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## The participant's perception of the contribution of Lyengar yoga to their health and well-being

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## Abstract

To date little research has been conducted to substantiate the many anecdotal claims that yoga improves both physical and mental health. Berger and Owen (1992) demonstrated that yoga practice could enhance mood state. Mind-body exercise modalities, such as tai chi and yoga, potentially offer significant benefit in the areas of exercise rehabilitation and health promotion strategy (LaForge, 1997).

Yoga is steadily gaining popularity amongst western culture with an increasing number of people participating in this mind-body exercise modality. Investigating the perceived contribution of regular yoga practice to health and well-being could uncover a number of positive indicators towards exercise adherence and continued positive behaviour change.

A qualitative approach was used to investigate participants' perceptions of the contribution of yoga to their health and well-being. Participant observation and interviews were used to gain insight into the yoga environment. The major theme that emerged from the data was the development and influence of a mind-body connection. The connection was a catalyst for the positive attributes associated with regular yoga attendance. Increased functional capacity, mood enhancement and personal development were significant improvements attributed to the practise of Iyengar yoga.

## DECLARATION

I certify that this thesis does not, to the best of my knowledge and belief:

- (i) incorporate without acknowledgement any material previously submitted for a degree or diploma in any institution of higher education;
- (ii) contain any material previously published or written by another person except where due reference is made in the text; or
- (iii) contain any defamatory material.

Signature.....

Date..... 10<sup>th</sup> February, 1999.

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## CHAPTER 1

### Introduction

#### Background to the study

My involvement in Iyengar yoga classes began six years ago when a friend asked me to accompany her to her first yoga class. Being new to the group, we were unsure what to do upon entering the yoga studio. The teacher, who was limbering up in the centre of the room, directed us to the changeroom at the rear of the building where we took off our shoes and socks. We picked up a yoga mat from the collection of various props located at one end of the changeroom and joined the group. In my mind I was prepared for a gentle stretch focusing on meditation techniques. The class was nothing like what I had expected. What I encountered was 60 minutes of constant verbal instruction, jumping, twisting, and plenty of sweating, after which we were told to lie on our backs and relax with eyes closed. The teacher of the class then talked us through various techniques which emphasised remaining mentally alert to observe the body relax. After the class and on the drive home, to this day I remember, my legs feeling soft and spongy as though they had run a "country mile" and yet my body was invigorated and refreshed. My friend continued attending the yoga centre for a short time. As she was afflicted with Chronic Fatigue Syndrome, she preferred the restorative classes which the centre also offered. I continued taking classes there once or twice a week for about 6 months.

With my initial interest stimulated, I went on to investigate various yoga schools in Perth. Through such experiences my knowledge of the various yoga disciplines increased. After a year, I settled upon the Western Australian School of Yoga (WASY) which teaches yoga in the Iyengar tradition. Coincidentally, 1993 was also the year I commenced my undergraduate degree in Sports Science at Edith Cowan University.

Currently, I practice yoga on my own for approximately one and a half hours daily. I am undertaking a teaching apprenticeship at the W.A. School of Yoga and teach Iyengar yoga privately and in a number of community and recreation centres throughout Perth. My desire to meld my academic studies with my interest and experience in yoga, has given rise to the current research.

Yoga as a discipline has its origin in ancient Indian philosophy created over two thousand years ago. The term yoga is “derived from the Sanskrit root ‘yui’ meaning to bind, join, attach and yoke, to direct and concentrate one’s attention on, to use and apply” (Iyengar, 1991, p. 19). Its essence is a union of the individual mind, body and spirit and the merging of the personal self with its universal surrounds (Kron, 1994).

Historically dated to have been present on the Indian subcontinent in the third millennium BC, yoga steadily evolved parallel to Hinduism, Buddhism and Gains (Kron, 1994). A classical work, the *Yoga Sutras*, written by Pantanjali during the second century BC, is credited to have formally collated, co-ordinated and systematised yoga (Iyengar, 1991, p.19). Pantanjali’s work deals primarily with spiritual discipline, or ways to control the mind. The work is a cornerstone to the many different styles of yoga taught today.

Hatha yoga is term used when describing physical aspects of yoga, whilst Raja yoga is concerned with a more spiritual dimension. It is the more physical aspect of yoga, which has pervaded contemporary western culture to date. Although taught through a variety of methods, the basic practice of Hatha yoga involves holding physical positions, or asanas. This study focuses on Hatha yoga taught in the Iyengar tradition.

### Iyengar Yoga

The style of yoga developed by B.K.S. Iyengar over the last 60-years, emphasises the development of strength, stamina, flexibility and balance, as well as concentration and meditation (Kron, 1994).

Characteristically, the Iyengar method of teaching classical yoga postures is based on strict attention to anatomical detail. This style creates a class environment within which "the teacher will most likely be issuing a steady stream of intricate instructions about skin and muscle action and observing the breath" (Kron, 1994, p. 13) with the students speaking and interacting minimally, their concentration focussed as they endeavour to have their bodies replicate their teacher's instructive monologue.

Yoga, taught in the Iyengar tradition, has been steadily gaining in popularity amongst Western cultures since the mid sixties. During that time Iyengar published *Light on Yoga* (1966) through George, Allen and Unwin (Publishers) Ltd in Great Britain. The seminal book, which details over 200 yoga postures, has been a hallmark of Iyengar's anatomical precision. As has been reported in the popular press, at present, the holistic nature of this ancient discipline, which encompasses improving physical and mental health, whilst nurturing the spirit, appears to be enjoying a surge in popularity (Rankin, 1998). There are few scientific studies, however, which substantiate the many anecdotal claims that regular yoga practice aids stress relief, flexibility, or a host of other health-related benefits. Although it does appear very compatible with current health promotion strategies which are concerned with a holistic and preventative approach to health.

### Exercise Prescription and Lifelong Participation

Many studies (Blair, 1995; Blair & Connelly, 1996; Hardman, 1996; King, 1994) indicate a lifelong participation in physical activity enhances quality of life through measurably improved physical dimensions and the more abstract concept of 'wellness'. Ardell (1989) describes wellness as "a lifestyle approach to the highest states of physical and psychological well-being within your capability" (p. i). Identifying the factors that aid in continued physical activity participation is an important role for physical educators and sports scientists.

Traditionally advocates of physical activity for health have promoted the standard exercise prescription of 20 minutes vigorous exercise, 3 times per week (American College of Sports Medicine, 1992; Haskell, Montoye & Orenstein, 1985). The formula focussed on elevating heart rate and metabolic efficiency. Unfortunately, this formula has produced poor adherence to exercise, in that, approximately 50 percent of participants in a prescribed exercise program dropped out within 6 to 12 months (Dishman, 1988). Dishman's extensive work on exercise adherence (1987; 1988; 1993; 1994) examines the "knowledge, attitudes and behavioural and social skills associated with adopting and maintaining exercise" (1994, p. 1). Currently, as indicated by the work of Dishman and others (Ashford, Biddle, & Goudas, 1993; Blair & Connolly, 1996; ), the unacceptable rate of adherence to the traditional prescriptive exercise formula suggests further investigation, from a varied perspective is required.

The work of Blair and Connolley (1996) offer one such varied perspective. Their initial findings indicated that measurable psychological and physiological benefits can be achieved through moderate levels of regular physical activity. Commenting on the recent findings of Blair and Connolley (1996), Bouchard (1997, p. 14), has speculated that exercising at a more moderate level has a higher adherence prospect than the traditional exercise formula. The premise is that a level of moderate physical activity, particularly for the sedentary adult, would foster an increasingly realistic exercise regime target with less chance of initial failure. Coupled with a decreased risk of injury, these main points are thought to result in the improved probability of exercise adherence. Similar sentiments had previously been stated by Wilfley and Brownell (1994); "exercise prescriptions that are interesting, varied, easily accessible, and without negative consequences are more likely to become habitual" (p.83).

There are many reasons, however, why adults engage and continue in physical activity. Maintenance of health, development of physical fitness, and to aid relaxation, were identified by adults in community sports centers in Britain as the three most significant motives affecting their participation in some form of physical activity (Ashford, Biddle, & Goudas, 1993, p. 249). The element of enjoyment or fun has also been identified to be of importance in respect to continued participation (Gould, Feltz & Weiss, 1985; Scanlan, Stein, & Ravizza, 1989a, 1989b). The implications of uncovering the factors underlying adult participant motives "facilitates the development of strategies for maximising positive outcomes in physical activity settings" (Ebbeck, Gibbons, & Loken-Dahle, 1995, p. 262).

This research examines the participant motives of adults involved in an activity which is differentiated from more the traditional forms of exercise. Yoga is a physical activity which incorporates a definite cognitive strategy or mental component. John Leebold, principle teacher at the WASY, is quoted in a newspaper article stating; "Yoga is a process-orientated discipline, whereas most things are outcome orientated. The reason to do yoga isn't to get healthy. It's to understand the way you are. It's more a reflective practice" (Rankin, 1997a, p. 12).



### Significance of the Study

In a bid to address the trend of increasing inactivity amongst Western societies, governments world-wide have adopted new strategies of promoting 'moderate forms of physical activity' (King, 1994, p. 54). For example, the Australian Sports Commission, funded by the federal government, is currently promoting a new campaign aptly titled "Active Australia". Within this initiative, there is an acknowledgement that a wide variety of physical activities must be promoted to appeal to the broad and diverse individual needs within a population. Iyengar yoga is one such form of physical activity.

Although there has been a gradual increase in the tolerance of a broad range of non-traditional health enhancing modalities (t'ai chi, massage, acupuncture), acceptance within western society of yoga, as previously noted, has been recent (Wanning, 1993). The relatively slow recognition of yoga as a form of physical activity, can be attributed to a primarily conservative attitude, which equated yoga as a form of Eastern religion and therefore discounted its potential health related attributes (Horsely, 1987). Furthermore, the historical treatment of mind and body as separate entities by medical science (Rejeski & Thompson, 1993) has consequently resulted in a scarcity of scientific research pertaining to this non-traditional form of physical activity. The application of mind-body exercise modalities, such as yoga, in rehabilitation and health promotion strategies has subsequently been restricted. This thesis is significant, in that, it is a step towards occupying such a gap within the current literature.

By investigating why people initially join a yoga class, and by examining the factors which contribute to their continued participation, this research will aid in diversifying the physical activity opportunities currently available to the general population. That is, through demystifying an ancient Eastern form of physical activity, it could be speculated, that a larger proportion of the community will be inclined to participate in what is essentially a non-competitive form of moderate physical activity.

### Purpose of the Study

The purpose of this study is: (a) to investigate the perception of the contribution of regular Iyengar yoga practice to participants' health and well-being; (b) to describe initial and continuing motives for participation in an Iyengar yoga class; and (c) to document/describe what actually happens in a yoga class to substantiate claims for its recognition as a moderate physical activity.

### Research Questions

The main question is to investigate:

How is regular attendance at Iyengar yoga classes perceived by the participant to contribute to their health and well-being?

Sub-questions to this issue are:

1. What is the "culture" developed within a yoga teaching environment and does it influence exercise adherence?
2. What were the initial motives for participation?
3. What are the factors that contribute to continued participation?

### Delimitations

The following factors delimit this study:

1. The study was limited to adult yoga participants within the metropolitan area of one Australian State.
2. As only one form of yoga (Iyengar) is taught at the studio where research was conducted, this is considered a further delimitation.

### Limitations

1. The study was limited to participants attending the W.A. Yoga Studio.
2. No physiological or psychological testing was conducted.
3. Due to timeframe restrictions only one interview was possible with each subject.

## **CHAPTER 2**

### **Review of Literature**

This chapter begins with a review of the literature on yoga. Introducing this section, which is constructed around the concept of mind-body exercise, are articles retrieved from the popular press. The use of these articles demonstrates the rise in popularity of yoga within western culture and supplies rich anecdotal evidence of its various associated health benefits. Secondly, a review of the benefits of exercise is presented. Noting that yoga performed within a western culture is a non-traditional form of exercise, emphasis within this section is given to aspects of the literature which are deficient in providing an adequate insight into the benefits of this particular exercise modality. 'The Physical Self', is the header of the third section within this chapter. Once the concept of the physical self is introduced, a brief critique of self-esteem, motivation, and exercise adherence literature is provided. Following on from this is the final section, which reviews the notion of 'Flow' founded by Csikszentmihalyi (1990).

### Yoga: A Mind-Body Exercise Modality

Improving both physical and mental health is the broad aim of yoga (Iyengar, 1991, p. 35). Anecdotal reports within the popular press would appear to suggest that yoga, when practised within a western society, accomplishes its goal. Music icon Courtney Love stated, "yoga helped to clear my mind and keep me focussed" ("Celebrity Health", 1998, p. 9). Similarly *Phantom of the Opera* star, Helen Noonan, described an Iyengar yoga class in the following manner, "its very challenging at times to maintain the poses, but I feel so well because of the physical focusing that brings you to such a point of mental relaxation. It's just fabulous" (Rankin, 1998b, p. 6). A newspaper article by Laud (The Sunday Times, 1998) reports on the rise in popularity of yoga and also illustrates the broad range of people, spanning varied occupations, who now practice this mind-body exercise.

Despite anecdotal evidence espousing the health related benefits of yoga (Guerzoni, 1997; Rankin, 1998), scientific research into the area is scarce. Although there has been a significant rise in scientific research which investigates mind-body exercise modalities overall (LaForge, 1997, p. 56), few (Berger & Owen, 1992; LaForge, 1997) discussed the potential health benefits of yoga specifically. Of these, only the latter made mention of Iyengar yoga.

#### Positive Mood Alteration

Berger and Owen (1992) compared the mood benefits derived from two activities substantially different in aerobic training benefit, namely yoga and swimming. Their hypothesis was that exercise need not be aerobic to be associated with mood enhancement. The study was conducted on 87 American college students who were voluntarily enrolled in either beginner's swimming classes or a yoga course. A lecture group was used as the experimental control. The groups were initially compared by age, gender, and preliminary mood and anxiety tests to eliminate possible idiosyncrasies of students selecting physical activity classes. The

students completed mood and personality inventories before and after class on three occasions during the 14 week program. The swimmers and yoga participants exercised in naturalistic class settings. That is, classes were conducted under everyday conditions rather than in a laboratory environment. Swimmers exercised at a moderate pace for 25 to 30 minutes twice a week. The yoga class met once a week and exercised for 60 minutes of the total time. The lecture group met for 50 minutes, three times per week.

Although the study was not specifically concerned with the direct affect of mind-body exercise *per se*, the description of the yoga class format, provided below, indicated that this was the type of exercise modality undertaken by the subjects:

various body positions or asanas help students increase their flexibility and static muscle strength through a series of stretching exercises and static poses. Hatha yoga participants systematically strengthen and relax major muscle groups that may have been contracted as a result of stress and/or faulty posture .... yoga participants tune inward [mental strategy] to physical sensations ... and separate breathing exercises  
(p. 1333)

The authors found significant positive alteration in mood state through regular Hatha yoga practice. From this and in comparison with swimming, which entails a higher aerobic component, the authors concluded that exercise does not need to be aerobic to produce positive alteration in mood state. The study did not however, apply physiological testing to determine training effect or training intensity. Interestingly, men in the yoga group demonstrated significantly greater decreases in tension, fatigue, and anger indicators than those in the swimming group. Whilst women reported similar mood changes after both activities. A further finding of note within this study, is the positive correlation between regular class attendance and mood change, "students with greater mood changes attended class more regularly than those who reported fewer psychological benefits" (p. 1331). In conclusion, Berger and Owen stated,

although a less aerobic physical activity produced significant mood enhancement, the “underlying and causal mechanisms” of such a phenomenon remain unclear (p. 1331).

Brown et al, (1995) explored “whether the effects of training programs that combine exercise with cognitive strategies [mind-body exercise] led to greater psychological benefits, as measured by standard tests, than the effects of programs that did not involve the intentional manipulation of cognition during exercise” (p.766). The study involved 135 subjects who were healthy, sedentary adults between 40-69 years of age. All subjects participated voluntarily and were randomly assigned to one of the following groups : a moderate intensity walking group (MW); a low intensity walking (LW); a low intensity walking plus a relaxation response (LWR) group; a walking plus with an added cognitive strategy; and a group that performed mindful exercise (ME). In this group Tai Chi was performed. Brown et al., (1995) state, “This activity was considered [appropriate] because for centuries the Chinese people have viewed Tai Chi as a mind-body approach to achieving complete relaxation and wellness” (p. 766). Finally, a control group (C), were instructed to continue with their normal lifestyle patterns for the duration of the experiment.

Physiological fitness and psychological assessments were conducted at the start and after the 16 week experiment. The findings provided equivocal support for the hypothesis that mind-body exercise training programs are more effective than exercise programs lacking a structured cognitive component in promoting psychological benefits (Brown et al., p.765). No significant change in percent body fat was found in any of the experimental groups tested by Brown et al. However small physiological improvements (VO<sub>2</sub>max) were made among women in MW and LW and among men in the MW and LWR groups. The VO<sub>2</sub>max results obtained for both men and women performing ME did not indicate any significant changes.

The two studies discussed thus far (Berger & Owen, 1992; Brown et al., 1995) utilised similar psychological assessment criteria. Both the State-Trait Anxiety Inventory and the Profile of Mood States were administered. However, the experiment conducted by Brown et al., (1995) included a significantly greater number of psychological tests, such as the Positive Affect/Negative Affect Scale and State-Trait Anger Expression Inventory. The use of such a broad range of psychological tests was a primary objective in Brown and associates' exploratory study because of the limited amount of data addressing mood, self-esteem, life satisfaction, and personality changes associated with mind-body exercise modalities. In contrast to Berger and Owen's (1992) findings, Brown et al., (1995) found that men among the ME group did not demonstrate changes in mood state of any statistical significance when compared to men in the MW group. However, support may be lent to Berger and Owen's conclusion that, lower intensity activities (Tai Chi, yoga) are able to elicit a significant positive change in mood state.

Interestingly, although ME and MW both elicited some psychological benefit, LWR, the second mind-body exercise regime, and the LW did not. As stated by the authors, the results are confounding as "exercise intensity per se does not seem the critical determinant for enhancing psychological well-being" because ME was the lowest exercise intensity group (Brown et al., 1995, p. 773). The interaction between a number of variables including exercise format (group verses individual) and subject characteristics (enjoyment of the activity, gender) were suggested as underlying mechanisms for the confounding result. The method in which the cognitive component of the mind-body exercise was presented (instructor verses audiotape) may be another underlying component not acknowledged within the study. The method of instruction (role of the instructor) was not detailed to any great extent in either of the studies discussed thus far.

### Positive Behaviour Change



Both the previously discussed studies were conducted amongst population groups with normal physical capacity. In a third academic article, LaForge (1997), advocated the use of low intensity mind-body exercise to enhance the maintenance of positive behaviour change, within both cardiac rehabilitation services and amongst the general population. LaForge, draws on the work of Bandura to suggest, it is the “authentic mastery experience” that is a hallmark of mind-body exercise and an integral component of “the potential for long-term adherence and efficacy in activity maintenance” (p. 54). LaForge proposes guidelines towards utilising this type of exercise modality within the cardiac rehabilitative population, indicating that there has been little research into the usefulness of mind-body exercise within such a population.

Unlike the previous two studies, LaForge's article clearly differentiates the intent of a mind-body-oriented approach and then proceeds to exposes the mechanisms which underpin it. The intent is described as follows:

A mind-body-oriented approach teaches the patient to be mindful of the intrinsic energy from which he or she may ultimately perceive greater self-control and empowerment. Intentionally becoming aware of breathing and specific proprioceptive sensations while performing low-level physical activity such as tai chi or performing specific yoga poses returns the centre of attention and importance to the person. (p. 53)

After detailing the neurophysiology of mind-body interactions, LaForge delineates mind-body fitness as a state, associated with improved muscular strength, flexibility, balance, co-ordination, improved mental development and self-efficacy, which should be practised daily (p. 55). Both LaForge (1997) and Brown et al., (1995) contrast such mind-body exercise with traditional forms of exercise and identify a structured meditative mindset as the significant differentiating component between the two. Brown et al., state, “during traditional forms of exercise, a person's cognitive processing is unstructured, nondirected, or random, and thoughts can be positive, neutral, or negative in content” (p. 773). In comparison, mind-body exercises promote “inwardly directed attention [that] is focussed in a non-judgemental fashion on the self” (LaForge, p.

55). Additionally, LaForge notes that mind-body exercises are not measured through external means and therefore not outcome orientated:

Mind-body exercise incorporates a focus on the present moment in contrast to conventional exercise performance measures that emphasise fat burning, body sculpting, or heart rate elevation. Most mind-body exercise programs rely on self-monitoring of perceived effort, breathing, and non-judgemental awareness. (p. 55)

In contrast to the previously discussed studies, LaForge's article describes a number of mind-body exercise modalities including amongst them Iyengar yoga. In summary of the methods exposed, LaForge states:

These forms of directed attention are gentle, nonstrenuous exercises designed to re-educate the nervous system with the emphasis placed on 'learning how to learn' from the individual's own kinaesthetic feedback. (p. 60)

### Sports Related Aspects

In the past, sport has, in the main, ignored training the mind preferring to concentrate efforts on ensuring the body is able to meet physical demands (Horsley, 1993, p.6). Recently however, yoga has become increasingly popular within sporting circles. Horsley, formerly a sport psychologist at the Australian Institute of Sport (A.I.S), outlined the use of yoga during team warm-up sessions at the A.I.S as follows :

The athletes ... are to hold their stretch and concentrate on their breathing .... Initially athletes are led through the exercise and reminded to relax their muscles and let unwanted thoughts pass through, always returning to their breathing.

In his review of the current 'yoga phenomena', Oyao (1996) states, "the utilisation of yoga by elite sporting culture indicates a re-integration of mind-body practices" (p. 123). Such sentiment is reiterated by Guerzoni (1997), who lists the Australian Women's Hockey Team, Australian Football League teams (Westcoast Eagles, Hawthorn), a Ruby League team (Manly) and track and field athletes such as Cathy Freeman, as but a few examples highlighting the trend occurring within elite sports. In a separate newspaper article, John Worsfold, captain of the Westcoast

Eagles, an Australian Rules Football team, states, "yoga has the potential to extend the careers of veterans like me" (Laud, 1998). Listed below are the positive aspects associated with yoga practice in a sporting context. The list has been collated in summary of such aspects stated in Horsley (1993), Guerzoni (1997) Oyao (1996) and Rankin's (1998) articles:

- injury prevention
- stress reduction
- practice of concentration/attention
- awareness of mind-body duality
- practice of refocusing skills
- positive attitude development

### Benefits of Exercise

In the context of examining a non-traditional, mind-body exercise modality, such as Iyengar yoga, this section highlights the shortfalls of research within this area.

It is generally agreed that regular exercise is important for optimal health (Blair, Wells, Weathers & Paffenbarger, 1996, p. 1). A plethora of scientific literature (Ardell, 1989; Blair & Connelly, 1996; Hardman, 1996; King, 1994) indicates that appropriate exercise prescriptions improve measurable physical aspects such as maximal oxygen consumption (VO<sub>2</sub>max), muscular strength and endurance, blood pressure, and bone density. Similarly, psychological aspects such as mood, self esteem and tension, also appear beneficial (Anshell, 1994).

Until relatively recently, the benefits of exercise have been disproportionately examined purely from a physiologic perspective. As stated by Mutrie (1997), "less attention has been paid to the psychological outcomes of exercise or the factors that determine the initiation and adherence of people to programs of exercise" (p. 287). Mutrie acknowledges a historical review of exercise psychology conducted by Rejeski and Thompson (1993), in which the authors suggest:

the lack of attention to psychological in comparison to physiological issues has in part been due to the dominance of the biomedical model and the reluctance of the medical community to discard the philosophy that mind and body are separate (p. 287)

In the previous section, a limited scope of scientific literature pertaining to the study of mind-body exercise and in particular Iyengar yoga, was evidenced. However, in the study of physical activity generically, both exercise psychology and sociology have emerged as integral components and stand alone in their respective contributions towards understanding the benefits of exercise. Although, the benefits of traditional forms of exercise have been investigated, there is a need for alternate routes of investigation. This view is encompassed in Wankel's (1997) statement:

Adopting a more holistic approach to the study of physical activity may encompass both physiological and psychological models relating physical activity to psychological, outcomes .... Holistic, lifestyle-orientated approaches to viewing physical activity, tend to emphasise personal control, as well as physical, psychological, and emotional involvement and well-being. The individual chooses to engage in activities which are personally meaningful. (p. 112)

The research process is constantly refining itself to encompass a greater picture. In many ways the scope of research is broadening. The remaining sections focus on current physical activity literature that emphasises such a holistic perspective.

### The Physical Self

Just as there are a range of disciplines and approaches to the study of physical activity, so too an individual, the whole 'Self', consists of many facets. The evolution of a multidimensional 'Self' is a prominent feature throughout the literature within the study of physical activity from a psychological perspective (Deci & Ryan, 1985; Duda, 1992; Harter, 1996). It is not a purpose of this section to review the expansive and varied theories surrounding the construction of 'Self'. However, an overview of the 'Self' is provided and used as a construct for examining literature on self-esteem, motivation, and exercise adherence.

The notion of 'Self' has largely evolved through research pertaining to self-esteem and motivation theories (Marsh, 1997). Early investigations considered the 'Self' a unidimensional entity, however, confounding results suggested more complex relationships were present. Harter's (1978, & 1981) work on Competence Motivation Theory, has been influential and continues to develop the research in this area. Her early work "conceptualised competence as multidimensional by specifying domains of competence perceptions, such as scholastic and athletic competence" (Biddle, 1997, p. 64).

Current exercise psychology research predominantly utilises multidimensional, hierarchical models of the self. The model, illustrated below as Figure 1, was provided by Marsh (1997) as a general structure only. Such a model will therefore be adapted for specific research purposes and in such a way so as to allow for rigorous testing (e.g. Ebbeck, Gibbons, & Loken-Dahle, 1995).

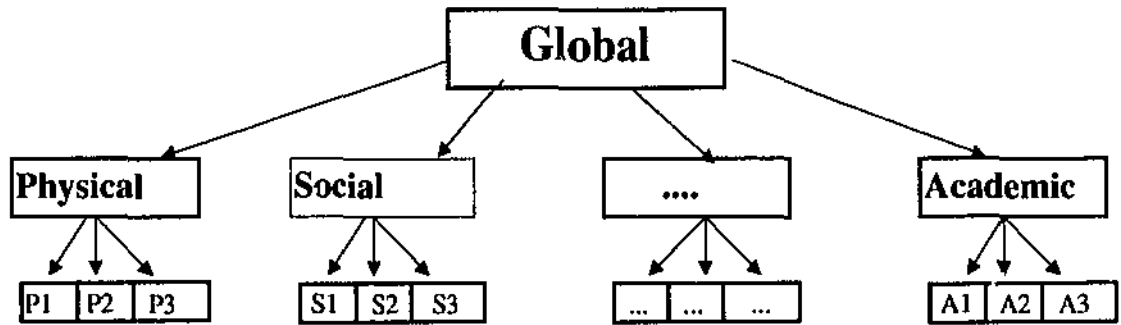


Figure 1. Multidimensional Hierarchical Factor Model of Self-Concept.

Note. From "The Measurement of Physical Self-Concept: A Construct Validation Approach" by H.W. Marsh. In K. Fox (Ed.), *The Physical Self: From Motivation to Well-Being* (pp. 27 - 53). Champaign, IL: Human Kinetics.

As shown, the general model format places a global or general self-concept at the apex. Self-concept is defined by Marsh as, "a person's self-perceptions that are formed through experiences with interpretations of his or her environment" (p. 34). Self-concept is then broken down into situation specific domains (the blank domain above denotes any number of possible situation specific scenarios). The base of the model represents how personal behaviour is perceived within each specific situation.

The devolution of 'Self' into various domains (e.g. physical, social and academic), has significantly impacted upon all disciplines involved in the study of physical activity. Fox (1997), noted the contribution of this differentiation of the 'Self' as follows:

multidimensional models of the self have been operationalized, and of tremendous significance has been the emergence of the physical self as an entity that plays an integral part in the structure of the whole self but is also open to independent inquiry (p. 111)

### Self Esteem, Motivation and Exercise Adherence

Self esteem, motivation and exercise adherence are inexorably linked. Self esteem, defined as "the awareness of good possessed by self" (Campbell, 1984, p. 8), has been characterised as an initiator and mediator of human behaviour (Harter, 1978; White, 1959). Motivation, encompasses the reasons individuals have for initiating, continuing, and sustaining involvement in a physical activity (Weiss & Chaumeton, 1992, p. 62).

Exercise adherence, the long term continuous participation in an exercise programme (Dishman, 1987), umbrellas these two theoretical frameworks.

Scientific research into, self esteem, motivation and exercise adherence has been prolific over the past decade (Dishman, 1994; Fox, 1997; Weiss, 1990). It not the purpose of this section to review such an expansive body of work. A comprehensive overview is provided by Dishman (1994). Initial and continuing motives for an individual's participation in yoga, is only one component of the main question under investigation. This subsection, therefore, briefly critiques the contemporary literature on self esteem, motivation, and exercise adherence.

#### Self-Esteem.

Self esteem and its self-perception components affect the instigation and maintenance of physical activity. They are also affected by such activity (Sonstroem, 1989). That is, choosing and persisting in behaviours such as physical activity are influenced by self evaluations in the physical domain. Such self evaluations are also important contributors to self esteem.

The Physical Self-Perception Profile (PSPP), developed by Fox and Corbin (1989), has in the last decade contributed significantly towards further unravelling such complex relationships within the 'Self'. Their work delineated the constitution of the physical self in further detail. In developing the PSPP, researchers identified salient physical self-perceptions, which formed the instrument's basis. The four subdomains scales assessed perceived sports competence, physical strength, physical condition, and bodily attractiveness (p. 410). A fifth subscale was subsequently developed to provide a global measure of physical self-worth (Page, Ashford, Fox & Biddle, 1993). This was done to test the hypothesis that self-worth is a personal formula that combines physical self-perceptions with physical domain experiences to produce a sense of physical self-esteem (Fox, 1997, p. 113).

The instrument's content has been extensively verified (Fox & Vehnekamp, 1990; Page, Ashford, Fox & Biddle, 1993; Sonstroem, Harlow, & Josephs, 1994) and applied to a wide range of populations (Curby, 1995; Sonstroem, Speliotis, & Fava, 1992). What has emerged from the utilisation of such a measure of physical self-perception, is the importance of physical self-worth as an indicator of the general well-being of the individual in the physical domain (Fox, 1997, p. 122). That is, self worth does appear to mediate the relationship between physical self-perception content and self-esteem (p.123).

Motivation. Social cognitive theories, currently predominate in the study of participation motives in exercise and health (Biddle, 1997, p.61). Notable 'Self' based theories include, competence motivation (Harter, 1978), goal perspectives (Maehr & Nicholls, 1980), self-efficacy (Bandura, 1986), and perceptions of personal control (Deci & Ryan, 1985). Below is a summary each of these theory's basic premise:

- (a) Competence motivation determines that individuals who perceive themselves as highly competent, and in control of their actions are more likely to continue to participate in the activity. Whilst, perceived incompetence and feeling a lack of control, can discourage future involvement (Anshell, 1994, p. 115).
- (b) Goal perspectives defined three types of achievement orientations that occur at the domain level of the 'Self': (a) to seek social approval, (b) to demonstrate ability (ego-orientated), and (c) to be task or mastery involved (Duda, 1992).
- (c) Bandura (1986) defines self-efficacy as "people's judgements of their capabilities to organise and execute courses of action required to attain designated types of performances .... It is concerned not with the skills one has but with judgements of what one can do with whatever skills one possesses" (p. 391).



(d) Self determination theory (Deci & Ryan, 1985) deals with the process of internalisation and the way in which the 'Self' transforms regulation (control) by external means into regulation by internal processes. Hence, "movement from extrinsic to intrinsic motives is likely to be reflective of greater perceptions of autonomy" (Biddle, 1997, p. 77).

Many studies illustrate the interaction of these four constructs. One example is a recent study conducted by Kavussanu and Roberts (1996). This study examined the relationship between perceived motivational climate and intrinsic motivation and self efficacy. This was to determine the role of goal orientation and perceived motivational climate in predicting intrinsic motivation and self-efficacy. Perceptions of mastery climate were positively associated with enjoyment, effort, perceived competence, and self efficacy and were inversely related to tension.

A second earlier study, was conducted by Carpenter, Scanlan, Simons, and Lobel (1993). They argued that intrinsic motivation was derived from a limited set of achievement related factors which were primarily perceptions of competence and self-determination (p. 279). Their findings indicated that sources of enjoyment (a positive affect) can be intrinsic such as feeling related; extrinsic such as, tangible rewards or social recognition; achievement related for example, demonstrating autonomous or social achievement; or non-achievement related such as affiliation travel opportunities.

Exercise Adherence. Currently, there is a shift in the emphasis of research in this area. Until recently researchers have focused primarily on perceptions of competence in the physical domain (Klint & Weiss, 1987) in an effort to understand human behaviour and specifically continued adherence to exercise and health programs (Brustad & Weiss, 1987). Whilst important, the construct has been simplistic (Biddle, 1997, p. 78). That is, the theoretical framework only accounts for part of an individual's relationship with sport or exercise. For example, although a person feels that they have minimal jogging

competence they still feel good about the efforts to self-regulate in terms of activity, fitness, and weight management.

Research areas such as self-efficacy, self schema and self determination feature increasingly more predominantly within the literature (Fox, 1997). In a recent synthesis of the literature on motivation, Biddle (1997) stated:

Self determination theory may provide a vital missing link in the connections between self-esteem and behaviour, .... it holds considerable promise for explaining an individual's personal relationship with behaviours such as sport and exercise .... [and] it makes clear that there are many behaviours in health and other areas in which feelings associated with autonomy may be as important as ... competence. (p. 77)

Similarly, Deci and Ryan (1996) reviewed literature on motivation and stated, "although perceived competence may be important for self-esteem, the source of motivation and energy underlying an achievement may be more powerful" (p. 46). In the review the authors also linked intrinsically motivated behaviours positively to mental health and negatively to measures of anxiety and depression. Furthermore, the authors stated that intrinsically motivated actions were likely to be associated with a sense of self-determination. And that these two behavioural elements were likely to promote continued exercise adherence.

From a varied perspective, Wifley and Brownell (1994) provided similar supporting evidence that participation in physical activity helped people feel self-determined. In a review of the literature on physical activity and weight loss, they found that feeling control over the body rated as more important than the actual changes in weight and increase in fitness.

Biddle (1997) has provided a summation of these reports.

Common to these reports is the notion that the process rather than the products of participation has provided an important contribution to positive self regard [and exercise adherence], with the likely mechanisms being mastery gain or self-determination .... Furthermore, should these

processes be further supported by research .... there would have to be a radical shift away from outcome to process objectives in sport, exercise, health and weight management programs. (p.131)

In conclusion, moving from describing the 'Self' to understanding the "mechanisms of change" within the 'Self' is considered by Fox (1997, p. 112) to be the next vital step required in the line of research reviewed here. Such internal processes are clarified below:

[the manner in which] individuals integrate aspects of their physical selves into their self-systems, how the physical self is modified through physical life experiences, or how the physical self mediates the effect of behaviours and their outcomes on self-esteem. (p. 112)

Yoga, from such a perspective is a process orientated exercise modality. It fundamentally represents the concept presented above. The practice of yoga, aims to unite body, mind, and spirit and the merge the personal self with the universal surrounds (Kron, 1994). As such, yoga practice, may be seen as a practical application of the 'holistic' research concept called for by Fox.

### Flow

Unravelling the underlying mechanisms which initiate and sustain positive behaviour change and personal development is a complex task. The work of Csikszentmihalyi (1975, 1990) in developing the concept of a 'flow experience' has served as a pivotal tool in this quest. In recent work Csikszentmihalyi (1997) elucidates the following markers of a flow experience:

When challenges are high and personal skills are used to the utmost, we experience a rare state of consciousness. The first symptom of this state is a narrowing of attention on a clearly defined goal. We feel involved, concentrated, absorbed .... the depth of concentration precludes worrying about temporarily irrelevant issues; we forget ourselves and become lost in the activity. We experience a sense of control over our actions, yet because we are too busy to think of ourselves, it does not matter whether we are in

control or not, whether we are winning or losing. Often, we feel a sense of transcendence, as if the boundaries of the self have been expanded. Even the awareness of time disappears, and hours seem to pass by without us noticing (p. 75)

Although it is a broad concept, its application within the realm of physical activity is significant. Investigators have researched peak or optimal performance experiences from a wide variety of physical activities. For example, Cohn (1991) interviewed golfers about their experiences of peak performance, whilst Jackson (1992) explored flow experiences of elite figure skaters. In a latter study Jackson (1996), interviewed athletes from seven sports- track and field, rowing, swimming, cycling, triathlon, rugby, and field hockey. All studies support Csikszentmihlyi's (1975, 1990) flow model. The model promotes the notion that flow occurs when there is a combination of the following six characteristics:

1. The merging of action and awareness.
2. Clear goals and unambiguous feedback.
3. Concentration on the task at hand.
4. The paradox of control.
5. The loss of self-consciousness, and
6. The transformation of time.

Jackson (1996) found that for many athletes the flow state is a valued experience and can be a source of motivation for participation in their given sport. There are no studies to date examining the notion of flow during Iyengar yoga practice.

### Developing Attention

One of the anecdotal benefits associated with regular yoga practice is that of developing concentration and attention. Csikszentmihlyi's (1997) recent work defined activity as "any patterned, voluntary investments of attention" (p. 62). It is his concept of attention which is significant here. Drawing on work from a variety of psychologists and neurophysiologists, Csikszentmihlyi stated :

Attention is necessary to carry out all nonreflexive physical and mental activities. It is necessary for feeling, thinking, and doing. However, it is in limited supply: We can only pay attention to a few bits of information at the same time .... In fact, it makes sense to think of attention as psychic energy, because no complex mental or physical work can be accomplished without it. (p. 63)

In order for an individual to develop their higher order complex abilities (to remember, to abstract, to reason, to control attention) Csikszentmihlyi reasoned that complex activities are required. He noted the complexity of any system requires two variables: differentiation and integration.

Differentiation refers to the degree to which a system (i.e., an organ, such as the brain, or an individual) is composed of parts that differ in structure or function from each other. Integration is defined as "the extent that the different parts communicate and enhance each other's goals" (p. 72). The more differentiated and integrated the system the more complex. From this perspective, the fundamental purpose of yoga practice, which aims to unite mind, body and spirit, may be regarded as a highly complex physical activity.

To conclude, this chapter has highlighted the need for exercise and sports scientists to present an innovative, more 'holistic' perspective on physical activity. The scarce amount of research literature that investigates non-traditional exercise modalities, such as yoga, tai chi, or other similar mind-body exercises, is reflective of the restrictive ideology of this particular field of study as a whole. There is concern that the unidimensional disciplinary methodology of research conducted in the field thus far, has provided an obscured and limited representation of the subject matter under investigation. Physical activity impacts upon the individual participant on a variety of levels. The practice of Iyengar yoga aims to integrate the physical dimension of the individual to the many other components of the 'Self'. It strives to achieve this through emphasising the connection between mind and body. A positive alteration of mood is one acknowledged benefit of such a practice. Other anecdotal claims, included injury prevention, stress reduction and improved concentration. The literature suggests that there is currently a rise in the popularity of

yoga amongst the mainstream general population. Furthermore, the utilisation of this mind-body exercise in a sports-related context has become common practice. There is also speculation of the benefit associated with the application of mind-body exercise principles within rehabilitative and health promotion settings. These statements, combined with the poor adherence to continued exercise and positive health related behaviours, suggest that a varied research perspective , as originally is stated, is urgently when needed. Yoga, through its very nature, presents as an exciting prospect for such scientific investigation and analysis.

### Conceptual Framework

The conceptual framework draws together all the elements from the literature review to show how the perceived benefits of exercise, in this case Iyengar yoga, contribute towards motivating ongoing participation.

Yoga is designed to increase the participant's awareness in the connection between their mental, physical and spiritual dimensions. The underlying ideology of this mind-body exercise modality, promotes the associated perceived positive affects in health and well-being in participants, which thereby encourages continued involvement. See Figure 2, p. 31.

### Conceptual Framework

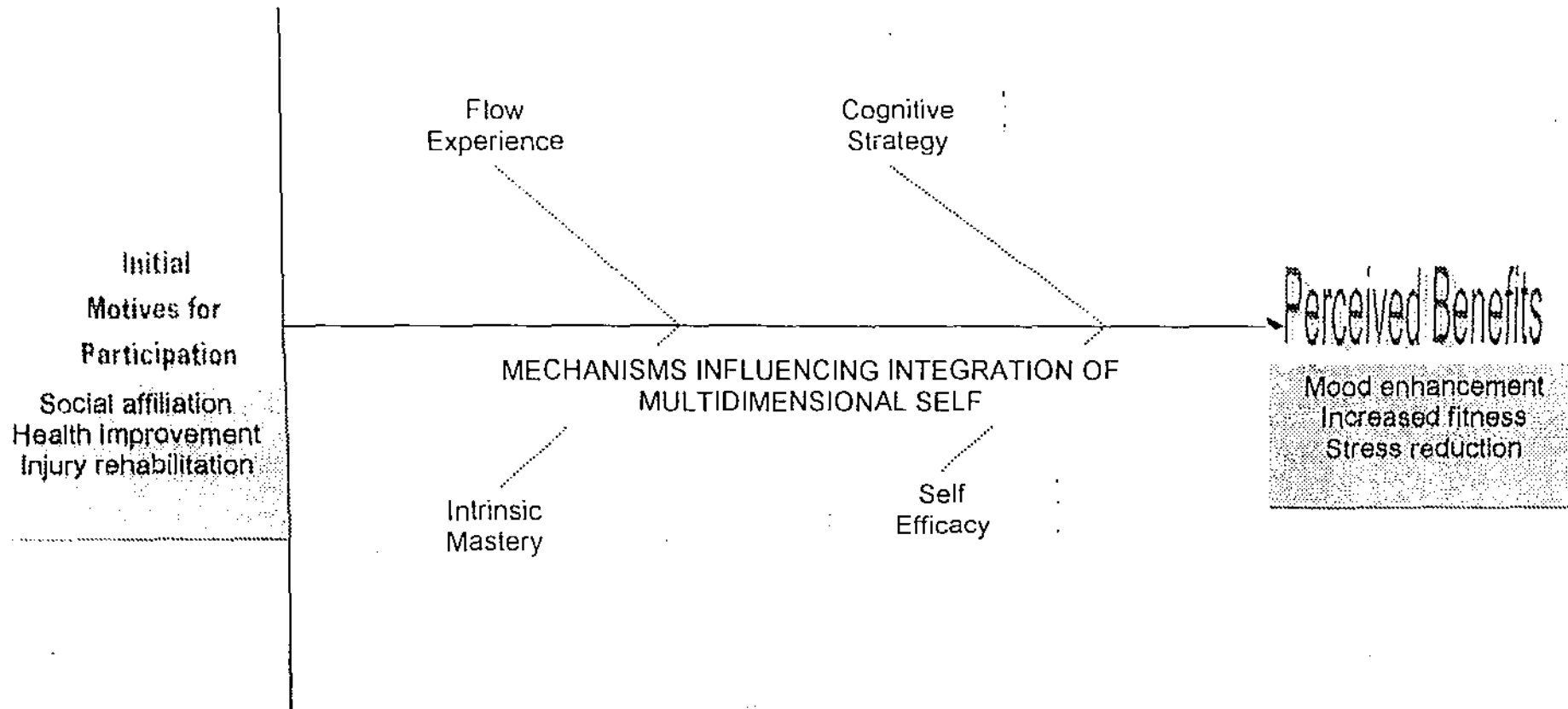


Figure 2. Conceptual framework showing the relationship between mechanisms of change, perceived benefits and ongoing participation.

## **CHAPTER 3**

### **Methods of Investigation**

As the aim of the research was to describe people's experience of yoga, the use of a phenomenological framework was well suited to the task. A "phenomenological inquiry focuses on the question: 'What is the structure and essence of experience of the phenomenon for these people?' The phenomenon being an emotion ... a relationship .... [or] a program, an organization, or a culture" (Patton, 1990, p. 69). In this instance the phenomenon was an Iyengar yoga class.

This study was qualitative in design and employed two ethnographic methodologies for data collection: participant observation and guided interviews with participants in a yoga studio. The data generated, therefore, comprised of two components. Field notes and videos of the observed behaviour and transcripts of the subjects' interviews. A content analysis of the data was undertaken utilising the latest version of the Non-numerical Unstructured Data Indexing Searching and Theorizing computer program (QSR NUD-IST), produced by Qualitative Solutions and Research Pty Ltd in 1997.

Firstly, this chapter details how data was collected. Consideration is given in this section to the impact upon the data collected by the presence of the researcher. Also, included is a chronological sequence of the participant observations and interviews conducted. Secondly, is a description of the analysis undertaken. Finally, ethical issues are presented.



### Data Collection

An intimate knowledge of the particular teaching style and class environment is held by the researcher who for the past six years has been a regular student at the studio. Currently she is undertaking a teacher training apprenticeship at the studio. As an apprentice teacher the researcher was required to observe the yoga classes conducted at the yoga school prior to the current research. Such observation took place twice a week, between October 1997 and March 1998. In light of this, participant observation was appropriate because it caused least disruption to the class environment as the participants were accustomed to the presence of the researcher.

Identifying the researcher's impact upon the setting, was critical to the integrity of the project. It is recommended that the researcher involved in a fieldwork data collection process ensure "the subjects become accustomed to having the researcher around" (Thomas & Nelson, 1996, p. 372). In this research, the influence of the researcher bearing on the behaviour of the actors within the natural setting (Spradley, 1980, p. 53), was to a large extent negated.

A divergence from the typical role of apprentice at the school was the researcher's writing of notes whilst conducting observations and the use of video equipment. As these tools were unusual in the studio, the likelihood of their impact on the conduct of either participants or teacher was minimised by the unobtrusive positioning of the video camera and complementing observation with interviews. The only comments received about the video camera were enquires as to the nature of the research. The data collected by each method was triangulated to compare and crosscheck the consistency of the information gathered (Patton, 1990, p. 467).

Being familiar to the social situation under investigation provided the investigator with an insider's perception and was "what necessitates the participant part of participant observation" (Patton, 1990, p.207). However, being so closely involved with the subject matter is potentially fraught with hazards for the beginning ethnographer. As cautioned by Spradley (1980), "the more you know about a situation as an ordinary participant, the more difficult it is to study it as an ethnographer" (p.61). One aspect of the paradox, of such intimate involvement with the subject, is the possibility that much will be taken for granted by the researcher. To counter this aspect the data was reviewed by a research colleague, in this case the research supervisor. A second related aspect of the aforementioned paradox, relates to evoking the bias of a researcher and was discussed by Miles and Huberman (1984, p.233) at some length. In a general sense, "these beliefs shape how the qualitative researcher sees the world and acts in it" (Denzin & Lincoln, 1994, p. 13). The skill of the researcher in this regard, is based upon identifying and recording possible bias. This was done by analysing the data gathered each week to identify any bias that may have affected the data collected. The predominant bias that arose during the early stage of data collection was the researcher's emphasis on teaching style. It became evident that the participant observations were initially heavily focussed on the language and actions of the teacher, with the video lens following the teacher around the room. Once identified this bias was remedied by fixing the video camera's lens in a singular wide-angled position so as to capture the entire class environment. This change occurred during the second week of data collection.

In summary, the aforementioned considerations are critical within this research process, as discussed by Patton (1990), because the extent to which the researcher's bias, beliefs, training and ability, are reflected within the final product will ultimately effect the research findings credibility.

The data collection occurred in two overlapping stages. The first stage, participant observation, began in mid July 1998. This stage continued until the completion of the study, which occurred at the end of September 1998. Interviewing, stage 2 of the study, commenced in the second week of August, 1998, and continued thereafter with the final interview conducted on 18th of September.

The Venue

A privately owned yoga studio, which has been in operation for 15 years in Perth's city centre, was chosen to conduct the fieldwork. The studio is conveniently located five minutes from Perth's central train and bus stations. Facilities within the yoga studio include two rectangular teaching areas both equipped with yoga props, and one smaller change-room to the rear of the building used by both men and women. Figure 3 illustrates the basic floorplan of the venue.

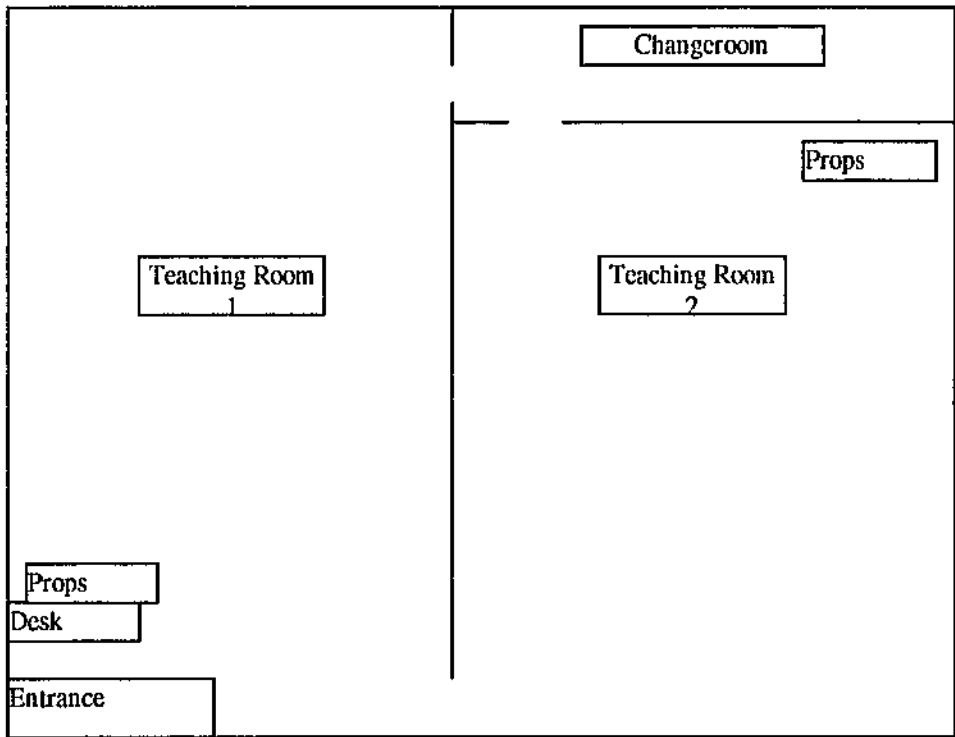


Figure 3. Floorplan of the W.A. Yoga School.

All the classes video recorded were conducted in teaching room 1. The walls of this room were slightly off white in colour with contrasting dark wooden floor boards, which provided ideal conditions to obtain a clear technical record of the subjects.

### Participant Observation

The yoga studio offers 13 classes per week. The same three classes were observed each week. The data was collected over eight consecutive weeks between mid July and early September 1998. The specific classes observed were Tuesday (10am – 12.00 noon), Thursday (10am - 11:30am) and Saturday (10am - 11:30am). The yoga school employs a number of part-time yoga teachers and one full-time teacher. All the classes observed were taught by the full-time teacher, whose details are provided in the section titled 'The role of the teacher' in chapter 4.

A video recording of these classes was made. As stated previously, in Week 2 of the data collection the video camera lens was set in a central position. That is, the video camera was placed in position on a tripod, the camera's lens was set to a wide angle and equipment was then left to record class proceedings undisturbed. A spin-off from this change was that it allowed the researcher to fully participant within the class, as there was no longer a need for the researcher to operate the video camera. Fully participating within the class added depth to the data gathered and also served to counter the earlier noted bias (focussing on teaching aspects). As a yoga participant, it was felt that the researcher would be able to monitor the atmosphere within the class, paying particular attention to the interaction between students. Impressions of the class were written up immediately following each class at a coffee shop nearby.

### Video recording.

A Canon UC-V1000 was used to obtain the video-recording, in conjunction with 8mm TDK 90 minute video cassettes.

Participants were video recorded several times over the course of the research. All subjects video-recorded signed a consent form (see appendix A). It was stated that consent was only required once from each individual and that this would suffice as a declaration of consent for all subsequent recordings. A notice in two prominent locations within the yoga school (see appendix B), informed participants as to the nature of the research and the methods of data collection involved. All subjects video-recorded therefore had knowledge of the project which was being undertaken.

In classes observed the students position themselves in a line on either side of the room. The central location of the camera with its wide angle lens setting, captured as much of the group as possible. The class setting and location of the video camera is illustrated in Figure 4 .

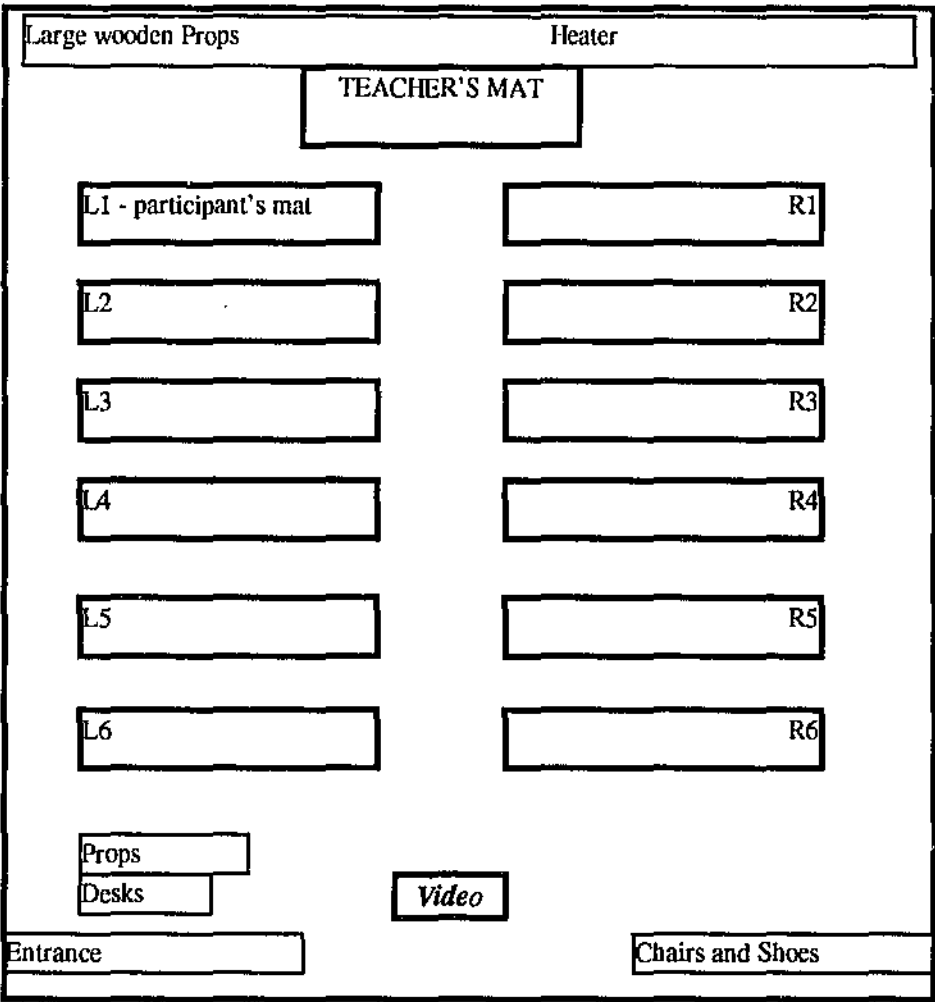


Figure 4. Layout of Teaching Room 1 including Video Equipment.  
Note Teaching room 1: maximum capacity 30 student places.

The position of subjects who participated within each video-recorded class was mapped using Figure 4 as a layout plan. This procedure was undertaken to monitor frequency of attendance and elucidate any class dynamics or culture which may have been present. Furthermore, an indexing system accompanied this record to allow for anonymity within the transcription process. That is, when referring to a particular subject in the transcription of participant observation data, the following system was used; R denoted subjects on the right side of the camera, whilst an L denoted the left. Numbers indicated the position of the person from the front of the class. For example, R3, locates the subject on the right side of the room, third from the front.

To capture information which contributed to understanding the environment of the yoga studio and the participants' experience in it. That is, to capture the arrival and departure of the students and any interactions that took place, the observation time included 20 minutes prior to a class and 20 minutes after a class. Only field notes were recorded during this time. Video recording commenced five minutes prior to the start of class and ended at the completion of class.

The video transcript, field notes, and any comments or thoughts the researcher felt relevant to participation within the class, were written up in full immediately following the period of observation. Comments or thoughts included, the intensity and emphasis of a class, any significant interactions the researcher may have had with participants, and how the researcher felt, in terms of physical, mental and emotional state, at the conclusion of a class.

### Interviews

The classes observed each week were attended by both men and women, with a total of between 30 to 40 people observed. The number of participants in each class varied, as did the participants themselves. Of the average number of people observed each week 10 were classed as regular participants. A 'regular participant' in this case was defined as someone who practiced yoga three times per week for a minimum of one hour per session.

Interviews were conducted with six of the regular participants during the second stage of the study (mid July to mid September, 1998). The interviewees were required to have at least 18 months experience with the Iyengar yoga discipline and were sought through the advertisement placed at the yoga school. The advertisement outlined the relevant interviewee criteria and sought for expressions of interest from potential interview subjects. Five participants, three female and two male, responded within two weeks of the advertisement being placed. A sixth subject was specifically invited by the researcher to take part in the interview process. This occurred primarily, to evenly match the number of female to male interviewees. A formal letter, which further detailed the nature of the research with a specific emphasis placed on the interview process (see appendix A), was provided to the subjects. The subjects' demographics have been collated in Table 1. Pseudonyms have been used.

Table 1  
*Background Information - Yoga Participants*

Name <sup>a</sup>	Current Age	Age began yoga	Years at the school	Practice hours per week	Days per week	Practice alone
Patrick	24	20	4	12	6	Yes
Lewis	50+	20+	4	min 4.5	3-4	No
Tim	60+	20+	5	4.5	3	No
Katrina	24	21	2.5	6	3	Yes
Megan	40	34	5	min 4.5	3-4	Yes
Annette	50+	44	4	min 4.5	3-4	No

A guided interview was incorporated in this study (see appendix C). The interview process allowed the researcher a "basic checklist" to ensure all relevant topics were covered. However, no "standardised questions [were] prepared in advance" (Patton, 1990, p. 280). Such a technique is described by Redican and Hadley (1988):

The interviewer plays an active role in the conversation by representing and summarising the views expressed from time to time to encourage the interviewee to search for deeper meaning. The technique is non-directed in that the interviewee can express what is important to themselves rather than considered matters presumed to be important to the interviewer. (p.54)

<sup>a</sup> Name is pseudonym.



### Analysis

Transcripts of the audio component of the video recorded data and the interviews conducted were content analysed using the software developed by Qualitative Solutions and Research Pty Ltd (QSR). The most recent (1997) version of the Non-numerical Unstructured Data Indexing Searching and Theorizing (NUD\*IST) computer package was designed to aid users in handling descriptive (non-numerical and unstructured) data. The computer programme processed data by facilitating coding mechanisms, an index system, text searches, and aided in theorizing about patterns which occurred in the data.

There were two sets of data analysed. Firstly, the format and content of a yoga class, and the participants' interactions within such an environment was sought from the participant observation material. The second body of data, the interviews, determined the participants' perception of yoga, including various elements influenced by the class setting. As such, the data was therefore analysed from two varied perspectives. The same computer programme and technique was utilised with a different emphasis placed on each of the two sets of data. That is, the participant observation data was analysed so as to develop a picture of the culture formed in a yoga class environment. Whereas, the interview responses were analysed to elicit participants' perceptions of the benefits of yoga, which necessarily encompassed the class content, environment, and culture.

Analysis occurred each week, which provided the researcher with a more focused lens during the subsequent observation period. The importance of early and constant analysis in ethnographic inquiry, was emphasised by Spradley (1980) in his statement, "analysis is a process of question-discovery. Instead of coming into the field with specific questions, the ethnographer analyses the field data compiled ... to discover questions" (p. 33). For example, analysis after the first week of data collection indicated that verbal class content was a central feature facilitating the yoga

experience. From this initial discovery, the researcher was able to postulate questions to the interviewees, such as, how they perceived the verbal instruction during a typical yoga class.

### Ethical Considerations

Consent was sought from the yoga studio to conduct participant observation during the specified times (letter attached as appendix A). Interview subjects were also provided with a letter which detailed the nature of the study and stated that the interview participant could halt the interview at any stage. Also, each interviewee was provided with the opportunity to read a transcript of the interview to establish its accuracy. This allowed the interviewee an opportunity to review and edit the transcripts contents. Half of the six interviewees requested a transcript of their interview. No alterations to the transcribed material were necessary. Pseudonyms were used throughout this report with the exception of the teacher who agreed to allow his name to be used. In the quotes from fieldnotes he is designated J. Any other persons (including other teachers within the school) referred to by those interviewed have been allocated a single letter for anonymity purposes.

## CHAPTER 4

### Findings

This chapter addresses the research questions beginning with the sub questions and then drawing them together to answer the main question. The first sub question investigated the culture present within a yoga teaching environment and its impact on exercise adherence. Next, sub question two explored the participants' initial motives for pursuing Iyengar yoga. Reasons for continuing with regular Iyengar yoga classes was then addressed to answer sub question three. These sub questions, in combination, provide a foundation from which to answer how regular attendance at Iyengar yoga classes is perceived by the participants to contribute to their health and well-being.

#### An Iyengar Yoga Class

This first section begins by describing the setting within which the observed yoga classes were conducted. Such detail provides the reader with an insight of the environment into which the yoga participants enter. The environmental setting creates a structure through which the culture within this particular yoga school is fostered. Culture in this instance is assumed to be a collection of patterned behaviours and beliefs. Spradley (1980) broadly describes culture as "the knowledge that people have learnt by being members of a group" (p. 10). Goodenough (1971) delineates a person's 'cultural knowledge' into that which constitutes the "standards for deciding what is, standards for deciding what can be, standards for deciding how one feels about it, standards for deciding what to do about it, and standards for deciding how to go about doing it" (p. 22).

### The Yoga Studio

The most interesting and easiest way to describe the studio is to take you, the reader, on a guided tour of the premises. To supplement the following graphic description, it is suggested that the reader refer to studio floorplan, which was provided in chapter 3, as Figure 3.

The building in which classes are conducted is situated toward the west end of inner city Perth and was constructed in the 1930s. It is conveniently close to both the train and bus stations. A street level sign advertising the yoga school directs you (via a winding wooden staircase) to the first floor studio, of the two story building. Just before you enter the studio a sign requests you to "Please take off your shoes". You are obviously in the right place! At the top of the stairwell, the entrance into the studio, you are greeted by a few grey chairs under which shoes are generally placed. To your right is the front wall of the building. Both front and rear walls have large wooden windows evenly spaced along their length. Directly in front is a glass sliding door, which is the entrance into teaching room 2. If you turn and faced left you would be standing at the rear of teaching room 1. The room is open, reminiscent of its former warehouse status. The area is approximately ninety square meters. The dark jarrah floorboards contrast starkly the whitewashed walls and pressed tin ceiling. At either end of the room are a variety of props. Large wooden props, with names such as 'backbender' and 'horse', line the far side. At the far side of the room attached to the left wall, there is also a relatively tall, narrow, mirror, approximately two meters by one meter. Attached to the entire length of the opposite wall, are a series of bolts through which thick ropes are threaded. Separate neat stacks of small brick sized wooden blocks, blankets, bolsters, large square pillows, straps, and eyebags line the side of the room closest to the entrance.

To the left of the stairwell entrance, in the corner of the room, is an altar dedicated to the revered so called 'father of yoga', Pantanjali. The altar, complete with candle, incense, statue and flowers, provides a subtle backdrop to the administration desk. Situated at the rear of the building, behind teaching room 2, is the changeroom. This area is carpeted, and well lit. A small sink, a trolley holding water dispenser and cups, and a table upon which various reading material lie are all in this space. Also a clothes rack, coat hangers and shelves are provided for personal belongings. There are no lockers in this changeroom. Screen partitions form a sheltered corner behind which students change in private. The door at the back of the changeroom leads to the male and female toilets.

#### Arrival at the Yoga School

During the period of data collection, the researcher arrived half an hour before the 10am commencement of class. Frequently, the same two women were already there engaged in their individual practice. Both women were over 50 years of age. After greeting a "hello", both would continue their independent practice. As students for the 10am class began to arrive, the two women would move into teaching room 2, where there was no class scheduled. They left the building together and were obviously friends.

The arrival of students began in earnest about fifteen minutes before the start of class. The researcher kept a list of those students whose names were known to the researcher as they arrived. Although the data collected did not map the exact time of each students arrival, it provided a general guide as to the order of their arrival. For instance, it became obvious that one particular student would always arrive first, approximately half an hour early. Students noticeably displayed either one of the following characteristics, which will be discussed in detail subsequently: (i) those students that arrived 10 to 15 minutes before class, and (ii) those who arrived right at the start of class.

As each student entered the yoga school they would remove their shoes and place them under the chairs provided. Students would then normally proceed to the changeroom.

There does not appear to be any particular style of dress code at the yoga school. Participants wore an array of clothes from lycra bicycle shorts to long baggy pants or leotards. There was no evidence of a particular brand label or fashion driven attire. Once dressed in suitable comfortable clothes, the student would enter the teaching space.

### Preparation Before Class

There is one standard piece of equipment required, a yoga 'sticky' mat. These mats are either dark blue or purple in colour measuring approximately 1.5 metres by 0.6 metres. The term 'sticky' refers to the mats' textured consistency. They are made from a rubber substance and are used to provide a non-slip surface upon which the yoga asanas are practised. Each student would retrieve a mat and place it at a 90 degree angle to either wall. This was illustrated previously in Figure 4. An assortment of props such as a blanket, strap, and bolster were also obtained from their respective piles. Students had preferred positions in the room. Annette and Katrina, for instance, always placed their mats toward the front of the class. Whereas, Lewis tended towards the back half of the class.

Any new participant to the yoga class generally stood at the administration desk and awaited guidance. The teacher, who was usually within eyeshot of the desk, directed the person towards the changeroom. The collection of apparatus before class is a good indication of a complete novice. The person, unfamiliar as to which props to obtain, lacks a sense of ritual or cultural knowledge as to what to do. This is noticeable as the novice person looked around at those who were already in the room to see what and how they were set up.

Alternatively, the novice would wait for directions from the teacher or copy the actions of someone who was also preparing before class.

Interaction between students before class was minimal. Smiles and passing acknowledgements were often shared, however conversation within the teaching room was limited. The changeroom is an area where people were more likely to converse. Once within the teaching room, before the class begins, students did a variety of activities. Some lay reclined on a bolster (*supta virasana*), others used the ropes to vigorously circulate the breath or to hang upside down with arms folded over the head. There was not a specific preparation sequence followed by those who arrived early. However, each person characteristically, used the time to prepare mentally and had certain things they did and used to achieve that state of being. The following are typical.

I have something really light to drink, I don't tend to eat 'cause it makes me sick and then I have to get on the bus in time. So, I suppose it's not really a routine, rather out of necessity. You know, like I get out my yoga clothes and put it on and then I'm off to the yoga thing. And that's my mind set as I come in from the bus. (Katrina)

I go to the ropes, I hang upside down for about 5 minutes or so. It tractions out my neck and I find it calms me but helps me concentrate at the same time. Its real calming, almost meditative, just hanging there and you let it all go and come down and do a bit of *Uttanasana* and a bit of dog pose. Cause that's the one I still find hard, do a bit of that. I might get on the 'backbender' occasionally. (Katrina)

I try to get there early, and focus. Usually laying back in *supta virasana*. (Annette)

I like to get there generally 15 minutes before class. It's not rushed then and I can get my mind set. Depending on how my body feels, but I'll usually do a handstand, especially if it's first thing in the morning. To wake me up. (Patrick)

Not all participants, however, arrive with time to spare:

I make sure that I don't eat and I make sure that I don't drink too much. And it's funny. Lewis, since he's living with me, it's funny ... he tottles his watch about half an hour before yoga and I say "Heaps of time". I sort of rock in at the very last minute, you know, I'm the time merchant. One minute to and I time it so I can get the car park on William Street before the attendants come in. It's an absolute precision sort of movement. And Lewis is tapping his watch and he says "I have to lie down and relax [before class]". (Megan)

### Class Content

The classes commenced very punctually at 10am and concluded similarly at either 12 noon or 11:30am depending on the length of the class. Classes were generally one and a half hours long. Tuesday's class was extended to two hours in late July 1998 to allow more time for in-depth instruction to be provided to the regular students that usually attended this time slot (Jim Morgan-DeLaine, personal communication, August 4, 1998).

The physical content within each class varied considerably. Some classes were very strong physically. Students either moved briskly through a multitude of postures or worked on postures that were physically demanding. Other classes were more passive in nature, using postures that require less physical effort but greater mental discipline. The amount and emphasis of the verbal instruction delivered within classes also varied considerably.

Due to such variation within the class content, the following section has been organised under these three central dimensions: (a) the physical aspects of a class, (b) the verbal class content, and (c) the role of the teacher. Although discussed separately here, in reality any combination of the first two dimensions may exist. For instance, a very strong physical class may be conducted with minimal instruction. Alternatively,



a passive class may be instructed intensely with very specific detail provided. The role of the teacher in facilitating a yoga class is pivotal. The relationship developed between student and teacher will be discussed in a subsequent section within this chapter. What is significant to note at this point, is that it is the teacher who dictates the class format and content. A full transcript of an observed class is attached as appendix D.

Physical aspects of a class. As previously stated in *Light on Yoga*, Iyengar (1991) details 202 different yoga postures or asanas. Obviously not all were taught in a single class. In fact, less than a tenth were attempted during any one class session. The level of physical difficulty for each of the asanas varied significantly. The manner in which they are taught and learnt, is therefore, necessarily progressive. In his book Iyengar provides the yoga aspirant with a 300 week course which groups various asanas together. The course takes the practitioner from beginner through to a mastery level. Iyengar described the benefit of asana practice in the following passage:

Asanas have been evolved over the centuries so as to exercise every muscle, nerve and gland in the body. They secure a fine physique, which is strong and elastic without being muscle-bound and they keep the body free from disease. They reduce fatigue and soothe the nerves. But their real importance lies in the way they train and discipline the mind. (p. 40).

The asanas can be grouped into seven broad categories: (a) standing, (b) forward bends, (c) sitting, (d) back bends, (e) twists, (f) inversions and (g) supine postures. Each group promotes or emphasises a different physical and mental aspect within the overall practice. For example, the postures performed standing upright, promote strength in the legs whilst emphasising correct alignment. The backbends are invigorating postures which tone and strengthen the spine. Whilst, forward bends have a pacifying effect on the mind. In general, a selection of postures from each of the above groups will be practised during a class.

To categorise the postures in this way differentiates the various physical elements of the practice. That is, asana practice differentiates the skeletal, muscular, respiratory, circulatory and sensory systems within an individual. Critical within the differentiation process is the attention of the mind.

Yoga is about the attainment of consciousness, maintain the effort directing but not forcing the breath. Particularly in the passive practice you must generate the will to be mindful of what you're doing. (Teacher 23/07/98)

Possible permutations of the postures presented during a class are countless. Ultimately all postures should be practised with equal intensity. However, a distinction can be made between those postures which are more passive and those that are physically more challenging:

You will notice when the body works more actively the mind is more easily focussed within the body. However when the body is passive like this [students lie supine in *supta padmasana*] the mind is easily distracted and the thoughts arise. (Teacher 23/07/98)

The systematic practice of the various asana groups is designed to co-ordinate the various systems within the human body. However, only certain elements would be focussed upon in any particular class. In general a passive class consisted primarily of supine postures, and forward bends, with an emphasis on breathing techniques or the use of the breath as a tool to provide mental focus. At the opposite end of the scale, a physically invigorating class consisted of standing postures, balances and backbends. During this type of class the emphasis may be directed more toward correct structural alignment, physical stamina and physical strength. The ratio of passive to physical classes was approximately 1:3.

Verbal class content. A characteristic of the Iyengar yoga class is its verbal content. Typically the teacher dispelled a steady stream of meticulously accurate instructions, which the students are expected to replicate within their bodies. The following monologue was delivered within a 1 minute timeframe. It sculptured a single posture, dog pose (adho mukha svanasana) and was presented during the earlier stages of the class.

Just rest down, rest your head. Take the strap off, place the thumb and index finger down, either side of the block and come into dog pose. So, spread the thumb and index finger down. Dog pose, dog pose. B, dog pose, B, dog pose. Now roll the upper arms out. It's the same thing, as the forearm balance, as your rolling the upper arm out, inner biceps turning up toward the ceiling, see you keep the base of the thumb down. So as you lift the upper arm out, you find it wants to lift the inner hand. You have to resist down with the inner hand. Then turn the upper arms out grip to the shoulder blades. Draw the blades on to the back ribs, then as you take the head through the arms move the sternum, see if you can cut the back shoulders in, open the armpit region of the chest. Once you feel the action, once you can get the upper chest moving, then start to lift the tail, see if you can synchronise the action. As the upper head and chest moves down and back, lift the tail higher. As the tail goes up heels down, knees and thighs drawn up, keep the legs rolling in. See if you can move, keep the arms, from the legs from the tail. Make one movement with the inhalation, so very thing moves with that in breath. Stretching the shoulders, stretching the legs, opening the upper chest. Synchronise, see that you're not doing a backbend by working one end and not the other. Index finger down, the legs stretch. Then walk your hands back, walk forward. (Teacher 08/08/98)

The anatomical detail, which pervades the above monologue, is a feature of the Iyengar teaching method. Each asana may be sculptured in a similar fashion. A second example, provided below, was delivered by the teacher in a similar manner.

Now parsvakonasana, turn your left leg out, step your right leg forward. Upper arm stretching to the ceiling. Again activate from the arm do a little bit of a back bend and draw the blades back. Head looking straight forward, don't look up. Draw the blades back a little, do a little bit of a

backbend, just so you feel the shoulder blades, move them deep into the back, give the neck some space. Give the neck some room. Now chin to the chest a little, lengthen the back of the neck out. See how much length you can from the points of the shoulders to the crown of the head. See how long you can make the neck. Blades back, neck long. A little bit of a backbend. Then inhale stand up to the left side. I don't want you to bring your arm over, I want you to keep it straight up. Turn to the left. Adjust from your arms, draw your blades down. Come on! Really grip deep to the back, lift the lower front ribs forward, so your doing a little bit of a back bend. So really draw down, then exhale extend to the side take the hand down. Right arm vertically to the ceiling, roll the arms out. So you draw the blades back, keep rolling the upper arms out and dig the blades deep into the back, make the neck long. Look straight forward, not up, straight forward to your front. Chin in a little, lengthen the neck out. Feel base of the skull at the back going to the wall. As you blades move in the opposite direction, give the neck some space. Especially, observe the upper arm the upper shoulder, you should be able to move that blade back even more. So you feel the point of the shoulder to the lobe of the ear getting even more space. Keep moving that blade back. Then inhale, turn to the right leg, go back to dog pose. (Teacher 08/08/98)

These two passages also demonstrate the repetitive nature of the instructive monologue delivered by the teacher. This was a further defining characteristic of the teaching style under investigation. A third apparent characteristic of the verbal class content is 'yogic philosophy'. Here, the teacher instructed the students in a more esoteric fashion. That is, rather than concentrating on physical dimensions, the instruction encouraged a philosophical understanding towards the yoga practice. For example :

Keep watching. So your mind shouldn't be off with your thoughts somewhere or with any other distraction. See if you can just keep watching yourself, doing whatever it is you are doing. And make sure you keep doing it. So don't look for distraction. (Teacher 23/07/98)

Keep challenging. Don't be happy to let the weight just sit into the heels. Bring the weight to the ball of the foot more, without pressing the toes, lifting the tail a little higher. So if

you don't keep trying to extend further then complacency sets in. And when the body becomes complacent then the mind starts to wander off with the thoughts. Don't place the mind in a position where it can wander. Use the body, use the action in the body to keep drawing yourself back to what you're doing. (Teacher 21/07/98)

The manner in which the three characteristic instructive features, (anatomical precision, repetition and yogic philosophy) were delivered varied. At one extreme, the verbal content was extensive, rapid and highly audible. At the other end of the scale, verbal content was minimal, delivered softly with long pauses between instruction. The majority of classes were highly instructive. Approximately only 1:10 classes were conducted with minimal verbal content. In minimally instructive classes the onus was placed on the student to extend their personal understanding of the postures. The following was stated during one such class, "I'm not giving any instruction. I just want you to do, to feel. Whatever you can. So if you find the posture difficult go into it as far as you can. If I always give instruction all you do is listen to my voice" (Teacher, 28/07/98)

The role of the teacher. A participant's experience within the yoga class was facilitated by the teacher. The role of a yoga teacher, as stated by Iyengar, is as follows: "it is the duty of the teacher to bring about unity in the body and mind of each individual pupil with varying traits" (p. 239). The road towards becoming an accredited Iyengar teacher is relatively long. Two years instructed yoga practice in the Iyengar tradition is the minimum standard required before commencing any teacher training program. There are various levels of teacher accreditation starting at Introductory Level and progressing through to Advanced Senior teacher. Within Australia the body that regulates Iyengar teacher accreditation is the B.K.S. Iyengar Association of Australia. Trainee teachers can be trained only by a level Senior Level 1 teacher. Generally, once the initial training program is undertaken in earnest, the first level of accreditation may be gained after one year of intense teacher training.

Regardless of what level of accreditation is being sought, the process involves assessment of the teachers' personal asana practice and teaching ability,.

The teacher observed in the research is an accredited Junior Level 2. With a background in dance, a Diploma in Dance from the Academy of Performing Arts, James Morgan-DeLaine began learning Iyengar yoga in 1986. He gained an Iyengar teacher accreditation in 1988 and is currently a full-time teacher at the W.A School of Yoga.

In describing an Iyengar yoga class there were several teaching elements which became apparent. An overriding characteristic present in each of the elements to be described, was that of observation. As will become evident, close observation of the students was the teacher's primary impetus for all the teaching elements to be described. For instance, the teacher's mobility during a class occurred so he could observe the actions of the students. Similarly, to make a corrective adjustment or demonstrate correct action, the teacher first must acutely observe the students.

As stated, the teacher's mobility during a class was a distinctive feature. That is, although at the start of all classes the teacher's mat was placed at the front and centre of the room (see Figure 3), this was not an indication of the teacher's position for the duration of the class. Characteristically, the teacher departed from his mat and moved around the room. The following examples are typical of such motion:

J walks the length of the class. He says nothing as they hang forward (Uttanasana). There is silence in the class, then he instructs them to kick up into the handstand again. He immediately goes to the women who needs his assistance to kick up. Then he paces, observing the students in the class, providing instruction as he walks, watching the students. (Video 08/08/98)

With these few words the class began. It took people different lengths of time to move into this first pose. There are also some students who come into the room late. J gives no instruction, merely pacing up and down the room, observing the students as he walks. He adjusts the student next to me, tilting her hips forward with his hands. (Video 13/08/98)

J walks close to the students' mats. He is talking quickly now. As he walks past the students seem to become more attentive in their posture. You see their knee caps lift. (Video 23/07/98)

A further characteristic function of the teacher in a class was to provide corrective feedback to the students. Most often such corrective action took the form of either a physical adjustment or a verbal instruction, or both simultaneously. The following excerpt illustrates feedback during a class:

So you can adjust by learning to move that shoulder blade. Moving the point of the right shoulder blade away from the ear then turn the head looking up. See you make that space. You got to keep the neck long like that, drawing the blade downward, otherwise all you do is jam the neck. So keep the blades away from the head, feel the length the point of the right shoulder to the ear lobe can you get more space there, head moving to the wall shoulder-blade moving to the hip. Then inhale come up, turn to the right leg come back to dog pose. (Teacher 13/08/98)

OBSERVE:

As Jim is speaking he adjusts various students [R2, R6].

J SPEAKS:

OK. Then once again Parsvakonasana. Step your right leg forward, lateral angle pose, come straight into it, stretch your left arm straight up to the ceiling. Draw the blades back, don't turn the head, head straight forward to begin with. Different movement now. [Adjust L7, as he speaks] So look up, draw the upper shoulder blade back, move the blade deep and bring the arm over. See if you can keep the blade back as the arm comes over, see that there's space between your chin and the inner upper arm. Don't let the inner upper arm touch the chin. Draw the blade deep into

the back, see if you can move the point of the shoulder [ADJUSTS R7] or the left shoulder back, as you extend the fingers over, see if you can make space there. Then turn the head. Come on maintain space there, moving the upper shoulder back and away from the ear [ADJUST R3]. Then inhale stand up, turn to the left.. Do you understand? Just watch here. (Teacher 18/08/98)

A corrective physical adjustment of the student may also at times have utilised props, such as the blocks, straps or bolsters mentioned previously. The utilisation of props is highly advocated and characteristic within the Iyengar method of teaching yoga. Use of such props, as stated by Kron (1994), is multifaceted.

[Props] are used to improve limb alignment, isolate muscle action or focus attention on specific parts of the body. Sometimes the props provide physical support to reduce tension or fear when this is necessary or they accommodate the needs of people with specific disabilities. (p.13)

Corrective feedback was not limited however, to the student's physical capacity. Personal behaviour traits were also commented upon during the course of a class. This is illustrated in the following comments made by the teacher:

You don't want to do the posture!! Well, then you may as well leave the class. What is the point of coming to class if you don't do what is asked of you. Come on do the pose as I asked not how you feel like doing it! (Teacher 13/08/98)

Personal criticism, used as a corrective teaching technique, did not dominate the yoga classes observed. Physical and verbal corrective feedback was predominantly directed at the physical alignment of the students' posture.



Another teaching characteristic observed was demonstration. This element was performed in two ways: (a) by self, or (b) using a student. When the teacher demonstrated a posture to the class, in either fashion, the students left their mats and gathered as a group around him. The length of a demonstration varied, lasting anywhere between 30 seconds to 2 minutes. The examples provided below illustrate respectively the two methods used during a class demonstration:

- (a) **OBSERVE:**  
 The students gather round J and he demonstrates the action in the shoulder he wants them to practice. The group form a circle around him and watch him illustrate both incorrect and correct action. There is no interaction between the students, they listen and observe his demonstration, which lasts 2 minutes. At the end of the demo, the participants go back to their original positions and attempt the inversion. J moves between the students, close to the skirting board where they are placing their hands, and provides detailed corrective points to those who require it. He directs the students, step by step during the preparation before "kicking up" into the inversion (balancing on the forearms). (Observed 13/08/98)
- (b) **OBSERVE:**  
 J uses L2 to illustrate which part of the anatomical body he wants them to focus on. He points on L2's arms the actions he wants them to manoeuvre. (Video 25/07/98)
- J SPEAKS:**  
 So I want you to move the blades this way. But at the same time, this is the inner head of the deltoid. That's the outer head, this is the inner head. I want you to move the inner head. So as you move the upper arms out, draw them broad like that can you see? Come on, quickly, before L2 dies. Just rest now L2 (Teacher 25/07/98)

In summary, there are four elements which characterised the role of the teacher: (a) observation, (b) mobility, (c) corrective feedback, and (d) demonstration. Although discussed individually here, these elements in combination with verbal instruction, as illustrated through the examples provided, are inseparable.

### Initial Motives for Participation

Although there has been a gradual increase in the tolerance of a broad range of non-traditional health enhancing modalities, such as Tai chi, massage, acupuncture, acceptance within western society of yoga has been recent (Wanning, 1993). The following section addresses sub-question 2 : why people initially choose to participate in an Iyengar yoga class. There were three main themes that emerged as significant initial motives for choosing this mind-body exercise modality. These were : (a) friend or partner, (b) innate drive, and (c) injury. Each theme is presented below and includes an example from the interview transcripts.

#### Friend or Partner

Half of those interviewed acknowledged that another person initially stimulated their interest in the discipline.

My sister-in-law is a yoga teacher in Sydney and A has always emphasised the benefits of yoga and has really helped my brother who is in a really high pressured job .... I had a few individual classes with A and then my friend AZ and I used to do meditation together and he started doing yoga and I came with him. (Megan)

A girlfriend was going. She said something to me. And I said "I'd like to come, I'd like to try it". I did some yoga when I was about 20, but I was totally in the wrong place to do it. I was running a million miles an hour, like I always have been. (Annette)

### Innate Drive

Participants possessed a personal characteristic, which enabled them to seek out an activity that embodies more than purely a physical dimension.

The whole spectrum. Physically, emotionally, everything. I needed something that was balancing in my life. (Annette)

Well, I've always been fully into sport as a kid, really into it in high school, into all sorts of sports. Very much out there as a physical sort of thing, and then when I was about 20 and I was in my third year of Uni. and I sort of lost the plot. And had a bit of a break down in my final exams and from there on went totally inwards. I did Tae Kwon Do, but it wasn't quite what I was looking for, it was still very physical. Then I went to Tai Chi and it wasn't quite what I wanted, it wasn't quite physical enough for me. I couldn't get that balance between the two. I still need that physical activity and yoga fits the bill between the two, it quietens my mind. The mental discipline as well as the physical and um, I have an underlying mental illness that runs through my family, so the Uni. didn't help at all, sort of crashed in a big heap and I was looking for something to control my mind. I was going mental and being self-destructive and getting into drugs and not handling it at all losing the plot, I just needed something. I thought well it's the best outlet for me at the time. Because I was a very sporty sort of person, so I needed that physical activity and something that would keep my mind active, cause that's what I wasn't finding. I wasn't getting that. (Katrina)

OK. Well I started around about December 1995. I had been to a course by a person by the name of..... Sort of like a self-help guru sort thing, so I went to one of the seminars. It tapped into the concepts of mind, and awareness that I hadn't had that much of exposure to. So that's the first sort of introduction I had to anything about yoga. Hum about 2 months after, he did another seminar on meditation and I attended that and he actually had quite a lengthy discussion with me afterwards and said that I should try yoga .... It took me another couple of months. I came across an article in a magazine, a GQ magazine, on yoga. An Australian guy, whose been practising astanga. As well, I think the article really appealed (chuckles) to uh my macho-ism. Because it sounded quite physical and at

that stage I'd been involved in a lot of weights and gym work and hum and but there was all that side of me also who'd wanted, had that interest in meditation and the mind and I probably wanted that more than the other. (Patrick)

Most participants were already active in some form of traditional exercise regime and, as the above extracts indicate, the majority of participants were seeking more from the exercise modality than merely physical fitness. There was, however, one participant who was an exception to this emerging trend. Tim, stated :

I didn't ever enter yoga from the point of view of meditation, I wanted yoga, I wanted a gym workout, I wanted something really tough, really strong. It wasn't interested in closing your eyes and doing a lotus position, something I used to focus, I wanted something really strong, like a gym workout.

Noting this exception, it appears that the holistic nature of, and in particular, the mental component within, Iyengar yoga was a significant defining element in the subjects' initial motives for participation.

A generational cultural element, was also influential to innate drive. That is particularly for the older subjects, the appeal of Eastern philosophy amongst western society during the mid-sixties, appeared to influence their initial participant motives.

Well you know yoga has always been mystical, self-realisation and all that kind of thing and wanting to meditate, and I thought throwing myself into a half lotus or full lotus and doing a headstand for about 10 minutes was about the closest I could get to realisation. The hippie-generation you know. Drop acid, get tripped, get high, get yourself into a lotus position and it [realisation] would just happen. (Tim)

It's a bit too long ago. I was interested in the whole Eastern, Buddhism, yoga. Reading in the sixties, late sixties. (Lewis)



## Injury

In combination with the motives stated thus far, participants spoke of injury related incidents pre-empting their interest in Iyengar yoga.

The other reason I did yoga was I had a car accident and I hurt my lower back and I couldn't do squash anymore. So I had to do something that would give me some exercise and I found that after a while, I didn't want to do the sort of combative exercise that is involved in squash. (Megan)

Seriously, I guess since I've been in Perth. But when I was early twenties, I guess, I did it for maybe two years. But it's difficult practising on your own. So, I let it lapse and when I was travelling in India, in '89, I hurt my back, so I saw some physios and I wanted to do some yoga .... with my back he [J, the teacher] would have known when I first started that that's one of the reasons I was going because I wanted to work on my lower back. Well, not really to work on my lower back, I just wanted flexibility, it was a hindrance to my practice, my lower back. So it wasn't that I was going specifically for my lower back but it was preventing me from doing some things. (Lewis)

None of the subjects, notably stated that the initial reason for participation in yoga classes was to rehabilitate specific ailments. However, as was clearly stated in Lewis' transcript above, a restriction of physical capacity, which resulted through injury, appeared as a significant stimulus in his initial participation in the activity.

The subjects voiced a combination of these three main initial motives as reasons for first attending an Iyengar yoga class.

### Continuing with Iyengar Yoga

The third sub-question sought to isolate those factors which contributed to participants' continued adherence of the activity. Notably, all participants stated that they intended to have a lifelong association with the exercise modality.

Well as I said, I'd like to be doing backbends when I'm eighty. And hopefully it will be apart of my life for the rest of my life. It's very private or personal what you get out of yoga but it's something I find very valuable and a real gift and something that helps to cement a process that I'm going on to find meaning and live a life of integrity and be as good a person as I can be. (Megan)

I think if it was purely economics and availability then I would. 'Cos I see it as an essential of my existence, that eventually I could imagine that I wouldn't have to do it everyday as such and as I've said, that you would eventually practice the yoga, you'd be practising it all the time. So that when you sit down you sit down in a more yogic way, when you walked you'd be walking in a more yogic way. And I mean that's what you should be striving for. There would be no point standing straight and doing the yoga for an hour and a half then be doing bad posture the rest of the day, I mean there's a contradiction. So to me eventually you would get to a point where you wouldn't need class as such, 'cos your mind body would be doing it. (Lewis)

No, not teaching Ann. Just practice, forever in my life. Just always. I have been thinking, moving back [interstate], there's nothing at Mansfield [town], what will I do with my yoga?. I'll have to start doing it myself. Or start something up there, get teachers coming up or do something. I mean that was just a thought for the future, still 5 or 6 years. But it just has to be apart of my life. (Annette)

These statements were indicative of the attitude of all of the subjects. A lifelong association with regular Iyengar yoga practice was an extremely potent finding within the research process. To understand clearly which factors influenced the development of such an attitude of lifelong exercise adherence, it is important to firstly provide an overview of a

typical yoga class as experienced by the participant. That is, due to the non-traditional nature of the subject matter and to facilitate a greater appreciation of the subjects' responses, it was felt that the reader should be provided with a student's perspective of a typical yoga class.

Although, the yoga class content has been previously detailed within this chapter (pp. 49), the three central dimensions which were elucidated (physical class content, verbal class content, and the role of the teacher) were obtained solely from analysis of participant observation data. The sub-section to follow utilises the previous description adding to it the participant's perspective, which was gained from analysis of the interview transcripts. The following, therefore, does not detail specific asanas. Rather, it provides a varied perspective of the typical class format depicted in the aforementioned section. It interweaves the Iyengar teaching technique with the participant's experience of such. This first sub-section incorporates the subjects' experience of: (a) inward mental focus, (b) the teacher, (c) the yoga process, (d) after of a yoga class, and in finally, (e) yoga school culture.

Two further sub-sections complete the answer to the third sub-question: (a) mind-body connection, and (b) behavioural change. Each of these also contributed to the participant's continued association with Iyengar yoga.

#### Perceptions of an Iyengar Yoga Class

The teacher's voice signalled the commencement of class. From this moment the students were directed by the yoga teacher. Each student utilised the space provided by their 'sticky' mat to perform the yoga class. The students rarely spoke during a class. All that was heard was the teacher's instructive monologue, which directed students in and out of the various asanas.



Inward mental focus. Regardless of which posture was being attempted, the participants' aim was to remain attentive drawing the mind inward to feel the action and movements required by the body. Below are participants' accounts of such experiences. It should be noted that the students make reference to other teachers with whom they have had yoga classes. These teachers are designated, S, X and A.

Sometimes, when I'm doing the yoga, especially with S, where he gets you to hold postures longer, a couple of times I will think its been half an hour, three quarters of an hour and I'll think, why is he finishing early? It really feels like that. And I don't know if that's good that I've been so focussed that I've lost consciousness of the time. I've noticed especially when they're talking. Especially when J's talking, it takes you out of the present time, into his, so you're not so conscious of the pain and holding it [the posture], you're listening to his voice and moving your mind around the posture. (Lewis)

Well, I realised in the first year when I was in yoga that I was quite competitive, and my head used to spin around like it was on a rubber stalk, looking around and seeing what everyone else was doing and comparing myself. Now, I never ever notice what other people are doing. Except sometimes I feel a bit of compassion for someone who is struggling, who isn't getting the attention that they need or they might not have the prop they need. I've even overcome the urge to intervene there, me and my space. I simply focus on my yoga, me and my mat that's my space. (Megan)

The subjects all stated an awareness of similar patterns of mental absorption or mental focus in the yoga practice. However, statements, such as those provided above, indicated that to maintain such a mental state required constant attention. Tim's experience, provided below, is a light-hearted account of the mental distraction, which can occur during a class:

Just around the middle of the shoulder stand, it's like "oh god, only twenty minutes to coffee!" You know how Jim says, "keep your mind on the job and don't be thinking about the future; get into the pose and all that kind of thing"

In the meantime, your mind's racing away, which is not what it's about. But you know, to error is human. So, yeah, yoga for the first hour and ten minutes then coffee [mentally for the next twenty]. (Tim)

The teacher. Generally, the teacher started by performing the required posture on their mat in the front and centre of the room. He synchronised verbal instruction with visual demonstration. Once participants moved into the required posture the teacher would depart from his mat and move around the room. Whilst walking around the room, observing individual students' posture, the teacher continued to provide instruction for the entire class. If a student was having difficulty performing a required structural action the teacher generally provided assistance or corrective feedback. One method of doing so, as previously described, was through physical adjustment. To the participant this corrective teaching technique is experienced as physical contact between themselves and the teacher. The following is one participants' experience of this corrective teaching technique.

Well, initially I didn't like it, just being touched, it's just the way I was. But now, I like it, I feel it's very comforting. It's very safe and non-sexual, it's all help and love and I feel quite comfortable. And yeah I quite like it now, I actually prefer it that they can touch, cause it actually makes me feel safe, and that I can actually relate their touch to exactly where I need to be. 'Cause sometimes I find it a bit hard, you know, when they say "lift this" and you're not quite sure exactly which part and where, but if you're touched you get that connection. I tend to find, like my hip, the back hip area, will be a bit dead for me but if you touch it and move it, then I can relate that back. I get the connection, otherwise it gets nothing, it stops about here [points to her head, her brain, we laugh]. (Katrina)

Below is Annette's experience of the corrective teaching techniques. The passage is included here specifically because particular reference was made to the use of various props:

With the shoulders, I knew that they were stiff but I didn't realise how stiff or how bad till I went to yoga. I don't think that I ever talked to J about it but he picked it up and he helped me by using supports/ props .... He seems to pick up very easily what's going on - "you need an extra this or you need that or I think this might help". Or else you ask him and that's no problem either, if you need another bolster or what ever, he'll come along and pop it under. And, he's also good, you know with my shoulders. In certain poses, I need a bit of a lift or a bit of a help. For instance in backbends, I can't get up without the bench. Or if I do try he comes along and gives me a lift so I can do it. (Annette)

As illustrated in the above excerpt, the subjects found the corrective feedback the teacher provided beneficial to their sense of achievement of the particular physical posture.

Corrective feedback, as stated elsewhere, was not solely limited to the physical dimension. How the subjects experienced personal criticism is presented below:

X does hassle people in his classes from time to time, J to a lesser extent, he'll generally leave you alone. But then again it comes back to why are you coming to classes :is how the hassling or correction going to affect you. Do you see what I mean? You know, they can hassle me all they want and I think that's great, it's what I need and also it's only one moment in time. The teachers don't hold on to that moment and judge you accordingly, it is your own personal development. (Tim)

I think there have been times when I've thought, you know, what the hell is he saying. I mean I get picked on a lot in class [\*I: "yeah you do" ...we both laugh] Yeah I do!! The whole time. You haven't seen X with me. X picks on me the whole time. For me it's very hard not to react. That's I guess the nature of someone who is classically a type A personality. So, yeah, he's picked me up, but also humbled

me in that respect as well. And he may do that by hassling me more or whatever and I don't or I've lost that part of me that feels offended, that gets offended. I associate it with the ego coming out, when I can't be criticised. I'm there in class to be criticised. I've seen, or read stories about Iyengar, he absolutely hassles you. Y [a teacher at the Freo school], whose just come back from India [from the Iyengar Institute in Pune, India], was pulled apart, she broke down because of the constant harassment. But, ultimately that's the ego working. That's what it's all about, why are you reacting ? (Patrick)

The above statements indicate that participants accept the personal criticism as part of the 'yoga process'. There is a level of respect evident for the insight possessed by the teacher. The participant's appear, in the main, to internalise such criticism positively. However, one subject, although personally comfortable with the process, did feel that the personal criticism observed in some classes was too severe, and possibly resulted in newer participants' cessation of the discipline. The participants' experiences that are described here, foreshadow a theme of personal development, which will be further expanded later in this chapter.

The teacher plays a vital role within the experience of a yoga class for the participant. This has been clearly evidenced in the excerpts provided thus far. The passages below illustrate participants' perception of the purpose of the teacher and the purpose of a yoga class.

The classes for me, gives me the focus and it puts me on the edge and that's what I'm looking for. I go to the intensive classes; I go to the classes that force me to go outside what I know and what I don't do. In your own practice, maybe subconsciously, maybe even consciously you avoid those poses that you know are going to hurt. You avoid those areas of your body ... it's quite easy. I'm quite open in my chest so backbends come really easy, so it's easy for me to do backbends. But ask me to do a lot of standing poses where my groins and my lower back are sort of tighter, so I seem to do those poses less. I guess it provides the different poses and like I'm working through that now. Things like the shoulder stand as well, just absolutely agony. You have that way of thinking before you even go up, its just like "I don't want to be here", but the

teacher forces you to be there, forces you to be where you don't want to be and ultimately that's where the will strengths. (Patrick)

I think it's getting off on the fact that I'm not thinking or controlling anything, I'm just being taught. And I love that. I'm in J's hands and I'll do whatever the instruction. (Megan)

Although, some students did indicate that they preferred a particular teacher's style to other teachers at the school, all students had attended a variety of teachers' classes. Therefore, the yoga culture developed by the school as a whole encouraged ongoing participation and it is not possible to say that any one teacher bore more influence over the subjects than another. However, during a single class, the teacher facilitated the yoga experience or process for the student. That is, both the physical emphasis of each class and the verbal class content, as experienced by the participant, are defined by the teacher. Similarly, corrective feedback both physical and personal, and yoga philosophy, is also administered only by the class teacher.

There was, however, a sense of over-reliance on the teacher and classes expressed by some of the subjects.

This one of the wonderful things about yoga, is that you don't really require a teacher, as such, you have to do it yourself. Although it's good to have the teacher, you have to generate it yourself. And I think that's something we do too much at the school, is rely on them to motivate us, when we should be learning to practice by ourselves. And develop ways for our consciousness to do our own practice. But see, like me, I'm a lazy yoga disciple, I'd rather pay J and say "Jim, ok, you get it into me" and maybe I'll listen and maybe I won't cause see half the time I don't. And half the time he says "spin this and twist that" and I think "oh god, for goodness sake J, I'm having a hard enough time holding the pose", my arms aching, my head aches, my mind's saying "what are you doing here" and you're telling me to work harder and to put my consciousness into it. Forget about it, it's enough that I'm here, I pay you \$10 and I'm in the pose, don't ask me to do anything more than that 'cos I won't. (Tim)

Below, Lewis' stated development reiterates Tim's' sentiments, whilst also drawing attention to the mental component within the 'yoga process'.

The postures are both a physical endeavour and a mental thing; you've got to overcome your own resistance to that sort of pain. And that it's getting the breathing. Cause its not just pushy, it's not just a physical strength. Well, the interesting thing with yoga to some extent is that it's not a strength thing, it's a balance, or fine motor skill more than gross motor skill. Once you've got your stretch, it's the fine motor skill; it's the mind continually re-adjusting in the pose, which is a fine motor skill. The strength comes fairly quickly, but the motor skill takes time, which is the balance. Which is probably in actual fact the mental exercise, which is different to the classical western exercise modality, you know jogging, you're getting fit but you're not exercising the brain, mind, and body .... With only a small fraction of yoga you can still recognise your needs, I know it seems strange, you do yoga the whole time. But you can only practice yoga some of the time, small bits and pieces and you see the mind initially coming out. The negativity and all the other bullshit that seems to come when you're in those poses, that's when it comes to be there. (Patrick)

It is this process, which the participants choose, of their own accord, to continue a lifetime involvement with. The 'yoga process' attempts to lead the aspirant away from the stated reliance of classes and teacher mentioned above, towards a self-reliant attainment of the discipline's goal: to unite mind, body and spirit.

For a long time I've been dependent on classes, I've been coming to classes. I think the rationale behind that was, well I don't have enough awareness in my own practice to justify and I am getting a lot out of the teachers, but there is that reliance that is something that I realise now. You work on a deeper level on your own, you may work more intensely because you have that teacher walking around, you know you have to hold the poses for longer and the teacher is there and will come and stay with you, hold you. To achieve that level of intensity on your own you have to go more deeper into yourself, more deeper into the will, to do that. Cause no one else is there, no one else will tell you to stay there. (Patrick)

I think that's the laziness of doing the classes for me is that you just rely on the teacher to walk you through, but then it does allow to push in the posture. Whereas if you also have to try and time the posture, its another burden or another layer. So I can sort of hold it, unless its particularly painful and I wonder if I can hold it much longer, until they say ok, lets go to the next one and I hold it. Its giving over the authority to them, which is good initially cause I think it would be very difficult to look in a book and process it on your own. (Lewis)

Notably, these sentiments were expressed by students with a minimum of two years experience at the yoga school.

Yoga process. Significantly, all subjects, acknowledged the necessity to initially learn the 'yoga process'. Over time, the participants have developed an understanding of such a process. Tim's' sentiments articulate a perception of such development in the physical yoga dimension.

There is no goodness with the yoga. No, seriously it's true. Because it doesn't matter how good you get there's always something else you've got to do to make it better, and it's even harder. The longer you do yoga, the harder the postures become, not easier. Cause, you could flop into something, and do what ever you do, flop into it, and oh great I'm doing really well [demonstrates a seated Trikonasana, illustrating doing merely the movement] but when you do everything you have to do, its really hard. I mean, the simplest pose, can really be the hardest thing you can ever do in your life. And the more you know the harder it becomes. Whereas before [in the beginning], you know you'd have your feet going all kinds of angles and you thought you were doing the pose. But then you realise not only do you have to have your foot pointing straight but you've got to have your knee going this way. You got to twist this thing here, and like Jim says, you know, "spin this thing around". God, what am I spinning? Which way am I going? My head's spinning, I don't know about my leg. And its like, if you really do it to the maximum, it's really, really hard. And the better you become, the more you can exercise those specific things and the harder it becomes. There is no comfort zone. (Tim)

Below, Lewis' stated development reiterates Tim's' sentiments, whilst also drawing attention to the mental component within the 'yoga process'.

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All the subject's stated a similar sentiment as Patrick. The subjects are either already practising yoga by themselves or aspire to do so, indicating their different stages of development within this process. Some students were content with maintaining their current standing within this process (Tim, Megan and Annette) whilst others (Lewis, Patrick, and Katrina) sought to further deepen their level of practise.

After class. Participants spoke of various sensations, emotional and physical, encountered after a typical class.

I think it lasts for 24hours, you feel immediately calm, calmer or looser or like the scales or the sediment settles and everything is back in alignment or balanced. So, nothing really bothers you, at home, unless something is really counter or dissident to your mood. I feel good for the next 24 hours at least. I try to go or do some yoga every second day. (Megan)

I feel really calm, really loose, really open. I just feel really good. (Katrina)

Because sometimes I think, "I couldn't. It's going to be hard and I'm really tired". But I go and do it, cause I know how good I'll feel afterwards. Cause I know how beneficial it is for me overall. (Annette)

The above abstracts typify the positive affect experienced by all the subjects. Such positive mood alteration is speculated to contribute to ongoing participation.

Yoga school culture. This was a significant contributor to the participant's continued involvement. The subjects typically experienced the atmosphere created within the yoga school in the following manner:

It's in the atmosphere. It's for me a very safe place, I can be who I want to be. If I want to cry I can, if I'm in pain I can be in pain cause I'm in a safe spot. Then the people who are there, everyone's very accepting. You can be there, it doesn't matter what you look like. It doesn't matter. No-one cares and you're all there for the one reason and you won't

get whistled or funny comments and yeah very safe.  
(Katrina)

I think it's the best environment for it [being vulnerable], it's very safe. That's the beauty of the yoga. The teachers know that you are imperfect and there is acceptance of that. They may yell at you to correct something, but they are people who genuinely are good. (Tim)

I feel quite safe going there cause I know J's so careful. And that's what I say to any friends who are thinking of taking it up. If they can't go into the city, well, just be very careful what yoga teacher you get. So that they know as much as possible. Otherwise, they can cause you a lot of damage, by teaching you to do the poses the wrong way. So, I feel quite safe there and that's trust isn't it. They're interwoven. One teacher, I didn't feel so confident with, I liked him but I didn't feel so confident with him. Cause he wasn't quite as perceptive and a lot pushier. Whereas, J pushes but he still lets you go at your own pace. (Annette)

In Katrina's passage, the first of the above extracts, she signalled that there is a non-judgemental element present within the school. Tim's passage concurs with Katrina's experience adding to it that the teacher contributes significantly to such an atmosphere. In the final passage, Annette, further confirms that the teacher plays a pivotal role, not only to the atmosphere created but, as previously stated, as a facilitator of the yoga process for the student.

Within the yoga school culture, there was a social element present that further encouraged ongoing participation. A 'social group' was formed between certain regular participants that primarily entailed meeting for coffee after class on Saturday. The subjects expressed the following sentiments in relation to the group's formation:

Oh, well yeah it sort of happened. We never used to go to King St., we used to go to the one just around the corner. I can't think how it all began, somebody just said casually "I feel like a coffee after that" and someone else "yeah that's a

good idea" and I suppose its just continued on after that. Oh yeah, it's nice. And yoga people are really nice. (Tim)

And I often go for coffee on a Saturday, and Sunday. But most of us, are busy and rush in and rush out, so there's not a great deal, apart from the Saturday, I guess is the main social .... And the Saturdays I knew people from the nights things, and people going there, and you meet people slowly, but it is difficult when you are all coming from different lifestyles .... Often, its talk about yoga, you know, whether they did backbends or if they did not do backbends. I guess the women's one goes broader. And I guess coming from different backgrounds you don't know the people, so you're not sure what to talk socially .... Saturday's are large. Sometimes we've got 10 or more people there, so it was more socialising than conversation as such. Normally, 80% of the time its yoga. (Lewis)

Only one regular participant did not have any social interaction with this group. Only the female subjects related socially with other students outside of the yoga school environment. Annette's comment below provides a general indication of the common sentiment expressed by the subjects:

They're very nice. I don't know what it is, there's just a nice aura about them, about the people that go to yoga .... there's somehow just a connection developed. (Annette)

There was a definite affinity present between the regular students of the yoga school.

In summary, it was found that subjects' perceptions of the defining elements of an Iyengar yoga class influenced their ongoing participation. Instillation and development of the yoga process within the individual was primarily the function of the yoga teacher. However, the environment within the yoga school as a whole, promoted an atmosphere which was conducive to such undertakings.

### A Mind-Body Connection

Integration between the physical and mental aspects of this non-traditional exercise modality appeared progressive in development. All participants acknowledged that when they initially began their involvement with Iyengar yoga, the physical difficulty of the practice was intense.

Because initially it was, you know, "I'll never get to some of these postures, I'll never get there" And it's a bit annoying, I mean, what am I doing it for if I know I'll never get there!  
(Lewis)

I think it's all just gross physical at the start. You can't get anything more than just the stretching. When you first start it's just stretching, you can't expect to get anything more out of it. You can't expect to be in tune with the energy, or where the energy builds in the body. You can't be in tune with the breath, and you can only have a small awareness in the very long (?) parts of your body and that's usually where the pain is [we laugh]. There's no other, there's no other, I think observing classes now, like assisting with Jim, I see beginners start, it's very interesting to see that ... they've never had to look inside. I mean even with the weight training, you don't feel internally much at all. You don't see the range of motion; you don't see the effect on the muscle from the weights. It's just push, push, push. And that's fine in a sense but detached from the internal. (Patrick)

The word 'pain', present in above transcript, has also been stated in a number of the extracts used thus far. Tim jokingly expressed the following:

You know when they hold you in the shoulder stand. I feel at times like I'll pass away [laugh] or topple over during the headstand. That's my only fear. More it's that I won't be alive at the end of some of the classes [we laugh heartily].  
(Tim)

The physical sensation of pain has generally been associated in a positive manner that conceptually related it to the challenge or difficulty (both physical and mental) posed by the yoga class content.

Subjects acknowledged the manifestation of negative mental or emotional states, which occurred whilst engaged in the yoga practice:

Well, it's a challenge and it pushes me and I find especially when I started yoga it brought a lot of issues to the surface, it was very very strong and I had a physical injury as well. When I was 15 I had a bit of a surf accident, and damaged my neck and my posture was out and a sway back. And that connected with my emotional state as well and, [pause] 'cause it, how can I put it? - 'cause the mental illness and everything shows up, like you see, [noticeable case of acne] in my face and in my body. It [her body] tends to hold it and yoga expels it, sort of burns it out. (Katrina)

It's an anxiety that it brings up. Real anxiety, and a sadness but a real anxiety. And I get it sometimes if I do shoulder stand, but I think it's sometimes, I get nervous and I slow my breathing down or I don't breathe properly and that makes it very difficult. For example, when we used to do something or prepare to do something I used to sniff/clear her throat [demonstrates the sound] and J used to say, "Oh, you've got hayfever?" And I said, "I didn't have it before I came in here" and he said, "it's a psychological thing". And that's what I think also. I think it's a nervous thing, more to do with my breathing. It's hard to explain, I think it's all interwoven or intermingled or something. I don't think about it too much! But it's there. The shoulders, I think it's about holding on and protecting yourself and your heart and I think I used to walk through like that [haunched] but now I'm nowhere as bad. But it's all this being open, and that's why backbends I find difficult. In the shoulders obviously, but opening yourself up [shrills] "Oh" all that openness, ah terrible terrible. (Annette)

In the second extract, Annette, integrates the emotional and mental challenge presented by her yoga practice (anxious to be 'open' or vulnerable) with the specific physical difficulty she experiences when practising.

Although the subjects experienced, difficulty, sensations of 'pain', and confronted negative emotional and mental states, gradual improvement was noticed by all the participants except one. Below, Annette's comment indicates that she has noticed an improvement in her shoulder mobility.

With the shoulders, I knew that they were stiff but I didn't realise how stiff or how bad till I went to yoga. I don't think that I ever talked to J about it but he picked it up and he helped me by using supports/props. Which have definitely helped. I mean they are still extremely stiff and I think they will always be the case, but I don't know, they've loosened up a lot to what they used to be. (Annette)

A similar account is presented by Lewis:

And I've noticed it maybe in the last year, that I'm actually my shoulders are less rounded and I'm actually standing straighter. Before when I tried to stand straighter, I felt that it was so hard, but now I'm sure I hold myself straighter. And I don't feel so self-conscious about walking upright a bit more. And that's only through, well you know that you should have your shoulders back, but if you walk around consciously doing it, yoga is this re-teaching of the body. You then take that into your normal existence. (Lewis)

The exception, Tim (60+), felt his yoga got worse as he got older. However, this served as a further incentive to maintain and continue his yoga practice.

I hate physical exercise, and yet I recognise a person like me has to do it. And the older you are, the more important it is. Its quite interesting, the worst I get in yoga, like there's a lot of things that I used to be able to do that I can't do anymore. See with the body, it is necessary to work harder, and harder and harder to keep what you've got. And as the body gets older and older it like a lot more work. (Tim)

The progressive development of a mind-body connection was evident through an increased awareness and acceptance of individual capabilities and limitations.

Now I think, I can just see it [the body] all the time, feel it all the time. When I'm sitting, anything, how unbalanced I am. Whereas before my shoulders were down a bit and I didn't think much of it. Since I've been doing yoga, every little thing, each fingernail. You notice absolutely everything. Yoga makes you aware. Even walking now I've changed. Very aware where I put my feet and my hips, everything. My shoulders, my jaw, everything! [we laugh] And the more I do J's classes the more and more I've become aware because he's so precise. (Annette)

I think initially I was quite shy and it was difficult. I guess now, I don't feel the shyness as such but I guess my practice is at the stage where I'm there to do the yoga and I'm not too worried. And I know my limitations and I'm not embarrassed that I can't do certain things (Lewis)

Finally, enjoyment of the physical and mental duality associated with yoga practice contributed towards the subjects' continued participation.

And I think partly 'cos as you do it, and I find that now, when I do it now, it's a pleasure. Not a mental pleasure as such but I think there's a, the body enjoys the open, the release partly and partly that it, [pauses] it's a hard one. It seems pleasurable to move the body through the postures. And it's not like the pleasure of running when you give your body the adrenaline. But it's like problem solving is a pleasurable thing and it's almost as though the body enjoys been taken through those movements. (Lewis)

Why do I continue doing it? Cause I like it. I find enjoyment. It helps keep me healthy, like physically and mentally. It helps give me a discipline; a structure. It's particularly mine, like a secret world. It's like a backbone; I can work everything off. Um, almost in the sense of a religion. These people they lean back on their faith when things get hard. I lean back on yoga. It's that sort of a strong structure. (Katrina)

The second passage creates a sense of how the mind-body connection was utilised by the subjects in their daily existence. Yoga was used to maintain a positive mental framework for their lives. This , is further illustrated in the following excerpts:

Well, I think the match between inner and outer starts to happen. Or has started for me, probably in the last two years. What I call synchronicity starts to click in and so when I'm not looking after myself on the on the inner it is represented on the other. So, conversely when I'm not looking after myself on the outer it affects my inner well being. So yoga, like if find myself stuck in a rut, and I get in what I call a work rut. And a work rut means that I'll go keep pounding away at work and negotiating more responsibility on myself and I'll stop going to yoga. As soon as I stop, or as soon as I start hurting myself like that, then I start to feel depressed or get sick, the wheels start to fall off the truck.

But if I maintain my yoga and I start honouring myself, being gentle with myself then I can handle work and handle relationships and things. (Megan)

Yes, well you know you will never get a cold if you do a headstand every day for 10 minutes. The yoga is so beneficial to your health; I can not acclaim it enough. I haven't been sick in ages. (Tim)

Well, it helps my health, by helping me getting back in touch with my body and sort of looking after it again, learning to nurture it again. Which then reflects back on my mind and working on my body, takes me out of my mind rather than just going round and round and round, being a totally fruit loop. It puts a different perspective on things. I tend to have mood swings and lose perceptions of what's real and what isn't. It [yoga] brings it back, and I'll tell you what it's awfully hard to obsess about something standing on your head! [we laugh] It's incredibly hard, it just doesn't work you fall over. So I find that really useful. (Katrina)

In summary, the mind-body connection developed through the 'yoga process' was central to the continued participation of the subjects. The participant's appeared to utilise such a connection as a tool for the maintenance of health and a sense of well being in their lives.

### Behaviour Change.

Yoga practice permeated and was influential in various aspects of the participant's life. The behaviour change identified is divided here into two categories: (a) health and well being and (b) personal development. In combination these are considered a positive affect which encouraged continued participation.

Health and well being. The participants acknowledged certain positive health related changes in their behaviour patterns.

It's made me more, I don't know whether it's my age or whether [it's the yoga], I don't think so, I think it's the yoga. A combination of things, but I think yoga has a large part in it.



Being much more aware of the environment. Much more aware of what I eat and where it comes from. Which I wasn't before. (Annette)

It makes you more aware of your health, and it allows you to monitor your health and after you've done a lot of yoga you actually can't do things that are really gross too often anymore. Like I don't drink as much as I used to and I gave up smoking. (Megan)

Mine has gone through massive changes. I think, even like just when I first started I weighed 130 kilos, so clogged up. Then after awhile, my diet changed, I'm a vegetarian now so that's a massive change. And then I dropped off a lot of weight, obviously your body shape changes with doing a different activity ....I stopped the weights too. (Patrick)

Specifically, dietary changes have occurred, as well as, a cessation of negative health behaviours such as smoking. Interestingly, none of the subjects interviewed smoked. Through regular yoga practice the subjects became increasingly aware of their physiological well-being.

The participant's work-related environment was a significant arena in which behaviour change occurred.

The pressure [of work] is quite phenomenal, and arises from all manner of sources, although primarily it would be the pressure put on by the individual. So, I suppose yes, although as I said I use the Raja yoga to provide me with the balance. But then, Iyengar gets me out of my head, so the balance comes in achieving the physical aspect too. (Tim)

I'm a registered nurse, Ann, and a midwife. Because nursing is so outward giving, no power nothing, nothing. This is very good for me because it balances, it brings back into here [points to her chest] focusing on yourself. Whereas nursing focuses on everyone else but you. Doesn't matter what you're feeling, what's happening to you. As long as everyone else is satisfied .... Nursing never encourages the staff, when I say, look after themselves : it's [nursing] giving giving giving. On every level, so to come to yoga, its such a totally different concept of looking after

yourself and going inside yourself, and caring for yourself and nurturing yourself and very healthy for me. (Annette)

My feeling about yoga is I get out of it what I put in. If I want to get the benefits of yoga I have to maintain the attention to the relationship and it's really that. Like last year I finished my Masters and I hadn't been doing a lot of yoga. But the two years previous to that I had been doing quite a bit and was able to use that work, that say I'd done in the first say four years of yoga to carry me through that Masters year. And for the three weeks when I was finishing off the Masters, I did an intensive in the morning and it gave me energy and I was able to do it and I was able to complete the Masters. (Megan)

Where I work is a very public service environment, you have a very public service mentality. A hierarchical structure, a very superior inferior complex and ultimately when I started there, I was a graduate and I was the lowest of the low and that's how I was perceived. I think, understanding yourself enables to you to understand how you think and how others may think as well. (Patrick)

Yoga practice was used as a tool to balance negative aspects of the participant's working life. There are a number of work-related scenarios, as demonstrated above, that cause adverse affects on the individual. That is, work-related situations promote conditions, such a stress, decreased self-esteem, and a lack of empowerment, within the individual. Regular yoga practise facilitated a positive mental attitude in these situations by providing students with the personal skills to required to cope under such circumstances . In a similar sense, subjects expounded the benefit of yoga when dealing with personal relationships. Patrick's experience, provided below, is evidence of this general theme :

Certain emotions come up in your practice, I mean something might have happened. I've been through a lot of personal stuff during my practice as well. Having my family break up and then get back together, had a big falling out with my father. So all that's happened through my practice as well. And, it got to the stage where I didn't have a job and all these things started falling down around me, so I had no money, I had to move out of home, I had no job, stuff

with Dad .... It was quite strange to go through that, and have yoga there through it all, which is why I ultimately started practising on my own, why I needed yoga as a tool for understanding. (Patrick)

Personal. Self-development and self-enhancement were also significant aspects affected by the participant's continued association with Iyengar yoga. The development of self-confidence and self-esteem, was particularly significant for female subjects.

I think also it gives you that confidence. You're building yourself up slowly, that gives you that inner confidence all the time. It's not like going to the gym, cause you don't get confidence going in to the gym. It's not the same. Oh, the music, the television, I'd think ARRGGHH!! It's all distraction. (Annette)

I think just on a gender thing, just for women's health. I think yoga is a wonderful thing because it's weight bearing. And for women to feel confident about their bodies, to move in funny positions to be strong in their upper body is a real self-esteem builder for women. (Megan)

The quotes below, indicate that the individual has assessed a number of personal qualities within themselves.

You can observe, you can sit and quietly observe yourself, the way you think in any situation, be it stressful, be it content and ultimately that's what the yoga outside of practice. The real benefits of yoga occur, not just there but outside of class. (Lewis)

Much more aware of the religions, or ways of worshipping the universe. Whichever way you like to do it. Just much more accepting, much more accepting. And taking time. As I said, I used to be frenetic, frantic, I needed my morning plan and my day plan dert dert dert der da [signals with her hand a step by step plan] right through. I was always like that it was just an escapism, running away from stuff, from when I was really little. And yoga's helped all of that, amazing. (Annette)

The practice of yoga provided a means for the individual to engage in a process of self reflection and personal development.

In summary, the findings presented within this sub-section, yoga practice appeared associated to a number of positive behaviour changes that occurred within the subjects. Positive changes in health related behaviour included; shifts in dietary patterns, a decrease in detrimental health-related habits, and the maintenance of a positive mental attitude within adverse work-related situations. Personal development encompassed; increased self-confidence and self-esteem. These were influenced by a heightened awareness of personal characteristics and tendencies, which was achieved through the self-reflective nature of the practice.

### Perceived Benefits

This thesis primarily investigated how regular yoga practice was perceived by the individual to contribute to their health and well-being. Through combining the responses elicited in previous sub-questions, this section answers the major research question. The answer is firstly divided into two categories: (a) physical, and (b) mental. This allows the perceived benefits to be separated and presented in isolation . However, the very nature of yoga, dictates that these categories are inseparable. Therefore, the answer also includes a sub-section that explores the perceived benefits derived through the interconnection of these two dimensions.

#### Physical Benefits.

Firstly, physical improvements in functional capacity were perceived. One of the significant reasons participants initially had for practising Iyengar yoga was due to an injury related decrease in functional capacity. Through the regular practice of Iyengar yoga the participants perceived

an improvement in their ability to perform the various asanas during a typical class. Increased flexibility and muscular strength was one stated catalyst for such improvement. Positive health-related behaviour changes, such as cessation of smoking and improved dietary habits, may also have influenced functional capacity. The maintenance of these positive behavioural changes, further indicated the positive contribution of this physical activity to the participants' health and well-being.

Subjects were divided in their perceptions of the contribution of yoga to aerobic fitness *per se*. However, all participants initially found the classes physically challenging, and perceived an increased efficiency of the body as an entirely integrated system. Such a perception suggested an improved efficiency in human physiological functions, including the cardio-vascular system, the skeletal system, the nervous system, the muscular system, and the digestive system. However, this could only be validated by a postural test.

### Mental Health.

Regular yoga practice was perceived to contribute positively in this area through a variety of avenues. Firstly, participants reported mood enhancement immediately after a yoga class. Feeling calmer and more focussed were some specific immediate benefits.

The maintenance of a positive mental attitude, was another benefit the participants associated to their regular practice of yoga. For example, when confronted by an adverse work or personal situation, the practitioner was able to reduce or avoid detrimental levels of stress by utilising the skills developed through yoga practice. Positive mental attitude, particularly for the female subjects was further heightened by perceived improvements in self-confidence and self-esteem. Furthermore, the perceived benefit derived from regular yoga practice, by one subject, in the management of mental illness was noteworthy.

### Physical and Mental Integration

The basic premise of yoga is to unite body, mind and spirit. As such, the two categories developed thus far provide only a partial answer to the main research question. The development of a mind-body connection, as expressed by the subjects, has contributed significantly to perceived health and well-being contributions derived through regular yoga practice.

Although not directly measured, changes in health-related behaviours by the participants underscore all their stated perceived benefits. The strong desire, stated by all the subjects, to maintain a lifelong connection with the practice of Iyengar yoga is an apt example of one such positive behaviour change. The yoga process, which promotes increased autonomy within the individual, was linked to the instigation and maintenance of such changes. This thesis does not seek to legitimate the underlying mechanisms that influence such positive change. Rather, the exploratory study aims to articulate perceived benefits attributed to the regular practice of yoga and identify possible factors that have contributed towards such perceptions.

The integration of mind and body was a significant factor in the instigation and maintenance of positive behaviour change. The connection developed within the class environment provided the individual with a 'tool' or mechanism for self-reflection, contemplation and action. Once a certain level of physical competency within the yoga practice was attained the practice appeared to present to the practitioner their individual personal characteristics and tendencies.

A significant element which emerged from this study was the impact of the yoga school culture in defining the experience of Iyengar yoga for the student. Within this culture, the role of the yoga teacher in facilitating the individual's experience is vital. The teacher imparted knowledge which

developed the 'tool' (mechanism of change) within the participant. The physical class content, verbal class content and corrective feedback, were all administered by the teacher. The yoga teacher was held in high regard by all participants. The subjects acknowledged the important role the teacher had in the development of the yoga process. Although not a predominant feature of a typical class, personal criticism was also administered by the yoga teacher. The participant's generally perceived this element to positively contribute to their personal development as there was an expressed belief that the teacher of the class delivered such criticism in a non-judgemental manner. Although participant's reported being challenged within a yoga class, the teacher was perceived as being empathetic and supportive of the individual's progress. The critical and supportive aspects of the teaching technique were important factors that contributed to the overall perceived benefits of Iyengar yoga.

To conclude, the regular practice of Iyengar yoga was perceived by participant's to contribute in a variety of ways to their health and well-being. Perceived improvements in functional capacity, mood enhancement, and mental health, encompassed the wide ranging benefits acknowledged by participants. Personal development, in terms of increased confidence and self-esteem, were particularly salient in female perceptions of improved well-being. Such benefits promoted a desire for lifelong continuation of the yoga discipline. The culture created within the yoga school was identified as significant to the student's experience of Iyengar yoga. Development of the 'yogic process' within the student, was the primary role a yoga teacher. This process, the integration mind and body, was instrumental in the maintenance of the subjects' espoused positive health-related behaviour changes. Importantly, it must be noted that not all participants experienced significant behaviour change as a direct result of the particular teacher observed within this study. However, all students described being influenced by mind-body disciplines at some point in their lives. Notably, there was a lack of spiritual reference. However terms such as ego,

integrity, criticism, and judgement indicated a process of self-reflection and contemplation.

Chapter 5 provides further discussion on these findings.



## CHAPTER 5

### Discussion

The research findings are discussed in this chapter and linked to concepts raised through the review of literature presented in chapter 2. This study described the perceived contribution of regular Iyengar yoga practice to the participant's health and well-being. The concept of mind-body integration permeated each of the stated health related benefits associated with this physical activity. Kleinman (1986) would say that such a state of being, "is the natural co-existence of all human interaction and experience .... Where one [the mind or the body] can not exist without the other" (p. 32). Whilst esoteric in substance, Kleinman's statement embodies the very essence of the yoga process: to unite mind, body and spirit and unite the personal self with the universal surrounds (Kron, 1994).

Yoga participants experienced positive behaviour change and personal development, perceived mood enhancement, and increased physical capabilities, through their regular yoga practice. These perceptions are consistent with LaForge's (1997) foreshadowed potential benefits of mind-body exercise modalities. Perceived positive mood alteration is also consistent with the findings of Berger and Owen (1992).

Motives of initial and continued participation were also explored in this thesis. The majority of participants were initially drawn to the activity because it offered both physical and mental exercise components. The holistic nature of the non-traditional exercise modality was demonstrated through the broad scope of perceived benefits attributed to it.

The dominant aspect of this study has been the benefit of mind-body integration as perceived and experienced by the participant. Associated benefits attributed to yoga is inexorably linked to the development of this

condition. This study identified certain elements of the 'yoga process' which may have contributed to the beneficial aspects perceived by the subjects. That is the culture developed within the Iyengar yoga school and more specifically within an Iyengar yoga class appeared critical to the 'yoga process' developed within the student. However the study did not measure the specific effect of these various elements.

The role of the yoga teacher in facilitating the 'yoga process' was a critical to the experience of the student. This finding was unexpected. The teacher's role was not developed in any of the literature examining mind-body exercises (Berger & Owen, 1992; Brown et al., 1995; La Forge, 1997). Further research examining this role is required. One possible outcome of such research, is that parallels may be drawn between the function of a yoga teacher and that of a sports coach. Clews (1984) states; "the coach is the ultimate scholar, teacher and friend. A coach must draw from the athlete their inner potential" (p. 38). The yoga teacher imparted the essence of the yoga discipline to the students through constructing the physical and verbal class content, providing corrective feedback and imparting yogic philosophy to the students.

The expressed desire for a lifelong association with Iyengar yoga practice, was significant. Lifelong participation in physical activity is accepted to enhance the quality of life through improved physical and mental dimensions (Hardman, 1996). In addition to continued participation, the subjects displayed positive behaviour change in their lives which may also contribute to the enhanced quality of life described by Hardman (1996). The underlying mechanisms that have facilitated the development of these attitudes or motives within the individual should be further investigated. For example, it is speculated that a mastery component within the yoga physical environment was present. That is, the participants all stated a marked improvement in their ability to perform the various yoga asanas, which they all initially found extremely physically challenging. The participant's progressive improvement,

would suggest mastery of these postures, contributed towards the positive of motivation.

A high degree of complexity was demonstrated when the participant practised yoga in the Iyengar tradition. Csikszentmihalyi's (1997), has noted that an individual engaged in a complex activity has the opportunity to develop their higher order abilities, such as to remember, to abstract, to reason, to control attention (p. 72). The health-related behaviour changes and the personal development experienced by the participants would suggest that development of these higher order abilities occurred.

Consistent with Csikszentmihalyi's (1997) definition of a flow state, the yoga participant attempted to fully engage the physical self within the activity. Yoga practitioners strive for total mental absorption in the physical practice and have expressed many of the markers of flow identified by Csikszentmihalyi. The regular practice of Iyengar yoga can therefore, also be seen to be the regular attainment of a 'flow' state. Various authors have positively attributed the achievement of states of flow with exercise adherence and motivation (Jackson, 1996; Kimiecik & Stein, 1992). It is particularly pertinent that the achievement of this state is what the yoga practitioner strives for.

Yoga aims to instil autonomy within those that practice the discipline. Although all subjects had regular class contact, some had progressed to a self-regulated practice whereby they practised the asanas alone. Furthermore, there appeared to be no external motives suggested by the subjects to influence their regular practice. There are no prizes awarded, or outcome driven incentives such as monetary rewards offered. Intrinsic motives, such as enjoyment of the activity and a sense of mastery, predominated. These factors suggest that the practice of Iyengar yoga as an exercise modality creates self-determination in its practitioners. Deci and Ryan's (1985) Self Determination Theory suggests a framework for such a transformation. That is, if the initial use of classes and the teacher is seen as an external motivator the gradual

shift to a self-regulated practice constitutes a transformation to an internal source of motivation.

Deci and Ryan's (1996) speculation that intrinsically motivated behaviours positively correlate to mental health seems to be true in this instance. The subjects all perceived the regular practice of yoga to contribute to a state of mental health. However, the scope of this research has not determined if it was the *process* of lyengar yoga specifically or merely the fact that the subjects were engaged in a form of exercise *per se*, that resulted in these associated positive attributes. This was one of the major limitations of this study. The fundamental difference between lyengar yoga and other forms of exercise is that lyengar yoga is a process orientated discipline rather than an outcome driven form of exercise. The positive health and well-being contributions regular practice has provided its practitioners is evidence of the value of this process orientation. The findings support Biddle's (1997) notion that process orientated rather than outcome driven physical activity provides the participant with an increased rate of long term exercise adherence.

## Future Research

Yoga is a relatively recent addition to the battery of physical activities performed in contemporary western society and as such requires scientific investigation. Although it originated amongst ancient Indian civilisation, in the current context, yoga is clearly an exciting, 'new frontier' exercise modality. Consequently, the number of possible studies are too numerous to list however, there is a lack of physiological, psychological and sociological studies in the area. Since yoga participation may be continued throughout one's lifetime, this would provide researchers with a wide range of possibilities for longitudinal and cross sectional studies. Any further research into lyengar yoga would benefit from having the physical measurements such as training intensity and heart rate reserve measured. Similarly, psychological

measures such as the Physical Self-Perception Profile (Fox & Corbin, 1989), would also be of benefit. Other studies could focus on three areas, (a) Issues that arose from this study; (b) Yoga science studies; and, (c) Yoga and sport.

#### Issues That Arose From This Study

1. Interviewing yoga teachers.
2. Longitudinal studies.
3. Participation observation of other forms of yoga (Astunga, Raja).
4. Interviews with beginner yoga participants, those that withdrew from the activity, and participants who only participate by themselves.
5. Applying a heart monitor to gauge physical intensity.
6. Determining participant's motivational orientation.

#### Yoga Science

1. A biomechanical study of Iyengar yoga.
2. Yoga from a feminist perspective.
3. Injuries associated with Iyengar yoga
4. Yoga and flexibility, attention or mental imagery.

#### Yoga and Other Sports

1. The use of Iyengar yoga in sport.
2. Yoga compared to other mind-body exercise modalities.
3. Similarities between Iyengar yoga and aerobics.
4. Goniometer measures of flexibility.

## Conclusion

The instillation of the 'yoga process' appears critical to perceived benefits derived from regular Iyengar yoga practice. The conceptual framework documented in Figure 2, chapter 2 (p. 31) is revised in order to bring this discussion to a conclusion (Figure 5, p. 94).

In conclusion, this exploratory study has presented some very exciting insights into the perceived contribution of regular Iyengar yoga practice to the health and well-being of the individual. Improved physical capacity, personal development, mood enhancement and mental health were significant benefits perceived by the participants. These benefits were integral to the subjects. To maintain and further improve their enhanced health and well-being all participants desired to continue their association with the Iyengar discipline throughout their lives. These findings suggest that the process orientation of this non-traditional form of exercise is beneficial to exercise adherence. The potential contribution this ancient form of physical activity presents to western society is exciting. The scientific investigation of Iyengar yoga will broaden our contemporary understanding of the holistic impact physical activity has upon the individual. The results will provide a varied and innovative perspective to the current knowledge.

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## Appendix A

WA Yoga School  
10 Queen St  
Perth WA 6000

Dear Jim

**RE: RESEARCH PROJECT**

Further to our conversation, I am writing to you to obtain formal consent to conduct the research outlined below, which is part of my Bachelor of Science (Sports Science, with Honours). The research entails three classes per week being observed and video recorded. These observations will be transcribed and analysed so as to describe an Iyengar yoga class environment. Further, regular students of the school will be requested to participate in personal interviews, to develop an understanding of participants' experiences of yoga.

The data collected from the interviews and the observed classes, will be combined and used to highlight how regular Iyengar yoga practice is perceived by participants to contribute to their health and well-being. All information gathered during this study will be kept strictly confidential. Video taped classes, plus observation notes and transcriptions, are necessarily required to be stored by the researcher for a minimum of five years. These will be securely stored within a locked filing cabinet at the home of the researcher during this time afterwhich the tapes will be incinerated. The other material may be kept for future analysis.

If you have any queries regarding the proposed research, feel free to ask or contact my supervisor, Dr Lynn Embrey, whose details are provided below. Enclosed is a consent form to be signed, which I will pick up next time I see you.

Thanks for your help with the project thus far.

Sincerely,

Ann Dragon  
  
10 March 1998

Dr Lynn Embrey  
Senior Lecturer  
School of Biomedical  
& Sports Science  
Edith Cowan University  
Ph: 9400-5655

## Appendix A

Dear Penny,

**RE: RESEARCH INTERVIEW**

Further to our conversation, I am writing to you in order to obtain formal consent to conduct the discussed interview.

The interview requires approximately one hour of your time ..Areas of focus during our discussion will include, your initial interest in yoga, what brought you to the particular teaching style / school, the nature of your practice, and what you may experience during class. A transcript of our discussion will be sent to you to ensure, accuracy of the transcription, and any editing which may be called for.

If aspects from the initial interview require further discussion, I will contact you to arrange a convenient time for a second interview. Please note, you may stop participating within the interview process at any stage.

It is hoped that the information gathered from this research project will illuminate how regular Iyengar yoga practice is perceived by participants to contribute to their health and well-being. Pseudonyms used throughout the final report.

I will ring you during the week to confirm that you are still interested in being apart of this exciting project and to answer any questions you may have. Alternately, you may contact my supervisor Dr. Lynn Embrey, whose details are provided below, regarding any query you may have. I aim to begin interviewing from Monday the 17th August. I will arrange a time and location convenient to yourself when I call.

Thankyou for your initial interest.

Sincerely,

Ann Dragon

14 September 1998

**Research to  
Understand Participants' Perception of the Contribution  
of Iyengar Yoga  
to their Health and Well-Being**

**I \_\_\_\_\_ hereby give my consent to  
participate in the aforementioned research project.**

**I understand that I am required to be interviewed at least once,  
and possibly twice. I understand that I am free to stop the  
interview process at anytime and am under no obligation to  
answer questions I do not feel comfortable with. I have read  
the letter attached outlining the nature of the research and all  
my questions have been answered satisfactorily.**

**Signed: \_\_\_\_\_**

**Date: \_\_\_\_\_**

**Research to  
Understand Participants' Perception of the Contribution  
of Iyengar Yoga  
to their Health and Well-Being**

I \_\_\_\_\_ hereby give my consent to video-recorded for the aforementioned research project.

I understand that I this consent suffices for subsequent video footage. I have read the letter attached outlining the nature of the research and all my questions have been answered satisfactorily.

Signed: \_\_\_\_\_

Date: \_\_\_\_\_



## SOMEBODY'S WATCHING

From mid July until the end of August 1998, WASY will be involved in a research project titled **"The perceived contribution of Iyengar Yoga to a participant's health and well-being"**.

The project will evolve into a thesis, which will be submitted to Edith Coan University as part of the requirement for my final year Sports Science degree (Honours).

There are two components of this research:

1. Observation and video-recording of classes
2. Interviewing participants

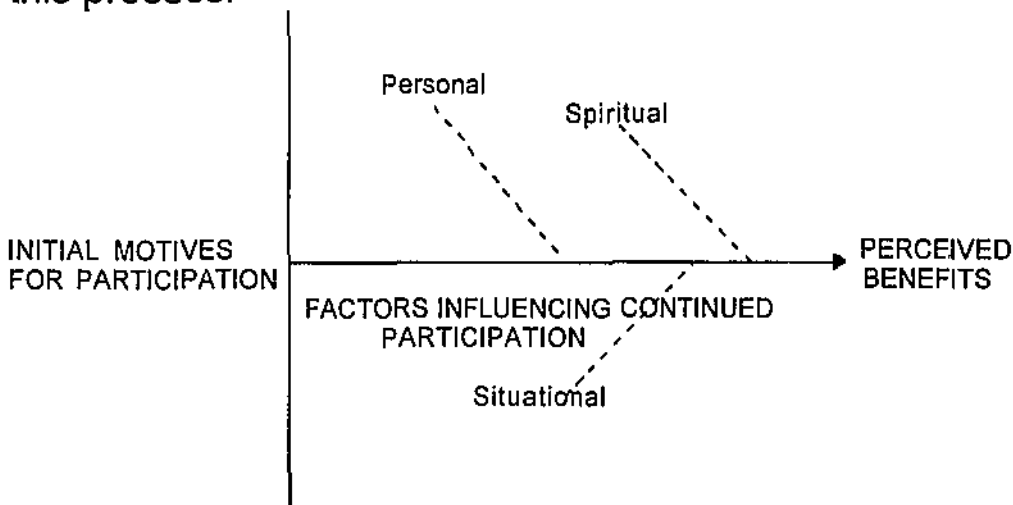
With regard to the recorded information, your confidentiality is assured. Only Jim, myself and my supervisor (details provided below) have access to the videotaped material. Further, pseudonyms will be used throughout the thesis.

What do I need from you?

Firstly, your consent to be videotaped must be given formally. I will have forms available at the end of each class, you need only give formal consent once.

Secondly, if you have been a student at the school for at least 18 months and practiced regularly three times a week (be it at home or at the school), I would like to invite you to participate in the second part of the project. The interview is informal, over a coffee (or tea perhaps!), chatting generally about why you practice Iyengar yoga. For more info relating to the interview, please don't hesitate to ask, and I can provide you with detailed notes outlining the specific research questions, aims, etc ect.

Below is the conceptual framework for the project. It provides an overview of some of the factors I hope to illuminate through this process.



For the research to work, your input is invaluable. Further, it is an opportunity for WASY to receive feedback as to why people come to class. You can contact me on 9444-6106 or 9444-9227. Alternately, my supervisor, Dr Lynn Embrey can be contacted on 9400-5655. If there are any comments, suggestions or questions you may have, please feel free to talk to me.

## **Interview Schedule**

Main points discussed during the initial interview:

- What stimulated your initial interest in yoga?
- Why do you practice yoga?
- How regularly do you practice? (Is it easy to practice regularly?)
- Why Iyengar yoga (rather than Astanga, classical Hatha)
- What attracts you to the particular yoga studio?
  - location
  - timetable of classes
- Length / type of involvement with the studio?
- Relationship with other students /teacher
- Perception of the class environment? (like / dislike)
- Are classes taken elsewhere?
- Are other forms of physical activity engaged in?
- Interaction with students outside of class?
- What do you perceive to gain from this form of physical activity?
- What were you trying to achieve in class this week?
- What was in your mind as you did the exercises?