm is the way in which clinical patterns of disharmony develop from and into one another. The interdependence and interrelationship of the functions and structures of the body are manifest in the aetiology of disharmony. This aspect of the paradigm can be learnt through exercises which encourage awareness of these clinical interrelationships. Learning strategies could include interactive computer software aimed at developing this awareness. Using a Traditional Chinese Medicine pathology as a starting point, a student using such software could explore other disharmonies which may derive from or lead onto the original. Questions could also be built in which explored the mechanisms involved in the relationships of such disharmonies. Once a student had exhausted their knowledge, the software program could make suggestions to direct the student towards any further relevant disharmonies and their mechanisms.

Another learning strategy for this aspect of the metaphysical paradigm could involve direct experience. For example a student project involving their having acupuncture treatment and reporting on any experiences of the *Qi* sensations within their body. Awareness of movement and connections between parts of the body are common with acupuncture treatment and provide a unique experience of flows of *Qi* within the interconnecting acupuncture channels. Another valuable way to experience the sensations and the movements of 'Qi' within and without the body is the practice of Traditional Chinese breathing exercises such as Qi Gong. Such practice could be followed up with reflection and sharing of these experiences with peers.

Case studies maybe also be used to show such things as how environment and other factors are important in the aetiology of disharmonies or to emphasis the reality of the interconnection between the body, mind and spirit in clinical understanding and practice.

### ***5.6.1.c Patterning***

The tendency to formation of patterns in all the aspects of both healthy functioning and disharmony of clients can be studied in progressively more advanced levels throughout students' education. A learning strategy appropriate to the early stages of a course could involve students being given cards with the various correspondences of people and their environment, to be organised into the patterns of the Wu Xing (Five Elements). As students progress information either provided randomly or in case study form could be organised into such systems as the Six Divisions, San Jiao or Eight Extra Channels. At year three and four level students may analyse diagnostic information to be organised into an appropriate system of differentiation of their choice. This information could be provided as lists initially and then as progressively more complex case studies.

### ***5.6.1.d Macrocosm/microcosm***

The nature of patterns of harmony and disharmony repeating in a consistent way throughout the dimensions of a client and their environment are particularly evident in the concordances of the Wu xing system. Computer software could be developed involving pictures, sound and text to be organised into the Wu xing patterns. This aspect of the Traditional Chinese Medicine paradigm could then be observed in the concordance of patterns throughout an individual's external and internal environment. As students advance, further exercises could comprise analysis of case studies which show how patterns of external environmental influences create similar patterns of disharmony within a client. Examples of such patterns could include environmental wind and cold or the influence of work colleagues emotional stress on a client.

### ***5.6.1.e Process***

The natural state of constant change within all aspects of a client and their environment, and the importance of any breakdown in this process maybe learnt through the use of case studies. The history of a case can provide insights into how restriction to the process of change within the physical,

energetic, mental or emotional aspects of a client can lead to disharmony. Within a group discussion a case maybe brought forward from students' own experiences. This may proceed from an invitation to provide an example of a person experiencing difficulty with restriction or change in their life. A student may share approaches they have used in supporting a person they know and a group discussion could follow. This could involve the significance and consequences of resistance to change and the responses experienced when appropriate change ensued. Out of such discussion key points regarding the importance of allowing for the continuation of change and flow within our lives at all levels maybe learnt.

### **Case Studies**

Clinical case studies maybe used with learning strategies for each of the above aspects of paradigm. Case studies maybe presented in a variety of formats and progressively more complex as students progress. Examples include:

- Written format.
- Video vignettes.
- Class presentations from a teacher including oral description and visual presentation using slides, overhead transparencies or information technology resources. In this format the teacher could present a limited amount of information to which students would be asked to draw out further information through relevant questioning.
- From year two onwards case studies could be generated by students themselves. In this strategy students would be provided with some brief 'client' details and a treatment formulation. Working backwards from the treatment, to principle of treatment and diagnosis students' could finally provide a detailed client description. This can be a fun exercise as students engage their imagination and sense of humour in creating their own characters.
- Once students have basic Traditional Chinese Medicine pathology and diagnostic skills they may apply these in classroom consultations with each other. This is useful to integrate the different topics that have been learnt previously in the format they will be using during their student clinic placements. In doing this students have an excellent opportunity of practical application of the theory of Traditional Chinese Medicine within the context of the metaphysical paradigm. This real life experience of cases becomes a practical bridge between case study suggestions such as those above and clinic placements in a practitioner role.

Case studies were indicated by the field research informants as being useful as a source of learning. As suggested above case studies can be modified to the level of knowledge of students which allows them to be utilised from the very beginning of a course through to the final year.

### **Self and Peer Assessment**

Assessment is important for academics' awareness of the progress of students but can also be of



importance as a component of Traditional Chinese Medicine learning strategies for students. Students' self and peer assessment can be directed towards consideration of the aspects of the metaphysical paradigm discussed above. The following are suggestions which may be utilised with the learning strategies described above:

- Inter-group debates on case studies; these may be structured with a presentation by each group, a critique on the opposing group's presentation and then final response. Such exercises provide for small group discussion on a case and peer critique of the outcomes of these discussions.
- 'Client' role plays; these may be created with groups of three students comprising 'practitioner', an observer and 'client'. At the conclusion of a role play each student would have opportunity to consider and share assessment of their own performance and that of each other. Parts in this exercise can be rotated to gain from each different perspective.
- Computer software programs; problems set by a software program could be progressively graded to allow a student to move forward at their own speed. At the end of each exercise the student could assess their knowledge and skills at solving that problem with regard to further relevant self directed study.
- Pattern identification exercises; working in small groups to organise information into patterns of diagnosis and treatment provides opportunity of immediate peer feedback for students as they evaluate and construct patterns of data.
- Group discussion exercises; these could be based on a class members' presentation of their experiences in client management or on teacher case study presentations. Students may provide assessment of each others perspective through discussion and comment on what is shared. Self assessment could also be involved through a written report or regular diary by each student of their perspective on the topic and how this was influenced by the group discussion.
- Students treating each other; working in pairs students can analyse their own and their partner's diagnosis, principle of treatment and treatment selection. This assessment can provide comparison of the understanding applied to these steps allowing students to identify the consistency of their Traditional Chinese Medicine practice. Learning from this can develop depth of awareness of Traditional Chinese Medicine and cohesion in the process of treatment selection.

### **5.6.2 Student Assessment**

It is suggested as important that assessment of student learning considers each of the aspects of the metaphysical paradigm of Traditional Chinese Medicine discussed above. At the Victoria University of Technology a primary method used for assessment of such learning has been through examination of clinical performance (Watson, K. 1996). This has involved observing consultations carried out by students, usually at the university public clinic either directly or on videotape. A similar process could be utilised with students responding to detailed, multi-factorial case studies. As stated in the

consideration of learning strategies, each of the aspects of the metaphysical paradigm is essentially interrelated and indivisible. As such, assessment strategies for one aspect will have relevance for each of the other aspects. The following are suggested criteria that maybe used for the assessment of student performance in clinical consultation or responding to suitably detailed case studies. It would be inappropriate to draw conclusions about the metaphysical paradigm in which a student practices from any one of these suggested criteria. The overall pattern of all the information available from a student should be considered in drawing conclusions about the paradigm in which they practice. The following criteria are suggestions for recognising awareness and use by students of the related aspects of the metaphysical paradigm:

#### ***5.6.2.a Holism***

Assessment would seek to identify that the student has a broad view of what is relevant in the consideration of a client. Any information referring to the physical, mental, emotional or spiritual dimensions of the client would be acknowledged in the understanding of their diagnosis. In assessment of a student practitioner consultation, questioning which was restricted only to inquiry about physical information would suggest a narrower perspective. In contrast questioning which sought out such things as the client's feelings about their life and their relationships would suggest the student is practicing within the holistic perspective of the Traditional Chinese Medicine metaphysical paradigm.

#### ***5.6.2.b Interdependence and Interrelatedness***

Assessment would seek to identify a student view which acknowledged the interdependence and interrelatedness of any information they gathered about the client. Signs, symptoms and information about the environment in which the client lives would be sought to be understood in terms of the relationships and interdependencies amongst that data.

#### ***5.6.2.c Patterning***

Assessment would seek to identify that the student was observing patterns in the relationships of the client data. The patterns identified would be from within the theoretical systems of Traditional Chinese Medicine. A diagnosis which did not place client information into patterns of disharmony would indicate a student not practicing within the perspective of the Traditional Chinese Medicine metaphysical paradigm.

#### ***5.6.2.d Macrocosm/microcosm***

Assessment would seek to identify student recognition that patterns of phenomena tend to repeat at each dimension of a client and their environment. This would include recognition of a seasonal pattern of cold in the environment manifesting in a client's body or such things as culturally derived behaviour in a client. Inability to identify manifestation of such patterns throughout the dimensions of a client is suggestive of the student not practicing within the context of the Traditional Chinese Medicine metaphysical paradigm.

### **5.6.2.e Process**

Assessment would seek to identify student recognition of the natural state of constant change within all aspects of a client and their environment. Student acknowledgment of breakdown in this constant process at any dimension of a client (physical, energetic, mental, emotional or spiritual) would suggest they are practicing within the Traditional Chinese Medicine metaphysical paradigm. Awareness of the aetiological significance of such stasis would be further evidence the application of this paradigm.

### **5.6.3 Teaching About The Nature Of Paradigm**

The consideration of construct, sociological and metaphysical groupings of paradigm (Masterman 1978:65) as applied to the analysis of data in this research, could be applied directly in the training of students. The tendency to lack of conscious recognition of sociological and metaphysical paradigms indicated in the literature suggests that teaching about these aspects of paradigm will be useful to increasing metacognition in Traditional Chinese Medicine students. To assist the development of metacognition in students the Traditional Chinese Medicine course material could be defined within this frame work. As the terminology Masterman (1978:65) uses for these groupings may lack recognition for some students, I suggest using other terms such as for:

- metaphysical paradigm, 'world view',
- sociological paradigm, 'theory' and,
- construct paradigm, 'practice'.

To give a particular example of where this could be useful we could consider students approximately half way through the course. These have completed introduction to the major areas of theory and clinical skill. It is common in my experience for these students to feel some sense of loss at how to integrate the course material they have learnt up to this point. They often lack a sense of holistic integration of the material which can leave them feeling confused or at least somewhat overwhelmed. Allowing the students to analyse the course material in the context of this model of three aspects of paradigm, could be a useful approach for pulling this all together. I have personal anecdotal evidence of this being the case.

Learning of the Traditional Chinese Medicine paradigm may also be enhanced by students being given opportunity to assess and discuss their own progress. This may occur through presentation of the groupings of paradigm, individual student reflection and small group discussions. Small groups may be held in the form of 'focus groups' facilitated by an academic at appropriate points in the course. This could have the advantages of peer group support for students experiencing difficulties, whilst helping inform academics about the progress of student learning and change process. Such an exercise could also be used to create solutions to difficulties arising for students, with the benefits that flow from their involvement in decision making process and their own problem solving. Through such student reflection on the Traditional Chinese Medicine paradigm their learning could be enlightened and

supported.

#### **5.6.4 Supportive Culture Within Educational Institution**

This research has indicated the importance of feeling supported to those involved in the transformational change process. Within a Traditional Chinese Medicine educational institution the academic staff can play an important role in the creation of a supportive culture. It is important when considering a educational institution's organisation to understand that much of what defines its character is not so much formally stated policies, objectives and decision making processes, but the presence of informal relationships, power structures and attitudes. This informal culture has a pervading influence on all activity, including the facilitation of the integration stages of transformational change process. The culture of an organisation can be based on:

- hierarchical power;
- rules and procedures regarding roles;
- achievement; or
- motivation through the support of close relationships and trust

(Beckhart & Harris 1987).

An educational institution culture with a basis of motivation through support amongst academics and students, can create a feeling of safety, to enhance the development of the process of transformational change within students. Academics operating in such an environment would be more likely to try out innovative educational approaches and maintain consistency with students.

#### **5.6.5 Resistance To Change**

Literature on facilitation of change process indicates that resistance to change needs to be considered in the pedagogy of a course involving the integration of transformational change process. There are two types of potential impediments which are applicable to the facilitation of this stage of transformational change process in Traditional Chinese Medicine students:

i. systematic resistance; this arises from inappropriate approaches to the teaching and facilitation of change process of the students. To become aware of systematic resistance and be ready to take appropriate action, academics must keep closely tuned to the process of change in students and be prepared to instigate alternative approaches and techniques as required. Some possible sources of systematic resistance are:

poor communication structures in the department. This may lead to a lack of coordination between academics on student progress and difficulties with change process;

pedagogical approaches which are not achieving all the desired aims including the assistance to integration of transformational change in students;

perceived threat to academics in implementing changes of course pedagogy. If the suggestions made here are new to the educational institution, the process of implementing this may involve a change process amongst academics themselves! In dealing with this an academic with the role of introducing changes may need to consider behavioural resistance in those implementing these processes.

ii. behavioural resistance; resistant behaviour originating from the students. Duriford identifies a number of reasons for resistance to change in organisations (1992:301-303), which are here applied to the experience of individuals integrating transformational change and include:

*established patterns of practice*; the exposure to new construct and sociological paradigms will involve exposure to new behaviours and patterns of thinking. In those still integrating and consolidating transformational change there maybe some resistance to these new perspectives and understandings on health and disease. Dealing with this maybe assisted by explanation of the inclusive nature of the developing paradigm in which new behaviour and thinking does not replace but is additional to those already established. The result being an expansion of sociological paradigm with concurrent expansion of choice of behaviour and thinking patterns;

*dislike of uncertainty*; absence of information about the change process students find themselves in, may result in uncertainty and resistance. To assist students through these issues information and discussion about the change process they maybe experiencing could occur during classes together with availability of academics to discuss specific issues as they occur with individuals;

*perceived threat to interests*; students experiencing change may perceive their developing new sociological paradigm is incompatible with the established sociological paradigm of their family and social networks. This could be a source of resistance to change if students felt that these personal links were threatened. To deal with this issue academics of the program could:

- allow safe opportunities for students to express fears of such threats,
- during classes and as required in a private setting for individual students, provide explanation of the inclusive nature of the developing metaphysical paradigm, which is inclusion of peoples' different viewpoints.

In dealing with resistance to change, it is valuable to recognised that change is by nature a series of events, or phases of a process which tend to follow an indirect path. It will be important to this change in Traditional Chinese Medicine students, to recognise that what appears to be resistance may sometimes be a consolidation phase of the process. On the other hand it will be important to remain flexible with approaches taken to facilitating change when real resistance occurs.

## **5.6.6 Encouraging a Deep Approach To Learning**

Students' approaches to learning are significant to the process of learning each of the three groupings of paradigm. The depth of engagement and subsequent depth of learning of the Traditional Chinese Medicine construct and sociological paradigms within the metaphysical paradigm, is important to the

potential process of integration of transformational change. A superficial approach to learning will provide less expansion of the individual's construct and sociological paradigms and thus be little force for development of their metaphysical paradigm. Research literature has shown that a deep approach to learning is necessary for understanding of learning material (Marton & Saljo 1984:46).

Literature on students' approaches to learning indicates that academics play a major role in the support of students' motivation towards a deep approach. Firstly to prevent a surface approach academics can avoid pedagogical factors which tend to encourage this. It has been found that pressure on students and cynicism about the educational process are the major inducements to surface learning. Assessment and work load are the most likely influences in this (Ramsden 1984). Other perceived stressors include "authoritarianism, poor personal relations, closed government (particularly on decisions close to the student, such as grading procedures, return of marked papers, etc.) and pointless busy work arising out of pedantic course requirements" (Biggs 1988:134). In a deep approach to learning the motive is an intrinsic interest in the content. Here students seek understanding and meaning in the learning material. The aim of academics then is to arouse and nurture interest in the topic to create the potential for a deep learning approach. Biggs suggests an affective 'hook' is the key to encourage this, with techniques such as guided self learning and the use of other students as a resource in small group work (1988:135).

A deep approach is encouraged in the learning strategies described above as they relate the practice and theory of Traditional Chinese Medicine within the various aspects of the metaphysical paradigm. Self and peer assessment can play a valuable role in the development of deepening involvement of students in learning strategies. Practical learning strategies including case study exercises are important as they provide immediate relevance for the bases of Traditional Chinese Medicine to students role as a practitioner. In this research students indicated that practical experiences were the most significant to them. This supports the concurrent scheduling of practical classes and theoretical lectures through out the course to help maintain depth of interest. This understanding also underlines the importance of clinical internship as a part of training. Consistency of learning strategies within the metaphysical paradigm throughout all aspects of students' learning experience will support student motivation and learning. This includes the environment of the educational institution and the encounters between academics and students outside of classes as well as formal activities. Awareness of encouraging a deep approach to learning by academics will support all learning outcomes within Traditional Chinese Medicine education programs.

## ***5.7 STUDENTS WITHOUT EXPERIENCE OF TRANSFORMATIONAL CHANGE***

If it is accepted that the course is not able to facilitate transformational change process in its entirety the case of students lacking the metaphysical paradigm of Traditional Chinese Medicine needs to be addressed. In a case where a student does not show awareness of the construct, sociological and metaphysical paradigms of Traditional Chinese Medicine they are clearly not ready to graduate. However an issue arises where a student has shown knowledge of the basic theory (sociological

paradigm) and practical skills (construct paradigm) and yet these are understood in a superficial way not within the context of the Traditional Chinese Medicine metaphysical paradigm. In this case two possible choices respond to this issue are;

- not graduating the student, or
- graduating them with the knowledge that they are applying theory and practice in a narrower paradigm than that aimed for.

As stated earlier the course accreditation document (VUT 1992:1-4) indicates the metaphysical paradigm is fundamental to the outcomes sought by academics, suggesting non graduation of such a student. However an opposing argument may be put. Such a student maybe considered appropriate to graduate on the basis that with basic theoretical knowledge and skills for practice, they have the potential to develop the perspective sought by academics through the influence of a later transformational life experience. In the mean time they may still be an effective practitioner within a narrower frame of reference. Whilst this argument I feel does have some merit, it presupposes a likelihood of a future transformational change experience and ongoing professional study by the graduate. Their practice in the mean time is suggested as being limited in scope and effectiveness.

Having a traditional Chinese familial sociological paradigm was not found to be indicative of having knowledge of the Traditional Chinese Medicine sociological paradigm or awareness of the Traditional Chinese Medicine metaphysical paradigm. In other words being of Chinese descent is not an indicator of knowledge of the traditional Chinese medical sociological paradigm or its world view. Whilst there are aspects of such a familial background and Traditional Chinese Medicine which are similar, evidence was not found to suggest that for example, some form of exemption could be considered for students with such a background. There is some public perception that people of a Chinese cultural background will necessarily be superior practitioners to those without such a background. The data indicated however that students with a traditional Chinese familial background may be no different to any other student in regard to awareness of the theories and viewpoint of Traditional Chinese Medicine.

## **5.8 GENERAL SUGGESTIONS**

Consideration of three groupings of paradigm as adopted in this paper may be of significant use to a range of areas of academic pursuit in the Traditional Chinese Medicine profession. I have found it has led to valuable clarification about the relative places of Traditional Chinese Medicine world view, theoretical concepts and practice. The placing of these in relatively different but related groups and understanding of the way in which the meaning of each is related, provides a powerful model for analysis and discussion. Application could include understanding of practice issues, intercultural issues for the profession in our current society and in the professional interface with other systems of medicine. In each of these the conception of paradigm within three differentiated groups can break down discussion into more manageable and understandable parts.

# CHAPTER SIX: CONCLUSION

This study is based on literature research and data collected in qualitative field research. The background experience of my own learning, practicing and teaching Traditional Chinese Medicine together with pilot interviews with academics formed the basis of the perspective from which the research process was pursued.

The findings represent a qualitative analysis of the experience of learning Traditional Chinese Medicine in a higher education course in Australia. Whilst acknowledging that qualitative research findings do not have external validity to the site of the study, this report may be used by researchers in other settings as a basis for understanding issues relevant to Traditional Chinese Medicine education and as a guide to further research both qualitative and quantitative.

In setting out on this study my aim was to understand more about the learning of Traditional Chinese Medicine in the context of Western higher education. A primary issue to emerge was that of learning the paradigm of Traditional Chinese Medicine. This was done by considering paradigm in the groupings of construct, sociological and metaphysical, which proved to be very useful when discussing learning. I suggest the approach to paradigm described in this paper may be more broadly of use to the profession when applied in the consideration of such things as intercultural issues for the profession in our current society and in the professional interface with other systems of medicine.

The issues and processes involved in learning Traditional Chinese Medicine in the context of the three groupings of paradigm were the main focus of this study. It is suggested that learning the practice and theory of Traditional Chinese Medicine within the context of the metaphysical paradigm is fundamental. For academics in a Western higher education setting the findings will be useful to broaden their perspective on issues and processes in learning of Traditional Chinese Medicine.

Three important findings have been identified in the consideration of learning in Traditional Chinese Medicine students. These involve students’;

- experience of transformational change process,
- approaches to learning, and
- paradigm of awareness (considered in the three groupings construct, sociological and metaphysical).

The construct and sociological paradigm groupings of Traditional Chinese Medicine are learned through a transitional process. The depth of learning of these is dependent on the metaphysical paradigm in which they are conceived and students’ approaches to learning.

Students’ experiences of transformational change process were found to be influential in the development of a Traditional Chinese Medicine like metaphysical paradigm. Literature and field research indicated the experience of two or more sociological paradigms was a force for transformational change. With support, people are able to move through this change and then in a



transitional way integrate and develop new perspectives. Transformational change process opens a person's consciousness to accept new sociological paradigms and in doing so it reveals the diversity of cultural perspective that exists on the world. This can lead to awareness of the influence of cultural background on the personal views and behaviours of oneself and others. Students who have experienced transformational change seem to have developed, or be in the process of developing, a metaphysical paradigm which is open to accepting a new sociological paradigm including that of Traditional Chinese Medicine.

Students entering the course without a Traditional Chinese Medicine metaphysical paradigm could be expected to find their education leading to a transformational change process. However this research suggested the course alone is unlikely to be able to maintain the forces required in producing the 'crisis' which generates transformation. It is suggested that such students would tend to withdraw. This may occur through personal choice or through failing assessments brought about by consideration of learning material within an inappropriate metaphysical paradigm.

For informants who had prior experience of transformational change it is suggested the course was able to facilitate integration of this change and establishment of a new metaphysical paradigm. This was particularly assisted through the practical application of the Traditional Chinese Medicine metaphysical paradigm.

In evaluating case study problem solving the field research informants were grouped into those that had taken deeper or more surface approaches to learning. This grouping was an indicator of their respectively showing a deeper or more surface understanding of the case. A deep approach to learning was indicated as being important to the understanding of theory and the integration of transformational change.

Metacognition of the learning process in students is suggested as being valuable in several ways. Firstly students applying such understanding are able to focus on a deep approach when necessary to gain a deep awareness of learning material. Such an approach was also indicated in the ability of students to choose between different perspectives as they studied subjects of varying paradigm. Actively searching for different perspectives whilst studying a subject was another benefit for students of metacognition.

## ***6.1 Pedagogical Suggestions***

From the study it can be suggested that it is important to teach within the metaphysical paradigm of Traditional Chinese Medicine for the following reasons:

- the support this provides for the integration of transformational change and the development of metaphysical paradigm,
- learning of Traditional Chinese Medicine theory, philosophy and practice occurs within a traditional context.

It was identified that experience of the Traditional Chinese Medicine metaphysical paradigm through

practical sessions, participation in clinics and class work such as case study problem solving was most influential in education. Self directed learning and small group work together with the use of self and peer assessment are suggested as being valuable as learning strategies.

It is important to provide as much support as possible for the integration stage of transformational change to assist those students for whom this is occurring during the course. The following are suggested to do this:

- consistent and thorough exposure to the practice, theory and philosophy of Traditional Chinese Medicine within the metaphysical paradigm throughout the program curriculum and the environment of students;

- a supportive culture within the educational institution;

- preparedness to be flexible with strategies and empathetic to individual student needs.

Informing students of the three groupings of paradigm as applied in this research is suggested as being valuable in education. Developing awareness in students of the course material in this context could provide a further framework for deepening understanding.

Students' approaches to learning were also identified as significant to the learning of paradigm.

Academics play an important role in the motivation of students towards a deep approach to learning.

Aiming to avoid unnecessary pressure on students and the development of cynicism about the educational process through monitoring both quality and quantity of assessment and workload are most important in this. A deep approach is supported by learning strategies which arouse and nurture interest in the learning material. This can include guided self learning and using peer group support as a resource in small group work. Such learning strategies can constantly relate the theoretical concepts to practice to increase the sense of relevance of the material and thus motivation of the students.

The pedagogical suggestions made here are those which will support the learning of Traditional Chinese Medicine students in the context of the perspectives included in this thesis. In some cases these may be new to the reader, but even where not it is hoped the discussion of their relevance will provide support for their introduction or continued use.

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# APPENDICES

## APPENDIX A

### STUDENT RESEARCH CONSENT INFORMATION AND CONSENT FORM

#### RESEARCH INTO STUDENT CLINICAL PROBLEM SOLVING

##### Research Consent Information

Thankyou for your interest in becoming involved in this research project. Would you please take the time to read this document so that you will understand clearly the nature of the project and your involvement in it. If after reading and considering this you are still interested in participating please sign the attached research consent form.

##### The Project

The aim of this research is to increase understanding of the approaches used by Acupuncture students in clinical problem solving from their perspective. By analysing the material collected the project aims to identify the more useful approach(es) and draw implications for teaching and learning of traditional Acupuncture.

A secondary aim is to consider if the personal influences in a students background have any possible impact on the above.

##### Your Involvement

Each person participating in the study will be asked to consider a written case study of a client. You will be given as long as needed to read, think about the case study and make notes. When you are ready the researcher will discuss the case study with you. You will be able to refer to the written case study and your notes. This discussion will aim to discover:

- \* what you have learned about the client and your reasons for arriving at any conclusions,
- \* how you went about solving this clinical problem,
- \* a picture of the influences in your personal background.

The discussion will be audio recorded and transcribed for analysis.

It is expected that your participation in this will involve approximately one and a half hours of time. Some participants may be asked a follow up question(s) at a later time.

##### Confidentiality

All the information collected will be confidential. All audio tape recordings and transcriptions of the discussions will be identified by code accessed only by the researcher. The results will not be used in any way for any assessment external to this research. This confidentiality will extend to any reporting of the research.

By consenting to be a part of this research you are also agreeing to maintain strict confidentiality concerning the project (ie. details of the case study and your interview with the researcher cannot be discussed outside of the research team.) This is important as the results of the research could be undermined if you were to not maintain this responsibility.

Please take a week to consider all of the above and do not hesitate to contact me to discuss any aspect of the project. My phone number at VUT is 365 2757 or at home is 534 3397.

Thankyou for your time.

John Terry  
(Researcher)

**VICTORIA UNIVERSITY OF TECHNOLOGY**

**CONSENT FORM FOR STUDENTS INVOLVED IN RESEARCH**

**CERTIFICATION BY SUBJECT**

I, .....  
of .....

Contact Phone .....

certify that I have the legal ability to give valid consent and that I am voluntarily giving my consent to participate in the research entitled:

"Some Phenomena of Student Clinical Problem Solving in a Traditional Acupuncture Program"

being conducted at Victoria University of Technology by:

John Terry.

I certify that the objectives of the research, together with any risks to me, have been fully explained to me by:

John Terry

and that I freely consent to participation involving the use on me of these procedures.

**Procedures**

Audio taping of interview.

I certify that I have had the opportunity to have any questions answered and that I understand that I can withdraw from this research at any time and that this withdrawal will not jeopardise me in any way.

I have been informed that the confidentiality of the information I provide will be safeguarded.

Signed: ..... )

Witness other than the experimenter: )Date:..... )

..... )



## **APPENDIX B**

### **PRIMARY STUDENT INTERVIEWS: INTERVIEW SCHEDULES**

#### ***INTERVIEW 1: ANGELA***

##### **Introduction**

Review the research aims;

Students perspective on learning and practice of TA

This interview builds on focus interview

##### **Background Influences**

Where born, grow up?

Family?

Local community?

Friends?

Interests at school, out of school?

(In focus group mentioned your religion as an influence on you)

Can you tell me any more about your religion?

Do you attend regularly?

Can you tell me in which ways it has been important in your life?

and in which ways it continues to be important to you now?

##### **Acupuncture View and Influence**

What appealed about Acupuncture when writing essay and reading article at school?

What was your perception of Acupuncture at Y.12? Did you see it as alternative medicine? How did you feel about this?

Was this your perception when you found the advert. for course?

Why was it 'what you really wanted to do'?

(In focus group you said it was a 'generally good course')

I'd like to remind you that these questions are aimed at your perceptions of Acupuncture and the influence of the course rather than part of an in-depth evaluation of the course.

What have you found good about it? What have you found weaker aspects of the course?

Can you tell me any more about what you have learned about yourself and relationships with people in the clinic?

(In focus group you saw course as a self help, learning about yourself)

Can you tell me anything more which you have learned about yourself?

What subject electives did you select for the course?

How would you now describe Acupuncture to a friend with no prior knowledge?

How would you describe the course to the same friend?

How would you describe your change in view of Acupuncture from before the course?

How do you feel about starting practice after completing the course?

##### **Case Study**

How do you see this client?

TA diagnosis?

Would you have liked further information? What?

Can you tell me about how you came to this understanding and diagnosis?

What would you say were the most important aspects of coming to your understanding and diagnosis of the client?

Do you have any feelings or thoughts that you would like to add about them as a person or client?

Would you consider this person as unwell? Why? How would you define unwell?

Do you have any thoughts as to how they would respond to Acupuncture? Any other modality or treatment?

Would you feel comfortable working with this client in clinic?

## ***INTERVIEW 2: BELLA***

### **Introduction**

Review the research aims;

Students perspective on learning and practice of TA

This interview builds on focus interview

### **Background Influences**

In the focus group you said where you were born.

How old were you on migrating? What influenced your parents to migrate?

Family? Brothers, sisters, extended family? As influence?

In the focus group you also mentioned your parents as an influence.

Can you tell me anything about their work, interests, any other background?

Did they influence you in any particular direction re. education or career, apart from English?

Most people when young have some rebellion with their parents; do you feel this has been a significant influence?

You said that moving to Australia was a significant change in culture for you. In particular you mentioned racism. Would you like to say anything more about how you handled that? You also mentioned that people here were more for themselves and more competitive. How has that influenced you?

Finding yourself in amongst a mixture of different cultures was also a learning experience you said.

What have you learnt?

Were there any other significant aspects you noticed in migrating?

Have friends been an influence in your life?

Would you be able to say anything about the spiritual environment of your life? Did migrating have any influence on that?

Interests at school, out of school? What did you enjoy doing?

What did you spend your time at?

Things you didn't like?

If you were to reflect back around the time at the end of high school, could you say what were the most important things in life for you?

### **Acupuncture View and Influence**

Can you tell me about your view of Acupuncture prior to the course? Did you see it as part of the mainstream medicine in Australia, as limited to cultural groups, as alternative?

What was your feeling on finding a course in an Australian Uni? Did you have any expectations regarding the course, Traditional to China, otherwise?

How have you found the course? Regarding expectations?

I'd like to remind you that these questions are aimed at your perceptions of Acupuncture and the influence of the course rather than part of an in-depth evaluation of the course.

Have you found strengths in the course? Weaknesses?

Do you have anything to say about clinical experiences?

What subject electives did you select for the course?

Are there any pivotal experiences you can recall while learning TA?

Do you have anything you feel is important to the study and learning of TA?

Can you say anything about studying TA as a broader influence in your life?

How would you now describe Acupuncture to a friend with no prior knowledge?

How would you describe the course to the same friend?

How would you describe your change in view of Acupuncture from before the course?

How do you feel about starting practice after completing the course?

### **Case Study**

I'd like you to tell me about the client, as if this was a person you had just seen.

TA diagnosis?

Would you have liked further information? What?

Is there anything else you can tell me about how you came to this understanding and diagnosis?

What would you say were the most important aspects of coming to your understanding and diagnosis of the client?

Do you have any feelings or thoughts that you would like to add about them as a person or as a client?

Would you consider this person as unwell? Why? How would you define unwell?

How serious would you say this clients condition is?

Do you feel Acupuncture is likely to be useful for Su's presenting complaints? Any other modality or treatment?

Do you feel you would be comfortable with this client and any responses likely to arise during treatment?

How do you find this case study compared to those you have had in classes?

How do you find case studies as a learning tool? Strengths, weaknesses?

## ***INTERVIEW 3: CAMERON***

### **Introduction**

Review the research aims;  
Students perspective on learning and practice of TA  
This interview builds on focus interview

### **Background Influences**

Where born?  
Lived? The community?  
Can you say anything about your family? Brothers, sisters,  
Most people when young have some rebellion with their parents; do you feel this has been a significant influence?

Extended family? As influence?  
Have friends been an influence in your life?

Can you describe the influence of school on you?  
Interests at school, out of school? What did you enjoy doing?  
What did you spend your time at?

Sometimes went to church - which religion? How did you find this religion?  
Attracted to all religions, same underlying beliefs, characteristics, morals - How would you describe your perception of these?  
What has been for you the drive or motivation to “look for a religion”? Why do you feel you have not so far committed yourself to one?

What for you were the “mysteries of Asian culture, especially Japanese”?  
Can you describe for you the “Strength of the Asian cultures, especially Japanese”?  
What attracted you in the Bruce Lee movies?

Would you be able to say anything about the spiritual environment of your life?  
Do you feel you have ever had any spiritual or trans-personal experiences? If so, did these challenge you in any way? Any influence on you?

If you were to reflect back around the time at the end of high school, could you say what were the most important things in life for you?

### **Acupuncture View and Influence**

Can you tell me about your view of Acupuncture prior to the course? Did you see it as part of the mainstream medicine in Australia, as alternative?  
Would you say choosing this course was risk taking for you?  
As well as wanting to get into Acupuncture, you really wanted to get into uni. Why?  
Did you have any expectations regarding the course?  
How have you found the course? Regarding expectations?  
Did the course challenge you in any way? Content, any other aspect? If so, were these +ve or -ve experiences?  
Your interest in Asian cultures led to you entering the course. How has this interest been since starting the course, more, less, different?  
Can you describe how you are “more into your body since starting the course? What has this meant for you? How would you say your perception of the body is changed since starting the course?

I'd like to remind you that these questions are aimed at your perceptions of Acupuncture and the influence of the course rather than part of an in-depth evaluation of the course.

Have you found strengths in the course? Weaknesses?  
Do you have anything to say about clinical experiences?

What subject electives did you select for the course?

Are there any pivotal experiences you can recall while learning TA?  
Anything you can say about important aspects to the study and learning of TA?  
Can you say anything about studying TA as a broader influence in your life?

How would you now describe Acupuncture to a friend with no prior knowledge?  
How would you describe the course to the same friend?

How would you describe your change in view of Acupuncture from before the course?

How do you feel about starting practice after completing the course?

### **Case Study**

I'd like you to tell me about the client, as if this was a person you had just seen.

TA diagnosis?

Would you have liked further information? What?

Is there anything else you can tell me about how you came to this understanding and diagnosis?

What would you say were the most important aspects of coming to your understanding and diagnosis of the client?

Do you have any feelings or thoughts that you would like to add about them as a person or as a client?

How well or unwell would you say this person is? Why? How would you define unwell?

How serious would you say this clients condition is?

Do you feel Acupuncture is likely to be useful for Su's presenting complaints? Any other modality or treatment?

Do you feel you would be comfortable with this client and any responses likely to arise during treatment?

How do you find case studies as a learning tool? Strengths, weaknesses?

How do you find this case study compared to those you have had in classes?

## ***INTERVIEW 4: DEREK***

### **Introduction**

Review the research aims;

Students perspective on learning and practice of TA

This interview builds on focus interview

### **Background Influences**

You mentioned in the focus group the Indian/Fijian community is very important in you and your family's life. Is the community physically close or is the strength in the relationships? Do you relate much to your other local community?

Your family? Parents background, brothers, sisters?

Often people when young have some rebellion with their parents or culture; do you feel this has been an influence for you?

Extended family? What influence have they had arriving with you more recently?

You mentioned in the FG that the 1988 coup in Fiji scattered many people including members of your extended family. It seems to me this would have been a shock to the Indian/Fijian community. Is this so? Anything you can say about this?

Do you have any personal recollections of that time? How it effected you?

Do you feel growing up in Australia as an Indian/Fijian has had any particular advantages or disadvantages?

You also said in the FG having a religion has channelled a lot of your energies, could you elaborate on that at all?

You said it gave you a purpose and a framework to work from; could you say any more about that?

Have friends been an influence in your life?

Can you describe the influence of school on you?

Interests at school?

Out of school? What did you spend your time at?

What did you enjoy doing?

If you were to reflect back around the time at the end of high school, could you say what were the most important things in life for you?

### **Acupuncture View and Influence**

Planning for tertiary ed. was Acupuncture your first choice of course? Others?

Can you tell me about your view of Acupuncture prior to the course?

Did you have any expectations regarding the course?

I'd like to remind you that this research is aimed at your perceptions of Acupuncture and the influence of the course rather than being an in-depth evaluation of the course.

Did you find the course challenging to you in any way? content, or any other aspect? If so, +ve or -ve experiences?

Are there any pivotal experiences you can recall while learning TA?

Anything you can say about important aspects to the study and learning of TA?

How have you found the course regarding your expectations? Have you found strengths in the course? Weaknesses?

Any thing else you could say about your experience of the course?

Do you have anything to say about clinical experiences?

What subject electives did you select for the course?

You said is the FG that the course has made you more aware of an holistic way of looking at things generally. Would you be able to give any more examples of this in your life? Has the course created any other significant changes for you?

How would you now describe Acupuncture to a friend with no prior knowledge?

How would you describe the course to the same friend?

How would you describe your change in view of Acupuncture from before the course?

How do you feel about starting practice after completing the course?

### **Case Study**

I'd like you to tell me about the client, as if this was a person you had just seen.

TA diagnosis?

Would you have liked further information? What?

Is there anything else which informed you in coming to this understanding and diagnosis?

What would you say were the most important aspects of coming to your understanding and diagnosis of the client?

Can you tell me any more about how you came to this understanding and diagnosis? (the process).

Do you have any feelings or thoughts that you would like to add about them as a person or as a client?

How serious would you say this clients condition is?

How well or unwell would you say this person is? Why? How would you define unwell?

Do you feel Acupuncture is likely to be useful for Su's presenting complaints? Any other modality or treatment?

Do you feel you would be comfortable with this client and any responses likely to arise during treatment?

How do you find this case study compared to those you have in classes?

How do you find case studies as a learning tool? Strengths, weaknesses?



## ***INTERVIEW 5: EUGENE***

### **Introduction**

Review the research aims;  
Students perspective on learning and practice of TA  
This interview builds on focus interview

### **Background Influences**

Born in Australia?  
Grew up? Community participation? As influence?

Your family? Parents already mentioned in FG, brothers, sisters?  
Often people when young have some rebellion with their parents; do you feel this has been an influence for you?  
Extended family? Mentioned uncles, anything else?

Have friends been an influence in your life?

Can you describe the influence of school on you?  
Interests at school?  
Out of school? What did you spend your time at?  
What did you enjoy doing?

If you were to reflect back around the time at the end of high school, could you say what were the most important things in life for you?

### **Acupuncture View and Influence**

In FG you said in selecting a tertiary course you originally wanted to do engineering and come to TA by a process of eliminating courses. How did you know what to eliminate? Engineering?

Can you tell me about your view of Acupuncture prior to the course?  
Did you have any expectations regarding the course?

I'd like to remind you that this research is aimed at your perceptions of Acupuncture and the influence of the course rather than being an in-depth evaluation of the course.

In FG you said that in general you took things fairly lightly, preferring to make a joke rather than 'getting a situation negative', any further comment?  
With this type of approach to things how did you find the TA world view which has a pretty definite perspective on the world and how things fit together? Was this challenging? +ve or -ve experience?

Did you find the course challenging to you in any way? content, or any other aspect? If so, +ve or -ve experiences?

You also said in FG the course together with 'growing up' has opened up your mind.  
How have you experienced having a more open mind?  
Which aspects of the course helped this?  
What were the influences on you "growing up" do you feel?  
You also mentioned 'getting respect for people'. What does this mean for you? Influences in this?  
You also mentioned 'getting a bit wiser'. What does this mean for you? Influences in this?

Are there any pivotal experiences you can recall while learning TA?  
Anything you can say about important aspects to the study and learning of TA?  
How have you found the course regarding your expectations? Have you found strengths in the course?

Weaknesses?

Anything else you could say about your experience of the course?

Do you have anything to say about clinical experiences?

What subject electives did you select for the course?

How would you now describe Acupuncture to a friend with no prior knowledge?

How would you describe the course to the same friend?

How would you describe your change in view of Acupuncture from before the course?

How do you feel about starting practice after completing the course?

## **Case Study**

I'd like you to tell me about the client, as if this was a person you had just seen.

TA diagnosis?

Would you have liked further information? What?

Is there anything else which informed you in coming to this understanding and diagnosis?

What would you say were the most important aspects of coming to your understanding and diagnosis of the client?

Can you tell me any more about how you came to this understanding and diagnosis? (the process).

Do you have any feelings or thoughts that you would like to add about them as a person or as a client?

How serious would you say this clients condition is?

How well or unwell would you say this person is? Why? How would you define unwell?

Do you feel Acupuncture is likely to be useful for Su's presenting complaints? Any other modality or treatment?

Do you feel you would be comfortable with this client and any responses likely to arise during treatment?

How do you find this case study compared to those you have in classes?

How do you find case studies as a learning tool? Strengths, weaknesses?

## **INTERVIEW 6: FINBAR**

### **Introduction**

Review the research aims;  
Students perspective on learning and practice of TA  
This interview builds on focus interview

### **Background Influences**

Born in Australia?  
Grew up? Community participation? As influence?

Your family? Parents already mentioned in FG, brothers, sisters?  
Often people when young have some rebellion with their parents; do you feel this has been an influence for you?  
Extended family?  
In FG you discussed the way in which you viewed and have come to terms with the different cultural background of your parents. Are you aware of your own process in coming to your current view? Was it gradual or do you see phases to that? What was your parents influence? Other influences?

Have friends been an influence in your life?

Can you describe the influence of school on you?  
Interests at school?  
Out of school? What did you spend your time at?  
What did you enjoy doing?

Can you say any more about your experience of visiting Sri Lanka?

If you were to reflect back around the time at the end of high school, could you say what were the most important things in life for you?

### **Acupuncture View and Influence**

Before starting course what was your interest in natural therapies? How did you see Acupuncture in relation to those and to WM? Did you apply to other courses?

Can you tell me about your view of Acupuncture prior to the course?  
Did you have any expectations regarding the course?

What in course brought out the world view? and helped in your (from FG) 'internal development'?

I'd like to remind you that this research is aimed at your perceptions of Acupuncture and the influence of the course rather than being an in-depth evaluation of the course.

Did you find the course challenging to you in any way? content, or any other aspect? If so, +ve or -ve experiences?

Are there any pivotal experiences you can recall while learning TA?  
Anything you can say about important aspects to the study and learning of TA?  
How have you found the course regarding your expectations? Have you found strengths in the course?  
Weaknesses?  
Anything else you could say about your experience of the course?

Do you have anything to say about clinical experiences?

What subject electives did you select for the course?

How would you now describe Acupuncture to a friend with no prior knowledge?

How would you describe the course to the same friend?

How would you describe your change in view of Acupuncture from before the course?

How do you feel about starting practice after completing the course?

### **Case Study**

I'd like you to tell me about the client, as if this was a person you had just seen.

TA diagnosis?

Would you have liked further information? What?

Is there anything else which informed you in coming to this understanding and diagnosis?

What would you say were the most important aspects of coming to your understanding and diagnosis of the client?

Can you tell me any more about how you came to this understanding and diagnosis? (the process).

Do you have any feelings or thoughts that you would like to add about them as a person or as a client?

How serious would you say this clients condition is?

How well or unwell would you say this person is? Why? How would you define unwell?

Do you feel Acupuncture is likely to be useful for Su's presenting complaints? Any other modality or treatment?

Do you feel you would be comfortable with this client and any responses likely to arise during treatment?

How do you find this case study compared to those you have in classes?

How do you find case studies as a learning tool? Strengths, weaknesses?

# APPENDIX C

## CLIENT CASE STUDY

Su is a female aged 27 years.

**Occupation:** part-time psychology student at Latrobe University and part-time hotel bar attendant.

**Presenting Conditions:** depression and premenstrual syndrome.

**Medical history:**

Operations;

- \* age 15 years, hiatus hernia
- \* age 17 & 18 years, nasal septum deviation
- \* age 24 years, large ovarian cyst and

appendectomy

Major Illness;

Possible kidney infection when young, left kidney is very small in size.

Emotionally Su reports depression and upon observation has an aura of being overwhelmed, exasperated and sadness about her.

Menstrual cycle: regularly 28 days. When premenstrual she experiences extreme pain abdominally and emotional volatility with “crying and screaming”.

Periods are 5 to 6 days. Day 1. severe abdominal cramping pain, diarrhoea, menses dark colour, heavy flow. Day 2. pain lessens. Day 3. menses flow lessens, colour remains dark.

Appetite is very strong. Eats much, then feels uncomfortable and full in upper abdomen, but within an hour hungry again. If not eating feels nausea, severe hunger pain and rumbling in abdomen.

Usual diet:

- \* breakfast; cereal and milk
- \* lunch; sandwiches of brown bread, butter, meat and salad, piece of cake or fruit,
- \* dinner; meat and vegetables or vegetarian, beans, pasta and vegetables. Usually a dessert of fruit or pudding.

\* Eats when hungry between meals, usually fruit or snack foods.

Dietary supplements include royal jelly/ginseng, vitamin B and multivitamins.

Thirst: drinks often, prefers cool sweet drinks.

Su feels below weight despite her eating pattern and from observation she appeared skinny.

She has felt below weight since the operation for an ovarian cyst and appendectomy. The operation was associated with a lot of physical and emotional stress for her. Just before the operation, when she was in great discomfort with the ovarian cyst, the surgeon advised that he would also be removing her appendix. Since the operation she has felt a lot of frustration and anger about this. She feels that she was not in a fit state to give properly informed consent and that the appendectomy was not necessary. The operation has also left her with intermittent post operative pain on a daily basis. This pain worsens with mental and emotional stress.

Shortly after the operation one of Su's two sisters committed suicide. Su has been feeling guilty about not being closer to her sister before she died. At times she feels that she has been communicating with her dead sister in her dreams. In a recent dream she was at the place where her sister died. She felt her sister saying that it was OK, that she had chosen to die and she was at peace. Whilst she is still feeling anxiety and grief, this dream has given comfort to Su.

Su feels that she has repressed much of the emotional response surrounding her

operation and the death of her sister over the past three years.

Su had a relationship for 3 years which was ended recently by her ex-partner. Su felt there were some difficulties in the relationship but that these could have been resolved. She now feels anger at her ex-partner, while anxiety and sadness at her own position.

Su has trouble falling asleep and commonly wakes once or twice a night. She has vivid dreams which at times are distressing and will wake about once a week in an anxiety attack.

Her part-time work is often late shift at the hotel and involves a lot of standing. She enjoys the work generally especially the social environment but she finds her boss demanding and unpleasant. After work nights she will sleep through to 11.00 AM

Su reports feeling tired often, especially mornings and later in afternoons.

Her studies involve demanding amounts of reading and mental work and she also finds the long drive to the university can be tiring.

She reports poor blood circulation with cold hands and feet.

Headaches about twice a week, and when premenstrual. Feels pain in forehead and behind eyes, varying between dull and sharp, worse when tired and feeling stressed.

Su began smoking at age 15 years and currently smokes four packets a week, which she feels relieves her anxiety. She began drinking alcohol at 14 years and currently drinks socially. At about 14 years of age she experimented with tranquillisers, hallucinogens and cannabis for a couple of years and continues to smoke cannabis regularly. Su finds the cannabis puts her into a meditative state and helps her feel more at ease.

Su lives alone in a farm house near the Victorian Great Ocean Road. Her parents live in a township a few miles away. Her family come to visit quite often which Su enjoys. Su likes walking in the country near home and especially along the beach. She often does this alone enjoying the solitude.

**Pulses:** Fine and tense all positions. Wiry and deep at the left middle position.

**Tongue:** Body; purple/red, slight quiver.

Coat; yellow, slightly greasy.