

**Developing Performance Confidence:  
A Holistic Training Strategies Program  
for Managing Practice and Performance  
in Music**

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## Abstract

The thesis aims to address a perceived gap in the training and development of music performers, namely the lack of a practical strategies framework for developing performance confidence, especially self-efficacy (situational self-confidence) in music performance. To this end, a Training Program with Training Manual was designed to assist musicians in the management of practice and performance, using a framework of six integrative mental and physical strategies taken from Sport Performance and applied to Music Performance. Five musicians trialed the Training Program for five weeks. Five individual case studies were constructed to explore and interpret the musicians' practice and performance experiences *before* and *after* using the Training Program / Manual.

Analyses of in-depth interviews and a follow-up questionnaire revealed that the Training Program had produced positive changes in mental and physical behaviour, along with increased concentration ability and coping skills in stressful situations, resulting in a sense of control in performance. A cross-case analysis revealed that the shared issues of significance for the musicians were Concentration, Stress and Lifestyle Practices, and Sense of Control in practice and performance.

This qualitative study demonstrates that a training program addressing the lifestyle context of music performance is beneficial for practice and the lead-up to performance. Confidence in playing ability develops, when practice and performance are perceived to be effectively self-managed and practice becomes a positive experience. The findings of this study suggest the need for a holistic approach to music performance, based on awareness of the mind-body connections involved in performance.

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Higher levels of perceived self-efficacy are accompanied by higher performance attainments.

(Bandura 1992, 4)



## Chapter 1 Introduction

Perhaps something in the very nature of the traditional outlook may have led its exponents at times to ignore precisely that which is truly essential.

from *Gestalttheorie* (Wertheimer 1925, translated by Ellis 1938, 2)

### 1.1 Background to the Study

Performance Confidence remains a challenging topic in music, one that persistently confronts both musicians and performance educators. While many musicians have the necessary skills to perform well, they can lack the necessary confidence to engage these skills optimally under pressure. More generally it has been observed that, ‘people often fail to perform optimally, even though they know full well what to do and possess the relevant skills to do it’ (Schwartz & Gottman in Bandura 1997, 37). Confidence in one’s performance ability, however, not only assures performer and audience of an increased sense of performance enjoyment; it is clearly an essential ingredient for reaching one’s true performance potential and ‘the key that frees us to do the things that we are fully capable of doing’ (Orlick 1998, 54).

The pressing question for the musician is ‘how can one practise performance confidence?’ The pressing question for the teacher is ‘how can students acquire performance skills that go beyond technical skills, incorporating these into performance training?’ These recurring questions became the quest of my research journey.

As a musician, music teacher and performance researcher, I come from inside the field. Over many years I have developed a passionate interest in the psychological skills involved in music performance and the associated topic of performance enhancement. While involved with tertiary music performance, I became increasingly aware of students’ difficulties in acquiring performance skills, in contrast to the more objective aspect of acquiring technical skills.

The background to this issue would appear to be that historically the psychological skills areas of music performance have been neglected in performance education, with little or no investment in their development. This is despite enormous amounts of time and money being invested in the acquisition of music's theoretical and historical knowledge, as well as in technical skills of performance, with institutions providing the best teachers for these areas of instruction. The assumption is that trainee performers will learn the art of performance through personal and vicarious experiences of performance (modelling). However, without a suitable framework able to address the personal nature of the performance experience, mastery experiences can be few and far between, with this hindering performance development. While it is true that a small percentage of music students will have the performance 'gene', and many students do acquire performer status along the way, most musicians start out on a performance path quite unprepared, despite displaying significant musical skills and a passion for music making.

Music performance research (Roland 1994, 77) shows that many professional performers receive no formal training in managing performance or dealing with performance anxiety. They relate that they have devised their own performance strategies over time, gaining information through experimentation, reading, or advice from colleagues, teachers and outside professionals. Schaupp (1997, 56) states that performance students at music institutions are largely left to 'fend for themselves' for problems of performance anxiety. These music performance researchers, like others before them, concentrate on the topic of Performance Anxiety as the major problem hindering performance ability. However, lack of performance confidence hinders musicians' performance ability, possibly leading to anxiety. Weinberg and Gould (1995, 301) state that, with a lack of confidence in one's performance ability, one tends to worry about how well one is doing, or about how well others think one is doing, whereas with belief in one's performance ability, one is free of such worry and able to focus on the task at hand. Contributing to the sport athlete's performance confidence is the development of psychological skills such as 'self-efficacy', which is Bandura's (1977) term for belief in one's ability: that is 'an individual's personal perception of self-confidence or competence' (Singer, Murphey, & Tennant 1993, 14).

As research shows that personal perception of self-confidence directly affects performance ability, it seems crucial that the musician's perceived self-efficacy be developed, in order to enhance performance ability. Bandura (1997, 37) defines perceived self-efficacy as follows:

Perceived self-efficacy is not a measure of the skills one has, but a belief about what one can do under different sets of circumstances with whatever skills one possesses.

He further points out that:

Skills can be easily over-ruled by self-doubts, so that even highly talented individuals make poor use of their capabilities under circumstances that undermine their beliefs in themselves. By the same token a resilient sense of efficacy enables individuals to do extraordinary things by productive use of their skills in the face of overwhelming obstacles.

Rachmaninoff's personal experience reflects the importance of perceived self-efficacy. After the disastrous premiere of his *First Symphony*, he lost confidence in his composition ability, suffering a major depression that left him unable to compose for several years. It was not until a doctor taught Rachmaninoff the strategy of self-affirmations, that he was able to regain belief in himself as a composer and go on to compose his *Second Piano Concerto* — one of the most loved and successful works in the music literature (Ewan 1968, 613).

A regard for self-efficacy is not apparent in music performance training. In sport performance, elite athletes demonstrate high levels of self-efficacy (Anshel 1994, 24), and so its significance has long been recognised in sport performance training. Despite the different performance arenas, there are important parallels between music performers and sport athletes. Both train long and arduously for a specific event / performance, in which highly developed skills and ability are demonstrated before an audience. The sport performer's mental edge is 'as much the key to success today as any training or coaching' (Roberts in Bull, Albinson & Shambrook 1996, frontispiece). Customised programs for the 'whole' athlete are designed, comprising the advice of the coach, the sport psychologist and the nutritionist. When one realises, that one person, the instrumental or vocal teacher

holds the main responsibility for the musician's technical and performance skills, the difficulties in training the 'whole' musician become apparent.

The central argument of this thesis develops as follows:

Given that

- 1) Sport performance develops performance confidence successfully by using a holistic approach to performance training: integrating mental training, physical training and self-efficacy training, with strategies that enhance performance and performance confidence, while managing stress (Mahoney et al. in Anshel 1994, 25; Bull, Albinson & Shambrook 1996, 41-62, 72-73; Ungerleider 1996, 7, 17-21; Zinsser, Bunker & Williams 1998, 270-292; Orlick 1998, 54-62; Hill 2000, 107-138).
- 2) Successful athletes show confidence in their ability and success by having a high level of self-efficacy, that is, belief in their capability (Anshel 1994, 24). Although belief in one's capability is not a substitute for having the required skills in performance, perceived self-efficacy is an important contributor to performance accomplishments irrespective of skills possessed (Bandura 1997, 37).
- 3) Musicians are increasingly recognising the analogies between sport performance and music performance (for example, Roland, Schaupp, Wrigley, Adam, Olding and Page). Both performance areas require high levels of technical and performance skills, with commitment and stamina for practice and performance. Sport performance enhancement strategies have been successfully transferred to music performance (Green & Gallwey 1987). In particular, music performance research demonstrates that sport performance's mental training component can be successfully applied to music performance to reduce performance anxiety, this being a significant cause of lack of performance confidence (Roland 1994; Schaupp 1997). Although mental training strategies incorporating sources of self-efficacy have been advocated for the development of music performance confidence (Wrigley 1998; 1999), these have not yet been empirically tested.

Acknowledging all the above, as well as further research regarding the importance of self-perception in performance (Roland 1994,140; National Research Council 1994, 16, 173-184; Bandura 1977; Bandura 1997, 37, 81; Hill 2001, 107-138), the central argument of this thesis is that a *holistic* approach to performance enhancement — one which considers the mental, physical, and self-efficacy components of music performance — would be successful in confidence training for musicians, while assisting in the reduction of performance anxiety.

Thus this thesis explores the effects of a newly created training program (the Training Manual attached to this thesis). Designed to increase self-confidence in music performance by enhancing the musician's performance skills and self-efficacy beliefs, this Training Program / Manual applies sport performance principles to music performance.

## **1.2 The Research Question**

*Would a performance enhancement training program for musicians, modelled on sport performance's mental and physical training strategies, promote the development of performance confidence in music?*

## **1.3 The Purpose of the Study**

The purpose of the study is to examine the efficacy of a framework of training strategies that encourage positive behaviours in practice and performance, to promote the development of performance confidence. The focus of the study is on the specially created Performance Enhancement Training Manual / Program for musicians, in which the proposed path is 'management of performance' leading to confidence in performance. The practising philosophy is one of awareness of mind-body connections in music performing. This integrative / holistic approach I call 'Mind-Body Awareness' in music performance.

## 1.4 The Significance of the Study

### 1.4.1 *Significance of the Study for Musicians and Performance Educators*

Performance confidence is an issue of vital significance for a musician, becoming apparent in tertiary performance studies, and continuing throughout his or her performance career. This study is significant for musicians, as it looks at areas previously neglected in music performance:

- (a) The four performance skill areas identified by Mahoney (1977) — Attentional Focus, Arousal Regulation, Imagery, and Self-Efficacy,
- (b) The ideal mind-body characteristics of peak performance experience, as described by Garfield and Bennett 1984 (in Anshel 1994, 51) and seen in Section 2.3.3.
- (c) Sources of self-efficacy as outlined by Bandura (1977, 1997) and seen in Section 2.5.2.

Performance involves technical skills and performance skills. The individual's technical skills are more easily identifiable and able to be addressed within a curriculum. However, it is the subjective aspect of performance skill development that is crucial to performance outcomes. Roland (1994, 77-78) and Schaupp (1997, 57) have identified a lack of attention to the subjective management of performance in music. It is apparent that musicians need practical assistance in the subjective management of performance.

Music performance educators must acknowledge that performance enhancement strategies for music will take different forms throughout history, as the performing artist is not able to be separated from his or her 'spatial and temporal situatedness in the world' (Bakhtin in Morris 1994,18). Present-day musicians find themselves in a totally different social environment to that of previous generations, with increased demands on the immune system, an increased pace of life and travel, global comparisons in abilities, and without the patronage of the arts known in former centuries. A new century therefore represents a time to re-appraise how musicians might be appropriately educated for their present social context.

From an educational perspective, it appears that a holistic approach to performance training, as practised successfully in sport performance, can generate more self-awareness and positive mastery experiences for developing musicians. It seems plausible that such an approach incorporating an inner sense of awareness of mind-body concepts, with a focus on the performance process, rather than on performance as a product or outcome, could develop confidence in practice, the lead-up to performance, and the performance itself.

#### ***1.4.2 The Significance of the Study for Music Performance Literature***

The study addresses a perceived gap in the music performance literature, namely the phenomenon of performance confidence. Researchers in music performance have tended to focus on performance anxiety and how to reduce it (Section 2.2). I see two main problems with the emphasis of this topic. Firstly, performance anxiety as a psychological problem is isolated from its practice / performance context, and focuses only on one component of the whole performance experience. However, Beck's 1985 Model of Anxiety (in Roland 1994, 3) shows interplay of the cognitive, behavioural, physiological and affective systems from personal experiences in and around performance. Secondly, as the psychological label 'performance anxiety' is a negative one, the very discussion of anxiety can inadvertently reinforce the problem (as one musician reported in the present study, *Etude No.1*, Chapter 5). But when the focus is on performance confidence, with performance enhancement strategies in place, it appears that performance anxiety or anxious moments can be controlled (as the five case study reports suggest in Chapter 5).

The present research contributes to the performance literature in the following ways:

- 1) The research appears to be the first application of Bandura's (1977) Theory of Self-Efficacy to music performance.
- 2) This study may be the first Australian qualitative multi-case study research in music performance.

- 3) The study appears to be the first to explore the combined effects of Nutrition and Exercise (including physical, mental and relaxation-type exercise) on music performance.
- 4) The term ‘performance enhancement’ (though borrowed from sport performance) appears to be new to the field of music.

### ***1.4.3 The Significance of the Study in the Historical / Social Context***

As Rogers (1991, 8) explains: ‘Theories do not spring fresh and new within a single discipline. They arise within an historical context, products of a whole *Zeitgeist*’. Certainly the trend over the preceding decade has been an increasing interest in and exploration of mind-body relationships (Rossi 1993, xv) with the influential paradigm shift away from the former model of health (as absence of disease and disability), to an integrative model of health, conceptualised by the World Health Organization as a positive state of physical, mental and social wellbeing (U.S. Department of Health and Human Services 1996, 141). The burgeoning global interest in good health is coupled with the realisation that, in order to function and perform optimally, one cannot ignore the state of one’s mental or physical health, for mental and physical health are interdependent (Antonovsky 1979; 1987; Girdano & Everly Jr. 1986; Chopra 1993; Rossi 1993; Bishop 1994; Penny, Bennett & Herbert 1994 among others).

Psychobiology research acknowledges mind-body interactions, which sport psychology / sport performance research demonstrates. Rossi (1993, 128) cites Papez’ groundbreaking research of 1937 — mental experiences ‘transducing’ into physiological responses, and Selye’s (1936-1982) lifetime research on the connections between mental and physical stress and ‘psychosomatic’ disorders. The resultant cross-disciplinary scientific fields of psychobiology and psychoneuroimmunology (developing out of health psychology) have increased our understanding of the communication between the various systems in humans. This leaves no doubt that the mind-body processes the attitudes and emotions, creating physiological or biochemical change (Cousins in Rossi 1993, vii; Sarafino 1990; Steptoe & Appels 1989; Steptoe & Wardle 1994). These attitudes and emotions have a direct impact on the immune system affecting human



performance (Adams & Bromley 1998, 331; Goleman & Gurin 1995, 21).

Therefore self-regulatory tools of counterbalance for these bi-directional mental / physical processes are extremely important for the musician.

In tandem with the mind-body health paradigm is the general global trend towards ‘self-management’ / ‘self-regulation’ for self-improvement and development, by means of ‘self-controlled learning’. The important implications of individual mind-body functioning and self-regulation of development for elite performance, or general performance, suggest that the traditional, long-held ‘master-apprentice model’ in tertiary music institutions is in need of revision. The notion that today’s student should obey one master’s truth is difficult to accept in a social environment of multiple truths and multiple realities. Contemporary society appears quite alien in comparison to the times when the master-apprentice model was indeed valid, centuries ago. Apart from the major consideration of ‘time equals money’ being out of step with the traditional master-apprentice system of learning, contemporary expectations and demands would seem to require a more inclusive support system.

#### ***1.4.4 The Significance of the Study — Crossing Boundaries***

This research crosses boundaries to find strategies for performance enhancement for musicians in contemporary society. In all areas of research, the boundaries of seemingly diverse fields are becoming less delineated and more blurred, as people realise the importance of inter-relationships. Numerous psychologists have predicted the crossing of boundaries into diverse fields for mind-body connections. For example: Orlick (in Williams 1998, 8) predicted ‘more applications and integration of [sport] mental skill training into daily physical and technical practice settings’. This has been demonstrated in the health and business domains as well as diverse performance-dominated domains. Individuals from diverse performance arenas are now adopting applied sport psychology principles (Orlick 1998, 70). In the early 1990s, sport psychologists Landers and Gould predicted grant support for exercise and health psychology. This has been validated with focus on exercise goals and the importance of exercise in reducing disease, leading to more funding in exercise psychology (Williams & Straub 1998, 8). Bandura (1995, 2) advocated further applications for his self-efficacy

research integrating diverse bodies of findings in varied spheres of functioning, later demonstrating the embedded nature of self-efficacy within a broader socio-cognitive framework (Bandura 1997). The present research is testament to a new application for self-efficacy principles.

### **1.5 The Boundaries of this Study**

This music performance study presupposes that music students have the required technical and theoretical skills in music. Further assumptions of the study are that:

- 1) A confident performance is the aim of all music performers.
- 2) A holistic approach is required for music performance, because music performance consists of complex mental and physical relationships. Roland (1994, 1997) supports this approach for music performance.
- 3) Music performance can be improved by improving the psychological and the physical / physiological aspects of performance.
- 4) Situational self-confidence is a learned skill (Mahoney, 1977) and performance confidence can be developed with appropriate strategies (Bandura's Theory of Self-Efficacy, 1977).

The study aims to assist the learning process and preparation for performance. It is not intended in any way to replace the developmental study of multifaceted musical knowledge and skills necessary to become a musician. While the study focuses on performance enhancement, not performance anxiety, it recognises the presence of anxious mental states as a symptom of the whole performance experience, to be addressed in the process of practice and lead-up to the performance.

## 1.6 Definitions of Frequently Used Terms

### *Performance Enhancement*

Performance Enhancement is a term borrowed from sport performance, meaning to improve performance using training strategies (Williams 1998, vi -vii; 270-292). The term is sometimes confused with ‘ergogenic’, meaning ‘work enhancing’, which includes biomedical aids, drugs, nutritional supplements or psychological interventions (Hawley & Burke 1998, 357). In this research ‘performance enhancement’ means the improvement of music performance using mental and physical strategies.

### *Mind-Body*

The combined word is used intentionally in this study to dispel the apparent mindset that persists about Cartesian duality of mind and body. Mind-body denotes inseparability of mind and body, which is seen in ancient eastern philosophy, as well as western scientific research since the 1930s (Selye in Rossi 1993, 28). The more recent interdisciplinary sciences of psychobiology (psychological processes from a biological point of view) and psychoneuroimmunology (inter-relationships between the psychological, behavioural, neuroendocrine processes and immunology) study the mind-body systems and their inter-relationships (Reber 1995, 613; 618). The term ‘mind-body’ is being used increasingly more frequently in the following ways: ‘mind-body integration’ (Harris & Harris 1984); ‘mind-body connection’ (Orlick 1998, 77) and ‘mind-body healing’ (Rossi, 1993).

### *Sport Psychology*

Sport Psychology (generally termed ‘applied sport psychology’) is concerned with psychological factors influencing performance in sport and exercise, and with the psychological effects derived from these factors (Williams & Straub 1998, 1). This subject is particularly suited to music performance as it provides (a) the psychological skills areas governing all performance: Attentional Focus, Arousal Regulation, Imagery, and Self-Efficacy (Mahoney 1977); (b) mental training programs using mental training strategies; (c) characteristics of the optimal mind-

body state for peak performance experience; and (d) physical training strategies taken from nutrition and physical exercise.

### *Holistic*

This term means ‘wholeness’ coming from the philosophy of Holism and Gestalt: the idea that the whole is more than the sum of its parts (Wertheimer 1924, translation by Ellis 1938, 1-11) and that the whole is made up of holons, which are whole / parts (Wilber 1998, 50, 61). In the present study ‘holistic’ refers to an integrative approach taken: viewing performance as a whole (including all the phases of playing as in practice, the lead-up to performance and the performance event), regarding the musician as a whole, (with mind and body, therefore called ‘mind-body’), and having regard for the musician’s lifestyle context. The present study’s holistic approach results in the ‘mind-body awareness’ approach for managing music performance.

### *Self-Efficacy*

Bandura (1977) coined this term to describe a person’s personal perception of self-confidence or competence (Singer, Murphey & Tennant 1993, 14), developing this into his Theory of Self-Efficacy (1977) (Section 2.5). Bandura (1986; 1990) makes a distinction between ‘self-efficacy’ and ‘self-confidence’ by saying that self-confidence refers to firmness or strength of belief, whereas self-efficacy implies that additionally a goal has been set. As self-efficacy in performance does mean that the goal of the performance has been set, Bandura’s concept is appropriate for this research. Anshel’s (1994, 24) description of self-efficacy as ‘a situationally specific form of self-confidence’ is also useful and is used throughout this study to distinguish it from a global concept of confidence. Many authors do not make any distinction between self-efficacy and self-confidence; for example, the United States National Council for Research (1994, 174) rejects Bandura’s distinction, stating that both words mean ‘the belief that one can successfully execute a specific activity, rather than a global trait that accounts for overall performance optimism’. I have worked with both self-efficacy and self-confidence: using Bandura’s description and Theory of Self-Efficacy for the study, but including too, the usual ‘self-confidence plan’ used by

sport psychologists (seen in Section 2.3.1). As the same strategies prescribed by sport psychologists for the development of performance confidence are being prescribed to alter physiological and mood states for the development of self-efficacy, this all fits within Bandura's (1977) self-efficacy development.

### *Sense of Control*

This term is often referred to by musicians regarding the personal level of command one feels about one's playing in performance. For example Roland (1997, 15-17) uses 'lose control', 'gain control', and 'maintain control' in relation to the mental response towards performance: the degree to which the individual is able to control the perceived threat of performance anxiety. Similarly in this study, 'sense of control' refers to the perceived degree of control the musician participant feels in his/her performance *before* and *after* using the performance enhancement strategies. Defined descriptors of this term appear in Chapters 5 and 6 as either 'lack of control', 'out of control', 'in control', or 'sense of control'.

### *Practice, The Lead-Up, and Performance*

'Practice', 'Lead-up', and 'Performance' refer to the three 'phases' or 'periods' (rather than clearly marked 'stages') defined in this study: with the emphasis on performance as a process to be managed. The musician's daily 'practice' equates to the athlete's daily 'training'. The 'lead-up' refers loosely to the period of a few days and up to approximately two weeks before the performance event, whereas some distinction is made for 'pre-performance' (on the day or day before) and 'just prior to performance' (waiting to go on stage).

### *Obbligato*

The term 'obbligato' is a musical one, from the Italian meaning 'essential' or 'obligatory'. It refers to a part usually instrumental, which cannot be dispensed with in performance, as distinct from a part, which is optional (Westrup & Harrison 1987, 384). In this study, the term proved useful to represent the extra background theme, which runs parallel to main themes (identified in each individual case study).

## *Etude*

‘Etude’, the French word for ‘study’, is used in music to name an instrumental piece (usually solo), which trains or demonstrates the facility of the performer in certain specific aspects of technique (Jacobs 1970, 370). In the present study, the term seems appropriate for the name of the case study report, as it denotes both the performer’s initial practice / performance difficulties requiring mastery, and the resultant mastery of those difficulties.

### **1.7 Outline of the Remainder of the Thesis**

Chapter 2 details a cross-disciplinary survey of the literature fields of performance interest — Music Performance, Sport Performance, Nutrition, Exercise, and Self-Efficacy — highlighting the mind-body connections in performance, which I consider of major importance for music performance.

Chapter 3 gives the background to the newly created Training Manual — a learning / training module for performance enhancement — with its design and underlying philosophy evolving from performance’s ‘mind-body connections’ in the previous chapter’s Literature Survey. The Training Manual is the centrepiece of this study.

Chapter 4 considers the methodological perspective guiding this study, along with epistemological assumptions; the rationale for choosing the case study method; an outline of the data collection design; and the data collection techniques used.

Chapter 5 showcases the five individual case studies (*‘Etudes’*), which describe in rich detail the participants’ performance experiences — before and after training — with the combined ‘package’ of strategies.

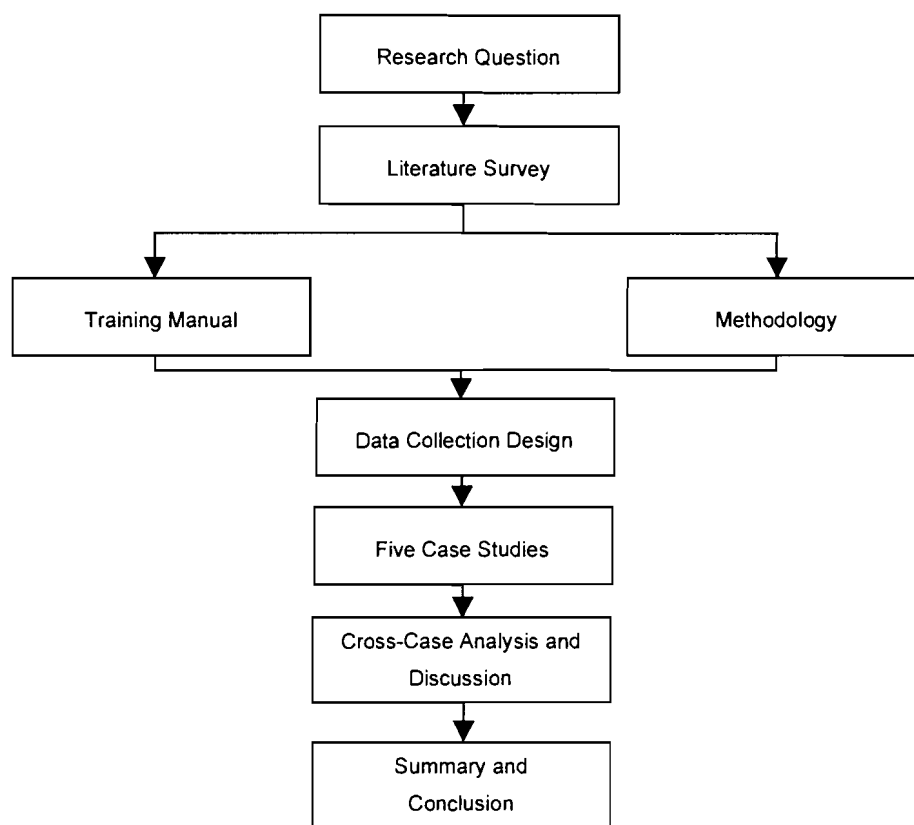
Chapter 6 gives a cross-case analysis and discussion of the shared issues of significance, and how these shared issues relate to the literature survey and the research question.

Chapter 7 gives a summary of the findings and recommendations for future developments: with conclusions drawn from the findings of the study, limitations of the study, and improvements to the study. Implications for performance

educators and musicians are discussed, along with applications for this study. Recommendations for future research and suggested future directions for music performance education are outlined, followed by the conclusion to the thesis.

Figure 1 shows the Research Design modelled on Krathwohl's (1988) 'chain of reasoning'.

**Figure 1. The Research Design**



This first chapter has explained why I believe this research topic is worthy of study. It has also set out the boundaries and limitations of the study, along with terms frequently used that need explanation. The following chapter sets the context of this study, by surveying the relevant literature and presenting an appropriate theoretical framework.

## Chapter 2 Literature Survey

### 2.1 Introduction

The research aim of providing musicians with an integrative framework of performance enhancement strategies for developing performance confidence is considered necessary because performance confidence training is often missing in music performance education, although sport performance has demonstrated successfully that performance confidence can be developed through training programs.

The purpose of this literature survey is to select appropriate performance enhancement strategies that develop the musician's confidence in music performance. A strategies framework forms the foundation of the Training Program / Manual, the design of which is described in the following chapter (Chapter 3).

The resultant Training Program / Manual was trialed by tertiary music students (the five *Etudes* in Chapter 5), in order to answer the research question:

*Would a performance enhancement training program for musicians, modelled on sport performance's mental and physical strategies, promote the development of performance confidence in music?*

The research question gave rise to the topics of 'performance skills', 'performance enhancement strategies', and 'performance confidence', which proved to be limited in music performance research. Therefore a cross-disciplinary approach to the literature was taken, in the hope that fresh insights into music performance might be gained. For example, the effects of psychological and physical wellbeing on perceived self-efficacy in performance, and whether certain performance strategies assist in acquiring peak performance characteristics (Ravizza 1984; Garfield in Anshel 1994, 51), in order to create the state of 'flow' (Csikszentmihalyi 1996, 110-111) in music performance.



The results of the present case studies suggest that such insights are possible, but clearly more research is needed.

The major fields of investigation are: a) Music Performance, b) Sport Performance / Sport Psychology (including the associated fields of Sport Nutrition / General Nutrition and Physical Exercise), and c) Self-Efficacy.

The chapter proceeds in the following manner:

Section 2.2 examines seminal works in the music performance literature since 1986. One follows the line of development from the dominant research topic of ‘music performance anxiety’ with its cognitive-behavioural and ‘treatment’ approach, to the acknowledgement of the lifestyle context of music performance, requiring a holistic approach.

Section 2.3 examines sport performance / sport psychology literature, and its relevance for music performance, the significant areas being: the psychological skills required in performance, and multi-modal strategies to strengthen these skills; the effectiveness of *mental* training programs using combined strategies; and the mental and physical characteristics of peak performance experience.

Section 2.4 examines hitherto unexamined areas in music performance, namely: the physical training strategies of nutrition and exercise found in sport nutrition / general nutrition and sport / exercise psychology, with their relevant aspects for musicians.

Section 2.5 investigates self-efficacy, focusing on self-efficacy and its relationship to performance; Bandura’s (1977) Theory of Self-Efficacy (the main sources of situational self-confidence); and self-efficacy in education and health, indicating that self-efficacy is a suitable framework for the development of performance confidence in music.

Section 2.6 concludes with a synthesis of the main findings of relevance in Self-Efficacy, Sport Performance and Music Performance, and the strategies selected for the musician’s training program, conjectured to promote the development of performance confidence in music.

## 2.2 Music Performance Literature

### 2.2.1 Music Performance Anxiety

Music performance literature is largely dominated by the topic of Music Performance Anxiety. Schaupp (1997) in her review of the music performance anxiety literature from journal articles, books and dissertations from 1975 to 1996, quotes no less than thirty-three titles with the terms ‘anxiety’, ‘tension’, ‘performance stress’, ‘jitters’ and ‘stage fright’. Some more recent examples seen in Schaupp (1997) are Abel & Larken 1990; Clark & Agras 1991; Ely 1991; Nagel 1990, 1993; Stanton 1994; Roland 1994; Wrigley 1996.

Music Performance Anxiety has the disadvantage of being a negative topic. As Schaupp (1997, 36) says, the very admission of suffering music performance anxiety is threatening to many people. Discussion focuses on the symptomatic: a biomedical approach of isolating the problem, then treating ‘it’ without due regard for the contextual framework, or the individual mind-body patterns of behaviour.

Research interest has only recently turned to what musicians themselves think about performance and how they cope. ‘Somehow it’s all right for muscled sportsmen to confess to needing psychological help for stress and personal problems, but there is still quite a strong taboo against sensitive and artistic musicians asking for help with performance anxiety’ (Butler in Burne 1993, 24). This is despite the fact that most musicians at some time or other experience performance anxiety. Notable performers in music history who admitted suffering performance anxiety were Chopin (1810-1849); Pablo Casals (1876-1973) and Michelangeli (1920-1995) to name just a few.

Particularly of interest for this research is the music performance literature, including that on performance anxiety, which suggests that performance enhancement and the training of such can improve music performance, while reducing the symptom of anxiety, or minimising its occurrence.

Green and Gallwey’s (1987) *The Inner Game of Music* is a seminal work in the music performance literature, as this book signifies the historical crossing of boundaries between sport performance and music performance by borrowing sport’s ‘inner game’ principles to improve music performance. A break away

from the anxiety focus is provided by the 'game' mentality. Acknowledging the inner dialogue that frequently occurs during performance, the concept of Self 1 and Self 2 is introduced to represent the opposing forces of the ego and the creative self with suggestions of how to 'let go' of the negative voices. Simple paradigms are used to teach the mental game of music: for example, 'performance equals potential minus interference' ( $P=p-i$ ). Using musicians' anecdotes, the book points to the need for a new understanding of the cognitive processes involved in improving performance, and triggers the musician's awareness while playing. Unfortunately, the lack of a clear structural framework makes it difficult to integrate such principles into daily practice. The valuable preliminary ideas gained from this book for the present research were (a) that sport performance concepts are transferable to music performance (b) that awareness is an essential factor for learning strategies and (c) that training strategies require an integrative, structural framework to be used effectively in practice.

The music performance research of Roland (1994) and Schaupp (1997) highlights the successful application of sport performance strategies for music performance. Both researchers aimed to develop a more effective 'treatment' for musical performance anxiety than was currently available. Although focusing on treatment programs for performance anxiety, numerous elements and findings from each study created a springboard for the present research.

Roland (1994) carried out two preliminary studies before the main study: the first established which standard cognitive and behavioural treatment was the most effective for musical performance anxiety (comparing self-instructional training and progressive relaxation training). It was concluded that progressive relaxation training was slightly more effective and that the combination of treatments was more effective over time than either of the individual standard treatments. The second preliminary study used in-depth interviews of thirty 'non-anxious' and five 'anxious' professional performers to find new ways of managing music performance anxiety, looking at these people's musical, cognitive, behavioural and lifestyle strategies (see findings below). The main study then compared the *modified* cognitive behavioural treatment (based on the professional performers' strategies) with the *standard* cognitive behavioural treatment for performance anxiety (progressive relaxation and autogenic training-style relaxation, breath

control, and self-instructional training of positive self-talk). It was found that both treatments were equally effective in decreasing music performance anxiety, although the objective quality of performance remained unchanged. The following results of the second preliminary study are of interest for the present study as they show the combined categories of strategies in use by professional musicians.

### ***2.2.2 Strategies used by Professional Performers***

*Musical strategies* for the long-term were: music practice, familiarity with music and style, preparatory music performances, simulation of performances. Short-term strategies were tapering off practice in the last week, and practising a ‘warm up’ on the instrument.

*Cognitive strategies* for the long-term were building confidence and mental rehearsal of music. Short-term strategies were goal setting, loss of self, task-oriented thinking, excited / alert attitude, positive self-talk, visual and mental (aural) rehearsal of the music, being calm and relaxed.

*Behavioural strategies* for the long-term were physical activity and having a pre-performance routine, and for the short-term, deep breathing, extra sleep and rest before the performance, and a variety of physical exercises prior to the performance — stretching, warm-up exercises, yoga, finger exercises, or Alexander Technique (Roland 1994, 62-74).

Roland’s (1994) main study findings had significance for the validation of the selected methodological framework of the present study. Roland (1994, 129) summarises by saying that he believes the main aim in the treatment of music performance anxiety is ‘to reduce the self-perceived component of the anxiety response’. The converse is also true according to sport performance and self-efficacy literatures: that is, that the main aim in promotion of performance confidence is to *increase* the self-perceived component of the self-efficacy response.

Roland’s (1994) main study results follow, with topic headings that have relevance for the present study.

### 2.2.3 *Self-Perception of Ability*

It seems that the most important buffer against performance anxiety is the strengthening of personal perception of ability:

The overall results suggested a difference in the cognitive, behavioural and psychological experience after treatment strategies were used for performance anxiety. It appears that performers were thinking more confidently and positively about themselves following treatment, although maintaining a heightened sense of arousal, and the same level of performance quality (Roland 1994, 121).

The person's self-perception of anxiety affects their feelings about their performing, which suggests that 'improved self-perception would eventually lead to an improvement in playing' (Roland 1994, 121-122). This finding points to the need to improve one's sense of ability or self-efficacy beliefs (Bandura 1977, 1995, 1997) and suggests that confidence training would be effective for improved performance.

### 2.2.4 *Lifestyle Practices*

Roland (1994, 134) believes that 'a more holistic approach to treatment which takes an overview of the musician's lifestyle may be required'. Lifestyle strategies of nutrition, exercise, and rest were important to the professional performers. Their long-term strategy was to maintain physical health with such strategies as gaining extra sleep and rest on the day of performance, adapting eating and drinking patterns prior to performance, having some physical activity before performance, and arriving early for performance to ease the tension. Roland (1994, 133) showed that successful professional performers developed these strategies themselves (stated in Chapter 1).

They did this by combining anxiety management strategies with lifestyle factors such as diet, health, sleep, exercise and moderation of drug intake. In this way they believed they were able to prevent performance anxiety, or have an emergency means of controlling it. Roland's subsequent (1997) book proclaims the holistic approach for becoming a confident performer, with chapters entitled *The Healthy Artist* and *The Artist's Lifestyle*.

The present study advocates awareness of exercise and nutrition with appropriate guidelines integrated into the daily patterns ('lifestyle context') of practice and performance.

### ***2.2.5 Sense of Control***

Roland's (1994, 58) second preliminary study of thirty successful 'non-anxious' professional performers and five confessed 'anxious performers' all admitted to having experienced performance anxiety symptoms in varying degrees. The non-anxious performers achieved a personal 'sense of control' in performance, with a reasonably high to high self-rating (7-9 on a scale of 1 to 10) by using non-musical strategies and a pre-performance routine. Anxious performers, on the other hand, lacked non-musical strategies and a pre-performance routine giving rise to pressure and expectations prior to performance.

The anxious performers perceived great expectations being placed on them either by themselves and /or others. For this reason they tended to be very self-conscious when playing and demonstrated a lack of a constructive performance focus (Roland 1994, 80).

### ***2.2.6 Deep Breathing***

The results of Roland's (1994) survey after one year showed that the use of breath control was the most highly rated of the behavioural strategies, a result consistent with Roland's (1994) professional performers' preference for breathing control techniques for management of performance anxiety. This result was a catalyst for the present study's trial of Deep Breathing and Meditation (Meditation previously being unexplored in music performance).

Schaupp's (1997) performance anxiety study with an empirical evaluation of a mixed treatment program for reducing stage fright also shows a change in participants' personal perception of performance anxiety after using a combination of strategies, this supporting Roland's (1994) similar finding. Schaupp (professional musician and researcher) took two groups of music performance students suffering performance anxiety — an experimental group and a control group — and conducted three group tutorial sessions for self-help techniques over five weeks. Handout information was given for instructional

exercises on Relaxation, Imagery, Cognitive Restructuring, Systematic Desensitisation, Self-Statements, Release of the Ego, and Energising through Deep Breathing, as well as musical aspects of Improving Practice and Memorisation Skills. The experimental group reported self-rated improvement in stage fright and performance preparation, with perceived negative effects and symptoms being significantly reduced by the above treatment strategies program (Schaupp 1997, 57). The main difference to Roland's study was the inclusion of effective practice methods to achieve the result of the participants' self-rated improvement in performance preparation.

### ***2.2.7 Effective Practice Strategies***

Schaupp's (1997, 5-6) emphasis and inclusion of practice techniques 'for sufficient and appropriate practice' to assist in overcoming performance anxiety is important in relation to the present study's holistic view of performance: comprising practice, the lead-up and the performance event. Practice techniques employed were: developing quality practice time (sessions divided into one hour segments spread over the day); mental anticipation (thinking ahead); critical listening (developing one's ability to listen musically); breaking up difficult technical passages into their smallest components, developing the habit of consistent fingerings where applicable; and memorisation techniques (developing the aural, visual and kinaesthetic senses). Performance etiquette (that which is expected of one in the performance situation, such as walking on and off the stage, bowing) was also included.

### ***2.2.8 A Holistic Approach to Performance Training in Practice***

An ongoing practice / performance program at the Trondelag Music Conservatory in Trondheim, Norway provides further evidence of the importance of lifestyle factors and the lifestyle context in music performance. At that institution, students and staff have practised mental and physical health maintenance since 1982. Beginning with a semester of physiology to understand the need for a self-maintenance health program (including physically staying in shape), the holistic approach continues with the acquisition of the necessary tools for self-observation and self-knowledge, to assist 'the multiplicity of factors which influences both their unique individual relationship to instrument, and their individual health'

(Spaulding 1995, 60). Topics covered are stress and reaction to stress; diary journals; the monitoring of technical development; goal-setting, video-filming to monitor habits of tension in posture and technique; and efficient practice methods for the physiological aspect and practice away from the instrument. A variety of relaxation methods is taught (autogenic, ideokinetic methods for connecting body to imagination, breathing techniques and Tai Chi). Graduate students proceed to varied literatures and fields such as cognitive psychology, physiology, ergonomics, nutrition and psychoimmunology (Spaulding 1995, 64). The results of follow-up studies from the conservatory show a significant number of students maintain these holistic performance principles in their performance careers, and pass on what they have learned in their teaching. 'What the training does is alert the living organism' (Spaulding 1995, 69) so that injury and performance problems are prevented early. The educational importance given to self-maintenance of mental / physical health by this music institution demonstrates the viability of a holistic approach to performance training.

### *Summary*

The main points of interest from the music performance field for the present study are: (a) the combination of musical, cognitive and behavioural strategies, which include lifestyle strategies for overcoming anxiety and preventing performance problems; (b) the importance of effective practice in performance preparation; (c) the interdependent personal attributes such as breath control, sense of control, and self-perception in relation to music performance, indicating that 'improved self-perception would eventually lead to an improvement in playing' (Roland 1994, 122) All these points of interest suggest the need for a holistic approach to performance training.

The music performance literature shows that cognitive, behavioural, and lifestyle strategies with a 'treatment' approach can reduce performance anxiety; that self-perception is the most significant ingredient affecting feelings about performing; and that a holistic training approach is a positive way to prevent physical and mental performance problems occurring early. What appeared to be still missing was a training program that could incorporate all these attributes, and strengthen the individual's perception of performance skills ability, thereby instilling a sense



of performance confidence. To this end, I explored sport psychology / sport performance with its multi-dimensional areas of interest for the musician.

Clarke (1988, 1-2) suggests that playing music is comparable in cognitive complexity to speaking a language, and comparable in its demands on motor control to playing a sport like tennis, though most musicians would argue that the complexity of motor control over technique, tempi and tone required for playing an instrument is probably greater than that required for any one sport. However such complex mind-body connections in music performance would clearly benefit from positive training in the development of performance skill areas demonstrated in the way that sport psychology has assisted sport performance.

### **2.3 Sport Performance and its Relevance to Music Performance**

Over the last thirty years sport performance has drawn on sport psychology research to address performance issues. The focus has been on topics, which induce ‘the winning feeling’: Performance Enhancement, Optimal Performance, and Peak Performance. The combined mental and physical aspects involved in sport psychology illustrate why Mahoney (in Williams & Straub 1998, 2) believes that sport psychology’s roots are to be found in early Greek and Asian cultures, with mind-body interdependence being not only acknowledged, but emphasised for performance and personal development. Sport psychology today is concerned with both the psychological factors that influence performance in sport and exercise, and the psychological effects derived from them (Williams & Straub 1998, 1).

Applied sport psychology, which seeks to apply the knowledge base of sport psychology research to real-life situations in sport and exercise (Singer, Murphey, & Tennant 1993, 4) has grown enormously since the late 1970s, enhancing not only performance, but also the personal growth of athletes and physical activity enthusiasts. Increasing attention has been paid to athletes’ personal accounts: ‘How athletes think influences how they perform’ (Williams & Straub 1998, 3), highlighting the need to develop the cognitive side of performance in order to create a mental edge in performance. Therefore elite performers in sport have increasingly turned to psychological training programs to learn how to manage

competitive stress, control concentration, and improve confidence (Williams & Straub 1998, 3). Applying the sport training program concept to music performance allows musicians to manage their performance in a similar manner by providing a strategies framework. The multi-dimensional aspects of sport psychology shown in the following Figure 2 provided the source for a strategies framework for musicians.

**Figure 2. The Multidimensional Aspects of Sport Psychology**



Corlett (1996, 84-94) compares the two Greek contemporaneous philosophical styles found in sport psychology: the Sophist approach being ‘technique driven and concerned solely with specific skills that produce successful performance results’ (Corlett 1996, 84), and the Socratic approach, demanding a ‘rigorous personal examination for and improved knowledge of self as the only meaningful pathway to personal happiness’ (Corlett 1996, 84). The message here is that the Sophist approach on its own is not a lasting or satisfying one, and will not cure performance problems relating to self-confidence. More sport psychologists (Ungerleider 1996; Orlick 1998; Burton-Nelson 1998) are following the lead of Gallwey (1974) and Vealey (1988) and adopting a holistic approach to performance skills development, founded on personal development with performance enhancement. This recent direction in sport psychology is known as the Humanistic Model (Hill 2001, 107-138). The humanistic model has not received as much attention as the cognitive and behavioural models in sport psychology. Roland (1994) and Schaupp (1997) apply a cognitive-behavioural model to music performance. However, the humanistic model’s elevation of the ‘holistic development of individual human potential as the primary concern of [performance] psychology ... its emphasis on superior functioning ... respecting personal experiences as an integral part of the development of self’ sits well with athletes’ aspirations (Hill 2001,107-108).

Three main people assist an elite athlete’s performance training today — the sport coach, sport psychologist, and sport nutritionist — demonstrating the holistic approach:

Customised training programmes for the ‘whole’ athlete emphasise nutrition and stress management, as well as innovative and creative training models that include mental preparation and performance strategies. These mental training strategies enhance performance while discouraging physical overtraining (which may lead to injury and burnout) (Ungerleider 1996, 7).

In stark contrast, the musician is dependent on one main person for all advice and assistance — his/her instrument teacher — making an integrative, holistic approach to performance enhancement difficult.

Ungerleider's (1996, 7) notes that many athletes without coaches use a self-management approach, incorporating mental practice strategies into their daily physical training. This suggests that training programs that are self-managed could also be successful in music performance.

Consequently, the following elements from the multi-dimensional aspects of sport psychology have particular relevance for this study: 2.3.1 The Four Psychological Skills Areas in Performance with assisting Mental Strategies; 2.3.2 Sport's Mental Training Programs for Performance Enhancement; 2.3.3 Mental / Physical Characteristics for Peak Performance and 2.3.4 The Physical Training Strategies of Nutrition and Exercise.

### ***2.3.1 The Four Psychological Skills Areas***

Drawing from the field of behavioural psychology, Suinn states (in Singer, Murphey & Tennant 1993, 492) that, in 1977, Mahoney identified four categories of cognitive skills required for athletic performance, which are applicable for all performance-based fields: Attentional Focus, Arousal Regulation, Imagery, and Self-Efficacy. Varied research over the last twenty years has confirmed that all these areas are inter-related and that they are key components affecting performance (Nideffer, 1985; 1988a in Nideffer 1993, 548; Orlick 1990; Bandura 1995). Relationships are explained by the following: Yerkes and Dodson's 1908 'Inverted U' theory describes the relationship between physiological arousal and performance with deterioration of performance occurring either side of an 'optimal' level of arousal (in Nideffer 1993, 548), while Nideffer (in Singer, Murphey & Tennant 1993, 552) states that because there is a relationship between attentional focus, arousal regulation and performance, any adjustments in arousal will affect attentional focus and vice versa. Nideffer and Bond's 1988 study in the use of individual mental training programs showed positive attentional changes occurring along with increases in self-confidence and control (Nideffer in Singer Murphey & Tennant 1993, 549). Eysenck 1989 in Nideffer (1993, 548) showed that if self-efficacy is low, hypersensitivity to cues suggests the possibility of failure. This leads to internal preoccupation, which results in negative thoughts affecting performance.

A description of each skill area illustrates the importance of these areas for music performance and how these areas can be strengthened with a combination of strategies.

### *Attentional Focus*

Attentional focus, the skill required for concentration ability, is being able to focus one's attention on the task at hand and thereby not be disturbed or affected by irrelevant external and internal stimuli (Schmid & Peper in Williams 1998, 316). Harris and Harris (1984, 93) maintain that the difference between one's best performance and worst performance lies within the ability to concentrate, to shift attentional focus, and to discard irrelevant cues. It is the simultaneous action of focus and dissociation of potential distractions that is difficult to achieve and maintain (Dalloway 1993, 12), making this skill one of the most crucial in practice and performance (and recognised as such by the five participants in this study). The effects of losing concentration during performance are well known: as errors occur, performance declines and one experiences a loss of sense of control and deterioration in confidence (Dalloway 1993, 11). Therefore, suitable strategies are crucial, not only to control the situation of loss of concentration if it does occur, but also to strengthen concentration ability generally. Sport psychologists state that concentration is a learnable skill that needs regular practice with various combined strategies (Harris & Harris 1984, 77; Nideffer 1985; Suinn 1986, Dalloway 1993, 12; Orlick 1986). Nideffer (1993, 545-553) uses the term 'Attention Control Training' for developing concentration ability. According to Anshel (1994, 25) and Harris and Harris (1984, 79) problems that hinder attentional focus, causing a loss of concentration, are:

- 1) Heightened anxiety, which causes a narrowed, internally focused attentional state that is rarely desirable in performance, and
- 2) Focusing on the self rather than on the task at hand.

The mental strategies effective for strengthening concentration ability are: negative-thought control, self-talk cues, imagery, deep breathing and meditation: with some form of relaxation being used as a precursor for attentional focus (Dalloway 1993; Bull, Albinson & Shambrook 1996, 96; Nideffer 1985, 84; Suinn 1986, 42; Schmid & Peper 1998, 326). In addition, it will be shown ( Section 2.3)

that the strategies of nutrition and exercise assist concentration by energising one's mental and physical capacities and relieving tension. Dalloway's (1993, 38) concentration training program distinguishes between external and internal distractions, recommending the creation of an imaginary bubble to surround and protect oneself from *outside* distractions (a technique often used by musicians in performance) and the previously mentioned strategies for *internal* distractions of the mind. Suinn (1986, 19) uses positive thoughts to support concentration. 'What you do with your thoughts can change your life and your performance', warning of the self-fulfilling prophecy regarding thought patterns.

Attentional focus also includes goal setting for present and long-term focus. The psychological principles and effects of goal setting on task performance in different settings apply to sport performance (Locke & Latham, 1985). Goal setting clearly and consistently facilitates performance, assisting athletes of varied ages and abilities to achieve personal growth and peak performance (Gould 1998, 182-196; Bull, Albinson & Shambrook 1996, 19-40; Orlick 1998, 101-110). It provides a focus of attention and action, therefore a purpose for your efforts (Harris & Harris 1984, 133-146) besides being linked to positive changes in important psychological states such as anxiety, confidence, satisfaction and motivation (Burton 1983, 1989 in Gould 1998, 184). Locke and colleagues (in Gould 1998, 183) conclude from their comprehensive review of over one hundred studies in 1981 that 'the beneficial effect of goal setting on task performance is one of the most robust and replicable findings in the psychological literature'. The present study demonstrated that goal setting was not generally a practice / performance consideration of the musicians before it was introduced with the Training Manual. Consequently this created a gap in daily practice and performance training, affecting outcomes (seen in Chapters 5 and 6). Goal Setting is included in the Training Manual (p.31) as a technique for strategy application.

### *Arousal Regulation*

Arousal regulation is the skill of regulating one's individual level of arousal by either relaxation or energising techniques, to find one's optimal arousal state for performance (Zaichkowsky & Takenaka 1993, 511-517). The term 'arousal' is used by psychologists to denote the state of alertness, activation, or mental

readiness, which varies on a continuum from extremely low levels, as in sleep, to very high levels of excitement, in response to a threatening situation such as in 'fight or flight'. This term has at times been confused with anxiety. However, according to Spielberger (in Zaichkowsky & Takenaka 1993, 512) the two constructs are not the same. Anshel (1994, 57) simplifies the difference by saying that anxiety is defined as an emotion while arousal can be either physiologically or psychologically based.

Although our natural ongoing state reflects a certain amount of arousal, it is one's sense of efficacy that determines whether higher levels of arousal reach the state of anxiety or not. Landers and Boutcher (1998, 198) explain further:

Basically we know that some degree of uncertainty is necessary to increase arousal and motivation, but too much uncertainty can be anxiety producing. Thus, the anxiety response associated with higher states of arousal is typically related to an athlete's perceived inability to deal with the specific situation (task difficulty or demands).

This study recognises both arousal and anxiety but concentrates on arousal as the literature makes apparent that strategies for relaxing mind and body can be used to control both high arousal (which can result in anxiety) *and* anxiety, with these best monitored and regulated by the individual (Harris & Harris 1984, 47-77; Girdano & Everly Jr. 1986; Zaichkowsky & Takenaka 1993, 520-522; Anshel 1994, 27; Ungerleider 1996; Orlick 1998, 20-28).

Researchers concur that there is no one precise optimal level of arousal or anxiety. Rather a varied bandwidth will always prevail, due to the many individual differences of task type, skill level, habit patterns, personality type, attentional processes, ability to cope with stress / sensitivity to stress, and the cognitive appraisal of the situation (Zaichkowsky & Takenaka 1993, 518-520).

The 'mind-body connection' in relation to how and where arousal takes place is of particular importance for music performers as it gives an understanding of a) how stress develops and b) the need for mental and physical control. The origin of arousal states, resulting in the fight / flight syndrome has been well documented in terms of performance by Landers and Boutcher (1998,199); Roland (1994); and Schaupp (1997). Details are in Appendix 6.

In summarising arousal regulation, musicians need to know that:

- 1) The precursor of all arousal levels, whether too high, too low, or optimal, are the individual's thoughts and perceptions (Landers & Boutcher 1998,199).
- 2) Arousal levels are inextricably linked to the nervous system with a repeat flow between cognitive processes affecting physiological and behavioural outcomes. (Landers & Boutcher 1998,199).
- 3) The individual has control of his / her own arousal levels regardless of whether they are too high or too low (Harris & Harris 1984, 25; Williams & Harris 1998, 219-235).

To avoid the effects of worry and anxiety, Harris and Harris (1986, 250) recommend 'to prepare the "whole" person through holistic coaching and preparation. That is, incorporate physical and mental skills and strategies in practice and performance.' This aim was emulated in the musician's Training Program.

Strategies recommended for arousal regulation are divided into two types: relaxing and energising. For arousal levels that are too high, the mind-to-muscle / muscle-to-mind strategies are used, whereas for arousal levels that are too low, energising type strategies are used (Harris & Harris 1984; Singer, Murphey, & Tennant 1993; Williams 1998). A list of both types of strategies is in Appendix 6).

With awareness of the mind-body connection, a musician can learn to induce his/her own optimal arousal 'zone' with appropriate strategies. The professional musician's experience (Roland 1994, 62-74) shows that anxious thoughts can be controlled: by using personalised strategies for regulating one's mental and physical arousal state. The resultant sense of control helps to build situational self-confidence, as is shown in Section 2.5 on Self-Efficacy.

Strategies appropriate for the musician's high state of arousal are some form of relaxation, imagery, negative thought control with self-talk, and self-affirmations as have been successfully trialed for musicians (Schaupp 1997). The practice of meditation is included in mental training programs for athletes, for lowering arousal (Ungerleider 1996, 25-26; Williams 1998, 230) and therefore



recommended for controlling stress and tension in general health (Girdano and Everly Jr.1986, 207-213; Jahnke 1997, 99-110; Wilson 2000).

Meditation is also beneficial in the preparation for practice and music performance, as it incorporates deep breathing, instils an attitude of mindfulness and awareness, allows one to 'let go' of unwanted thoughts, stills the mind, assists focus, while simultaneously disciplining and relaxing the mind and body. It is also described as a method of reducing anxiety (Puryear & Thurston, 1975).

### *Imagery / Visualisation*

Imagery / Visualisation is the skill which uses the senses 'to create or recreate scenes or experiences in the mind' (Vealey & Greenleaf in Williams 1998, 239). The ultimate goal of imagery rehearsal (the strategy for strengthening this skill) is to draw upon as many senses as possible to feel and imagine executing the necessary skills successfully. This skill is invaluable for the preparation of music performance. Research studies and experiential evidence support the use of imagery as a mental rehearsal technique to enhance sport performance. Although the term 'visualisation' is often used interchangeably with 'imagery' for seeing with the mind's eye, the other senses, 'auditory', 'tactile', 'olfactory' (sense of smell), 'gustatory' (sense of taste) and the kinaesthetic (sense of 'feel' or sensation of the body) are equally important in strengthening one's imagery skill (summarised for musicians by Schaupp 1997, 14).

The recognition of the importance of imagery is still more widespread among elite athletes than it is among music performers. Ninety-nine percent of the Canadian Olympic athletes in the 1984 Olympic games reported using imagery (Orlick & Partington in Williams 1998, 241). Roland (1997) asserts that eighty percent of music performers use visual imagery in performance preparation, mainly for hearing the music in their heads, watching themselves perform, or in the case of singers on stage, acting out the necessary moves. For the memorisation of a musical work, O'Connor (in Schaupp 1997, 6) states that the three senses of aural, kinaesthetic and visual are ideal for complete command of memory. Schaupp's (1997, 51) Treatment Program for Music Performance Anxiety shows that relaxation followed by simple imagery exercises to strengthen all the senses can

improve musicians' memorisation skills. But the rich variety of constructive uses for imagery rehearsal, from the learning phase through to the performance, still remains largely unknown or under-utilised by musicians, as this present study demonstrates.

For the effective use of imagery the following points are important:

- 1) The images should preferably be internal rather than external (that means, 'seen' from inside the body) Schaupp (1997, 14-15) Vealey and Greenleaf (1998, 244-245) add that many athletes shift back and forth between external and internal imagery, external imagery being useful for learning new skills, or to gain confidence from viewing one's successful performance.
- 2) Images should be as vivid as possible, incorporating as many senses as possible (Schaupp 1997, 14-15). Multi-sensory practice of imagery results in positive brain-wave patterns, neurological activation and the slight firing of relevant muscle activity in the body, even though the activities are being performed in the mind and not in reality (Orlick 1998, 69-71).
- 3) The individual needs to be able to control the images (as positive ones) and avoid any unwanted scenes, the basal parts of the brain and the central nervous system not being able to differentiate between a real and an imagined experience (Schaupp 1997, 14-15).
- 4) Imagery needs to be practised in a relaxed state. Most imagery techniques employ relaxation as a first step (Suinn 1986).

Vealey and Greenleaf (1998, 251) state that the different uses of imagery fall into the three main categories of enhancing physical skills; enhancing perceptual skills; and enhancing psychological skills. All categories are applicable to the musician. (Details are found in Appendix 6).

For musicians, imagery is a versatile strategy, useful not only during physical practice but for mental practice en-route from place to place, and an effective motivational and self-confidence tool for setting goals (Harris & Harris 1984, 101; Nideffer 1985; Suinn 1986; Orlick 1990, 1998; Ungerleider, 1996; Vealey & Greenleaf 1998, 253; Bull, Albinson & Shambrook 1996,67; Orlick 1998,72-75).

These authors make clear that effective combination of quality imagery rehearsal with quality physical practice improves performance. As imagery rehearsal can be incorporated easily into daily living — before, during and after practice, as well as before sleeping — it is an appropriate strategy for this study's Training Program.

### *Self-Efficacy*

Self-efficacy, the fourth psychological skill identified by Mahoney (1977) is both a constructor of experience and a product of experience (Bandura 1997, 82). Sport psychologists regard self-efficacy as a learnable skill and equate self-efficacy with self-confidence, preferring to use the more familiar term. They state that above all positive thinking is important for acquiring self-confidence as 'negative thoughts lead to a negative performance' (Sally Gunnell, Olympic Gold Medallist in Bull, Albinson & Shambrook 1996, 41). The strategies of positive Self-Talk and Self-Affirmations, Negative Thought Control, and Imagery (Bull, Albinson & Shambrook 1996, 41-63; Zinsser, Bunker & Williams 270- 292; Ungerleider 1996,16-21; Orlick 1998, 53) are recommended for promoting self-confidence. In the later literature section on Self-Efficacy (Section 2.5 of this chapter), the significance of self-efficacy for developing situational confidence, and its relationship to education and health is surveyed.

### *Summary of Psychological Skills and Strategies supporting Performance Skills*

Vealey's (1988) review of the psychological skills training literature shows that the most popular training strategies are those that enhance concentration, control arousal levels, build self-confidence, as well as increase motivation. These strategies usually involve the use of imagery, relaxation strategies, thought control, and goal setting (Anshel 1994, 26). Accordingly, the selected strategies for the present study involved all these aspects. It soon became apparent that just as the psychological skills areas were interdependent, so too were the strategies that supported them.

### ***2.3.2 Sport's Mental Training Programs for Performance Enhancement***

Behavioural, cognitive, and social theorists (Beck and Clark 1989 and Bandura 1977 in Nideffer 1993, 551) have influenced performance enhancement training programs in sport, highlighting that the foundational principles for training programs are to be found in general psychology, which relate to all performance.

Training programs have been used to enhance separate skills areas for performance such as Attentional Focus (Nideffer & Sharpe 1978 in Nideffer 1993, 542; Dalloway 1993) and Visual Imagery (Suinn, 1976, 1982, 1984 in Suinn 1993). However, because of the overlaps and interactions between the areas (outlined in Section 2.3.1), psychologists increasingly incorporate the various skills, to create their own broad framework of training programs (Harris & Harris 1984; Nideffer 1985; Suinn 1986; Ungerleider 1996; Bull, Albinson & Shambrook 1996; Williams 1998; Orlick 1998). Some sport psychologists like Orlick (1998) are working one-to-one with people from all fields in high stress performance roles — Olympic and professional athletes, surgeons, astronauts, musicians and performing artists — finding that the same skills and needs apply to all high class performers.

Nideffer (1993, 551) points out that most mental training programs for sport performance involve some form of relaxation training, and / or arousal control technique, as well as imagery technique. Mental training programs assist these areas using most or all of the following training strategies: progressive relaxation or autogenic training; meditation and deep breathing; negative / positive thought control (otherwise called 'thought stopping') with self-talk; and self-affirmations; goal setting; guided imagery and visual rehearsal (Harris & Harris 1984; Nideffer 1986; Suinn 1986; Ungerleider 1996; Bull, Albinson & Shambrook 1996; Williams 1998). Nideffer's (1985) focus on the need to reserve emotional and physical energy led to the inclusion of nutrition as a strategy for musicians (seen later in Section 2.3.3).

The important underlying principle of these psychological 'interventions' involves the awareness of control in performance outlined by Ravizza (1998, 171-178) Included here is awareness of goal setting; knowing the difference between skills practice and skills experience; identifying one's ideal performance state, focusing on execution, and learning techniques and strategies that then become automatic.

This ‘awareness’ approach highlights the *process* of performance, deflecting away from the outcomes of performance, which tends to create self-consciousness and anxiety (Harris & Harris 1984, 31; Bull, Albinson & Shambrook 1996, 109), and is therefore appropriate as the selected training approach for musicians. Applying task-oriented thinking, the practice of the ‘loss of ego’ or ‘loss of self’ considered so important in music performance (Schaupp 1997, 33; Roland 1997, 63) can occur naturally. Chapter 5 of the present study demonstrates how sport training programs and processes can be applied to music performers.

Leading sport psychologists talk about ‘integration of mind and body’ (Nideffer 1976, 9-44; 1985), ‘mind / body integration’ (Harris & Harris 1984, 15), and ‘mind-body connection’ (Orlick 1998, 77) to show that the whole body is an important consideration in performance. A holistic approach to control stress and tension is advocated across fields (Davis, Eshelman & McKay 1982; Girdano & Everly Jr. 1986; Rossi 1993; Jahnke 1997; Wilson 2000), with the terms ‘mind-body communication’ and ‘mind-body healing’ increasingly being used in psychobiology (Rossi 1993). Since the increased interest in health and exercise psychology in the 1980s, issues of stress, health and fitness in sport are now addressed with the use of ‘mind-body’ type self-regulatory strategies. In the same way, these self-regulatory tools can assist music performance, by giving rise to a sense of oneness with the music: to encourage the state of ‘flow’ defined by Csikszentmihalyi (1988; 1993; 1996).

### ***2.3.3 The Ideal Mental and Physical States for Peak Performance***

Singer, Murphey, and Tennant (1993, 278) reviewed research on the ideal mental and physical states for peak performance. When comparing these different studies of descriptions of peak performance experiences, the following characteristics identified by Garfield and Bennett (in Anshel 1994, 51) appear to be desirable mental / physical states for musicians in performance:

- Mentally relaxed
- Physically relaxed
- Confident / optimistic

- Focused on the present
- Highly energised
- Extraordinarily aware
- In control
- In the cocoon (feeling protected from the external environment, though acutely aware with complete access to all one's skills).

These mental and physical states can give rise to the feeling of 'letting go' considered by Garfield and Bennett (in Anshel 1994, 50) to be the most important factor for peak performance experiences. Csikszentmihaly (1977, 1993, 1996) researched this phenomenon calling it 'flow', with this particular state described in almost identical terms by artists, performers, athletes, or scientists regardless of culture, gender, age or wealth (Csikszentmihaly 1996, 110 -111).

Csikszentmihaly's 1977 'flow' characteristics closely relate to the mind-body states just described.

- Performers are aware of their actions when performing, but not aware of their awareness. They act and do not have to think about what they are going to do.
- Performers' attention is focused entirely upon what they are doing.
- Performers lose their self-consciousness or ego, so that no self-evaluation takes place during performance.
- Performers feel themselves to be in control of their actions.
- The activity provides performers with clear, unambiguous feedback.
- Performers require no external rewards as the process itself is intrinsically rewarding.

The present research seeks a training approach for musicians, which develops the psychological skills necessary for performance, along with optimal mind-body characteristics, in order to promote performance confidence.

### *Summary of Mental Training*

The main features of significance for this study found within sport's mental training were the four psychological skills areas (and assisting strategies); and the ideal mind-body states (characteristics) for optimal performance experiences. The favoured holistic approach for sport training programs demonstrates that *mental* training is skilfully combined with *physical* training for the individual — one complementing the other — for personal development, to enhance performance, and to develop self-efficacy (situational self-confidence). With this in mind, it seemed imperative that the present study for musicians should complement the *mental* training with *physical* training, by using an appropriate nutrition-and exercise-training regime.

A survey of the following Nutrition and Exercise literatures highlight significant aspects, which have relevance for musicians in practice and performance.

## **2.4 The Physical Training Strategies of Nutrition and Exercise**

### ***2.4.1 Sport Nutrition / General Nutrition Guidelines Relevant for Musicians***

It is now widely accepted that good nutrition has an important effect on performance and health (Curry 1992, 35-60; Deakin & Inge in Burke & Deakin 1994, 16; Cabot 1997; Hawley & Burke 1998, 211-350; Girdano & Everly Jr. 1986, 74; Ratzin 1995, 20-34; Hamilton 1998, 54-57; Fry 1997, 8-9; Robertson & Monte 1997, 138-147 61-62; Clark 1997).

Nutrition has only recently come to the attention of musicians-in-training, with evidence of professional performers' high regard for a healthy diet (Roland (1994, 75-76), so it is now recommended that nutrition become part of a musician's healthy lifestyle to promote confident performance (Roland 1997, 49-50).

However, Nutrition is not yet a discussion topic for practice and performance at tertiary music performance institutions, no doubt largely due to the noticeable research gap in this area. The present study aims to highlight the benefits of nutrition awareness, by exploring student performers' perceptions of the effects of healthy nutritional guidelines on their own practice and performance, and viewing nutrition as a performance enhancement strategy (seen in Chapters 5 and 6).

As playing music is mentally and physically demanding (Clarke 1988, 1-2), optimal energy is required. Any activity depends largely on one's capacity to extract energy from the food nutrients, and transfer it to the contractile elements of skeletal muscle, to provide energy for muscular contraction. (McArdle, Katch & Katch 1981, 55; Inge & Brukner 1986, 43; Bean 1993, 5). Sport performance makes clear that the manipulation of nutrient intake can influence performance outcomes both positively and negatively (Sherman & Lamb 1995, 5, S iii).

Just as general nutrition has influenced sport nutrition, sport nutrition now influences general nutrition guidelines, showing applications for all areas of performance. The three nutritional periods in sport performance correspond with the music performance context for nutritional needs: 'training', 'pre-event', and 'post-event' nutrition.

Nutrition's many positive influences on sport performance include that of performance being optimised, energy stores being available during performance, fatigue being reduced, recovery being faster from training and injuries, and the health of the athlete being maintained (Wolinsky & Hickson 1994, 2). As these benefits are equally desirable for musicians, the following topics from sport nutrition and general nutrition are discussed:

- Sport Nutrition / Hydration Guidelines for Training and Performance
- The Importance of Carbohydrate-Rich Nutrition for Practice / Performance
- The Hypoglycaemia Phenomenon (Low Blood Sugar)
- The Stress-Prone Diet
- Nutrition — for the Mind and the Immune System



### *Sport Nutrition / Hydration Guidelines for Training*

Sport nutrition / hydration guidelines for training are important to (a) meet protein, vitamin and mineral requirements for mental/physical activity; (b) match increased fuel needs with carbohydrate-rich foods to maintain normal blood sugar levels (these factors affecting clarity of thought, mood swings and energy levels) and (c) create adequate fluid intake to prevent dehydration (Nelson Steen & Berning in Brownell, Rodin & Wilmore 1992, 293-312; Wilber & Moffat 1992; Burke & Deakin 1994, 16-37; Clark 1997, 166; Hawley & Burke 1998, 211).

Pre-event nutrition assists performance in many ways: preventing hypoglycaemia (low blood sugar); settling the stomach (by absorbing some of the gastric juices, or abating hunger); fuelling the muscles (both with food eaten in advance that is stored as glycogen, and with food eaten within an hour to assist energy supplies later in performance); and pacifying the mind with the knowledge that one's body is well fuelled (Clark 1997,167).

For musicians' pre-performance, Roland (1997, 50) recommends the following:

Complex carbohydrates (bread, pasta, brown rice, potatoes, oatmeal, beans, fruit, and vegetables) give a sustained release of energy and also help control energy swings ... [But] caffeine, coffee, cola, tea, and chocolate create physiological effects similar to adrenalin causing increased heart rate, increased breathing, and anxiety, not forgetting that nicotine in tobacco is also a stimulant.

Further guidelines for pre-performance are in the Training Manual (p.10).

Post-event nutrition allows the body to recover quickly for the resumption of training (Burke 1996, 3). Important issues in the recovery phase include 'restoration of liver and muscle glycogen stores, the replacement of fluid and electrolytes lost in sweat' as well as 'the regeneration, repair and adaption processes following the catabolic stress and damage caused by the exercise' (Burke 1996, 3). Post-event nutrition guidelines for musicians are found in the Training Manual (p.10).

As water constitutes sixty per cent of the body, it is a most essential nutrient and needs replenishing throughout the day (Curry 1992, 37). Hydration plays a crucial role in practice and pre-performance for both musicians and athletes as the brain

and body are affected by lack of hydration. For sport athletes it is recommended that fluids be drunk before exercise begins (Inge & Brukner 1986, 83-84) and certainly before one has thirst, for by the time the brain signals thirst, one may have lost one per cent of body weight (Clark 1997, 150, 144). Drinking too little water or losing body fluids through sweating inhibits one's ability to exercise optimally, so copious amounts of fresh spring water or carbohydrate rich drinks of fresh fruit and vegetable juices are recommended as energy boosters (Cabot 1997, 73-75; Clark 1997, 151). Research confirms that continuing normal hydration during exercise [ the musician's practice] maintains normal cardiovascular and thermoregulatory responses and improves exercise performance (Murray (1995, 5). Practical guidelines for musicians are found in the Training Manual (p.8).

#### *Carbohydrate-Rich Nutrition for Practice / Performance*

Studies since the 1980s show that carbohydrate intake enhances the performance of moderate intensity exercise for longer than ninety minutes (Wilber & Moffatt 1992, 317; Millard-Stafford, Roskopf, Snow & Hinson 1997, 26), this having implications for musicians in performance. Equally well known is that carbohydrate rich nutrition during exercise delays the onset of fatigue, maintaining optimum performance for a significantly longer period (Hawley & Burke 1998, 291), which has important implications for musicians' practice. The present study follows general sport and nutrition guidelines using percentages as a guide for carbohydrates, fats and proteins as outlined in the Training Manual (p. 5). The glycaemic index, reflecting the rate of digestion and absorption of a carbohydrate-rich food (Hawley & Burke 1998, 220-223; Brand-Miller 1999, 65-71) is not considered necessary for the present study, which has awareness about nutrition as its major consideration.

#### *The Hypoglycaemia Phenomenon (low blood sugar)*

Musicians need to be aware that eating regularly and healthily prevents the effects of low blood sugar during or after practice / performance (as exemplified in *Etude No.5*). Symptoms such as headache, dizziness, anxiety, trembling, increased heart rate, fatigue, blurred vision, and indecisiveness all lower stress tolerance and interfere with performance (Clark, 1997,167; Girdano & Everly Jr.1986, 78).

According to Hawley and Burke (1998, 262), low blood sugar causes both central nervous system fatigue and a shortage of fuel to the exercising muscle. Low blood sugar causes are many and varied. However, some causes unrelated to a diabetic condition are of interest to musicians. These are from eating foods high in sugars, or missing meals (Girdano & Everly Jr. 1986, 78), while other causes can be stress-related, or environmentally activated (Ellis in Null 1995, 85).

*The Stress-Prone Diet (caffeine, sugar, salt)*

Since the mid 1980's it has been known that caffeine, sugar, and salt add stress to the nervous system 'either by stimulating the sympathetic stress-response directly, or by contributing to its stimulation by creating a state of fatigue and increased nervous irritability' (Girdano & Everly Jr. 1986, 74).

Caffeine (in coffee, cola, tea, chocolate and cocoa) enters both the nervous system and the skeletal muscle (Spriet 1995, S 84). This increases metabolism to create an active state, triggering the release of stress hormones, which are capable of increasing heart rate, blood pressure, and oxygen demands upon the heart (Girdano & Everly Jr. 1986, 74 -75). Negative symptoms are 'anxiety, jitters, inability to focus, gastrointestinal discomfort, insomnia, irritability, and with higher doses, heart arrhythmias and mild hallucinations' (Spriet 1995, S 95). Caffeine affects control in performance and the self-regulation of muscle tension (Strauss 1987; Boulanger et al. 1987 in Rice 1992; Schaupp 1995; Roland 1997). Aside from individual sensitivity, which may include complete intolerance of caffeine (especially when feeling stressed), researchers concur that more than two cups interfere with motor performance (Strauss 1987, 74; Schaupp 1997, 63; Roland 1997; Clark 1997, 223) and five to six cups per day cause anxiety (Rice 1992, 376).

Sugar is empty nutrition, containing no vitamins. Although it gives a quick boost of energy, a slump follows, with the taking of the body's store of B vitamins. B vitamin deficiency then creates symptoms of irritability, general nervousness and anxiety with the process exacerbated further by stress (Girdano & Everly Jr. 1986, 76; Rice 1992, 376).

Salt and salty foods need to be minimised or avoided as the body stores salt. Excessive salt causes fluid retention, which has the effect of increasing nervous tension, leading to higher blood pressure (Girdano & Everly Jr.1986, 76).

*Nutrition — for the Mind and the Immune System*

Musicians can benefit from being health conscious, and having a nutritionally balanced mind-body state as the present five case studies demonstrate. Rice (1992) and Robertson & Monte (1997) illustrate how this balance can be monitored, with an understanding of the effects of stress on nutritional intake, and conversely, how one's diet or nutritional intake may affect stress.

Because stress has a general arousing effect on a person, stress has the potential to change both energy expenditure and energy intake. First, stress increases the rate of metabolism, the rate at which the body changes food supplies into energy. This leads to increased levels of sugar, free fatty acids, and lactic acid in the blood. Stress also has indirect effects on metabolism due to the influence of the pituitary. These include changes in water balance, suppression of the immune system, and increased carbohydrate and protein metabolism. The net effect of stress is that the body uses energy at a faster rate (Rice 1992, 375).

Research demonstrates that nutrition can alter mood and neural sensitivity, which in turn can change our reaction to stressors (Spring et al. in Rice, 1992; Robertson & Monte 1997; Hamilton 1998). Conversely, Robertson and Monte (1997) show that one can alter one's own brain chemistry, and learn to release the body's own antidepressants through diet, behaviours, activities and thoughts that produce uplifting chemicals in the brain.

Awareness about nutrition assists the musician to care for his/her immune system. The immune system is a connecting link between nutritional intake and performance outcome, 'the surveillance system that protects the human from disease and illness, being affected by diet and exercise practices' (Ratzin 1995, 34). Food nutrients most favourably influencing the immune system and therefore important in stressful performance situations are those containing vitamins A, C, E, the B vitamins, as well as the minerals selenium, zinc, magnesium, and copper, potassium and chromium (Holford 1998, 94-95; 104-105; 80-81). Foods rich in these nutrients are detailed in the Training Manual (p.9).

‘Truly there is no one diet for optimal exercise performance’ (McArdle, Katch & Katch 1981, 39). Deakin (in Burke & Deakin 1994, 16) supports this, saying that although dietary principles are generally similar for all athletes’ training (as opposed to dietary needs), individualised professional nutritional advice is advisable.

#### ***2.4.2 The Musician’s Need for Physical Exercise***

Exercise is regarded as a priority health issue for all Australians (Nutbeam in Williams 1997, 4). ‘Exercise has an immediate arousing effect, so that the participant’s perceived health is usually enhanced: the exerciser “feels better”’ (Morgan & Goldstone in Shephard 1997, 28). Exercise boosts the immune system, speeding gastro-intestinal transit, moderating sex hormone levels, and reducing body fat (Shepard in Williams 1997, 4).

The mind-body distinction has slowly, but noticeably yielded to the concept of biopsychosocial interactions — the position that the body, the mind, and the social context of human experience are reciprocally interdependent on one another (Seraganian 1993, 7).

The World Health Organisation also supports this view (U.S. Department of Health and Human Services 1996, 141). For the general population, daily moderate exercise is therefore recommended, with walking considered an ideal form of moderate exercise (Williams (1997, 5).

To gain overall benefits from exercise, one aims for aerobic fitness, which means ‘the ability to take in, transport, and utilise oxygen’ (Sharkey in Rice 1992, 392), resulting in the physiological enhancement of the cardiovascular and respiratory systems (Astand in Rostad & Long 1996). Incorporating others’ research findings, Rice (1992, 390-391) tabled the numerous physical and mental benefits of exercise, with benefits being for adults, adolescents and children. (This list is in Appendix 6, with many of these benefits applicable for musicians as seen in the Training Manual, p.11).

Exercise is recommended for inclusion in a musician’s practice regime (Spaulding 1995, 57-61; Roland 1997, 28). Roland (1994, 75) found that just over half of professional musicians he studied engage in regular aerobic exercise of at least a

moderate level. Roland's (1997) book resulting from his music performance research, makes performers aware of the need for some aerobic form of exercise such as brisk walking, jogging, or swimming, in order to cleanse the body of the build-up of stress-related chemicals (Roland 1997, 52). As flexibility is needed in the major muscle groups for blood circulation, stretching is also recommended before playing (Spaulding 1995; Roland 1997; Deakin 1997). According to Deakin (personal communication, June 20, 1997), 'even strength and conditioning training should be an integral part of improving performance in many of the "arts" performers'. Stretching exercises for upper, lower limb and trunk (produced by the Australian Sports Physiotherapy Group) are included in this study (with favourable reports seen in Chapters 5 and 6).

The Australian Consumers' Association (1996, 8) outlined the key factors which help people to choose the appropriate physical activity and maintain it and from these, four major points of importance for musicians were observed for the Training Program: 1) feeling you can do it fairly well; 2) not disrupting daily life and 3) being accessible and 4) inexpensive, or as here, with no costs involved. Walking is recommended for fitness (Seiger & Hesson, 1994; The Australian Consumers' Association, 1997; The Australian Consumers' Association, 1999), so is included as a physical strategy in the present study's Training Manual.

#### *Exercise as a Coping Strategy for Stress and Depression*

If fitness reduces the response to stress, then highly fit individuals would experience less stress and be less likely to become ill according to Seraganian (1993, 57). In the past ten years, considerable attention has been given to studies showing exercise to be therapeutic for the treatment of stress. (Devries 1976, Doan & Sherman 1987, Hughes 1984; Simons, Epstein, McGowan, Kupfer & Robertson 1985, Blumenthal et al. 1989; Petruzzello et al. 1991 in Rostad and Long 1996, 197). The importance of exercise as a coping strategy and its relationship with self-efficacy is made clear by Rostad and Long (1996, 199):

It may provide a strategy for coping with a stressful situation by regulating the emotions (e.g. relaxation), it may facilitate a problem-focused function (time to work through a problem...) or it may enhance personal resources by providing experiences that allow the individual to become more physically fit, self-confident, and self-efficacious.

Schwarzer (1992, 296) also shows that enhanced mood from exercise leads to strengthened self-efficacy with even mild to moderate levels of exercise enhancing physical self-efficacy.

There is also increasing evidence for the benefits of exercise for depression (Goldwag in Null 1995, 31-32; Robertson & Monte 1997). Robertson and Monte (1997, 41) explain that it is the chemical imbalance in the central nervous system, which needs restoring, in particular serotonin levels. This can be boosted in many ways, through relaxing forms of exercise such as walking in attractive places. This not only exercises the body but also stills the mind, creating a positive cycle:

[T]he settings themselves are peaceful and induce us to relax, which is serotonin boosting. And these higher levels of serotonin inspire thoughts that are positive and relaxing, which in turn boost serotonin again.  
(Robertson and Monte (1997, 41).

Goldwag (in Null 1995, 31-32) states that exercise is one of the most profound aids in the treatment of depression saying: 'We recommend you do first and then the feeling comes later ... Even doing a little bit of exercise will make you feel more energised later on ...'.

#### *Exercise affects Creativity (independently of mood)*

Of particular interest for musicians is the study by Steinberg et al. (1997, 240-241) suggesting that physical exercise improves mood and creativity quite independently of each other. These reports demonstrate that creative individuals use various forms of exercise, especially walking, to help them when they are blocked mentally. (Artists' numerous personal accounts throughout history reveal that walks in nature were regarded as creatively inspirational).

#### *Summary of Physical Strategies: Nutrition and Exercise*

The sport and general nutrition literature provides detailed information on the benefits of nutritional awareness for maintaining health, optimising energy requirements, reducing fatigue, as well as nutritional guidelines for the different phases of practice, pre-performance and post-performance. Similarly, the exercise literature provides overwhelming evidence for the benefits of simple, regular physical exercise on mental and physical health: for the prevention and alleviation

of depression, enhancing mood and stress coping ability, and positively affecting creativity. It is therefore clear that as the musician's lifestyle practices impinge on practice and performance, the combined effects of nutrition and exercise have innumerable benefits for the musician.

## **2.5 Self-Efficacy**

### ***2.5.1 Self-Efficacy and Performance***

Self-efficacy and its development appears to be the area most neglected in the performance education of developing musicians, evidenced by a lack of recognition of efficacy beliefs in music performance education. However, the feelings one has about oneself and one's capabilities under given circumstances play a decisive role in outcomes, whether it be music performance or any other activity.

Bandura (1977) coined the term 'self-efficacy' to describe an individual's personal perception of self-confidence or competence (Singer, Murphey & Tennant 1993, 14), saying that self-efficacy is concerned 'not with the number of skills you have, but with what you think you can do with what you have under a variety of circumstances' and 'Perceived self-efficacy refers to beliefs in one's capabilities to organise and execute the courses of action required to produce given attainments' (Bandura 1997, 3). As personal, behavioural and environmental influences are continually shaping and shaking one's sense of efficacy, it makes sense to have strategies to keep one's self-efficacy 'in shape.' Although some self-doubt about one's efficacy may be an incentive for acquiring knowledge and skills, the problem is that a lack of self-efficacy hinders the proficient use of developed skills (Bandura 1997, 76). One important practical example of the effects of a lack of self-efficacy is in the interpretation of one's state of affective arousal. Those with a high sense of efficacy tend to view their state of affective arousal as an energising facilitator of performance, whereas those experiencing doubts about their ability regard their arousal state as debilitating (Bandura 1995, 5).



The strengthening of self-efficacy beliefs would seem to be of paramount importance for the musician, to ensure positive outcomes in his/her practice and performance ability. With the accentuation of technical skills given due attention in performance education, the necessary technical skills required for playing music are often evident in musicians. 'However there is a marked difference between possessing subskills and being able to integrate them into appropriate courses of action' (Bandura 1997, 37). Self-efficacy is 'the generative capability' that allows one to integrate, organise, and orchestrate cognitive, social, emotional, and behavioural sub-skills under any circumstances (Bandura 1997, 36 -37). It is in the fusion of all these abilities under different and often difficult circumstances that a marked difference between musicians is noticed, regardless of skills ability.

As efficacy beliefs constitute the perceptions, thoughts, feelings and belief systems precipitating the cognitive processing of information, they are at the very foundation of individual differences in performance outcomes. 'Efficacy beliefs influence how people think, feel, motivate themselves, and act' (Bandura 1995, 2) having far-reaching influences on outcomes:

Such beliefs influence the courses of action people choose to pursue, how much effort they put forth in given endeavours, how long they will persevere in the face of obstacles and failures, their resilience to adversity, whether their thought patterns are self-hindering or self-aiding, how much stress and depression they experience in coping with taxing environmental demands, and the level of accomplishments they realise (Bandura 1997, 3).

### **2.5.2 Theory of Self-Efficacy — Sources of Self-Efficacy**

Bandura's (1977) Theory of Self-Efficacy states that self-efficacy can be developed or enhanced by the following four main sources of confidence information:

- 1) *Mastery Experiences* (experiences that generate a sense of mastery) are considered the most effective way of creating a strong sense of efficacy, as they are not only 'forceful persuaders' in promoting feelings of success, but provide 'the most authentic evidence' of whether one has what it takes to succeed, and so can 'build a robust belief in one's personal efficacy' (Bandura 1997, 80). This is not a guaranteed process, however, as failures can still undermine the sense of efficacy if one has not experienced and

learned how to persevere when faced with adverse conditions, or, if failure occurs before a sense of efficacy has been firmly established (Bandura 1997, 80).

- 2) *Vicarious Experiences* are those experiences provided by social models, and the comparison with the attainments of others, these experiences being strongly influenced by perceived similarity to the models. It is the seeking of people as models who have the competencies to which one aspires that becomes so important (Bandura 1995, 3; Bandura 1997, 86-88). This is particularly the case with musicians seeking suitable instrument teacher models. Bandura (1997, 88) clearly conveys the message of the important role the model plays in the life of the observer and the hidden implications of whether the resultant observer's experience will be positive or negative depending on the type of modelling provided. By their behaviour and expressed ways of thinking, competent models transmit knowledge and teach observers effective skills and strategies for managing environmental demands. According to the report of this present study, the modelling experience at tertiary performance institutions can sometimes become a negative one for musicians, causing them concerns and actually lowering self-efficacy (as seen in *Etudes* No. 1 and No. 3 in Chapter 5).
- 3) *Social or Verbal Persuasion* is a further means of strengthening a person's self-efficacy. It has been shown that people who are persuaded verbally that they possess the necessary capabilities to master given activities are able to put in greater effort and sustain that effort, than if they dwell on self-doubts and deficiencies (Litt, 1988, Skunk, 1989 in Bandura 1995, 4). Instrument teachers also fulfil the role of being social and verbal persuaders. According to the (United States of America) National Research Council (1994, 179) 'persuasive information includes verbal persuasion, evaluative feedback, expectations by others, self-talk, imagery and other cognitive strategies.

In terms of the present study, the musician's Training Program / Manual provides the strategies for one's own verbal or imagery persuasion, these particular mental strategies being negative thought control, self-talk, self-affirmations, and imagery rehearsal.

- 4) *Physiological and Affective States* is the fourth source of self-efficacy, with people partly relying on these aspects to judge their capabilities. The way to increase self-efficacy beliefs from this source is ‘to enhance physical status, reduce stress and negative emotional proclivities [tendencies], and correct misinterpretations of bodily states’ (Bandura 1995, 5).

Due to perceived low levels of self-efficacy, the intensity of emotional and physical reactions and the often-debilitating effects were a significant concern for musicians in this study, as their concentrational focus and confidence in performance were affected. Bandura (1997, 106) explains that how the emotional and physiological states are perceived and interpreted directly influences situational self-confidence, with the cognitive processing playing a major role in outcomes:

By conjuring up aversive thoughts about their ineptitude and stress reactions, people can rouse themselves to elevated levels of distress that produce the very dysfunctions they fear (Bandura 1997, 106).

This cyclic or repeat flow process involved in emotional arousal was seen earlier in Section 2.3.1 for Arousal Regulation (showing that the structures for arousal control are located in the brain). Because this is all played out visibly in music performance, it explains why musicians often feel concerned about their nervous systems. Research shows that elite athletes frequently practise mental training strategies to manage anxiety, build self-confidence, enhance concentration, and improve their general sense of motivation (Mahoney, Gabriel, & Perkins 1987). As the result of this, successful athletes have a higher level of self-confidence and self-efficacy than other athletes (Anshel 1994, 24). Although belief in one’s capability is not a substitute for having the required skills in music performance, ‘perceived self-efficacy is an important contributor to performance accomplishments’ irrespective of skills possessed (Bandura 1997, 37). This is because skills can be easily over-ruled by self-doubts, so that even highly talented individuals make poor use of their capabilities under circumstances that undermine their beliefs in themselves (Bandura & Jourdan 1991, Wood & Bandura 1989a in Bandura 1997, 37). Bandura’s (1997) seminal work *Self-Efficacy, The Exercise of Control* outlines how self-efficacy touches every aspect

of our lives today. Using suitable strategies for practice and performance, it seems apparent that self-efficacy sources can be harnessed for music performance confidence.

For the present study, three of Bandura's (1977) four sources are applicable, these being 1) mastery experiences, 2) verbal persuasion, and 3) physiological and affective (mood) states. The use of strategies for developing these particular sources and the resultant effects gained are outlined by Bandura (1995, 1997):

Developing a sense of efficacy through mastery experiences ... involves acquiring the cognitive, behavioral, and self-regulatory tools for creating and executing appropriate courses of action to manage ever-changing life circumstances (Bandura 1995, 3).

People who are persuaded verbally that they possess the capabilities to master given activities are likely to mobilise greater effort and sustain it when they harbour self-doubts ... (Litt, 1988; Schunk, 1989 in Bandura, 1995, 4).

The same heightened bodily sensations are experienced as pleasant states under an instilled positive construal bias but as aversive states under a negative construal bias ... Thus the problem is not arousal per se but the view one takes of it ... For panicky individuals ... treatments that alter catastrophic thinking or teach ways of controlling emotional arousal reduce negative biases interpreting bodily sensations (Bandura 1997, 109).

### **2.5.3 *Self-Efficacy in Education***

Besides being applied successfully to sport performance, Self-Efficacy Theory has been applied to educational settings at primary, secondary, and tertiary levels: for content domains (reading, writing, mathematics) and for student ability levels (average, gifted, remedial). Researchers have also examined how personal and environmental (instructional and social) factors affect self-efficacy and how self-efficacy affects learning, motivation, and achievement, with this research helping to 'clarify and extend the role of self-efficacy as a mechanism underlying behavioral change, maintenance, and generalisation' (Schunk in Maddux 1995, 281, 282).

The main points emerging from self-efficacy research in education have relevance for the present research.

Research in various domains has shown that students taught strategies typically improve their skills.

Learners who believe they are learning a useful strategy feel efficacious and motivated to apply the strategy, which increase skills and transfer (Schunk in Maddux 1995, 285).

The skills and strategies given to musicians must be seen by them to be of practical use in order for them to feel motivated enough to first learn about them, then practice and apply them regularly for practice and performance enhancement. As stated in Chapter 1, strategies cannot replace the musical skills and knowledge that are always required for performance. However, they *can* assist one to utilise the skills and knowledge that one already has.

In the present study, Sophie (*Etude* No.5) recognises this by stating:

I've got a more positive outlook. None of this [training] can change my actual level of ability on my instrument. But it can change my perception of my ability, and ability to *complete* tasks and *do* things [Sophie's emphasis].

#### **2.5.4 Self-Efficacy and Health**

Self-efficacy has been demonstrated to be a powerful resource for coping with stress in the domain of health, with perceived self-efficacy to exercise control over stressors playing a central role in people's arousal levels (Lazarus & Folkman, 1987 in Schwarzer 1992, 221; Bandura 1997, 275). Perceived self-efficacy in coping with stressors affects the immune function (Wiedenfeld et al. 1990 in Bandura 1997, 275; Schwarzer 1992, 221). Bandura (1997, 261) makes clear that people's health rests partly in their own hands. The psychic environment people live in is largely of their own making (Bandura 1986, 8). Finally, perceived self-efficacy affects every phase of personal change, influencing even whether people consider changing their health habits (Bandura in Schwarzer 1992, 355).

## 2.6 Conclusion—Synthesising the Main Elements

A self-efficacy theoretical framework seems appropriate for performance confidence training in music, because self-efficacy beliefs affect thought patterns that either enhance or undermine performance. Indeed to succeed in the demanding field of music performance musicians need ‘a robust sense of personal efficacy to sustain the perseverant effort needed to succeed’ (Schwarzer 1992, 22). The common characteristic of those who finally achieve eminence in any field is the display of ‘an unshakeable sense of efficacy and a firm belief in the worth of what they are doing’ (Bandura 1997, 73). Surely the musician’s performance training period is one of the most important periods for developing that unshakeable sense of belief in one’s abilities, and the worth of what one is doing.

Appropriate mental and physical strategies can assist the development of sources of self-efficacy. Bandura (1995, 3) prescribes ‘cognitive, behavioral and self-regulatory tools’. The present research uses a holistic approach and framework of strategies for developing self-efficacy in performance to address the management of performance. This approach is different from the preceding *quantitative* music performance studies, which focused on the *treatment* of performance *anxiety* using a *cognitive-behavioural* approach (reviewed in Section 2.2). The present *qualitative* study focuses on the *training* of performance *confidence*, with emphasis on positive growth and development for optimal mind-body functioning. The holistic approach for performance as described by Hill (2001, 107) within a humanistic model / framework for Sport Psychology / Sport Performance (Section 2.3) is being applied to music performance.

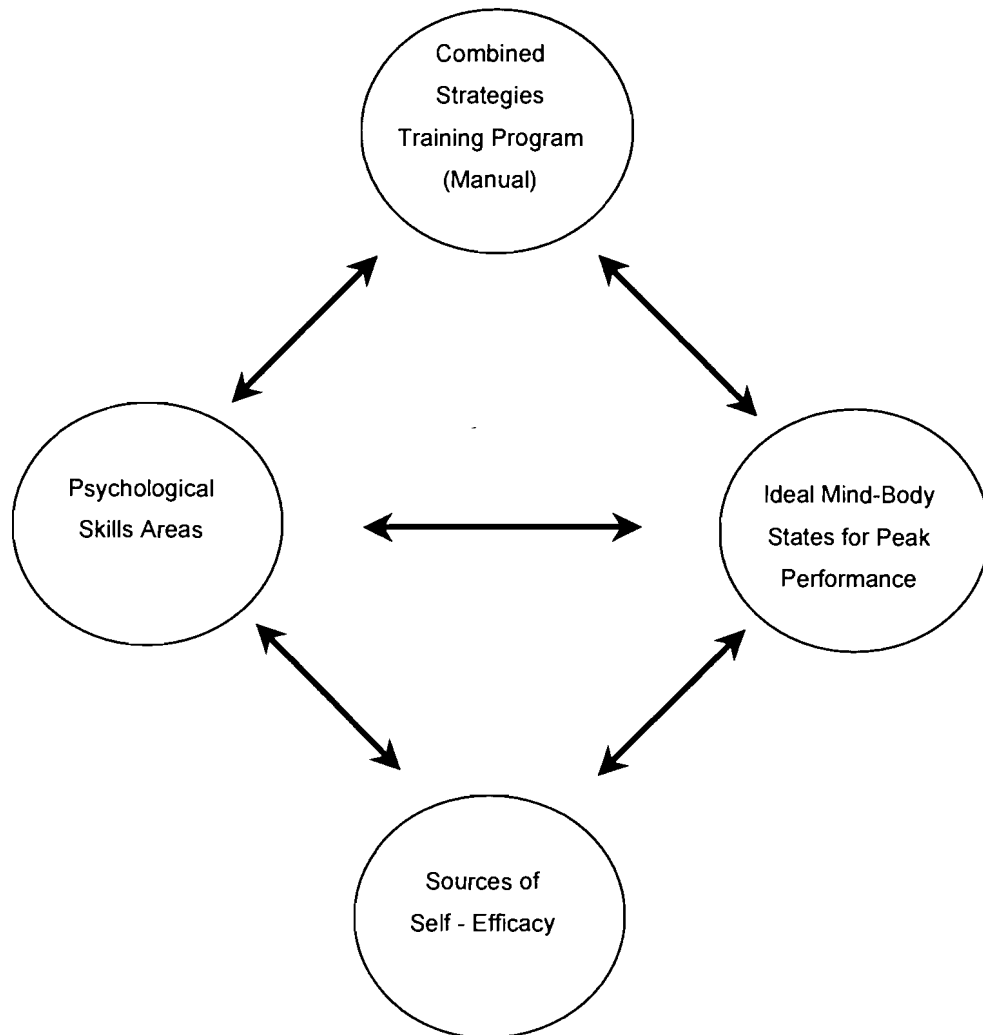
Mental and physical strategies from relevant works of music performance, from sport psychology / sport performance, and self-efficacy literature were selected for the Training Program on the basis of their mind-body attributes and applicability to music practice and performance. The six strategies are Nutrition, Exercise, Meditation and Deep Breathing, Negative Thought Control with positive Self-Talk, Self-Affirmations, and Imagery Rehearsal.

These strategies are suitable for music performance confidence training for the following reasons:

- 1) These strategies assist the four main psychological skills required for performance: Attentional Focus, Arousal Regulation, Imagery and Self-Efficacy (as defined in Section 2.3.1).
- 2) These strategies promote the ideal mental and physical states for peak performance experience (as described in Section 2.3.3).
- 3) These particular strategies are able to harness three of the four main sources of self-efficacy as stated in Bandura's (1977) Theory of Self-Efficacy (Section 2.5).

Figure 3 illustrates the connections for developing performance confidence.

**Figure 3. Strategies Framework**



The next chapter looks at the Design of the Training Manual, showing how the combined six strategies can be used to develop situational self-confidence in music practice and performance.



## Chapter 3 The Training Manual Design: Training Program For Musicians

As coaches have turned to a more mind-body approach to training, athletes have responded with improved performances and greater longevity in the sport.

(Ungerleider 1996, 7)

### 3.1 Introduction

The Training Manual was designed with the aim of providing musicians with a framework of practical strategies for enhancing practice and performance, in order to promote performance confidence, and thereby answer the research question:

*Would a performance enhancement training program for musicians, modelled on sport performance's mental and physical training strategies, promote the development of performance confidence in music?*

The design of the Training Manual was influenced by the literature survey of performance skills and strategies governing mind-body connections in practice and performance. This chapter proceeds as follows:

Section 3.2 outlines the Training Manual's foundational principles.

Section 3.3 describes the Training Manual's structural design and outline.

Section 3.4 outlines the six training strategies.

Section 3.5 summarises additional sections complementing the training strategies.

Section 3.6 gives the conclusion to the chapter.

### 3.2 The Training Manual's Foundational Principles

The foundational principles support the aim of this research adopting an holistic approach to music performance by (a) viewing performance in terms of *management* of performance (b) adopting a philosophy of mindfulness to increase awareness of the mind-body connections in performance, and (c) developing Bandura's self-efficacy principles.

The Training Manual invites musicians to view performance from the perspective of 'performance management', using a nurturing approach in order to feel (both mentally and physically) a sense of control in practice and performance. A regard for the holistic process of performance comprising the three interconnected phases of Practice, Lead-Up to Performance and Performance assists the management of performance. From the student musician's perspective, the emphasis seems to be on the end 'product' of the performance, separating the experience of the performance event from the practice and lead-up to it. This can minimise the importance of the person's experience, self-efficacy beliefs, and the musical development process in the resultant performance outcome; in effect, using a scientific approach that separates mind from body. In order to develop the musician's regard for this developmental process, the guiding principles adopted by Einstein have been recommended.

The ideals that have lighted my way and time after time have given me new courage to face life cheerfully have been Kindness, Beauty and Truth (Einstein in Seelig 1973, 9).

The differing approaches described as the Sophist approach versus the Socratic approach in sport psychology (seen in Section 2.3) confirm the need for strong foundational principles for the development of a successful training program.

The underlying philosophy of the Training Program /Manual is one of mindfulness, in order to increase awareness of the mind-body connections in practice and performance, thereby promoting the mental and physical edge necessary for optimal performance.

Ravizza (1998, 178) explains the importance of awareness in performance as follows:

Developing awareness is a critical element of peak performance because it provides athletes [musicians] with the experiential knowledge to gain control of the performance.

The development of self-efficacy needs to be an integral part of a training program for musicians just as it is does for athletes. As self-efficacy is both a constructor and product of experience (Bandura 1997, 81), not only are the sources for developing self-efficacy important (as described in Section 2.5.2), but also the understanding of how changes in perceived efficacy come about.

Changes in perceived efficacy result from cognitive processing of the diagnostic information that performances convey about capability rather than from the performances per se. Therefore, the impact of performance attainments on efficacy beliefs depends on what is made of those performances (Bandura 1997, 81).

Roland's (1994,122) finding that improved self-perception would lead to an improvement in playing corresponds with Bandura's statement. From the literature findings (Sections 2.3.1 and 2.3.3) it is apparent that, learning *how* and *when* to initiate positive thought processes could initiate important mind-body interactions. Positive mental and physical states (optimal mind-body states) could be self-induced as a daily habit, arousal levels could be self-regulated, and concentrational focus and imagery perception could be improved, all leading to more effective practice and enhanced performance.

### **3.3 The Structural Design and Outline of the Training Manual**

A performance enhancement / confidence training manual for musicians has not been available or trialed before, although a limited number of such books are available to musicians (Green & Gallwey 1986; Roland 1997). Suinn's (1986) mental training manual for athletes *Seven Steps to Peak Performance* provided the initial concept of a training manual for musicians. However, the musician's Training Manual highlights integrative mental and physical strategies, which operate in tandem rather than in steps.

The interactive strategies selected are intended to assist awareness of the mind-body interactions and the development of performance skills in practice and the lead-up, in preparation for one's optimal music performance.

The 'scaffolded learning' style (Crotty 1998,1) adopted gives the initial outline of strategies with suggestions for use, thereby encouraging the learner to establish his/her own longer-term structure. This style is intended to develop the musician's self-reliance by using such techniques as goal setting and a personal daily structure to promote intrinsic motivation and self-regulated personal development.

Within one's personal training schedule, consideration is given to learning how to pace one's physical and emotional energy to maintain a sense of control (Nideffer 1985, 95) as it is apparent that sense of control is directly related to self-efficacy in performance (Bandura 1997).

The booklet has the following outline of sections:

The initial explanatory section 'How to Use the Booklet' gives the underlying principles and intentions of the booklet. The six strategies are:

- 1) Nutrition
- 2) Exercise (Stretching and Walking)
- 3) Meditation and Deep Breathing
- 4) Negative Thought Control and Self-Talk
- 5) Self-Affirmations
- 6) Imagery Rehearsal

Each strategy is explained with suggestions for practice. Inter-relationships and overlaps between the strategies are acknowledged throughout the Training Manual.

Additional sections, which complement the strategies, are also outlined:

- a) Energising: ‘How to Get Yourself Up when You are Down’ highlighting the use of the five senses
- b) ‘Putting it All Together’ (the *Gestalt* strategy) giving the appropriate sub-strategies, which assist in bringing the strategies together, along with guidelines showing how this can be achieved in a daily context.
- c) Five weekly Training Logs allow for the possibility of self-monitoring.
- d) Nutrition Planning is included to assist with simplifying nutrition considerations. The booklet concludes with References and Further Reading.

Summaries of the six strategies and the additional sections follow.

### **3.4 The Six Strategies**

The literature survey in Chapter 2 shows that the selected strategies are accessible, interactive, easily learned, and have practical application for musicians, thus allowing for an integrative framework to assist practice and performance. The important message is that by applying the strategies in a lifestyle context, throughout the day in and around practice, the strategies become more interactive and the effects more apparent than if they were only applied randomly (as will be demonstrated in the five *Etudes*, Chapter 5).

#### *Nutrition*

Using the manual for guidelines, the musicians are encouraged to nourish the body becoming aware of mind-body connections. As good performance is reliant on the smooth flow of mind-body connections, the brain needs to be alert and muscle groups need to function well.

The following five general nutrition principles support mind-body connections and form the foundational guidelines for nutrition to be a practice / performance strategy:

- To create the balance of carbohydrates, protein and fat to meet the physical and mental demands of practice and performance
- To adopt regular eating patterns
- To recover fuel reserves by eating / drinking healthily soon after practice / performance
- To drink adequate fluids, and
- To minimise the intake of salt, alcohol, caffeine and sugar.

Suggestions follow for application of these principles for general health and performance energy. The three food types (carbohydrate-rich foods and drinks, protein, and fatty acids ('the good fats')) are detailed. Attention is drawn to the importance of fluids and how to avoid the 'stress-prone diet', with sources of 'anti-stress' foods. Finally, suggestions are given for incorporating nutrition guidelines for each phase of practice, pre-performance and post-practice / post-performance.

#### *Exercise (Walking and Stretching)*

Physical activity guidelines widely accepted for general health are outlined showing the role of regular moderate exercise and the resultant mental and physical health benefits. The regular moderate exercise activities of walking and stretching were selected for the musicians in this study on the basis of the considerable literature findings for overall effectiveness, practicality, simplicity, and no cost involved. General benefits are tabled along with a suggestion to explore the benefits for music practice and performance. For example, walking not only enhances one's mental outlook, and increases energy and fitness levels, but can also be used as an effective 'break' from practice — for relaxing the mind and body, changing negative thought patterns, problem solving, or goal-setting. Stretching can also be used effectively: upon rising in the morning, prior to

walking to prevent stiffness and muscle tension, and stretching for a few minutes throughout the day to combat sluggishness and regain energy. Following these suggestions, space is left for the musician to write down ‘What Works for Me’.

### *Meditation and Deep Breathing*

The practice of Meditation is recommended in this study for ‘enabling a certain kind of consciousness to be established’ with the purpose of getting oneself ‘passively relaxed, yet still positively focused’ by observing one’s breathing for a calm, focused mind (Ungerleider 1996, 25). The practice of meditation is also recommended for creating a sense of calm by creating meditative moments during the course of the day (for example while travelling en route or waiting in queues). The meditation practice style is the individual’s personal choice. Only the basic fundamentals are outlined. The goals are to reduce external stimulation, and to create a relaxed state of focus in which alertness and control are maintained without producing tension. Space is left for the musician to write in ‘How Meditation Works for Me’ (p.15 in the Training Manual).

Deep Breathing, as well as being the essential part of meditation, is also recommended to be used separately as a physical tool to replace shallow breathing caused by ‘nerves’, and to calm the heart rate as well as one’s whole being. It is also considered beneficial against the build-up of shallow breathing, which can cause hyperventilation. Deep Breathing can be an effective practice / performance strategy for use at suitable pre-planned points during playing, for example, just prior to a difficult technical section, or during rests and pauses. A simple breathing exercise is outlined to calm oneself, taken from Girdano and Everly Jr. (1986, 141). Here too, space is left for the musician to note time and place for ‘How Deep Breathing Works for Me’ (p.17 in the Training Manual).

### *Negative Thought Control with Self-Talk*

Controlling negative thoughts with positive self-talk is an essential strategy as the individual’s thought processes directly influence the four psychological skills areas. Thus the phases for controlling negative thought processes are outlined, with the initial phase being awareness about one’s thought processes and the monitoring of these, as ‘our consistent thinking patterns create our experiences’

(Hay 1989, 5). The last phase entails the exercise of judgment: taking control by either ‘letting go’ of negative thoughts, or by saying ‘stop’ and then *changing* the content of the thoughts by replacing negative thoughts with positive ones, inserting positive self-talk. Examples are given (p.19).

Also given are the common faulty thought patterns, which can lead to emotional distress, perhaps jeopardising performance. These are identified by Beck (1976, 91-94) as cognitive distortions: a variety of specific information processing errors such as catastrophising, selective abstraction, polarised thinking, overgeneralisation, or arbitrary inference (jumping to conclusions). Space is provided for a self-diagnosis of specific thought patterns, along with personal solutions for the changed mental Self-Talk (p.19-20). Personalising these changes allows one to take control of the situation.

### *Self-Talk*

Self-Talk, a technique of saying useful ‘cues’ to oneself is recommended for various situations when playing. Examples of using cue words / phrases are given showing that this strategy could be useful in the following situations: for evoking emotions and moods in the music; to trigger oneself mentally and/or physically; and for the strategic placement of cues at particular points throughout the music. Space is left for personal self-talk cue words and phrases to be noted for various situations (‘What Works for Me’ in the Training Manual p.21-22).

### *Self-Affirmations*

Self-Affirmations, a very specific individualised type of Self-Talk, is recommended as a strategy for practice and performance to be used in the following ways: to create a positive approach to changing negative thought patterns; to combine with imagery in the weeks leading up to a performance; and to set the appropriate mental state and give oneself confidence prior to the performance. Examples of self-affirmations for various situations are given. The importance of personalising affirmations and creating these in the present tense is emphasised, with space provided for self-affirmations to be written (p.24 in the Training Manual).



### *Imagery Rehearsal*

Imagery Rehearsal, the mental equivalent of physical practice, is explained as the practice of creating images in the mind using as many senses as possible, either separately or in combination. Some of the varied ways this strategy is beneficial for practice and performance are outlined, along with short mental exercises to 'sharpen up' the senses. The student performer is then advised to build on the given examples to suit his/her own needs, by differentiating between the practice of 'External Imagery Rehearsal' and 'Internal Imagery Rehearsal'.

External Imagery Rehearsal is explained as experiencing images *outside* of one's own body, (picturing the music visually, or 'seeing' on a screen the practice of 'freeing up' one's movements. Internal Imagery Rehearsal is explained as experiencing images *inside* one's own body, for example, using an aural sense of one's interpretation, combining the aural sense with the photographic visual sense of the music, or combining any of these with the kinaesthetic sense of feeling the music in one's fingers, possibly even adding the visualisation of playing in the venue. Suggestions are given for when these two contrasting types of imagery might be suitable for practice and performance rehearsal, with space provided for personal examples to be written ('How Imagery Rehearsal Works for Me' in the Training Manual p.27).

## **3.5 Additional Sections Complementing the Training Strategies**

### *Energising: How to Get Yourself 'Up' When You are 'Down'*

Musicians, like other people, experience days when they may feel 'down' and possibly unable to achieve quality practice. Therefore, some suggestions are given for self-rejuvenation, with a recommendation for time taken for self-nurturing. The five senses are shown to be useful for changing one's thoughts and feelings, with examples given (pp.28-30). Attention is drawn to the mind-body relationships involved in the following: a) the chemicals in our brain help to create our feelings, moods, thoughts, and behaviour, and b) the brain chemistry can be altered by food, exercise, thoughts, emotions, and actions (Robertson & Monte 1997, 3). Again space is provided for noting 'What Works for Me'.

### *Putting it All Together*

In the preface to the Training Manual the importance of integrating the strategies is emphasised, in order to promote the *Gestalt* effect (the whole being more than the sum of the parts). This section demonstrates how to integrate the strategies into daily life using the following twelve valuable techniques (pp. 31-35 of the Training Manual):

1. Goal setting for the long-, intermediate- and short-term.
2. Developing a work structure.
3. Developing a daily practice agenda. Two contrasting examples are given: one for a practice day at home, and the other for a mixed day of lectures / practice / rehearsal.
4. Creating a realistic practice agenda.
5. Creating a good working environment.
6. Being aware of energy control and pacing energy efficiently to prevent stress.
7. Being aware of mind-body connections.
8. Using meditation and deep breathing effectively.
9. 'Loosening up' physically.
10. Using rituals / routine for pre-performance
11. 'Looking after yourself' with guidelines for health maintenance before and after a major performance; the use of mental training strategies; and how to stay in shape musically when feeling unwell or too fatigued to practice.
12. Listening to your mind-body needs: incorporating guidelines for knowing one's optimal level of stress; being in tune with the warning sign of stress; common signs of long-term stress; keeping physically fit; and maintaining a balanced lifestyle.

### *The Weekly Training Log*

The five weekly training logs at the back of the Training Manual highlight the important features of each strategy while acting as reminders to practise each strategy daily. Extra space is provided for personal progress notes. These training logs were for the participant's use only, as the interviews and follow-up questionnaire provided the data sources for this study.

### *Planning your Nutrition — Suggestions*

Suggestions are given for useful food supplies to have at home at all times. Based on nutrition guidelines for optimal performance, suggestions are given for quick, easy and economical choices for breakfast, lunch, dinner, and snacks. The most suitable hydration choices are also listed for before practice / rehearsal, and during practice / rehearsal.

## **3.6 Conclusion**

The Training Manual provided the structural framework and guidelines for the five week Training Program. Written as a practical self-help booklet in format, style, and presentation, it was intended as a companion booklet for the participants in this study as there were no tutorials. A thorough reading of the booklet was recommended before beginning practice of this Training Manual / Program, in order to gain an overview and understanding of the foundational principles and the strategies and their relationships. This Training Manual became the centrepiece of this research study: being used as the tool to explore and interpret the participant musicians' experiences in practice and performance *before* and *after* the five weeks of training.

The following chapter outlines the methodological approach taken for this study, along with the rationale for the choice of the case study method, and the selected techniques of data collection and analysis.

## Chapter 4 Research Methodology

The phenomenon that *always* escapes is the 'essential' reality pursued in such work. The phenomenon that can be made to *reappear* is the practical activity of participants in establishing a phenomenon-in-context.

(Silverman 1993, 203)

### 4.1 Introduction

This research examines five case studies from a phenomenological perspective, which is a particular type of interpretive approach within a qualitative paradigm. This methodological approach seems appropriate for exploring the effects of this study's new Training Program on the individual's performance confidence, for reasons that are clarified in this chapter.

The previous chapter outlined the foundational principles and structural design of the Training Manual for promoting confidence in music performance. This chapter describes the methodological perspective, method, and techniques chosen to carry out this qualitative research and the rationale underpinning these choices, with the chapter proceeding as follows:

Section 4.2 describes the phenomenological perspectives and rationale behind it.

Section 4.3 outlines the philosophical assumptions behind the interpretive nature of this research.

Section 4.4 gives the epistemological perspective governing this research.

Section 4.5 describes the case study method and the rationale for its use.

Section 4.5.1 explains the limitations and difficulties associated with this method.

Section 4.6 looks at the ethical considerations in undertaking this study.

Section 4.7 outlines the data collection and data analysis process.

Section 4.8 describes the data collection techniques.

Section 4.8.1 displays the data collection structural design.

Section 4.9 views the setting, the sample, and the process of establishing and undertaking the research study.

Section 4.9.1 evaluates the process outlined in Section 4.9.

## **4.2 Methodology: Phenomenological Perspective and Rationale**

Phenomenological research focuses on the description of people's experiences, what they experience, and how they experience them (Patton 1990, 71). This perspective aims at gaining a deeper understanding of the nature or meaning of our everyday experiences, asking the important question, 'What is it like for you?' (Van Manen 1990, 9). The thoughts and feelings of the person's experience (the subjective perceptions, including the influence of knowledge produced by others), as well as the person's involvement with the experience in its natural setting and in social context, are all considered important aspects of this particular perspective. For the researcher, it follows that the focus is on the psychological processes and the separate meanings that exist for individual people (Connole, Smith, & Wiseman 1993, 133). The resultant reflective report, as seen in the case study, is the interpretation of that unique 'lived experience' (Van Manen 1990).

This phenomenological study supports the 'inside' account of how performance is experienced by performance students today.

Features of the present research which identify with the phenomenological approach are:

- 1) The exploratory, probing, and interpretive features underlying the nature of the research question:

*Would a performance enhancement training program for musicians, modelled on sport performance's mental and physical strategies, promote the development of performance confidence in music?*

- 2) The desired in-depth nature of inquiry, for the investigation of the real life experience of performing music, the person's involvement and his/her interpretation of that experience.
- 3) The rich description required for interpreting and presenting the data analysis of such a complex phenomenon as performing music.

An appealing feature of this methodological perspective is the possibility of gaining a fresh appreciation of the experience.

Phenomenology suggests that if we lay aside, as best we can, our prevailing understandings of those phenomena and revisit our immediate experience of them, possibilities for new meaning emerge for us, or we can witness at least an authentication and enhancement of the former meaning (Crotty 1998,78).

Developed by the German mathematician and philosopher Husserl (1859-1938), phenomenology claims to be scientific in a broad sense: being a systematic, explicit, self-critical, and intersubjective study of its subject matter, which is lived experience (Van Manen 1990, 11). The reflective nature of the phenomenological perspective, 'the attentive practice of thoughtfulness' (Van Manen 1990, 12) has influenced all aspects of the research: the method, the data collection and analysis, and the philosophical foundation of the Training Program Manual.

### **4.3 Philosophical Assumptions**

The underlying philosophical assumptions for the interpretive nature of this research, informed by Conole, Smith and Wiseman (1993, 105-109), are:

- There are multiple realities and no absolute truth.
- The subjective reality and meanings of the subject are important.
- The subjective meanings of the actions of the subject need identification, description and analysis.
- The interpretive accounts need to be made intelligible to outsiders.
- The subject needs to be observed in his/her social context (natural setting).

- The researcher is a ‘participant observer’ disturbing the process as little as possible

Interpretive research (of which phenomenology is a particular type) strives to understand how all the parts work together to form a whole (Merriam, 1988,16). Patton 1985 (in Merriam 1988, 16) describes this methodological perspective in more detail:

It is an effort to understand situations in their uniqueness as part of a particular context and the interactions there. This understanding is an end in itself, so that it is not attempting to predict what may happen necessarily, but to understand the nature of that setting, what it means for participants to be in that setting, what their lives are like, what’s going on for them, what their meanings are, what the world looks like in that particular setting — and in the analysis to be able to communicate that faithfully to others who are interested in that setting. The analysis strives for depth of understanding.

#### **4.4 Epistemological Perspectives**

The qualitative assumptions are closely linked to the epistemological perspectives of Subjectivism and Holism, which guided and shaped this research. These overarching concepts embody the inter-relationships of the mind-body in music performance.

*Subjectivism* in terms of methodology usage refers to the inner world of experiences in terms of the individual’s thinking and acting, where ‘meaning does not come out of an interplay between subject and object but is imposed on the object by the subject’ (Crotty 1998, 9). The musician’s relationship with his/her performance environment is an intensely personal and complex one: with regard to thoughts and behaviour, resulting from the personal experiences associated with the performance preparation and presentation and his/her life. The performance cannot be separated from the performer because the performance *is* the performer: his/her thoughts, feelings, beliefs, understandings and behaviour all constituting the performance. To highlight subjectivity, one needs as researcher to focus on people’s understandings and interpretations of their social / working environment, not the environment itself (May 1997, 13): that is, the meanings that people have

imposed on that which one is investigating. Phenomenology extends Subjectivism by advocating the scientific study of the immediate lived experience or phenomenon. Although there is no denial of the objective reality of events, the main issue for phenomenological analysis is to avoid focusing on the physical events themselves and to deal instead with how they are perceived and experienced (Reber 1995, 564).

My particular interest as researcher here is twofold: firstly, to uncover the musician's perceptions in relation to his/her total performance experience — from the beginning stages of preparation through to, and including, the performance presentation. Secondly, I wish to explore the possibility of a bi-directional change between perceptions and performance confidence, when a framework of training strategies is introduced to assist the psychological skills for performance, and the ideal mind-body states for peak performance experience.

Alongside the subjective inner world of music performance is the concept of Holism governing the music performer and the music performance. *Holism*, the philosophy found in Wertheimer's Gestalt Theory of 1925, aims to determine the nature of the whole:

There are wholes, the behaviour of which is not determined by that of their individual elements, but where the part-processes are themselves determined by the intrinsic nature of the whole (translation by Ellis 1938, 2).

This way of thinking is appropriate for the complexities involved with performing. Performing music requires that the cognitive part-processes be determined by the whole of a musical work, while the individual's mind-body processes in turn influence the nature of the resultant whole. However, a scientific approach of elemental isolation is often evident in music performance education today, with some examples being an emphasis on the 'product' outcome, or the attempt to isolate performance 'anxiety' from the performance experience. However the *Gestalt* concept opposes a scientific approach that disregards part-whole relationships as the following demonstrates:



Gestalt theory ... opposes the scientific approach, that advocates breaking up complexes into their component elements, isolating the elements, discovering their laws, then reassembling them, and saying the problem is solved (Wertheimer in Ellis 1938, 2).

Wilber (1998, 61) concurs that there are no wholes or parts, only 'whole / parts'. He notes that Arthur Koestler coined the term "holon" to refer to 'that, which, being a whole in one text is a part of a wider whole in another' (Wilber 1998, 50). In this research the musician is being viewed as a whole, the mind-body systems being not separate entities but in communication with each other, as the interdisciplinary sciences of psychobiology and psychoneuroimmunology demonstrate (Section 1.4.3). Music performance is also being viewed as a whole, with practice and the lead-up being 'whole / parts' in the total process of performance. Personal observations of the exclusion of whole / part relationships involved in the person's performing experiences became the impetus for the present research.

The quest for integration, wholeness and self-knowledge, which is part of the present social historical *Zeitgeist* and appropriate for music performance enhancement today, led to sources further back in time. Holism and Subjectivism are both reflected in Greek educational philosophy, with the union of mental and physical attributes being practised in the fourth and fifth centuries BC. In Plato's dual education of youth (with the physical *gymnastike* and cultural *musike*), emphasis was on the psyche, in order to give unity to a complex whole of parts, with satisfaction to the eye and ear along with moral excellence. A simple diet was also part of this philosophy (Guthrie 1975, 450). Plato's teacher, Socrates, espoused that wisdom through self-knowledge developed the whole person, with Socratic 'dialogue' (questioning and joint inquiry) being the process of learning and understanding (Versenyi 1963, 123). The present study pursued the concept of dialogue between researcher and participant for the recreation of the subjective interpretation of the performance experience, while reflecting the importance of 'self-knowledge' through the practice of mental and physical attributes: demonstrating that Greek educational philosophy of twenty-five centuries ago still has relevance today.

## 4.5 Case Study Method and Rationale for its Use

An appropriate method of investigation was sought that could address the individual's relationship to music performance, and an understanding of the personal performance experience. Being aware that aspiring music performers remain unfamiliar with the performance psychology principles to which sport athletes have long had access (Roland 1994; Schaupp 1997), I looked at how musicians generally gain inside knowledge about performance. This is via stories, passed on from colleagues and teachers, or through reading and hearing about successful performers. The method of presentation also needed to fit the holism treatment criteria. Merriam (1988, 153) states that one selects a case study approach because of an interest in understanding the phenomenon in a holistic manner. Case Study method within interpretive methodology is appropriate, as it allows the personal story of the practising performer to be heard (as 'the lived experience') in a practical format, allowing accessibility and understanding.

Knowledge produced by case study would be judged on the extent to which it is understandable and applicable. Thus a pragmatic conception of truth undergirds this approach (Merriam 1988, 26).

Case Study research is inductive: focusing on the process, understanding and interpretation with themes emerging from the data, rather than themes being imposed on the data as seen in deductive analysis. This type of research requires holistic intensive description, and is heuristic, offering insights into the phenomenon under study, while illuminating the reader's understanding. It does this by bringing about the discovery of new meaning, and extending the reader's experience or confirming what is known (Merriam 1988, 13, 21). These particular characteristics suit the exploratory, interpretive nature of the present study.

Yin (1994, 1) points out that case study is the preferred strategy when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life context, the criteria reflected in this research. Events in this study cannot be controlled, and this is in fact desirable, given that performing music (with accompanying thoughts and feelings) is a subjective issue. This research demonstrates a contemporary phenomenon

within a real-life context, the aim of the research being to ‘retain the holistic and meaningful characteristics of real-life events...’ (Yin 1994, 3).

Quantitative measurement is not considered appropriate for this research, as the performance world in particular is ‘not an objective thing out there but a function of personal interaction and perception’ (Merriam 1988, 17). A case study exploration of the effects of the Training Program for performance confidence provides the means of interpreting personal performance experiences.

Case studies are as valuable for music education as they are for general education, and for the same reasons. Firstly, they can illuminate the social phenomenon in its embedded context, because the naturalistic setting defies the fragmentation of manageable bits, and secondly, they can produce authentic insights to reflexively change the situation (Kemmis in Merriam 1988, 164). By constructing five case studies, I wanted to display a range of musicians’ experiences with which practising and professional performers could identify, gain new insights and perhaps learn how to overcome some of their own concerns. These are interpretive type case studies. Though holistic description remains an important characteristic of all case studies, interpretive case studies in education go beyond that of intensive description with the researcher using the data to analyse, interpret, or theorise about the phenomenon (Merriam 1988, 35). In the present case studies, data is used to analyse and interpret.

The approach taken to interpret this data is the ‘hermeneutic’ approach, which is the theory and practice of interpretation and understanding, in different kinds of contexts. Used to interpret the phenomenological experience, the ‘hermeneutic’ approach demonstrates that the parts and the whole must be interpreted from each other, forming a circle. This flow of understanding between the parts and the whole is called the ‘hermeneutic circle’ or ‘circle of understanding’ (Crotty 1998, 92).

This process of understanding is explained further:

One form in which the hermeneutic circle is encountered is the claim, that, in order to understand something, one needs to begin with ideas, and to use terms, that presuppose a rudimentary understanding of what one is trying to understand. Understanding turns out to be a development of what is already understood, with the more developed understanding returning to illuminate and enlarge one's starting point. Another way to conceptualise the hermeneutic circle is to talk of understanding the whole through grasping its parts, and comprehending the meaning of parts through divining the whole (Crotty 1998, 92).

The first explanation of hermeneutics aptly describes the process of the data collection of the present study: Topics of interest were put to the participants and the 'themes' that emerged became the terms pre-supposing a rudimentary understanding of what one was trying to understand. The second explanation projects the understanding of the data analysis: viewing how the act of performance was so closely bound up with the 'parts' of the interconnected phases of Practice, Lead-Up (the time leading up to the performance) and the Performance.

#### ***4.5.1 Limitations and Difficulties of the Case Study Method***

Important issues of consideration, which need to be observed within the use of this particular method are subjective bias, generalisation, time and information overload, reliability, validity, and rigour (Burns 1997, 379-383). However, any critique in these areas can be counteracted with the principles stated by Burns (1997, 374) of the following: data collection using multiple sources of data; the maintenance of a chain of evidence; and the careful recording of data. This study observes such principles by using multiple sources of data (two interviews and a follow-up questionnaire for each participant); a chain of evidence with case study analysis techniques; along with carefully recorded data of transcripts of the interviews and questionnaire responses. From these various data sources, the effects of the Training Program on the perceived sense of performance confidence could be interpreted.

### *Subjective Bias*

Case study research admits the subjective perception and biases of both participants and researcher into the research frame (Goetz & Le Compte in Merriam 1988, 39). With the subjective views of the participants being desirable for an interpretive case study, the main concern of subjective bias lies with the researcher. Qualitative case studies can be limited by the researcher's sensitivity and integrity because the researcher is the primary instrument of collection and analysis of data (Merriam 1988, 33). However, the 'hermeneutic process' can help to overcome this concern, as this process allows for a close collaboration with the participants for discussion and agreement about the interpretation of the data. The interpretation is handed back for the participant's comments, possible alterations and final approval.

There is also the aspect of the researcher's biases due to whatever background he or she brings into the study. I am aware that my performance study background inevitably impinges on this research. Initially it made me sensitive to, and curious about the issues I wished to investigate. It also sensitised me to the life of a performance student. This research deliberately places the aspiring performer at the centre as the source of information. Therefore on the one hand my performance background was beneficial in establishing a trusting relationship with the students, as they felt free to express their thoughts, feelings and concerns knowing that I had been along their path. My performance and teaching background enabled me to discuss pertinent questions, to get straight to the essence of the matter. On the other hand, I needed to be mindful to keep my own experiences and understandings at bay. I needed to suspend judgement, in order to have a fresh look at the experience through the participants' eyes. This technique of 'bracketing' one's own knowledge and understandings (explained further in Section 4.8), and separating these from the participants' interpretations, became part of the interpretive process throughout the stages of data collection and analysis.

'Phenomenology is about saying "No!" to the meaning system bequeathed to us', questioning what seems to be implicitly taken for granted, reviewing the meaning system and keeping a tone of objectivity (Crotty 1998, 82-83). Phenomenology is

also a reflective enterprise and as such is critical (Larrabee in Crotty 1998, 82). The reflective process of phenomenology, the bracketing technique and the hermeneutic process overlap, and when handled judiciously interact to strengthen the validity of the research.

### *Generalisation*

The criticism levelled at the case study is generalisability. How can a small number of case studies be generalised to the population, or, as here, to the musician sector of the population? Stake (in Lincoln & Guba 1985, 120) points out that there are two types of generalisation: the usual ‘rationalistic, propositional, law-like’ type used in scientific discourse, and the other being a more intuitive personal, direct experience or vicarious experience, which is intended by the term ‘naturalistic generalisation’. Naturalistic generalisation is well suited to the qualitative paradigm. Case studies can be a powerful means for adding to the intuitive type of generalisation. ‘[I]f you want people to understand better than they otherwise might, provide them with information in the form in which they usually experience it’ (Lincoln & Guba 1985, 120). Case studies also have their own form of generalisability — in the eyes of the readers. Stake (in Lincoln & Guba 1985, 119) argues that one must consider the situation, from the perspective of the *user* of the generalisation: ‘Case studies will often be the preferred method of research, because they may be epistemologically in harmony with the reader’s experience, and thus to that person *a natural basis for generalisation*’. Finally, this research follows two quantitative studies in music performance (Roland 1994; Schaupp 1997) demonstrating the effectiveness of programs to reduce performance anxiety, which means that this study adds to the body of research supporting a generalisable need for implementation of performance training programs.

### *Time and Information Overload*

Yin (1994, 56) states that ‘the demands of a case study on a person’s intellect, ego, and emotions are far greater than those of any other research strategy.’ The case study method is time consuming as the process of data collection and analysis is ‘recursive and dynamic’ (Merriam 1988, 123). As data collection and

analysis intertwine, the researcher travels back and forth – to shape the study, maintain the chain of evidence and answer the research question. In this study the participants' authentication of the data collection and analysis helped to validate and maintain the chain of evidence. The five case studies exploring the effects of the Training Program on practice, lead-up and performance were conducted over a time frame producing three different sets of data collection. Therefore, the resultant excess of data required laborious and careful sifting of material to produce the relevant report findings.

### *Reliability and Validity*

The issues of reliability and validity are inter-related in all research. The usual notion of 'reliability' referring to the replicability of the findings is problematic in social research, due to human behaviour not being consistent. Burns's (1997, 278) internal validity question, 'Do the experimental treatments in fact make a difference in the specific experiments under scrutiny, or can they be ascribed to other factors?' and the external validity question, 'Given these demonstrable effects, to what populations or settings can they be generalised?' must also be judged within the qualitative, interpretive paradigm. However, because of the applied nature of educational research, the researcher and others need to feel confident that the study is reliable and valid. Merriam (1988, 165), referring to case study research in education, states that the best way to examine these features is 'through careful attention to the study's conceptualisation and the way in which the data are collected, analysed, and interpreted.' By outlining the research question and the resultant processes the research design helps to demonstrate the reliability and validity of the study. (See Research Design, Figure 1, at end of Chapter 1). Bracketing my own beliefs and understandings about the phenomena under investigation, and employing the hermeneutic process, further enhance the reliability and validity of this research. These techniques allow the researcher to concentrate on the multiple realities needing interpretation.

### *Rigour*

Rigour is inextricably linked to validity and reliability. By maintaining a rigorous attitude about the research process, by continuously referring to the chain of

evidence and the ultimate purpose of the research, the researcher is able to produce a rigorous piece of work by referring to ‘the chain of reasoning’ (Krathwohl (1988, 29) which can be seen in the research design (Figure 1, Chapter 1). However, despite one’s best intentions regarding rigour in research, one still cannot escape the fact that ‘data do not speak for themselves; there is always an interpreter ... one cannot observe or measure a phenomenon ... without changing it ...’ (Ratcliffe in Merriam 1988, 167).

## **4.6 Ethical Considerations**

As case study research examines particular aspects of social life at close range, ethical issues are inevitably raised and require consideration at every stage of the research process.

As this research explored the subjective thoughts and feelings about the person’s performance experience, the main ethical issues for consideration were regarding information about the project, trust, informed consent and confidentiality as well as about power and control. These aspects are discussed in relation to the present research project.

### *Information about the Project*

The project, originally entitled ‘Exploration of the Effects of Certain Health Enhancement Practices on Perceived Self-Efficacy in Music Performance’, was handed out to all prospective participants, outlining the purpose of the study, the assessment procedure, the six strategies being trialed, the expected practice time, and the freedom to self-structure and self-manage the Training Program (see Appendix 4).

### *Trust*

Trust needed to be established from the outset for the following times of contact with participants and to ensure the success of the project. The contact times with the participants took place as follows: 1) the first interview, (2) four telephone calls over five weeks (ensuring participants were still participating), (3) the second interview, (4) the follow-up questionnaire, (5) discussion and validation of



interview transcriptions and 6) discussion and validation of the individual case study analysis.

### *Informed Consent*

Informed consent (Appendix 5) was obtained with a form containing a detailed page of assurances and points for consideration for the participant, signed by each participant and returned to the researcher.

### *Confidentiality and Anonymity*

‘Confidentiality does not refer simply to protecting names and keeping confidences but sometimes to protecting other information about the informant’ (Minichiello 1995, 207). I was mindful that the participants trusted me and wanted to speak out about issues that concerned them. Inevitably, some sensitive material would be passed on to me. It was possible, however, to retain issues of importance by taking necessary precautions: that participants’ names were changed to pseudonyms, and prominent names were deleted, along with sensitive information about specific people. Confidentiality was assured at all times throughout the study. This was also necessary for the subsequent dissemination and publication of the material, as well as for any conference presentations. Assurances were given that the data material obtained would be kept under lock and key.

### *Power and Control*

The opportunity to explore the topic of performance confidence in equal partnership with the researcher was an important consideration of this research, and stated as such in the handout information about the research project.

## **4.7 The Data Collection and Analysis Process**

Eight overlapping steps were involved with the data collection and analysis process in this study. It is impossible to say where analysis begins and ends because of the reflective process and validation process.

The steps taken were as follows:

- 1) Two in-depth Interviews were recorded for each participant – one before and one after the Training Program was introduced.
- 2) Transcriptions were made of the recorded First and Second Interviews and handed back to participants for verification (the ‘hermeneutic’ process of understanding and interpretation).
- 3) Analysis of the First and Second Interviews was undertaken, based on emphasis or reiteration of phrases.
- 4) The Follow-Up Questionnaire was sent out after the participant’s end-of-year recital.
- 5) Analysis of the Questionnaire was conducted parallel with analysis of interviews.
- 6) Case Analyses were returned for review and discussion.
- 7) The five individual reports were written, drawn from Case Analyses and Follow-Up Questionnaire responses.
- 8) A Cross-Case Analysis and Discussion was undertaken to establish the common issues from across the five individual case study reports.

#### **4.8 Data Collection Techniques**

Data collection sources consisted of two in-depth interviews and a follow-up questionnaire.

##### *The Phenomenological Interview*

The interview style and method was phenomenological with its emphasis on shared dialogue. With dialogue as its primary tool, the phenomenological interview is regarded as more effective for describing a personal experience than the questionnaire or interview guide (Dale 1996, 314). The self and the other are encouraged to clarify meaning, using a non-standardised form of open-ended

questioning (discovery-oriented), which allows for more emphasis on the subjective experience. This is a naturalistic research method with its roots in anthropology: to ‘understand naturally occurring phenomena in their naturally occurring states’. The person interviewed becomes the expert and co-researcher, thereby controlling the interview, while the researcher focuses on relevant questions. Husserl used the term ‘bracketing’ to describe how one places one’s knowledge of the phenomenon outside of the phenomenon (Van Manen 1990, 47) and bracketing of one’s suppositions needs to be a continuous process in qualitative research. The participant’s own style of language is vitally important and assists ‘bracketing’. All questions are meant to follow the dialogue (exploring the experience) and ‘rather than seeking general opinions, the interview should focus on specific situations and action sequences’ (Dale 1996, 310-313).

The ‘semi-structured’ interview technique allows flexibility within a structural framework of set topics of interest. The list of relevant topics was not made known to the participants prior to the interview, to capture spontaneity and the ‘live’ feelings experienced after a performance. Although there was a pathway for collecting information on these topics, it was also considered important to allow connections to be made by the participant at any time. To support this, the interview was divided into two sections, which were described in the introduction as the ‘inside report’ (a view from the mind) and the ‘outside report’ (a view of the behavioural and environmental aspects). At the end of each section, the participant had the opportunity to add anything considered significant that had not previously been discussed. The hermeneutic procedure helped overcome the usual linear process of data interpretation, by having this data ‘interpreted’ after analysis completion, checking for accuracy. The final important step in this procedure was to hand back the data interpretation to the subject, in order to have information added or subtracted, so he/she could assess whether the true story had been told, this final step validating the research (Dale 1996, 316-317).

#### *The Follow-Up Questionnaire*

A reasonably short questionnaire as ‘follow-up’, containing twenty-two questions with a mix of open and closed questions, provided the final data source. Ten ‘open’ and twelve ‘closed’ Likert scale questions had the purpose of ascertaining

the effects of the training strategies for each person over time. The event of the end-of year recital took precedence, the date of which was set by the institution for each participant so that the follow-up questionnaire was answered as soon as possible after the recital experience.

#### 4.8.1 *The Data Collection Structural Design*

This study used a case study method with a multiple case study design. According to Herriot and Firestone (in Yin 1994, 45) multiple cases create more compelling evidence and therefore the overall study is considered more robust. The following Figure 4 shows the data collection structural design of this study with the three sets of data.

**Figure 4. Data Collection Structural Design** (A-B-Bi replicated for five case studies)

PRE -TRAINING DATA SET A	5 WK TRAINING PROGRAM	POST- TRAINING DATA SET B	POST/POST TRAINING DATA SET B i
1 <sup>st</sup> Interview following 1 <sup>st</sup> performance	Mental & Physical Training Strategies following 1 <sup>st</sup> interview	2 <sup>nd</sup> Interview following 2 <sup>nd</sup> performance	Follow-up Questionnaire following 3 <sup>rd</sup> performance (End of Year Recital)

### 4.9. The Setting, Sample of Participants, and the Process

The main objective was to trial the Training Program of combined strategies. The appropriate setting was the venue for ‘learning to be a performer’ — a tertiary education performance centre. Here one could talk to the students in their everyday environment, experience their thoughts and feelings, and hear about their concerns. It was hoped that the researcher would engender the necessary trust and confidentiality required for the participants to produce rich data. The intention was to present the results in a meaningful form for musicians, not as ‘statistical’ data but as data of ‘feelings’ and ‘experience’ by which this sector of the performing arts could identify something of themselves or their situations. For this purpose, the construction of a number of individual case studies based on real people with real issues seemed a meaningful exercise.

Five volunteer student musicians were sought from any ethnic and instrumental background. (Singers were not sought, as this particular group of musicians is

generally more health oriented and aware of mind-body connections, with the mind-body being the instrument). At a tertiary performance institution, the recruitment process began with an informal announcement at a postgraduate performance seminar, calling for interested volunteers. A five-stage introductory process followed, progressing from one stage to the next. These stages were:

- 1) To receive information about the research project and what would be required from participants. The handout, 'What You Need To Know About This Research Study' explained explicitly what was involved and what the researcher's expectations were. (This is described below and the handout is in Appendix 4).
- 2) To answer a participant selection questionnaire to determine the level of interest and preclude any known medical conditions.
- 3) To fill in a Consent Form approved by the University of Canberra's Committee for Ethics in Human Research. (Appendix 5)
- 4) To arrange an informal hour to get to know the participants and talk about the expectations of the Training Program and answer any questions.
- 5) To organise suitable times for the individual's first interview following his/her selected performance experience, this to be within twenty-four hours, to recall the experience.

Postgraduate performance students were considered a suitable target group, but a remarkably low level of initial interest was apparent within this group. Only one female violinist of Asian background proceeded through all the preliminary stages and enthusiastically completed the Training Program. However word spread to the final year undergraduate students and two more participants were found. To speed up the recruitment process for the remaining two participants, a letter was sent to various departmental heads, with all relevant information for interested students. The onus was then on the student to return a participation selection questionnaire. A consent form would follow if interest were apparent from the participant selection questionnaire. In this way, two more participants were found: a second year student and a third year student, creating a total of five participants. The

recruitment process was possibly slow due to the title of the project incorporating the phrase 'Health Enhancement Program'. This was later changed to 'A Training Program of Mental and Physical Strategies' using the same strategies, and demonstrates the need for naming one's topic appropriately for the intended market.

#### *How the Project Proceeded*

The five volunteer students (one second year, one third year, two fourth year, and one first year postgraduate) began the project at various times. This was dictated by the need to arrange a concert performance and the availability of a performance date just prior to the first interview. Concert performances were *not* to be assessed by the researcher and therefore I did not attend. The main focus of research interest was the participant's own evaluation of confidence in practice and performance *before* and *after* the five week Training Program.

Due to participants' diverse daily routines, the actual interview times always depended on the participants' commitments at the time. All interviews took place within twenty-four hours after the participant's scheduled music performance – for the sake of consistency, and for a fresh memory of how one felt about the performance along with practice sessions leading up to that performance.

Individual copies of the researcher's prescribed Training Manual were handed to each participant immediately following the first interview. Preliminary reading of the training booklet over the previous weekend allowed for the assimilation of new information of concepts and strategies before beginning the Program. This booklet was for the participating student to keep after the Training Program was completed. No financial reward was given for participating in the project.

The handout 'What You Need to Know about this Research Study' given to interested participants in Stage 1 requested practice of the strategies for a total of one hour a day for the first three and a half weeks, integrating this within the participant's normal daily structure. The time allocation suggested was thirty minutes for walk / stretching and thirty minutes mental training strategies, (nutrition guidelines being absorbed into the normal daily context). An increase of this total time to an hour and a half per day was suggested for the last ten days, in

order to increase mental and physical fitness away from the instrument, while tapering off physical practice (the approach favoured by athletes to reduce the effects of tiredness from overtraining and reduce the risk of injury). However, no proof of strict adherence to this was demanded. The weekly training logs provided in the Training Manual were only intended as a reminder for the participant's use.

Weekly follow-up contact was maintained with the participants via a short telephone conversation, to ensure that the strategies were being incorporated gradually as far as possible within one's normal daily activities and commitments. This contact was considered important not only to establish that students were still taking part in the study, but also for giving some initial moral support for students whose lifestyles possibly seemed at odds with the recommendations of the Training Program.

#### *The Three Sets of Data*

- 1) First Interview *before* the Training Program
- 2) Second Interview *after* the Training Program
- 3) The Follow-Up Questionnaire

1) The First Interview took place at a time and place suitable for the participant, within twenty-four hours after his or her music performance. The first semi-structured in-depth interview had the purpose of 'setting the baseline' to establish the participant's experiences in practice, lead-up and performance. Time allotted was one hour, which allowed for freedom within a framework of set questions of interest to the researcher. Shared dialogue was encouraged in an atmosphere of trust, openness and confidentiality. A mini-sized Sony cassette recorder (model TCM- 453V) was used for recording the interview, for the sake of simplicity and its unobtrusive features (no added microphones being required).

2) The Second Interview followed at the end of the five weeks, again within twenty-four hours after the scheduled second music performance. This second semi-structured in-depth interview had the purpose of establishing the 'after-effect' of the Training Program. Again this was at a time and place to suit the student's busy schedule. Extra time was allowed for this interview (approximately

an hour-and-a-quarter to an hour-and-a-half), to allow additional questions and answers resulting from the first set of questions.

3) The Follow-Up Questionnaire was initially planned for a set time of three months after completion of the Training Program. However, this time frame did not allow all participants the opportunity to use their examination recital performance as a marker of the follow-up effects of the Training Program. Therefore, the main event, the End-of-Year Examination Recital, was chosen as the marker for the follow-up questionnaire. This date being determined by the institution, differing times for the follow-up ensued. The questionnaire was posted to the participant to arrive on the day of the participant's examination recital and an answer requested as soon as possible after the recital, to be returned for analysis to the researcher. The time span between the Second Interview and the Follow-up Questionnaire differed as follows:

*(Etude No1)* Catherine's Follow-Up: eleven-and-a-half weeks

*(Etude No.2)* Jasmin's Follow-Up: ten-and-a-half weeks.

*(Etude No.3)* Alex's Follow-Up: three-and-a-half weeks

*(Etude No.4)* Fiona's Follow-Up: five weeks.

*(Etude No.5)* Sophie's Follow-Up: 10 weeks

In summary, three of the five musicians had a two-and-a-half-month follow-up, while the other two musicians had a three-and-a-half week and five-week follow-up respectively. Some people may regard this as a flaw in the design. However, the follow-up was not assessed on its own in this study, but was regarded as part of the overall assessment. It was important to hear the individual comments about the Training Program after the year's examination recital, to find out how each person used the Program for preparation of the recital, regardless of the time lapse. If results were similar for all participants, then this would only strengthen the case for the success of the Training Program. The total time frame for the students' involvement in the project was six months.



### *How Data Analysis Proceeded*

The First and Second Interviews were transcribed from the cassette tape recordings. Each person then received a copy of his/her typed transcription of dialogue for approval or any necessary corrections. Data Analysis of the First and Second Interviews proceeded with the researcher seeking the individual's emergent predominant themes. The resultant case study analysis was then handed back to the respective participant for comment and approval, with discussion invited for any alterations thought necessary.

#### ***4.9.1 The Process Evaluation: Problems Encountered***

Allaying the concerns of the Committee for Ethics in Human Research about a 'Health Enhancement Program' (the original title of the Training Program) meant that the research project was delayed by three months. This resulted in the need for revision of the original application and deletion of the suggested preliminary nutritional assessment.

Finding an interested institution to allow five voluntary participants to take part in the study took considerably longer than expected. The first institution delayed notification, finally deciding against the project on the grounds that another person was already conducting a research project at the institution. Although a second institution gave written consent for volunteers to take part in the study, this consent also took longer than expected.

Making contact with the nominated volunteer students at the beginning of the study to organise the coordination of performances with interviews was often difficult, as the participating students were rarely available. Trying to locate the participant on a weekly basis as requested and agreed to was often difficult. Students were quite happy to speak to me, but their personal plans kept changing. However, with persistence on both sides, contact was maintained.

Allowances had to be made for the unexpected such as two overseas orchestral tours involving two participants, illness, change of address, and the sudden ending of personal relationships. However, as these were real life situations for such

students for whom the Training Program was intended, these incidences became part the everyday background to the study.

Ensuring the return of the Follow-Up Questionnaire forms required follow-up reminder calls. All forms then arrived back with rewarding, detailed responses.

The following chapter contains an introduction to the five case study reports, followed by the individual five case study reports, called *Etudes*, which were constructed using the processes outlined in this chapter.

## Chapter 5 The Five Case Studies

### 5.1 Introduction

The previous chapter outlined the methodological perspective, method and techniques selected for exploring and interpreting the phenomenon of performance confidence. The multi-case study provided the research method and design for exploring and interpreting five musicians' performance experiences (*before* and *after* introducing the Training Program).

This chapter provides the background information to the case studies, followed by the individual reports (*Etudes*), which resulted from the case study analysis. Each *Etude* reflected the student's practice and performance experiences and show whether change occurred in his/her perception of ability to 'manage' practice and performance, after incorporating the strategies training (detailed in Chapter 3) into the daily music practice / lead-up / performance routine over a period of five weeks.

The sections proceed as follows:

Section 5.2 describes the focus of the case studies.

Section 5.3 explains how the case studies were constructed.

Section 5.4 outlines the use of themes in the individual case studies.

Section 5.5 explains how the themes related to the focus of the study.

Section 5.6 outlines the format for each case study.

### 5.2 The Focus of the Case Studies

The case studies were constructed from a phenomenological viewpoint because the research interest lay in the participant's assessment of the performance experience (Van Manen's (1990) 'lived experience' and not in the objective measurement of performance. The focus of each case study was on the effects of

the Training Program / Manual on practice and performance, in order to answer the research question:

*Would a performance enhancement training program for musicians, modelled on sport performance's mental and physical strategies, promote the development of performance confidence in music?*

### **5.3 How Each Case Study was Constructed**

In order to trial the newly-developed Training Program, the participant's 'whole' experience of performance, comprising Practice, Lead-Up and Performance, was viewed over time in relation to three of his/her recital performances. The first two performances represented the experiences *before* and *after* the Training Program was introduced, while the third performance represented the *follow-up* experience. These experiences were recorded as explained in the previous chapter. (Interview questions and the Follow-Up Questionnaire appear in Appendices 1 and 2).

In the first two in-depth interviews the topics of interest for discussion were:

*The Psychological Response Aspects* (the first half of each interview)

Emotional response to practice, lead-up and performance; mental response to practice, lead-up and performance; concentrational focus in practice, lead-up and performance; and sense of mastery / sense of control in performance.

*The Physiological, Behavioural, and Environmental Aspects* (the second half of each interview):

Nutritional habits around practice, lead-up and performance; exercise habits around practice, lead-up and performance; bodily response (nervous symptoms); and outside factors affecting performance.

The themes emerging from these topics reflect the person's unique data.

The Follow-Up Questionnaire of twenty-two questions (Appendix 2) centred on the musician's response to the Training Program for managing Practice, the Lead-Up and Performance. This was answered after the five weeks' training.

Questions were asked to determine whether the strategies contributed to any of the following: the participant's sense of mastery in performance, concentration, energy, and self-confidence in practice, the lead-up and performance. It was of interest to learn whether changes were apparent to the participants since completion of the Training Program. Personal comments about the Training Program were also requested.

#### **5.4 Use of Themes**

'[T]he process of reconstructing themes drawn from conversations is the core of the analysis of qualitative data' (Minichiello 1995, 266). The analysis of the transcripts of the two interviews revealed emergent 'themes' based on the personal importance each participant attached to the topics discussed. A thematic structure was then created to describe the 'lived experience' as exemplified by Van Manen (1990, 79):

These themes are not 'categorical statements' but simply a means to get to the real meaning of what phenomenon is being studied. Phenomenological themes act as the *structures of experience* (sic).

Along with these main phenomenological themes is the personally significant ongoing accompanying theme ('obligato' theme), which runs parallel to the main themes.

#### **5.5 How the Themes related to the Focus of the Study**

In the data analysis, the emergent themes from the First interview were reviewed in the Second Interview (after the five week Training Program). In the Follow-Up Questionnaire, the participants not only commented on the effects of the strategies over time, but also made reference to their previous themes. This made it possible to ascertain whether change had occurred. (See overview of analysis process in Figure 5).

Figure 5. Overview of the Analysis Process

First Interview	(Training Program)	Second Interview	Follow-Up Questionnaire
Topics for discussion Emergent 'Themes' (important issues) from Practice, Lead-Up, Performance	Strategies practised over 5 weeks	Same topics Observing changes Effects of strategies on 'Themes'	Longer term effects of strategies on Practice, Lead-Up, Performance Effects of strategies on 'Themes'

## 5.6 The Format of each Case Study Report ('Etude')

Each *Etude* has the following structure:

- Background of the Person
- Experiences *before* using the Training Program
- Changes experienced *after* using the Training Program
- Summary following completion of the Training Program
- Follow-Up Questionnaire: Summary of Changes over Time.

## 5.7 Five Etudes

### 5.7.1 Etude No. 1 Catherine, Violinist

#### *Catherine's Background*

Catherine was a fourth year Bachelor of Music performance student who had started violin at six years of age. Community orchestral playing shaped her musical development early in life, and while in her teens at a Pan Pacific music camp, a well-known violinist inspired her to think seriously about tertiary music studies. She often mentioned Year 12 as being a significant time for feeling musically confident and able to express her performance enjoyment. In contrast the first few years of tertiary performance studies she experienced as 'difficult'. Besides feeling shy and lonely in a new institution, a strict teacher had made her start 'from the very beginning' and this had affected her deeply. Catherine felt she began to lose her performance enjoyment, while being only conscious of technique. A mastery experience came in third year, when, as the result of presenting her choice of recital program in a confident manner, orchestral opportunities began to flow. However, past negative teaching experiences still had an effect on Catherine's performance confidence and enjoyment of solo performing. She was therefore keen to regain the positive performance enjoyment she had known from earlier. Fortunately, the Training Program strategies assisted her to accomplish this.

#### *Experiences before using the Training Program*

In the first interview Catherine revealed concerns regarding 'teachers', 'sense of control', and 'coping mechanisms'. Her violin practice showed unrealistic goal setting. The lead-up to performance was a time of negative thoughts, while nervous symptoms and negative thoughts about her playing contributed to her feeling a loss of control in performance.

An overview of Catherine's themes is seen in the following Figure 6:

**Figure 6. Catherine's Themes.**

Main Themes	Obligato Theme
<p>Teachers</p> <p>Sense of Control</p> <p>Coping Mechanisms</p>	<p>Regaining Performance</p> <p>Enjoyment</p>

Catherine's experiences are explored through her themes.

### *Teachers*

Since beginning violin, Catherine had learned from seven teachers, five of whom she described in negative terms. She was keen to talk about these experiences as they related to how she felt now about practice, lead-up, and performance. The following incidences stood out:

I found the first few years of my degree very difficult ... learning from that very strict teacher ... he made me start from the very beginning... I just felt hopeless ... I was put in this box and I got in the low 70's for my marks.

She persisted for two years, finally realising that this renowned teacher was 'really bad' for her saying: 'Sometimes I still feel depressed but not as much as I used to'.

Her next teacher at the institution disappointed her too by stating that he was only marginally important in her musical development, causing her to comment:

That's so wrong because you're solely reliant on this person and even just how they *speak* to you affects how you feel for the rest of the week. Sometimes I've come out totally depressed and haven't wanted to practise. And you want someone who is going to have a bit of ambition for you, to say, 'You know you could aim for this', not just showing up once a week and saying 'Oh do this here!' I often feel very empty ...



Catherine believed teachers' assumptions about students were difficult to change; describing one girl arriving 'like she's God's gift to violin playing' being treated with respect, while another shy, introverted girl being given the same mark every performance.

*Sense of Control: in Practice, Lead-Up and Performance*

Catherine reported unrealistic goal setting for Practice:

I think one of my problems is, I try to achieve too much. Instead of just setting myself 'just try to do this and this,' I will work out a six-hour practice plan for the day, sometimes even eight hours, and then the reality of me actually getting through all that stuff ...

In the Lead-Up, negative thoughts undermined her sense of control:

Sometimes I really have to grapple with myself, because I go through the worst-case scenario like 'what if I completely stuff up'... For concert practices because I have to play in front of my peers, I find that quite hard. I really start to think negatively.

She was annoyed that she had not heard of any strategies to handle this period:

No teacher I've come across or heard of has discussed that, and some people I know are much worse than me with nerves. In fact one I'm thinking of is just *dysfunctional* on stage, and her teacher hasn't mentioned it in her whole degree!

Managing the lead-up phase seemed difficult without strategies:

I really start to get more impatient, and the technical work that I'm supposed to do every day, I often don't do. I get butterflies, sometimes feel a bit sick, and a trembly bow, and I just feel a bit out of control ... Even when I talk about being nervous, I start to feel nervous.

Negative thoughts affected her performance:

I start the piece, that's fine, and then I get about two lines into the piece, and that's when the real anxiety sets in and I think 'my God, is this going to be good, am I going to play well?' or 'what are they going to think of me!'

The ensuing battle in her mind, 'a tug-of-war', made her feel she had little control.

### *Coping Mechanisms for Practice, the Lead-Up and Performance*

Catherine appeared to rely on vitamin supplements and small amounts of beta-blockers to help her cope with daily pressures and performance stress.

I take three multivitamins, and iron tablets, and vitamin C twice a day and also fish oil and evening primrose oil, and if I didn't take all that (she laughs) I'd feel really tired and sick.

She said she made no connections between playing and eating, 'even for performance'. Beta-blockers were presented as a solution for boosting performance confidence, as her musician friend took them. Estimating the appropriate dosage, however, was difficult. A 'trembly bow' and anxieties would disappear, but emotionally she reported feeling 'so flat and so out of it, I could have been having a cup of coffee or doing the washing up!' Mentally she felt unprepared, but knew beta-blockers weren't the solution.

It's the lazy way because when you get up in front of people obviously you're going to have to confront a lot of things about yourself ... I may as well not even be playing the violin if I have to deaden myself into this state.

### *Obbligato Theme: Regaining Performance Enjoyment*

Year 12 (four years earlier) was often referred to during the first interview:

I felt so much more independent in my performance. I didn't give a damn who liked it. I just got a lot from myself. It was a very powerful feeling.

Whereas at tertiary level where considerable emphasis was on technique:

I lost a lot of my real pleasure of playing. I don't feel very free ... I got into this cycle that I'm now playing to *please* someone. That's not my ideal...

### *Changes experienced after using the Training Program*

Catherine's second interview was in fact five months after the first interview, much longer than for the other participants, due to commitments and an orchestral tour.

Considerable changes were noted with particularly a more confident manner and tone

of voice captured on cassette tape. All the major concerns of ‘teachers’, ‘lack of control’, ‘coping mechanisms’ and ‘lack of performance enjoyment’ appeared to be resolving in an interconnected process. Many times throughout the interview she reported feeling ‘in control’ in practice and performance. Figure 7 shows changes from the first to the second interview.

**Figure 7. Overview of Catherine’s Changes**

First Interview		Second Interview
Teachers: a reliance on them	→	Self-reliance: using strategies
Lack of Control	→	Sense of Control
Coping Mechanisms: tablets	→	Coping Strategies: lifestyle practices
Lack of Performance Enjoyment	→	Regains Performance Enjoyment

### *Teachers*

Catherine’s changed attitude towards teachers was striking. Previously stating ‘if teachers were just a bit more like a parent in some ways’, she was now happy to be self-reliant, stating:

I don’t *really need* a teacher any more. I can do a *lot of it myself*. Whereas before I felt really reliant on this whole thing I had to get *told* stuff by someone else and that *disempowered* me and made me feel *anxious* (her emphases).

She gave the reason for this change:

Because I’m feeling better about my practice, the result of that is that I feel more in control of my playing and where I’m going.

### *Sense of Control — in Practice, Lead-Up, and Performance*

She reported more effective practice than previously in the first interview, by adopting the suggestions from the Training Program.

I actually came to the conclusion that less can be better ... more concentrated practice ... I think I'm definitely more aware of thought control than I was before. Whenever I'm practising I feel like I'm so much more aware of my body and just my technique in general ...

A positive change in attitude was reflected:

I think it's very important with the *whole body* thing, like I think I really do *need* to exercise regularly. That makes a very big difference to how I feel about life in general (she laughs). I feel like I know what I'm doing, whereas before I sort of felt like I was drifting a bit sometimes ... well a lot of the time really.

The Lead-Up phase had been calmer, assisted by aural imagery and goal focus.

I do think about the piece a lot and go over it in my head ... Just thinking about what I wanted to say ... focusing on how I wanted to play it.

The former feeling of impatience had been replaced with a sense of purpose: 'doing my scales every day and my technical work and just feeling like I'll get there.' When she heard back the reports of anxious 'what if' scenarios from the previous interview, she replied: 'I must have really changed a lot because I didn't feel like that at all!' Nervous symptoms seemed less of a concern: 'I definitely felt a lot more in control, a few butterflies but there were no sick feelings'.

For Performance she reported:

I felt a lot more positive and that really helped my concentration. I could really believe in what I was doing, trust myself more, and just enjoy it more and when you're enjoying it, you're concentrating because you're really into it.

This time when she came to her usual anxious moment at the second line of the piece, she was aware of a couple of slightly out-of-tune notes, and even started thinking 'oh no', (because the opening had been 'just perfect'). However, she quickly caught herself, saying: 'Doesn't matter!' and laughed as she said this.

#### *Coping Mechanisms — Coping Strategies in Performance*

She still used an eighth of a beta-blocker for the last performance but this time felt it to be unnecessary:

It was just more like a placebo. Once I got in there, I thought ‘I didn’t need to take that!’ Whereas before I was like ‘Oh I can’t do it unless I *take* it.’ But I’m not going to take one for next week!

She felt that improved practice was ‘the key’ to her improved performance. Although she planned to use deep breathing and meditation pre-performance, she didn’t need to. ‘I didn’t feel stressed.’ She said this was due to sleeping and eating well, and feeling mentally thoroughly prepared. Exercise and nutrition had become ‘a priority’ in her daily life. She always knew their importance ‘but you know, it’s just sort of laziness’.

*Obbligato Theme: Regaining Performance Enjoyment*

Since the first interview Catherine had played to a former violinist outside the institution who made her aware that she wasn’t really ‘performing’ the music. This dynamic lady said she had to ‘*let go*’ of her mistakes: ‘The audience doesn’t want to know if you make a slip, you’ve got to *sell* it.’ This experience reinforced the program strategies of controlling negative thought with positive self-talk. Her last performance demonstrated some change:

Because my practice had been better, I felt prepared ... just a few butterflies, but I definitely felt more in control.

She seemed excited about experiencing performance enjoyment again:

It was just going so well I almost couldn’t *believe* it! ... I felt really good about my *sound* and I *really* enjoyed *doing* it! [Her emphasis]

### *Summary Following Completion of the Training Program*

How Catherine incorporated the strategies into her daily life:

#### For Practice:

- Prioritising nutrition and exercise — eating before practice and during breaks, drinking water during practice, and doing more regular physical exercise.
- Creating positive practice sessions; controlling negative thoughts with positive self-talk.
- Practising in shorter, concentrated blocks of approximately forty minutes.

#### In the Lead-Up:

- Using aural imagery rehearsal to define the musical interpretation.
- Creating a healthier lifestyle with nutrition, exercise, and sleep.

#### Pre- Performance:

- Planning to use deep breathing and meditation (though perhaps unnecessary)

#### In Performance:

- Using rehearsed positive self-talk for mistakes (‘doesn’t matter!’)

Catherine saw the change as a gradual process. Teachers saw a dramatic change.

My teacher said that was the best I’ve ever played and so did another teacher. The change they said was just really dramatic!

### *Follow-Up Questionnaire — Summary of Changes Over Time*

Catherine’s use of the strategies was reviewed along with her themes, almost twelve weeks after completing the Training Program.

*Strategies most beneficial for Catherine*

Physical exercise, nutrition, negative thought control, and aural imagery continued to be most beneficial for Catherine. Already aware of the benefits of nutrition, she had not realised that physical exercise could help her practice better. In rehearsals nutrition assisted energy levels while negative thought control with aural imagery assisted her to develop her own interpretation. Her future aim was for more positive thinking. Finding meditation and self-affirmations difficult to assimilate, she recommended that mental training strategies be taught at the institution.

*Changes noticed by Catherine over time:*

I think I'm more confident about myself and my playing. I was more aware of my physical and mental state for this recital than I have been before *other* recitals. I would attribute this to the five-week program.

I think that by simply raising my levels of awareness in these areas, it is a step towards more long-term developments and benefits.

*Catherine's Themes reviewed:*

1) 'Teachers'; 2) 'Sense of Control'; 3) 'Coping Mechanisms'; 4) 'Performance Enjoyment'

1) Teachers were not discussed in the follow-up questionnaire.

2) Catherine reported that knowing 'you can control the situation if you want to' contributed most to her sense of mastery /sense of control in the end-of-year recital.

3) and 4) Whereas formerly tablets were used as a coping mechanism for managing performance, now the knowledge of coping strategies appeared to give Catherine security and confidence, further assisting her performance enjoyment.

Even if I'm not actually using the strategies, the fact that I know what they are, if I need them, is the most positive thing.

### 5.7.2 *Etude No 2 Jasmin, Violinist*

#### *Jasmin's Background*

Jasmin was a postgraduate performance student born in Beijing. She began violin lessons at five, and a year or two later was inspired to become an orchestral violinist after attending an orchestral concert. She grew up in New Zealand, studying tertiary music there before moving to Australia for postgraduate studies. Her family fully supported her desire to become a professional violinist. Jasmin's positive experiences with her teachers and with extensive performance opportunities from an early age seem to have contributed to her strong sense of performance enjoyment, giving her the drive to work hard. Despite all this, she felt that a lack of concentration hindered her performance confidence. When an overseas violin competition took place in the middle of this research project, she felt unsure at first about participating. However without any expectations and still working hard, she finally decided to test out the strategies she was currently practising. To her absolute amazement, she gained first place in the violin competition together with prize money and a concerto performance. Jasmin is now a professional orchestral violinist just like the one she had admired at that first orchestral concert she attended as a child.

#### *Experiences before using the Training Program*

In the first interview, Jasmin's main concerns were about her concentration during practice, the lead-up, and the performance, and lack of confidence in the lead-up and performance. She already used self-talk and positive self-affirmations sometimes, but her self-talk was noticeably self-critical. Figure 8 shows Jasmin's themes.

**Figure 8. Jasmin's Themes**

Main Themes	Obligato Theme
Concentration  Self-Criticism; Self-Confidence	Love of Performance Atmosphere



Jasmin's experiences are explored through her themes.

*Lack of Concentration in Practice, the Lead-Up and Performance*

Jasmin was very concerned about her lack of concentration, adding that her parents said this dated back to her childhood. For practice she reported distracting thoughts of 'movies, conversations and food ... especially in scales and studies'; her mood was always affected by the weather, and she'd started to ask various people 'How do you concentrate?' Though some people mentioned meditation, she had not yet found a way to try it.

For the lead-up phase she reported 'what if' scenarios affecting concentration: 'what if I stop there' or 'this is going to be out of tune'. When asked whether anyone had given her strategies for handling this period, she replied:

I think that teachers don't really talk about those things. They just want you to practise and play everything in tune and fast.

For performance she stated that concentration ability was different every time. However, it was *always* hard to concentrate at the start of the performance 'to get in there with the first note' because the audience distracted her. Although she was learning to say to herself after a mistake 'just forget about that', negative dialogue was evident:

Sometimes you're just thinking other things the whole time when you play. You're talking to your voices and you think it does all the work such as 'oh this isn't really going to be going anywhere.' Other times when things are going really well, it's like you're an outsider and looking in there ... probably not me, it just happened.

*Self-Criticism; Lack of Confidence in Practice, Lead-Up and Performance*

Jasmin was critical about her bow arm in performance, her poor blood circulation, and lack of physical exercise, expressing this with negative self-talk:

Sometimes I say 'you have to pay more attention to your bow arm!' because my bow is the really weak part of my whole playing. If it's a good performance, my arm wouldn't shake. It's really up. But if it's going to be a bad performance, then the bow control is really bad. I'm very bad at blood circulation, I always get cold hands and feet.

*Obbligato Theme: Love of Performance Atmosphere*

Jasmin's love of important performances was evident throughout the two interviews.

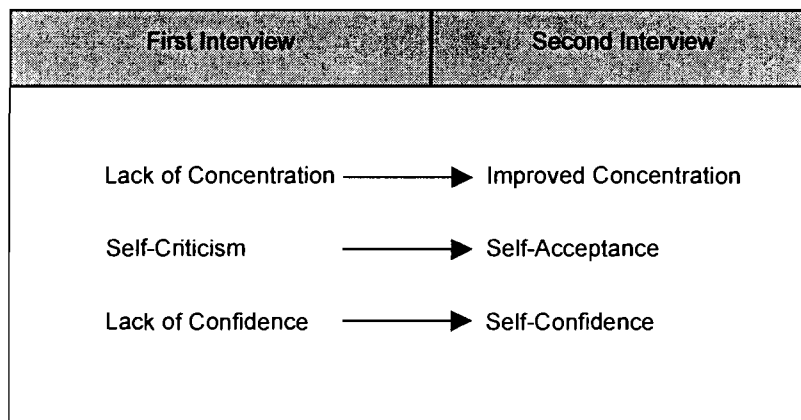
Big audience, big hall! I did a concerto with orchestra once. I just couldn't wait to play with orchestra (she laughs).

However, concert practice classes she found less interesting: 'just something you have to do'.

*Changes experienced after using the Training Program*

For the second interview, Jasmin appeared considerably more confident in her manner and speech than in the first interview. The reason was soon clear. She had been awarded first place in an overseas violin competition (which had taken place in the third week of practising the five-week Training Program). She was very pleased with the changes in her concentration and confidence, expressing this repeatedly during the second interview. An overview of changes from the first to the second interview follows in Figure 9.

**Figure 9. Overview of Jasmin's Changes**



*Concentration in Practice, Lead-Up and Performance*

Jasmin said the strategies really helped her 'a lot'. Concentration was the first thing she mentioned that had changed.

Concentration ... like the concert I played yesterday, I was just really concentrated, focused. I was *very* happy about that.

Practice was more positive than earlier:

It's much better because in the morning I do routine things: stretching, and meditation and walk and have a big breakfast. So it really helps me.

She noticed her distracting thoughts sooner using self-talk: 'stop, come back!'

Jasmin describes the process of getting to know the strategies and planning a suitable structure:

For me I had to get into the routine thing. It's quite hard at the beginning, because you have to plan everything. OK from this hour to the next hour what do I do and then what do I do. But after a while it comes quite easily ... for me that was the second week.

A walk (physical exercise) was used as a welcome break from practice:

Sometimes after a few hours practice, I go out. Normally before I didn't do this. I'd just sit there or lie down for half an hour. But now I go for a walk and come back and practise again. It feels so good.

For the lead-up phase, the former 'what if' thoughts occurred only occasionally, in which case she used her self-affirmations to reassure herself: 'You're ready, you're prepared'.

For performance, in contrast to before when she was unable to concentrate for the opening notes, she reported 'I was right from the beginning *totally* concentrated, from the first bar. That's why I'm *so* pleased.' Distracting thoughts about the audience no longer bothered her. 'I mean I did look at them but I didn't think anything. Asked what helped her the most, she answered immediately:

I would say *confidence* because I just know it's going to be good. It's a mental thing really. If you *think* it's going to be good, if you're ready to, you know, *work* for it, it's going to be good.

### *Confidence in the Lead-Up and Performance*

‘Feeling confident’ was referred to five times in the second interview including in relation to her concentration just described. She realised now that before the training program she ‘wasn’t really confident’. Asked about whether confidence played a part in her no longer paying attention to her cold hands in performance, she said ‘I *think* so. I didn’t really worry about the cold hands. In fact I still played with cold hands.’ Jasmin said ‘I *think* so’ very positively adding, ‘I was much calmer and confident’.

Asked were there any moments during the performance when she thought the piece might fall apart, she answered: ‘No, not after five weeks [training], no, really no way!’

Even though there were still insecure passages, there were none of the previous negative thoughts of ‘there’s going to be a mistake, which used to mean I just got really nervous.’ Asked about negative thoughts during performance, she said:

For the last two performances it just didn’t happen and I didn’t even *think* about ‘Here we go, this is a difficult passage’. It was just flowing ... I can’t believe it myself!

She says she didn’t need to use *any* strategies during the performance: ‘You just go for it. I just did it.’ Her self-confidence was reflected in the first interview: firstly, in her lack of concern about the audience, and secondly, in the three lifestyle factors she wished to improve: ‘Concentration, Exercise and Sleep.’ Apart from her improved concentration, physical exercise levels increased through walking and stretching, both of which she said benefited her practice. When asked what the most pleasurable or successful aspect of the program was, she replied: ‘Stretching and meditation. I love stretching. Actually sometimes I do it on the train’. Her sleep appeared to be improving by using meditation:

Mind is not messy... I can calm myself really quickly with meditation. It’s like ten minutes.

*Obbligato Theme: Love of Performance Atmosphere*

Jasmin stated how she felt for the competition performance and the performance just preceding this second interview:

For the competition I was really calm actually. I just told myself to calm down before I go on stage. I know it's going to be good, but I still tell myself to calm down ... I'm thinking about those two performances after the first interview — I was much calmer and confident.

*Summary following Completion of the Training Program*

How Jasmin incorporated the strategies into her daily life:

For Practice:

- Establishing a routine: self-affirmations, nutrition (a good breakfast), stretching and meditation (in that order) before beginning practice.
- Taking a walk as a practice break for renewing mental / physical energy.

In the Lead-Up:

- Controlling negative thoughts with positive self-talk, using self-affirmations, meditation, stretching and walking.

In Performance (no strategies needed)Night-time:

- Practising meditation to calm the mind for sleep.

Since doing the Training Program, Jasmin used self-affirmations more often. In addition to just before going on stage, she added them first thing on waking in the morning, saying for example: 'I'm going to have a good day', thereby preparing herself mentally for positive practice. She also now used them a few days before performance, thinking about the performance positively: 'It's going to be a good performance'. Imagery rehearsal remained 'quite difficult' as practising without

her violin was still a totally new concept for her. Her former self-critical attitude in performance had changed to a positive, confident attitude as reflected here.

I just played through it ... You just go for it. I just did it. Just totally concentrated...Normally I'd just tell myself to come back and concentrate. But no, not these last two performances. I didn't *make* any mistakes, not really. I remember I played one note out of tune, yes I did, or something. It was a very small thing. It was flowing.

At the end of the second interview she was asked 'What do you think now about the Training Program of strategies?' to which she replied:

I think this program was just great. It helped me, I mean personally. I don't know for anybody else, but for me, it's amazing really I feel this way, especially for that competition.

#### *Follow-Up Questionnaire — Summary of Changes Over Time*

The follow-up questionnaire viewed Jasmin's maintenance of the strategies, ten and a half weeks after completion of the Training Program. Her themes were also reviewed for changes since the second interview.

#### *Strategies most beneficial for Jasmin*

Stretching, self-affirmations and meditation were Jasmin's preferred strategies. Negative thought control and self-affirmations she felt contributed most to her sense of mastery in the end-of-year recital.

#### *Change noticed*

Improved concentration remained the most significant change she saw in herself.

#### *Themes reviewed:*

Jasmin's themes of 'concentration', 'self-confidence', and 'love of performance atmosphere' all appeared to remain positive since the second interview.

Her concluding written testimonial demonstrated that she felt the Training Program benefited her violin playing:

It is a great program. I am so glad I did it. It helped my playing so much. Now when I am on the stage, I know how to calm myself down and keep myself focused with playing. I really enjoyed the Training Program.

### 5.7.3 *Etude No. 3 Alex, Pianist*

#### *Alex's Background*

Alex was a second year Bachelor of Music performance student who started piano at five. He clearly remembers listening to recordings of Chopin and Liszt at six or seven years of age. Despite losing interest in practice around twelve or thirteen, at seventeen he became interested again. He says it was due to the influence of his mother and his piano teacher that he kept going through those difficult teen years. Later, Rachmaninoff's music and a young Australian's playing inspired Alex to do tertiary music studies and these aspirations were supported by his family. The turning point in his musical development came in final year high school, when he was selected to take part in a Young Artists' Program culminating in a performance with symphony orchestra. Because first year tertiary music studies seemed difficult with negative piano teachers commenting on 'how bad you were', Alex changed institutions at the end of first year. Although happy now with his present teacher, he still had concerns about his focus and insecurity for practice, the lead-up, and the performance, which fortunately he was able to overcome after practising the Training Program of strategies.

#### *Experiences before using the Training Program*

Alex's first interview indicated a lack of concentration and goal focus in practice. In the lead-up to performance, he experienced feelings of insecurity. Although he had devised some self-talk strategy to assist him just prior to performance, he still suffered concentration problems just before going on stage, along with some negative thoughts after making a mistake in performance. Figure 10 shows Alex's themes.

**Figure 10. Alex's Themes**

Main Themes	Obligato Theme
Concentration / Goal Focus  Sense of Security / Sense of Control  Lifestyle Practices: Nutrition, Exercise	The Mastery Experience

*Lack of Concentration / Goal Focus — in Practice*

Alex said ‘I wouldn’t call myself a particularly focused practicer’. Goal focus was not apparent either.

I tend to spend a lot of time playing other pieces rather than the ones I’m supposed to be doing, and I sort of focus on not the technical aspects but just purely musical.

Practice outcomes were variable according to how he felt at the time:

If I come up with a new concept I’ll be really excited for the entire practice session. If I’ve had a bad lesson it’s fairly hard to practise, seems like a chore. Sometimes it’s I guess slightly depressed — the feeling that you’re not playing a piece well and you don’t know what to do with it ...

*Lack of Concentration and Insecurity — in the Lead-Up*

The lead-up to performance appeared to be his worst time for concentration, culminating in feelings of insecurity:

One or two days or even three to five days beforehand, I’ll just feel really insecure about it and think I should have done all this practice.

Asked whether he had been given any performance strategies, he stated that he was once told about visualisation but didn’t do it to any great extent.

However he had developed his own self-talk just prior to performance saying, ‘it doesn’t matter if the performance doesn’t go perfectly, just try and focus on what the composers wanted’. He said this helped. Deep breathing was used to help overcome his lack of concentration and increased heart rate, which he considered to be his nervous symptoms.

*Lack of Sense of Control — in Performance*

Negative thoughts could result in loss of control in playing (‘You worry about what they are thinking’), with the degree of loss of control depending, he said, on whether it was excitement or worry. But some self-talk was evident here too:

I just have a little thought that automatically pops into my head to tell me not to worry about mistakes and keep trying to do my best.



*Lifestyle Practices — Nutrition and Exercise*

Nutrition and exercise appeared not to rate highly with Alex. He said he was sure that both practices would make a difference, but he didn't really see 'cause and effects'. However, he included these in the lifestyle practices he wanted to change: 'Exercise, Nutrition and Sleep'.

*Obbligato Theme: The Mastery Experience*

Alex gave a rich description of his Year 12 experience, explaining its significance for him. This experience suggested that it was a 'mastery experience' reference point for him.

I'd never been really part of the musical scene at all ... and all of a sudden I'd made it. I played the Beethoven Triple Concerto [piano part] and I'd never played chamber music before, so it was a great experience... I felt really comfortable being with other musicians as well, and it was one of the most confident performances I've given, I think.

*Changes experienced after using the Training Program:*

Alex reported that the Training Program was 'quite a change as most of the things I wasn't doing before'. Improvements were apparent in concentration and goal focus, as well as sense of control / sense of security during all three phases of playing. The strategies of self-talk, negative thought control, and self-affirmations he found easy to practise from the beginning. Exercise and nutrition proved to be both a 'new discovery' and 'the best aspects' of the program for him, as he recognised increased energy levels in both practice and performance. Meditation and imagery rehearsal he found quite difficult to practise at first, although he soon became aware of their effectiveness in the lead-up to performance, preferring to combine visual with aural imagery. He regarded the Training Program as 'another turning point' (referring to his year 12 mastery experience.) An overview of changes from the first to the second interview follows in Figure 11.

**Figure 11. Overview of Alex's Changes**

First Interview	Second Interview
Lack of Concentration / Goal Focus	Increased Concentration / Goal Focus
Lack of Security / Control	Sense of Security, Control via strategies
Lifestyle Practices - not regarded in practice / performance	Experienced in practice / performance
Mastery Experience from Yr. 12	Mastery Experience from Training Program

*Concentration / Goal Focus ; Sense of Control / Sense of Security — in Practice*

More positive practice was evident. Moments of feeling depressed were overcome faster. There was a greater sense of purpose with increased control over practice.

Before I used to sit down, play and it would happen. Now totally unrelated to practice, it's just being able to get more willpower to bring myself to do things, practising even when I don't want to.

He reported that his concentration had improved 'now that I use self-talk to bring my focus in', adding that 'practising being focused using meditation and visualisation probably played a big part as well'.

He stated that the strategies 'all sort of stick together'. Asked what he thought contributed to his increased concentration, he stated 'self-talk, negative thought control, self-affirmations and nutrition'.

Self-affirmation seems to make a bigger difference than I thought it would. It just gets you in the right frame of mind.

*Sense of Security / Sense of Control — in the Lead-Up*

Although he said he had still felt a bit anxious the night before, it wasn't as much as previously. He attributed the improvement to imagery rehearsal and increased focus during practice:

I think all that visualisation gave me a way, which I knew would work ...  
Today [the day of performance] I was hardly nervous at all (he laughs).

This was despite the fact that he found visualisation / imagery rehearsal difficult at first 'to sit down there and think and see'. But now he can say that visualisation gives him security ('You can see yourself playing the piece and feel it in your fingers'). He practised this on public transport. The strategies provided 'a scaffolding', 'Yes definitely, as there's some way you know you're going to be able to do it.'

Reporting on nervous symptoms for this last performance he said: 'It's definitely a difference' attributing it to 'the increase in doing those [strategies]'

*Lifestyle Changes in Nutrition and Exercise — in Practice and the Lead-Up*

The second interview revealed changes in both nutrition and exercise. Nutritional habits were changed, for example, selecting healthier food combinations such as salad and salmon for lunch. He found that incorporating nutrition as a strategy for music practice gave 'more energy for a start and just generally so my health was better.'

Because I am more aware of energy levels, usually I have something to eat before practice. I always have a water bottle now [during practice] and I do go and have breaks to eat. It gives more energy and I can go for longer.

Walking he found surprisingly pleasurable, and not 'a chore' as he had previously thought.

My exercise has increased from near zero to a half-hour walk a day. Now I look forward to my walks.

In preparation for today's performance he reported that he prepared himself nutritionally by having a good breakfast and drinking more water before the performance. He admitted that he wouldn't have done this previously.

*Increased Concentration; Sense of Security / Sense of Control — in Performance*

Asked if he thought he noticed anything different about his mind in performance, he replied:

It was more clear-headed. Usually when I get nervous before a performance, my concentration goes down in performance. This time it didn't go down as much. I stayed on top of it most of the time.

Today I didn't feel worried you know (laughs). It was good nervous performing. It was no way out of control.

For performance, he reported that he was no longer aware of feeling 'out of control' as previously. A more confident attitude was shown by no longer being concerned about who was in the audience. He even changed some of his interpretation intentionally, thinking: 'I wonder what so-and-so will think of that! (smiling). Upon missing some bass notes during performance, he said to himself 'Don't worry about that.'

Asked whether he thought the strategies assisted practice and supported performance, he said confidently:

I think so. I feel more secure. The visualisation especially gives more security in my playing, also in my mental approach. I just don't feel I have to please everyone else so much. It's more—me! (He laughs).

Although he had experienced this sense of security on occasion before, 'it's just been luck.' Alex now displayed a sense of goal focus: 'I've seen people like my teacher play. I'd like to be that good'.

It was hoped that an outcome of this Training Program would be an increased sense of 'mindfulness' or 'awareness'. Alex demonstrated two examples of this: being now aware of his mind wandering, and his stress sign. He recognised his

stress signal in daily life as ‘a feeling of loss of control’, admitting he hadn’t yet learned to deal with it quickly.

*Summary following Completion of the Training Program*

How Alex incorporated the strategies into his daily life:

For Practice:

- Using nutrition, self-affirmations (‘under the shower’), meditation and exercise – before practice – ‘to get one going for the rest of the day’.
- Using positive self-talk to control negative thoughts.
- Taking nutrition / practice breaks to re-energise.

In the Lead-Up:

- Using visual imagery rehearsal to internalise his performance (even while on public transport)

For Performance:

- Incorporating nutrition / drinking water before performance.
- Using positive self-talk to get over mistakes (‘Don’t worry about that’)

Alex said he would like to use the strategies long-term, as ‘they’re all good’ and demonstrated his increased motivation and goal focus by creating a chart time-tabling these into his practice sessions.

Alex’s obligato theme, ‘mastery experience’ from Year 12, became the marker for his impressions of the Training Program. Using the same descriptive term he used in the first interview (‘turning point’) he said:

I think it’s another ‘turning point’. A couple of things: because it’s just made such a big difference in such a short time, and it’s really noticeable.

*Follow-Up Questionnaire — Summary of Changes Over Time*

The follow-up questionnaire reviewed Alex's use of the strategies three-and-a-half weeks after completion of the Training Program to view any changes to the positive reports expressed in the second interview.

*Strategies most beneficial for Alex*

Imagery rehearsal was a most beneficial practice strategy for Alex over time. He used mainly internal visualisation: imagining being at the piano and feeling and hearing the music in his fingers. Along with this was his new interest in nutrition and physical exercise for increasing energy.

*Change noticed*

'Having more energy' was the most noticeable change Alex saw in himself.

*Themes reviewed:*

- 1) 'Concentration / Goal Focus' 2) 'Sense of Security' / 'Sense of Control' 3) 'Nutrition and Exercise' 4) 'Mastery Experience'.
- 1) Concentration remained positive since using the Training Program with Alex's concentration always increasing through to the performance itself.
- 2) Confidence for the performance event came from self-affirmations and visualisation / imagery rehearsal — 'making the day not as nerve-wracking, giving confidence in memory, and confidence on the day.'
- 3) Nutrition and exercise remained positive since the second interview.
- 4) The Training Program appeared to contribute to mastery experiences in performance as Alex's final written testimonial outlines.

Describing how the Training Program had benefited him, he wrote:

I had more confidence in my ability to prepare for my recital, more awareness of eating / drinking habits, and [I] learnt to incorporate time for negative thought control, that is, psychological health.

### 5.7.4 *Etude No. 4 Fiona, Flautist*

#### *Background*

Fiona was a third year Bachelor of Music performance student, who as a child became interested in recorder in preference to piano, which led her to flute lessons at the age of twelve. At high school she played recorder, flute, and saxophone in bands, orchestra, and small ensembles. At sixteen she was accepted into a young artist's program at a music institution, giving her opportunities for solo playing, chamber music, aural and music history classes. A teacher there inspired her to practise the flute more regularly. Two years later, in final year high school she travelled overseas with the school orchestra. It was then she realised that she was really dedicated to flute playing. During her tertiary music studies Fiona played in the orchestra, touring again overseas. Although confident about orchestral playing, ('I don't usually get nervous when I play in orchestra'), solo performance was different. She felt the pressure of having to 'prove' herself. Despite the fact that Fiona only managed to practice the Training Program for two weeks due to an orchestral tour, she reported an increased sense of confidence in her solo performances thereafter and no longer mentioned having to 'prove' herself.

#### *Experiences before using the Training Program*

In the first interview Fiona mentioned a lack of concentration in practice, the lead-up, and the performance, as well as a lack of control in solo performance relating to mind-body co-ordination, which affected her musical expression and memory. Fiona's persistent feeling was one of having 'to prove' herself to important people at the institution, which was an added pressure. Figure 12 shows Fiona's themes:

**Figure 12. Fiona's Themes**

Main Themes	Obligato Theme
Concentration  Sense of Control	'Having to prove myself '

*Concentration — in Practice, the Lead-Up and Performance*

In Practice, concentration was the main issue for Fiona.

I don't think I'm very good at controlling my mind. I'll be thinking, do I have to ring someone ... or if I'm playing scales sometimes it can really wander off ... It can lapse if I'm doing something repetitive because I often like to practise a certain bar over and over. I'll focus on it but on the other hand I'll start to *not* focus on it.

Aware of her concentration lapses, Fiona used some self-talk ('Right, back to the music') to refocus on the music. However, she had no strategy for strengthening concentration ability.

In the Lead-Up, the pressure of the forthcoming performance affected her:

I start to feel more frenzied — 'Oh I've got to do this bit, that bit ... and I don't know whether I'm going to get it right in time'.

Concentration then deteriorated with distracting thoughts about people at the recital.

Oh I suppose sometimes certain thoughts are [related to] having to prove myself, having to play well, like a certain person's going to be in the audience. Then I'm worried about that and having to play well and thinking 'Oh, I wonder what she'd think about this bit', that kind of thing.

Fiona's method of handling any difficult technical passage, anything causing a 'niggling' feeling, was generally to 'not think about it' or 'think about other things.' This added to the pressure of the forthcoming performance:

You know you have to perform but I don't know how to handle a big performance, don't have any mental way of preparing myself for it really. But I know that in the lead-up I'm still going to get the same nerves and everything to worry about.

*Lack of Concentration and Lack of Control — in Performance.*

If you think about it, then it will go wrong and so you try not to think about it. I'll be thinking about improving my sound, or making sure my fingers are doing the right thing, or sometimes I'll think about what the audience might be thinking.



Fiona was aware of the connections between nervousness, lack of concentration, and lack of control:

‘When I start to go off the rails I’m thinking about too many things at once ... Obviously nerves will start to make me play *worse* or have *less control* over the instrument’ (Her emphases).

Asked how she handled this, she said, ‘I suppose trying to focus on the music’.

*Lack of Control due to Nervousness, affecting Co-Ordination*

Well sometimes when I’m really nervous, my mind will sort of just switch off and afterwards I won’t even have realised what has been going on. My body is doing all this stuff and my mind is not quite in the same place. I don’t have the full control over all my body and mind.

*Lack of Control due to Nervousness affecting Musical Expression:*

If I’m nervous, I’ll go back to things that I don’t want to do, like my tone might get worse and I can’t control my intonation. Things just start to get wild and there’s nothing I can do about it because I’m nervous.

*Lack of Control, Nervousness affecting Musical Memory*

When alone, Fiona said she could play the music from memory without any problems ‘because there’s not as much pressure.’ However as soon as she had to play in front of even one person, she said: ‘I start to worry about making mistakes.’ In the last performance she had trouble with the third note as soon as she tried to think about it: ‘It just wouldn’t come out and that’s because I was trying it in front of other people.’

*Obbligato Theme: ‘Having To Prove Myself’*

Fiona mentioned the phrase ‘having to prove myself’ three times in the first interview:

Last year for instance when I was preparing for my junior recital, I thought I was calm, but I obviously really wasn’t at *all* because I’d been making myself feel sick all week. But as soon as my recital was over, I felt fine, which sort of proved how worked up I’d gotten myself about it — because I thought I had to prove myself quite a bit.

### *Changes experienced after using the Training Program*

Due to an overseas orchestral tour, Fiona managed to practise the strategies for two of the prescribed five weeks. Even so, she noted some improvement in concentration in practice, lead-up, and performance, which she attributed to her use of meditation, deep breathing and self-talk in her practice, as well as the use of visual imagery rehearsal in the lead-up phase. An overview of changes from the First to the Second Interview follows in Figure 13.

**Figure 13. Overview of Fiona's Changes**

First Interview		Second Interview
Lack of Concentration	→	Concentration improved
Lack of Control in Performance	→	Increased Control in Performance
'Having to prove myself'	→	No need to prove herself

### *Concentration Focus Changes — in Practice, Lead-Up and Performance*

Fiona described her concentration now during practice:

I think doing the deep breathing and trying to concentrate on the meditation has helped. My focus has improved a bit. I'm sure my mind still *does* wander but I'm able to recognise it *more* and control it *more* (her emphases).

For the Lead-Up when asked about her previously reported 'frenzied' feelings she now stated 'No, it wasn't like that at all,' adding:

I think I just felt more confident with my ability to play the music. Even though I was still learning bits in the three-to-five day period, [before the concert] I didn't feel the pressure I had before... I haven't felt as nervous or just sort of stressed or frenzied about it as I was last time.

Visualising the music assisted her to feel less stress and pressure before the performance and she could use her train travel time for meditation with visual / aural imagery rehearsal of the music.

I actually tried to meditate on the train, just staring into space and seeing the music, trying to see every note, go through the whole piece that I was playing. And I made sure that I felt relaxed this morning, and that I drank lots of water.

Just prior to performance, she referred to her previous way of distracting herself from the angst of the approaching performance:

Well, I didn't do 'distraction therapy'. I warmed up half an hour before playing. Like I started to get a bit nervous in my stomach as well but it wasn't anything too drastic. I think I was a bit more in control!

Self-Talk and Self-Affirmations were useful just prior to performance:

Just telling myself that I knew the piece. Even though I still got nervous, I think I was able to talk myself into being confident enough to play well.

### *Increased Sense of Control and Concentration—in Performance*

Fiona's description of the performance:

I was quite nervous. But I was told that I looked a lot more calm than I usually do in performance, and once I started playing, I was fine. I made a few mistakes but this is the first time I've performed the whole first movement by memory. So I was expecting it, and I just kept going. I didn't stop or make a big deal over it.

Close to the beginning of the performance she had a distracting thought but was able to control it:

'I wonder whether they're thinking this is going on for too long,' but I pretty much got rid of those thoughts. I got rid of them all. It was only a very brief moment.

Asked how she did this she replied confidently, 'I just moved my mind back to thinking about the music'. That comment appeared more confident than her

previous interview statement regarding the same question ('I suppose trying to focus on the music.') Now there seemed to be little need to use any strategy in performance with just one instance of positive self-talk ('concentration was a lot better than last time'). The former mind-body coordination problem had apparently disappeared ('No I didn't feel any of that').

*Obbligato Theme: "Having to Prove Myself"*

The phrase 'Having to prove myself' was not mentioned in the second interview (though three times in the first interview.) As this was connected with particular people, I asked whether she felt *more* or *less* affected by particular people in the audience, to which she replied 'less affected'.

*Summary following Completion of the Training Program*

How Fiona incorporated the strategies into her daily life:

For Practice:

- Began with stretching and nutrition (eating/drinking) *before* practice.
- Allowed for nutrition breaks (drinking water, eating less junk food).
- Practised meditation, deep breathing and self-talk to increase concentration (control mind-wandering).

For the Lead-Up:

- Used meditation, deep breathing and imagery rehearsal to decrease stress and pressure and improve concentration.

Pre-Performance:

- Used a combination of deep breathing, meditation, and visualisation of the music page (while on transport), positive self-talk and self-affirmations.

In Performance:

- Used self-talk to overcome distracting thoughts (moving the mind back)

She hoped to use all the strategies in the future, believing them all to be useful.

Just looking at my health and everything, mental and physical, was all part of what I want to do, part of practice and performance.

*Follow-Up Questionnaire — Summary of Changes over Time*

The follow-up questionnaire viewed Fiona's continued use of the strategies five weeks after completion of the Training Program. Previous themes were reviewed for any changes since the positive reports of her second interview.

*Strategies most beneficial for Fiona:*

The strategies Fiona had incorporated daily were physical exercise, meditation, self-talk, and imagery rehearsal. Meditation particularly assisted practice for the end-of-year recital, she said. She felt that meditation and imagery rehearsal contributed most to her sense of mastery in performance by giving her 'more focus and concentration and confidence', though she aimed to use all strategies.

*Changes noticed:*

I think I was definitely more in control of my practice and a lot more in control and relaxed in performance.

*Themes reviewed: 1) 'Concentration' 2) 'Sense of Control' 3) 'Having to prove myself'.*

In relation to her themes Fiona reported the following:

- 1) Increased focus /concentration in practice and performance.
- 2) An increased sense of control in practice and performance.
- 3) Feeling 'definitely more in control of my practice and a lot more in control and relaxed in performance' meant that having to 'prove' herself was no longer an issue and therefore no longer mentioned.

The follow-up questionnaire showed that Fiona's feelings about performance had become more positive over time. In the interim period she had been able to incorporate the strategies 'quite considerably' into her practice, demonstrating that the resultant improved music practice could strengthen positive feelings about performance.

### *Etude No.5 Sophie, French Hornist*

#### *Background*

Sophie was a final year Bachelor of Music performance student. At five she began piano and recorder lessons in her small country town. Having played piano, recorder, clarinet, and saxophone all through high school, at seventeen, she chose to learn the French horn as her main instrument. Her first teacher has remained her mentor. In final year high school, she suddenly became aware of feeling sluggish and experienced fainting spells for no apparent reason. After she was diagnosed with low blood sugar (hypoglycaemia), a general practitioner advised her to stabilise blood sugar levels by eating more regularly, avoiding sugar, and adding more complex carbohydrates with unprocessed foods. By adhering to this regime, her health improved.

During this last year, Sophie had experienced performance difficulties and sought advice, first inside, then outside the institution. She learned from this to be aware of the effects of her mental attitude in practice. However, in the lead-up to a performance she still felt increased pressure (as well as put pressure on herself) to play well. With the Training Program strategies she learned to look after herself mentally and physically as well as increase her ability to manage performance.

#### *Experiences before using the Training Program*

In the first interview Sophie's concerns were a lack of concentration in practice and anxious scenarios in the lead-up phase. Just prior to performance, nervous symptoms of stomach problems and a racing heart were evident, while during performance, negative or distracting thoughts hindered her performance ability.

Sophie's themes are shown in Figure 14.

**Figure 14. Sophie's Themes**

Main Themes	Obligato Theme
Concentration  Stress and Coping Ability	Hypoglycaemia — Nutrition Awareness

*Lack of Concentration in Practice, Lead-Up and Performance*

Having gained some assistance from outside the institution for performance concerns, Sophie had already learned to be more aware of her thoughts:

I understand much better now the role that my mental attitude in practice has to how my performance actually goes ...the thoughts that I'm practising into my playing are what count on the day.

However, she was still aware of distracting thoughts hindering concentration:

Sometimes I can be practising and I'll think about what I'm going to eat for lunch, or that I'm running late for something.

For the lead-up to performance she reported anxious-making 'what if' scenarios:

What if I split that note? I have to work a lot harder in the few days beforehand, to counteract that, in order to think positively.

She didn't know any specific strategies to strengthen her concentration. However, she had learned to use self-talk and visual imagery just prior to performance, saying, 'It's a privilege to play rather than some big trial' and visualised removing the nerves physically.

During performance there were some non-musical thoughts which could result in negative mental dialogue when things were not going well musically.

*Stress and Coping Ability in Practice, Lead-Up and Performance*

Much of Sophie's stress was the result of having no free time, because she was working as well to save for further studies: 'I have something every day and that bothers me.' She stated the words 'stress' and 'pressure' several times throughout the first interview:

I'm a busy person and I get too stressed sometimes about not having enough hours in the days. So I think too often I was thinking 'I've got to get this right quickly because I need to go to teaching'.

Pre-performance Sophie often suffered stomach pains and a racing heart. When very nervous, a dry mouth was an extra concern for playing the French horn. She

felt nervous generally playing for people and said she found things at the institution ‘particularly stressful’, adding, ‘the knowledge that you are always being assessed can take away the musical element’.

Although Sophie was aware of the benefits of physical exercise for alleviating stress, and mentioned exercise as the first of three lifestyle practices she would like to improve, she couldn’t see how this could be accommodated into to her already busy schedule.

*Obbligato Theme: Hypoglycaemia — Nutrition Awareness*

Sophie described the significance of her Year 12 experience: being diagnosed with hypoglycaemia, a manageable condition requiring care with nutrition to prevent blood sugar levels becoming too low. This had made her aware of eating regularly, eating more complex carbohydrates for sustained energy and avoiding sugary foods (in fact the same nutrition guidelines recommended in the Training Program).

*Changes experienced after using the Training Program*

In the second interview, Sophie expressed surprise upon discovering that she could do more for herself nutritionally to benefit her practice and performance. She was particularly enthusiastic about the improvements in her concentration, energy levels, and coping ability that had come about since undertaking the Training Program, by becoming more aware of nutrition and exercise in her daily life. An overview of changes from the first to the second interview follows in Figure 15.

**Figure 15. Overview of Sophie’s Changes**

First Interview	Second Interview
Concentration	→ Concentration Improvement: holistic approach
Stress / Pressure	→ Coping Ability
Nutrition Awareness	→ Improved Nutrition / Nutrition Awareness



*Concentration — in Practice, Lead-Up, and Performance*

Sophie was pleased with her improved concentration in practice.

The lead-up period was apparently less stressful, because the ‘what if’ scenarios had decreased in the few days leading up to the performance. Controlling negative thoughts with positive self-talk assisted her:

I had a few ‘what ifs’ about half an hour beforehand. I noticed it really quickly [saying] ‘Stop! Focus on something else’.

Asked whether she could attribute the improved concentration to any strategy in particular she noted:

Oh they’re too interconnected. But definitely for getting the focus down to one thing rather than the random thoughts, it’s been the meditation.

The following statement in the second interview referred to her awareness about being able to influence her concentration.

Controlling this concentration is the problem I have been having. I think that is actually the *key* now, concentration.

*Stress and Coping Ability — more energy and efficiency.*

In contrast to Sophie’s first interview with the words ‘stress’ and ‘pressure’ reiterated, her second interview revealed the words ‘cope’, ‘coping, or ‘coping skills’ used on six separate occasions Confidence was developing at the same time after practising the strategies. An example each of coping and confidence follows:

I actually found myself, despite the fact that I was probably in one of the busiest five-week periods of the year, actually much better able to cope. In fact I wonder what I’d be like without a little bit of thought as to how I was going to manage myself day to day.

I trust these strategies to work more and more every time I do them. I become more and more confident that every time I do this, it works. Therefore it doesn’t matter about the circumstances.

The strategy of meditation had assisted in stressful moments such as losing the accompanist's music just hours before the performance.

Then the thousands of thoughts came into my head, I couldn't concentrate on one thing and so I meditated for a little while, and then I could be more calm and focus on one thing rather than two hundred.

In performance her concentration had apparently improved, as she was able to maintain a calm state of mind as the following demonstrates:

I had one little phrase where the notes sort of *catch* on each other ... I fixed it very quickly, just focused on the consistent sound, whereas normally I would have lost it for a few bars or that would have been the beginning of the downward spiral.

Sophie also noted this was the first time she didn't need any confirmation about her playing immediately after the concert, suggesting perhaps an increased sense of confidence:

Today when I think approximately fifteen people told me that I played really well, I wasn't interested, and I've been aware of this all year that I shouldn't have to finish a performance and have it rated by somebody else.

When asked what she felt the best part of the Training Program was, she stated:

The overall effect and that I had more energy and I felt able to concentrate and get more things *done*. Like I was busy, but I felt I was able to cope much more efficiently [her emphases].

She noted connections between health, stress and coping, saying: 'You know, when you have energy and you're clear-headed, you feel you can cope'.

All these nutritional things have managed that stress so much better. And when I get that stress I don't think there's something miraculous I have to do. I have a glass of water and I eat something and all of a sudden it's much more manageable.

*Obbligato Theme: Hypoglycaemia — Nutrition Awareness*

The Training Program recommended being well fuelled with food and water in practice as well as throughout the day. Sophie realised she could pay more attention to the nutritional aspect of her life.

I thought I was taking quite good care and when I started to look at it, I really wasn't, particularly for someone who is hypoglycaemic. The number of times I pushed through thinking, 'Oh you know I'll be OK' just because I knew I *wasn't* at the stage where I was going to pass out. And that's wrong. You can't function like that, not efficiently anyway.

She described her changed attitude and behaviour now:

I notice when I'm really hungry and I don't think it's terrible to take ten minutes break and get a snack and have a drink of water. Whereas before I'd have thought, 'I'm wasting time, I'm procrastinating.' I'm not. I'm just making sure I've got the right fuel to keep going ... It's just a much better, more forgiving attitude.

*Summary following Completion of the Training Program*

How Sophie incorporated the strategies into her daily life:

For Practice:

- Doing stretching exercises — for energy, flexibility, and relaxed concentration — before practice.
- Using meditation, nutrition, and physical exercise to enhance practice — to increase awareness and concentration.
- Practising visual imagery (imagining a scene) to improve musical expression.

For the Lead-Up:

- Controlling negative thoughts (the 'what if' scenarios) with self-talk (saying 'Stop, focus on something else!').
- Using physical exercise to re-energise and de-stress.

Pre-Performance:

- Using meditation, imagery rehearsal, self-affirmations and stretching to create a calm mind-body state.

For Performance:

- Using imagery (the rehearsed image / scene) to enhance musical expression.

At Night:

- Stretching to relieve the tension of the day.

Sophie noticed changes in her approach to practice and performance.

I feel more aware of what I'm actually doing. I don't just go through the motions. I really realised that I was not practising very well often. I've noticed huge holes in my practice strategy ...

Even while I was at work I was still thinking about the performance coming up and thinking about it in a positive light rather than having anxiety about it.

Sophie's perception of the 'stressful atmosphere' also changed surprising her saying 'That's really interesting how my perception has changed so quickly'.

Commenting on the effects of the Training Program she noted:

I've got a more positive outlook. None of this [training] can change my actual level of ability on my instrument. But it can change my perception of my ability, and ability to *complete* tasks and *do* things.

*Follow-up Questionnaire — Summary of Changes over Time*

Sophie's use of the strategies was reviewed ten weeks after completion of the Training Program, along with the original 'themes' that affected her performance confidence.

*The Strategies Sophie considered most beneficial long term*

Strategies incorporated daily were nutrition, exercise, and negative thought control (positive thinking). Sophie believed all the strategies contributed to her sense of mastery in performance saying, 'Their combined effect is much more than the sum of the parts' and 'Being fitter and healthier meant I was not so tired and better able to cope with stress'.

*Changes noticed*

I am more aware of the effects of food, exercise, sleep, alcohol on my body. I'm much kinder to my body now. I'm more relaxed, calm and less stressed. I notice when I'm 'catastrophising' and substitute it with more rational and useful thoughts. I'm generally happier and more peaceful.

*Themes Reviewed:*

(a) Concentration (b) Hypoglycaemia / Nutrition (c) Stress and Coping Ability

In the follow-up questionnaire, Sophie referred to her themes as follows:

- a) Concentration was rated as 'good' for both practice and performance.
- b) 'The nutrition and exercise played a far more important role than expected' [in managing practice and performance].
- c) Sophie's ability to cope with stressful situations is evident from her written testimonials.

I feel I can cope with adverse reactions to the situation. I know I can take charge of the situation even if things aren't going well.

Knowing that I have strategies that work for me in performance (if I need them) means that I have far less stress in performance.

I have a much better sense of wellbeing and self-esteem.

The following Figure No. 16 shows each musician's main themes, with obligatory theme underlined.

**Figure 16. Overview of the Musicians' Themes**

Catherine, Violinist

- Teachers
- Sense of Control
- Coping Mechanisms
- Performance Enjoyment

Jasmin, Violinist

- Concentration
- Confidence
- Love of Performance Atmosphere

Alex, Pianist

- Concentration / Goal Focus
- Sense of Security / Confidence
- Lifestyle Patterns
- Mastery Experience

Fiona, Flautist

- Concentration
- Sense of Control
- 'Having to prove myself'

Sophie, French Hornist

- Concentration
- Stress and Coping Ability
- Hypoglycaemia — Nutrition

## Chapter 6 Cross-Case Analysis And Discussion

There are no 'pure' data; all data are mediated by our own reasoning, as well as that of participants.

(Hammersley & Atkinson in Silverman 1993, 208)

### 6.1 Introduction

In a qualitative, inductive multicase study such as this one, the researcher attempts to build abstractions across cases (Merriam 1988, 154), and form a general explanation that fits each of the individual cases, even though cases vary in details (Yin 1984, 108).

As the purpose of the study was to assist musicians manage performance in order to develop performance confidence, the Training Program / Manual provided the practical means for learning how to manage practice and performance. The previous chapter reported on the effects of the training 'package' on each musician as seen in the individual *Etudes*. The focus of this chapter is on the collective outcomes of those five *Etudes*, with a cross-case analysis and discussion of the most significant shared issues. This takes the following outline:

Section 6.2 highlights the three significant performance issues shared across the five cases, analysing and discussing these issues in relation to the literature survey.

Section 6.3 shows how the findings relate to the research question.

Section 6.4 summarises the chapter.

### 6.2 The Significant Performance Issues across the Five Cases

A collective view of the five individuals' themes showed that a number of themes were shared. These shared themes were given unified terms and acknowledged as the most significant issues. Themes not shared were deleted.

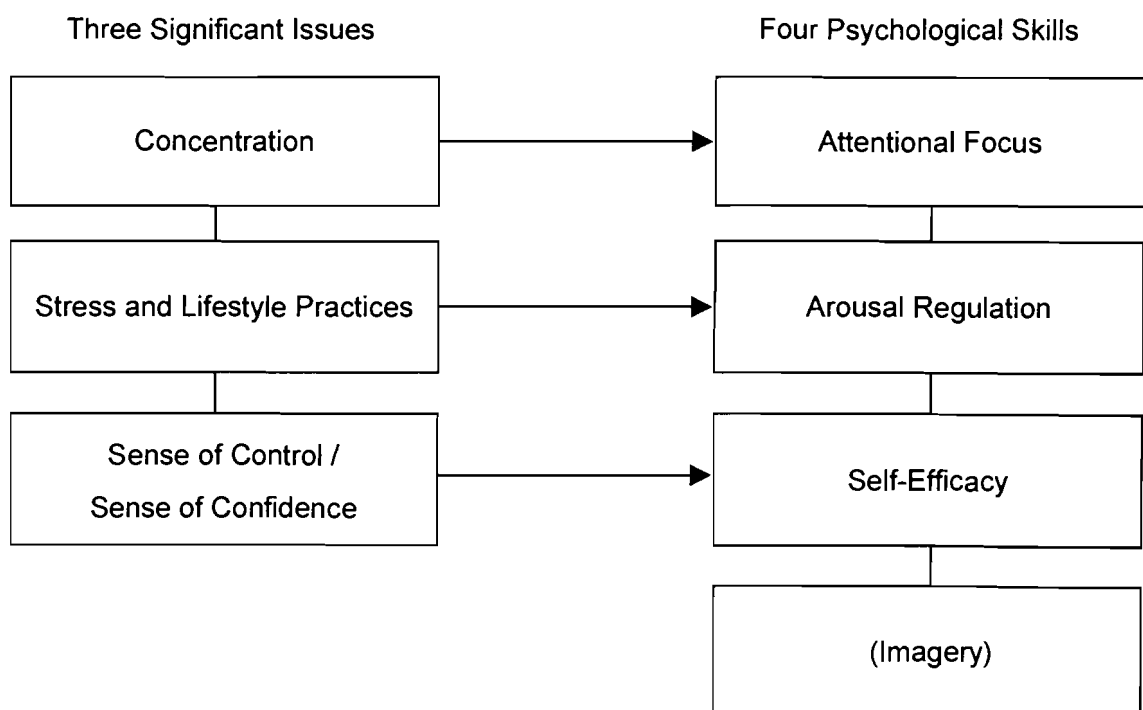
The following Figure 17 shows how the five musicians' individual themes reduced to three main issues across the five case studies: Concentration; Stress and Lifestyle Practices; Sense of Control / Sense of Confidence.

**Figure 17. Reduction of Themes to Significant Issues**

<b>Musician</b>	<b>Concentration</b>	<b>Stress/Lifestyle Factors</b>	<b>Sense of Control / Sense of Confidence</b>
Catherine		Loss of performance enjoyment Coping mechanisms	Sense of Control Teachers
Jasmin	Concentration		Confidence
Alex	Concentration / Goal focus	Nutrition / Exercise	Sense of Security Mastery Experience
Sophie	Concentration	Stress and coping ability	Hypoglycaemia / Nutrition
Fiona	Concentration	'Having to prove myself'	Sense of Control

It is of major interest to find that the resultant three main issues correspond with three of the four psychological skills required for performance (applied to sport performance / psychology from mainstream psychology), as identified in the literature survey (Section 2.3.1). Figure 18 displays these connections.

**Figure 18. Connections between Issues and Psychological Skills**





The fourth skill category, Imagery (including aural, visual, and kinaesthetic imagery) did not appear as an issue, because it did not emerge as a theme for any of the musicians in their individual *Etudes*. Before the Training Program was introduced, imagery seemed not to be widely utilised by the musicians as a performance tool. Only one of the five students in this study practised imagery, and that person's skill was attributed to knowledge gained from a performance specialist outside the institution. The following description of that person's use of imagery seems comparable to an athlete's practice of multi- sensory imaging (seen in Section 2.3.1):

I'm always future pacing, seeing things how I want them to be and so when I'm actually in the situation, my mind has already done it once and it goes to do it the same way (*Etude 5*).

After becoming familiar with the strategy of imagery rehearsal, four of the five students acknowledged its effectiveness for assisting practice and especially the lead-up to performance, as will be seen in this chapter.

The three significant issues are now analysed and discussed separately as follows.

*Concentration (relating to Attentional Focus)*

*Stress and Lifestyle Practices (relating to Arousal Regulation)*

*Sense of Control / Sense of Confidence (relating to Self-Efficacy)*

### **6.2.1. Concentration**

In this section it can be seen that the effects of the Training Program changed the participants' former reactive awareness of lack of concentration, to a proactive awareness of how to improve concentration. This meant that if and when mind-wandering still occurred, it could be monitored and controlled more quickly than previously, by implementing the known strategies.

### *Concentration before the Training Program*

All five participants experienced difficulties maintaining concentration in the phases of practice, the lead-up, and either pre-performance or during performance. Yet despite awareness of the importance of concentration in practice and performance, without any known strategies to improve concentration, the musicians' concerns persisted.

In Practice: All participants experienced distracting thoughts and mind wandering while playing. Maintaining focus was reported to be most difficult during technical or repetitive practice. ('I'll focus on it, but on the other hand I'll start to *not* focus on it'). Distracting thoughts were of 'food', 'friends', or 'having to go out somewhere'. No one knew how to improve concentration. One just attended to the problem as it occurred, generally with self-talk such as 'back to the music!' Attentional focus was not being developed, as is the case for sport performance training (Section 2.3.1).

In the Lead-Up: All participants experienced anxious thoughts and feelings about the approaching performance typified by 'what if' scenarios such as 'what if I play out of tune!' and feeling 'really insecure about it', which hindered musical focus and concentration.

During the Performance: All participants experienced some disruption of musical focus at various times, due to concerns about what the audience might be thinking of their playing. There were some known danger spots for concentration lapses: (a) just prior to going on stage (b) beginning the piece 'to get in there with the first note'; (c) two lines into the piece suddenly feeling self-conscious, or (d) close to the end of the piece, thinking, 'nearly finished'. In all these instances, stepping outside of the music meant losing connection with the music and consequently losing one's sense of control. Each person knew that to catch oneself quickly was crucial for preventing the performance from 'spiralling downwards', but felt this was not always achievable. This was because a negative dialogue of inner voices could at that time take hold of the performance, this being described in such terms

as ‘this tug-of-war’ or ‘as if it does all the work’ [voice dialogue], and ‘not being able to get back to where I’d like to be’.

*Concentration after the Training Program was undertaken.*

Improvement in concentration seemed to develop through practising the mental and physical strategies, which triggered a proactive awareness of thought processes governing mind-body interactions.

A more positive attitude was noted by all in practice, generated it seems by a new sense of awareness and purpose with goal focus, and expressed by four of the five musicians as follows:

I feel like I know what I’m doing now; feel I’m working towards a goal, whereas before I felt like I was drifting a lot of the time really (*Etude No.1*).

I changed a lot [in practice]. I do routine things before practice: Stretching, Meditation and Walk and have a big breakfast. It really helps me a lot (*Etude No. 2*).

Before I used to just sit down, play, and it would happen. Now even totally unrelated to playing, it’s being able to get more willpower to do things, practicing even when I don’t want to (*Etude No. 3*).

I feel more aware of what I’m doing. I don’t just go through the motions. I’ve noticed huge holes in my practice strategy (*Etude No.5*).

These excerpts illustrate the interaction of goal orientation, motivation, and psychological states as described in the Literature Survey in Section 2.3.1 (Attentional Focus with Goal Setting).

**In Practice:** All five participants said they believed that the mental training strategies assisted in developing better concentration, reporting that awareness had made a difference to the monitoring of mind wandering and the ability to control disruptive thoughts, by using self-talk. Even the person who had practised the strategies for only two weeks stated ‘I’m definitely more aware of thought control than I was before’.

In the Lead-Up: The previous ‘what if’ scenarios either disappeared, or occurred only briefly pre-performance, at which time they were eliminated on the spot with self-talk (‘Stop, focus on something else!’) or with self-affirmations (‘You’re ready’.) With mental strategies being routinely practised in and around practice, positive thought patterns were in place. This had not been the case prior to the Training Program being introduced. One person explained the connections as follows:

I had a few ‘what if’ thoughts but I felt generally more confident that I had skills to get myself into the right mind-set to play well.

Imagery rehearsal, (either aural, or multi-sensory, including ‘seeing the page’) was most beneficial in the lead-up to performance, assisting concentration and promoting security for four of the five students. Just prior to performance, positive self-talk, self-affirmations, meditation and deep breathing were used to control negative thoughts if necessary, and promote performance readiness. Sport athletes refer to this as ‘getting in the zone’ for the ‘zone of optimal functioning’ (Section 2.3.1. under Arousal Regulation).

During Performance: Concentration ability had increased during practice, so that each student reported only one momentary lapse during the performance, which was overcome with positive self-talk occurring automatically. Any mishap had been ‘a very small thing’ and not a concern as previously. No one experienced the former negative dialogue of inner voices that had the potential to cause a major concentration lapse and ‘spiralling down’ of the performance. The following examples from each of the five *Etudes* reveal less concern about errors, and a better sense of control over concentration during performance:

I thought, ‘Oh no, I’ve played some out-of-tune notes’, then I thought, ‘doesn’t matter!’ [laughs] (*Etude* No. 1).

I remember I played just one note out of tune. It was a very small thing. It was flowing (*Etude* No. 2).

I stayed on top of it [concentration] most of the time (*Etude* No. 3).

I just moved my mind back to the music [following a negative thought]  
(*Etude* No.4).

I had one little phrase, the notes started to catch on each other. I fixed it very quickly, just focused on consistent sound, whereas before, that would be the beginning of the downward spiral (*Etude* No. 5).

These texts demonstrate the inter-relationships of the performance skills areas of Arousal Regulation (regulation of stress), Attentional Focus (Concentration) and Self-Efficacy with performance, as described in sport performance (Nideffer 1993 in Section 2.3.1). The musicians' reports also demonstrate that situational self-confidence facilitates concentration allowing the mind to focus on the musical process, 'on the task at hand' as described by Weinberg and Gould (1995, 301).

### **6.2.2. *Stress and Lifestyle Practices***

With the provision of a framework of strategies in a daily lifestyle context, it can be seen that the musicians themselves were able to monitor their stress and lifestyle practices, and so regulate their individual arousal levels

#### *Stress and Lifestyle Practices Pre-Training*

Stress appeared to be experienced in relation to three areas: the musician's lifestyle, the lead-up to performance, and the performance atmosphere. The experiences within these areas are described *before* the Training Program was introduced.

Stress and Lifestyle Practices: Lifestyle practices play a significant role in either inducing stress (through poor nutrition, lack of exercise or sleep), or influencing the successful management of stress (literature survey, Section 2.4). A question regarding lifestyle practices was asked in the first interview: 'Which three of your lifestyle practices would you like to change?' The predominant answers given by the five musicians were 'Exercise', 'Sleep' and 'Nutrition' respectively. All five wanted to improve on their lack of exercise. No one exercised to keep fit, though two people had noticed in the past that exercise had a dramatic effect on wellbeing. Reasons given for lack of regular exercise were: lack of thought about it (two people), laziness (two people), or lack of time (one person). The desire to

improve one's low or 'near zero' exercise levels was followed closely by the desire for quality sleep, regular sleep, or time out for rest (four of the five students). The desire to improve nutrition, particularly 'eating less junk food', was expressed by three of the five students, with the other two already practising this as a matter of course (for health reasons and cultural background). Despite awareness of the importance of both nutrition and exercise, it remained unclear to all the students how these could relate to practice. The statements typified this: 'I don't really make the connection between eating and playing at all'; or 'energy is not something that I'm conscious of'.

Stress / Pressure in the Lead-Up: The Lead-Up period seemed marked by what had gone before in the practice sessions. As negative thoughts were 'played' into the practice sessions, the resultant doubts about one's playing ability created the mental stress and pressure such as 'feeling really insecure', 'having to prove oneself' or 'please others' in the lead-up period. These doubts were then played out in the mind with 'what if' scenarios, which could carry over into performance with the possibility of becoming self-fulfilling. The students managed this period as best they could, using such diverse methods as taking beta-blockers and multi-vitamins (*Etude 1*); eating fruit and drinking water before going on stage (*Etude 2*); using self-talk just prior to performance (*Etude 3*); banishing thoughts of technical problems perceived as beyond one's control (*Etude 4*) or trying to adopt positive thinking in the week preceding performance (*Etude 5*). Roland's (1994) preliminary study showed that professional performers had taken many years to establish suitable strategies to manage performance (Section 2.2.2).

There was nothing to counteract distressing experiences, as students had not been advised about practice / performance strategies to alleviate stress in the lead-up period to performance. Some of the students had previously attended other tertiary music institutions, indicating that the situation was not confined to one institution. Two students in the past year had sought advice outside the institution to gain performance confidence, while another two students stated they felt they needed assistance. The students' general lack of knowledge of performance strategies appeared to support the music performance research findings of Roland (1994)

and Schaupp (1997) that performance anxiety was generally left up to individual students to manage.

Stress with the Performance Atmosphere: Direct and indirect mention was made about the ‘performance atmosphere’ at the institution in the first interview: ‘I find things particularly stressful at the institution’; the feeling of ‘having to prove myself’ or ‘redeem myself’; and concerns about whether one’s playing would be approved of by staff members. All were aware that these concerns affected personal performance ability.

Two types of performers became apparent — one type more anxious than the other. The more anxious three students (I’ll call type A) often used the words ‘stress’, ‘pressure’, and ‘nervous’. They appeared to feel pressure, as well as put pressure on themselves to play well, while admitting to feeling generally anxious about performing: ‘I get nervous generally, whoever I’m playing for’; ‘Even when I talk about being nervous, I start to feel nervous’. They also experienced the performance atmosphere as stressful: ‘the knowledge that you are always being assessed can take away the musical element’.

The other two students (type B), though ‘never calm in performance’ and reporting feeling insecure or lacking confidence, mentioned feeling excited about performance and still seemed to enjoy the act of performance.

From the ‘anxious’ musicians (‘type A’), two of the three students had sought help outside the institution within the last year. One of those seeking help was now using beta-blockers in performance, influenced by a student friend who used them regularly. The third person in this group, though not having sought help, stated ‘I definitely need something. I don’t know how to handle a big performance’. Type A experienced increased nervous symptoms just prior to performance. The added symptoms (apart from the usual racing heart and last minute toilet calls) were stomach pain or sometimes feeling sick. Both type A and B showed keen interest in learning about strategies to manage performance.

The following experiences describe the changes after the Training Program was introduced.

*Stress and Lifestyles Practices after the Training Program was undertaken*

The same three aspects are addressed: Stress and Lifestyle Practices; Stress / Pressure in the Lead-Up; and Stress with the Performance Atmosphere.

Stress and Lifestyle Practices: Regarding the desired changes in lifestyle practices of exercise, nutrition, and sleep or relaxation, the most notable changes were apparent in the daily patterns of exercise and nutrition. Stretching was considered by four of the five students to be an effective way to prepare oneself for practice or re-energise during the day: ‘for having freedom of movement and relieving tension’. Walking (or alternatively jogging or swimming as one person preferred) was found by all participants to be relaxing, re-energising, and ‘not a chore’ as previously thought. Students demonstrated that walking and stretching were not only enjoyable and easily adaptable to lifestyle patterns, but improved practice and gave a sense of wellbeing. All stated that practice was a more positive experience, since becoming more mindful of the interactions of the mental and physical strategies of the Training Program.

It was difficult to separate the benefits of the physical strategies of exercise and nutrition from the mental strategies of meditation / deep breathing; negative thought control / self-talk; self-affirmations, and imagery rehearsal, as three of the students themselves noted the strategies ‘all sort of stick together’, ‘they’re all connected’; and regarded as ‘a priority’ in daily life, as exemplified in the following:

You find that you can fit these things in very, very easily and they help you to function so much more efficiently. I was much better able to cope (Etude 5).

Nutrition was either a ‘discovery’ or ‘re-discovery’ for four of the five students. The other student, being of Asian background, found it similar to her usual everyday habits. All five students acknowledged benefits from awareness about Nutrition and implementing these. Eating and drinking more regularly during practice sessions and throughout the day resulted in an improvement in concentration, increased energy levels, and a general sense of wellbeing.



In the follow-up questionnaire, three of the five students gave lifestyle practice self-ratings as 'average'. This was despite all participants stating in this questionnaire that exercise and nutrition had improved generally. The 'average' rating might suggest that expectations had risen (knowing one was capable of better), and /or it could indicate that students were requiring practical assistance to maintain healthy eating patterns within the performance environment. All participants continued to report positive feelings about practice and performance in the follow-up questionnaire, with each person here describing the present effects of the Training Program on his/her performance confidence:

I am more confident about myself and my playing (*Etude No. 1*).

It helped my playing so much ... On stage I now know how to calm myself down and keep focused (*Etude No. 2*).

More confidence in my ability to prepare for my recital (*Etude No. 3*).

It's given me more focus, concentration, and confidence (*Etude No. 4*).

Knowing I have strategies that work (if I need them) means that I feel far less stress in performance (*Etude No. 5*).

### *Stress / Pressure in the Lead-Up after practising the Training Program*

The following changes were reported in relation to personal perceptions of stress in Practice and the Lead-Up, after practising the Training Program:

All students attributed changes to more positive and more effective practice. Additional comments were 'Because my practice had been better, I felt prepared' and 'I trust these strategies to work more and more every time I do them'.

In the Lead-Up phase, all participants experienced a noticeable reduction in stress and anxious thoughts. Even the participant who trialed the Program for just two weeks reported an improvement in performance preparation: 'though I was still learning bits in the three-to-five day period [pre-performance], I didn't feel the

pressure I had before'. All five musicians acknowledged that the physical strategies of nutrition and/or exercise assisted mental and physical wellbeing for practice and performance, resulting in a reduction of stress and pressure. The Literature Survey shows the benefits of Nutrition and Exercise for mental and physical wellbeing (Section 2.3.4). The following texts reflect the effects of exercise or nutrition.

I think it's very important with the 'whole body' thing. I really do need to exercise regularly. That makes a big difference to how I feel about life in general (*Etude No.1*).

Sometimes after a few hours practice, I go out for a walk, come back and practise again. It feels so good (*Etude No.2*).

Nutrition gave me more energy for a start, and just *generally*, so my health was better (*Etude No.3*).

Just looking at my health, mental and physical, is all part of what I want to do — part of practice and performance (*Etude No.4*).

When you have energy and you're clear-headed, you feel you can cope with things. I didn't realise that eating well would make me feel that good that I would perceive things so differently (*Etude No.5*).

### *Stress and Performance Atmosphere after practising the Training Program*

Before using the Training Program all five students reported that they were affected by certain staff members being present at their performances, whereas after practising the training strategies, all reported being either less affected or unaffected by those same people being present. The student previously most affected by people in the audience at the beginning of her performance now reported 'I did look at them but I didn't think anything', and attributed this to 'confidence, because I just know it's going to be good.' Those three people who had regarded the performance atmosphere as stressful previously, now showed a change of perception: 'That's really interesting how my perception has changed so quickly'. 'I really feel now that I must have actually changed a lot because I didn't

feel like that at all in the lead-up'. Also, no further mention was made of having to 'prove myself' or 'redeem myself'.

A noticeable change in concern about nervous symptoms was also evident:

A few butterflies but not feeling sick (*Etude* No. 1).

I still got cold hands, but I just didn't pay much attention to it (*Etude* No. 2).

[With any stomach pain] just giving it a quick rub, and forgetting about it (*Etude* No. 5).

The reduced concern about one's nervous symptoms, when practising performance strategies and consequently feeling happier about performing, supports Roland's similar finding (1994, 121). The use of trusted strategies to enhance performance improved one's sense of ability or self-efficacy beliefs (as outlined by Bandura 1977, 1995, 1997).

Summary: The main conclusion drawn from the reports about Stress and Lifestyle Practices is that, once training strategies supporting lifestyle practices are in place, perceived levels of stress and pressure decrease, while positive feelings of focus, coping ability, and confidence increase. This finding suggests that practice of the six interactive mental and physical strategies assists the development of the four psychological skills areas (Section 2.3.1). By learning how to develop and monitor these skills one-self, the ideal mind-body states for peak performance are also assisted, which in turn assist the psychological skills (Section 2.3.3 and Figure 3). The self-regulation of the performance skills and mind-body states assists the development of self-efficacy sources (Section 2.5 and Figure 3).

### 6.2.3. *Sense of Control*

This section shows that the Training Program changed the musicians' former lack of sense of control to an apparent sense of command / sense of control — in both practice and performance. The process begins with an *awareness* of control using the mental and physical strategies, leading to more regular *practice* of sense of control, which progresses to the *experience* of sense of control, giving the feeling of performance confidence.

#### *Sense of Control before the Training Program*

Negative thoughts and feelings in practice resulting in despondency (not knowing how to improve practice), frustration, and slight depression were reported in the first interview. Feeling 'out of control' in performance was a regular occurrence described by three of the five students. The other two students reported 'what if' anxious thoughts in the lead-up period to performance, followed by negative inner dialogue during performance, pointing to a lack of confidence in ability.

One student's descriptive statement, 'How out of control it is, depends on whether it's excitement or worry,' reflected an awareness of loss of control with either excitement or worry about the performance. It is for this reason that sport performance advocates strategies for arousal regulation (control) to create an individual's optimal level of arousal, this optimal level being a varied bandwidth rather than any one precise optimal level of arousal (Section 2.3.1, Arousal Regulation).

However, research also demonstrates that the person's level of self confidence within the performance setting is an added variable to increased levels of emotional / physiological arousal affecting performance (Eysenck 1989 in Nideffer 1993, 548, Section 2.3.1). If the individual is confident and/or not too concerned about failure, then adjustment is made faster, by redirecting attention to the task at hand. However, if the person lacks confidence and/or is concerned about the consequences ('what will the audience think'), a battle ensues with the tendency to be over-analytical and oversensitive to cues suggesting failure. The person is then unable to redirect focus to the task at hand, continuing to be

focused on negative thoughts and feelings. Participants in the study demonstrated these tendencies before they practised the strategies' program. One participant described this as a 'tug of war within the mind' in order to try to regain concentrational focus, while another participant described this as the moment when the performance began its 'downward spiral'. As these moments can develop either way, to become better or worse, it is important to have strategies to prevent what is termed 'choking' in sport performance, 'stage fright' in the performing arts, or one participant's apt description, 'the downward spiral'.

#### *Sense of Control leading to Confidence after the Training Program*

Across the five cases, the former 'lack of control' changed to 'sense of control' after the Training Program was completed. Excerpts of the five students' experiences in their second performance describe this change to 'sense of control' for practice, lead-up and performance:

Because my practice has been better, I felt prepared ... just a few butterflies, but I definitely felt more in control (*Etude* No. 1).

It was just flowing—I can't believe it myself (*Etude* No. 2).

Today I didn't feel worried you know. It was good nervous performing. It was no way out of control (*Etude* No. 3).

I had one little phrase where the notes sort of catch on each other. I fixed it very quickly, whereas normally I would have lost it for a couple of bars (*Etude* No. 4).

I started to get a bit nervous but it wasn't anything too drastic. I think I was a bit more in control (after two weeks' training) (*Etude* No. 5).

Such reports were confirmed later in the follow-up questionnaire, with three of the five musicians mentioning their sense of control and the other two commenting on their feelings of confidence.

The idea that you can control the whole situation if you want to (*Etude* No. 1).

Now when I am on stage, I know how to calm myself and keep my focus (*Etude* No.2).

More confidence on the day (*Etude* No.3).

I think I was definitely more in control of my practice and a lot more in control and relaxed in performance (*Etude* No. 4).

I don't feel that performing is outside the realm of my control. I know I can take charge of the situation even if things aren't going well. (*Etude* No. 5).

Feeling positive about practice had an apparent impact on one's sense of control and confidence in playing. The strategies assisting 'sense of control' in practice were negative thought control with positive self-talk, and imagery rehearsal. Imagery rehearsal was used either aurally, or aural imagery combined with photographic imagery, or multi-sensory: using internal imagery (inside one's body), utilising as many senses as possible (including the kinaesthetic) for playing the performance in one's mind. This mental rehearsal of the music could be done at home (with the instrument, or away from the instrument), or elsewhere (even in transit), with this giving security and confidence as shown by the following comments:

All that visualisation gave me a way, which I knew would work, gave security. (*Etude* No.3)

Just thinking about how I wanted it to sound, I just feel a lot more confident about my playing in general (*Etude* No.1).

(On the train) Just staring into space seeing the music, trying to see every note (*Etude* No 4).

I just focused on the consistent sound (*Etude* No.5).

A rich description follows about the process of gaining confidence:

I was feeling much more positive and that really helped my concentration because it was like I could really believe in what I was doing and trust myself more, and just enjoy it more. And when you're enjoying it more, you're concentrating, because you're really into it (*Etude No 1*).

This statement had particular significance, because it came from the person who had stated emotionally in the first interview, that she felt she had lost her enjoyment of performing.

All the participants attributed their performance confidence to having integrated the strategies of the Training Program into everyday life. One musician described the lead-up phase now as follows:

I felt generally more confident that I had more skills to get myself into the mindset to play well ... I trust those strategies to work ... I become more and more confident that every time I do this, it works (*Etude No.5*).

For the performance following the completion of the Training Program, each person had one incident that reflected newly acquired confidence in performance:

- Hearing from significant people that the difference in one's playing was noticeable and 'really dramatic' (*Etude No. 1 and Etude No. 4*).
- Not being put off by the look of the audience (*Etude No.2*).
- Having the confidence to play one's own interpretation (*Etude No.3*).
- Not needing the approval of those present at the performance (*Etude No.5*).

In the follow-up questionnaire, four of the five musicians rated 'sense of confidence' for the end-of-year performance 'good', while all five rated 'sense of mastery' as 'good'. This was a desirable result, as both students and the institution regard the end-of-year recital as an important marker of development. It would appear that the strategies assisted confidence in performance by being practised at certain times.

A summary is shown here:

- Physical exercise and nutrition assisted wellbeing in Practice and the Lead-Up (*Etudes* 1, 2, 3, 4, 5).
- The combined training strategies created positive, efficient, concentrated and goal focus in Practice (*Etudes* 1, 2, 3, 4).
- Imagery rehearsal and meditation were considered effective in the Lead-Up (imagery rehearsal in *Etudes* 1, 3, 4, 5, and meditation in *Etudes* 2, 3, 4, 5).

Three of the five musicians wrote in the follow-up questionnaire that, just *knowing* one had strategies if one needed them was ‘the most positive thing’, ‘means far less stress in performance’ and gives ‘focus with playing’. This would suggest that the strategies provided a sense of security and sense of control.

Both types of musicians, (‘anxious’ and ‘not so anxious’ about performing), welcomed the knowledge of practice and performance strategies, with both types believing that the strategies assisted their performance.

The direct connections between attentional processes, physiological arousal and control of performance as experienced by the musicians are to be found in research (Section 2.3.1). If one area is affected, either positively or negatively, the other areas will also be affected. Research conducted at the Australian Institute of Sport (Nideffer 1993, 549) demonstrates that where the effects of a training program have been examined through pre- and post-testing, data on changes indicate that positive attentional changes occur, along with increases in self-confidence and control.

Self-efficacy has an additional mediating effect on concentration (Eysenck in Nideffer 1993, 548, Section 2.3.1.) The findings of the present study support these research findings.

The musicians in this study considered concentration to be the most important skill for effective practice and performance. All expressed a desire to improve this skill and all believed their concentration had improved after applying the training



strategies. The importance of this skill for performance has been acknowledged in sport performance literature (Section 2.3.1, Attentional Focus).

The musicians remained largely unaware of the other psychological skills that could assist them. Sport performance literature shows that the four psychological skills are interrelated (Section 2.3.1), highlighting the fact that the students' three significant issues are also interrelated (see Figure 18). Limited knowledge regarding relaxation strategies for stress control and uses of imagery for practice or practice away from the instrument was particularly evident before the Training Program was undertaken.

The Training Program addressed the musicians' major issues with interactive strategies to strengthen the four psychological skills areas of Attentional Focus, Arousal Regulation, Imagery, and the overarching skill of Self-Efficacy. Only one musician appeared to find the skill of imagery not useful, even after undertaking the Training Program. However, this person proceeded to win a violin competition by concentrating on the other strategies to support the other skill areas. Perhaps some musicians may be content with their aural awareness, some may not be visually oriented, or may need more time to assimilate this skill. The literature survey (Section 2.3.1) shows that imagery, like the other three psychological skills, needs regular practice to become an acquired and effective skill.

### **6.3 How the Main Issues Relate to the Research Question**

To reiterate the research question:

*Would a performance enhancement training program for musicians, modelled on sport performance's mental and physical training strategies, promote the development of performance confidence in music?*

The issues of Concentration, Stress and Lifestyle Practices, and Sense of Control / Sense of Confidence relate directly to the research question. These issues, outlined in the texts of the students' *Etudes*, have a direct influence on one's performance ability, one's perception of performance ability (Self-Efficacy) and a direct

connection to the psychological skills areas necessary for performance (as shown in Figure 18). For performance confidence to develop, one needs strategies to master the psychological skills necessary for performance (Section 2.3.1). One also needs to develop the belief in one's ability to carry out what is required (self-efficacy) in addition to practising and acquiring the required technical skills. It has become clear that these factors inter-relate and work interdependently with each other. The Training Program assisted and promoted the students' development of performance confidence according to the literature findings as follows:

1. By increasing awareness of control in performance as defined by Ravizza (1998, 171-178 in Section 2.3.2).
2. By increasing the four psychological skills areas required in performance (Mahoney 1977 in Section 2.3.1): Attentional Focus; Arousal Regulation; Imagery; and Self-Efficacy (within which were connected the three significant issues of Concentration; Stress and Lifestyle Practices; and Sense of Control/ Sense of Confidence. See Figure 18).
3. By assisting the mind-body characteristics for peak performance experience as described by Garfield and Bennett (1984) (seen in Section 2.3.3) with similar descriptions by other performance researchers (Singer, Murphey & Tennant 1993, 280).
4. By developing three of the four sources of Self-Efficacy outlined by Bandura (1977) (Section 2.5).

This research study focused on the effects of the total package of strategies on the experiential process of performance: from the initial practice phase through to performance. This was in contrast to Roland's (1994) study, which focused on objective performance outcomes for its method of measurement. Roland (1994, 90-91) believed that 'if a performer has developed inadequate practice and learning habits they would need to rectify these outside of treatment'. Schaupp (1997) was apparently not of the same opinion, because her study included musical practice strategies in its treatment for overcoming music performance

anxiety. For the present study, the strategies were used as (extra) music practice strategies to assist confident playing.

Therefore, my explanation for the students' development of performance confidence is as follows:

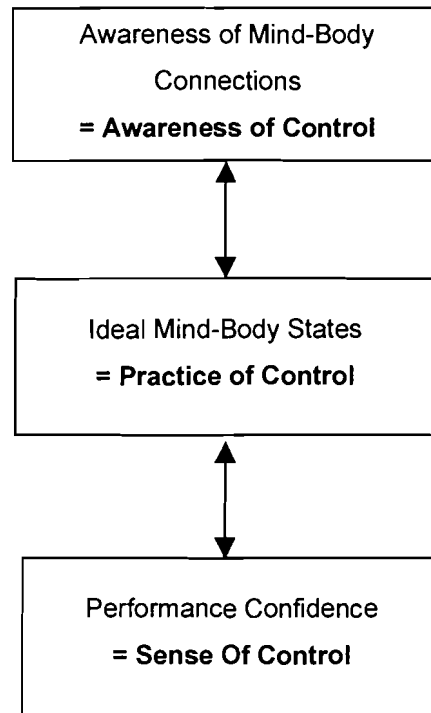
By placing the training strategies in the everyday practice context, the student became aware of the mind-body connections within practice (supported by Harris & Harris 1984; Ravizza 1998, 171-178 and numerous other sport psychologists). The integrative mental and physical strategies applied in and around practice became part of the practice process, thereby developing automatic reflexes for the lead-up and performance (as described by Ravizza 1998 in Section 2.3.2). The 'scaffolded' training approach applied to the Training Manual Design (Section 3.3) empowered the student to take control of his/her own practice: to set goals, to become motivated, and be aware of the positive mental and physical states, which could be self-regulated to suit the individual.

The most important perceived change reported by the five musicians in relation to all three issues, was the sense of control and confidence they felt about themselves and their playing when they practised the Training Program / Manual. Clinicians and researchers are increasingly in agreement that personal sense of control is a critical variable in psychological health and wellbeing, involving mental processes, beliefs, thoughts, emotions and behaviour patterns (Bandura 1989a, Beck 1976, 1989, Seligman 1991, Taylor & Brown 1988, 1994 in Shapiro Jr. & Astin 1998, 5). The exercise of control for securing desired outcomes and warding off undesired outcomes has immense functional value, providing a strong source of incentive for motivation (Bandura 1997, 2-3). However, Bandura points out that the exercise of control largely depends on people's beliefs about whether they can produce desired outcomes, these affecting their motivation to act. 'Efficacy belief, therefore, is a major basis of action. People guide their lives by their beliefs of personal efficacy' (Bandura 1997, 2-3). In this way the interdependent relationship between self-efficacy and sense of control is explained.

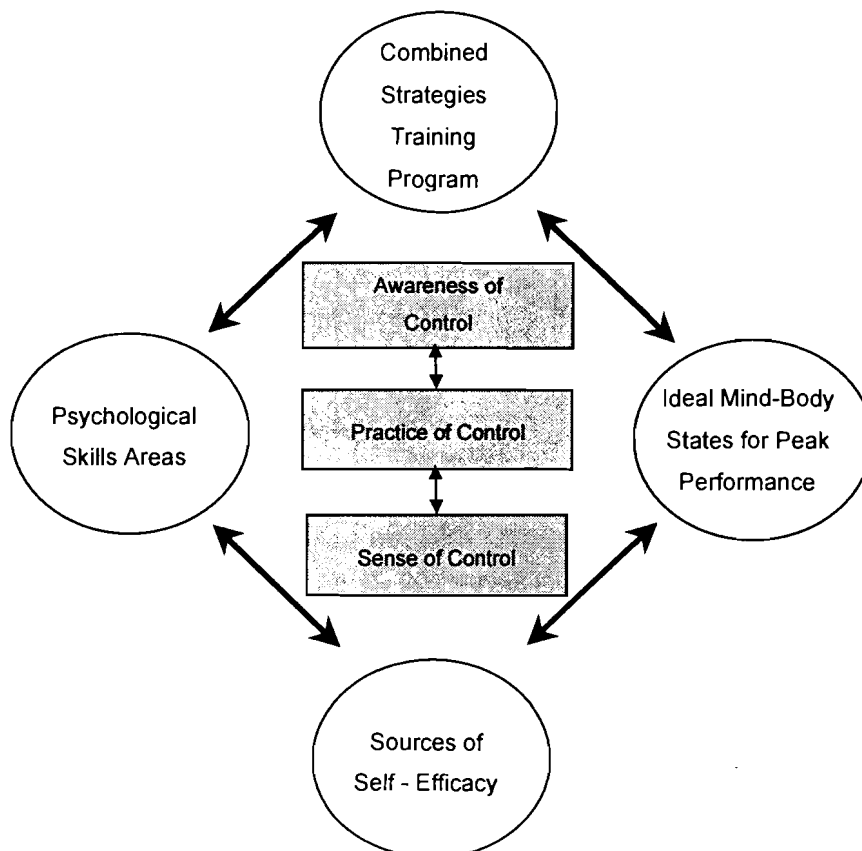
## 6.4 Summary

The five students' *Etudes* show that confident performance is developed initially by increasing awareness of the mind-body connections in the practice phase. The application of mental and physical strategies assists the performance skills areas of Concentration, Imagery, and Self-Efficacy, and Arousal Regulation (assisting in the management of stress and pressure). Regular practice of strategies increases one's sense of control in practice and in the lead-up phase, allowing the act of performance to be considered as a process, rather than an outcome to be measured, critiqued and feared. This process allows one to be task-oriented and musically focused, so freeing one's mind of concerns. Practising 'sense of control' promotes the ideal mind-body characteristics for peak performance experiences (Garfield and Bennett 1984 in Section 2.3.3.), resulting in the experience of 'sense of control' with performance confidence (reflecting Bandura's 1997 treatise 'Self-Efficacy: The Exercise of Control').

Figure 19 illustrates this developmental path to performance confidence.

**Figure 19. Developmental Path to Performance Confidence**

In the following Figure 20, this developmental path can be viewed in relation to the strategy framework (seen earlier in Figure 3).

**Figure 20. Developmental Path within the Strategies Framework**

## Chapter 7 Summary and Conclusion

I felt a lot more positive and that really helped my concentration. I could really believe in what I was doing, trust myself more, and just enjoy it more. And when you're enjoying it, you're concentrating because you're really into it (Catherine in *Etude No.1*).

I've got a more positive outlook. None of this [training] can change my actual level of ability on my instrument. But it can change my perception of my ability, and ability to *complete* tasks and *do* things (Sophie in *Etude No. 5*).

### 7.1 Introduction

This research began with the aim of exploring ways to develop the musician's performance confidence. The purpose of the study being to assist musicians to manage performance, a Training Program / Manual was designed containing a framework of integrative strategies for the management of practice and performance. The research question in relation to this purpose was:

*Would a performance enhancement training program for musicians, modelled on sport performance's mental and physical strategies, promote the development of performance confidence in music?*

In the previous chapter, it was shown that this type of training program can and does promote the development of performance confidence in music. This final chapter looks at the results and implications of this study outlined as follows:

Section 7.2 gives a summary of the study's findings.

Section 7.3 discusses how this Training Program appears to develop performance confidence in music.

Section 7.4 outlines the limitations of this study, and suggests improvements to the study.

Section 7.5 discusses the implications of the study for music performance educators and music performance students.

Section 7.6 advocates important applications for this study.

Section 7.7 makes recommendations for future research.

Section 7.8 proposes future directions in music performance education.

Section 7.9 is the conclusion to the thesis.

## **7.2 Summary of the Findings**

The five musicians for this study came from second, third, and fourth year tertiary music performance, as well as first year postgraduate level, with varied backgrounds, each specialising in one of the instruments: violin, piano, French horn, flute.

### **7.2.1 The Main Findings**

- The study demonstrates that such a training program of mental and physical strategies based on a holistic sport-training model promotes the development of confidence in music performance. All participants reported this after completion of the Training Program (in the second interview and follow-up questionnaire).

The main point here is that performance confidence is achievable, when one's practice is genuinely perceived to be positive and effective, this generating a sense of confidence in one's playing in preparation for performance. That negative mental habits create negative practice outcomes was evident before the Training Program was used. During and after the Training Program the positive mental habits practised by the musicians assisted positive practice outcomes.

- Exercise and Nutrition can benefit practice and performance creating a sense of wellbeing. This was the most significant personal discovery for all the musicians.

Before using the Training Manual, students were generally unaware of benefits that Nutrition and Exercise might bring to music practice and performance, as they could not see cause and effects. However, once they followed nutritional guidelines such as drinking / eating nutritiously at regular intervals throughout the day and prior to practice, energy and concentration in practice improved. Regular daily physical exercise of stretching and walking brought about feelings of wellbeing bringing positive changes for music practice. (Swimming and jogging also proved effective for some). In the music performance literature, Roland (1997, 52 in Section 2.4.2) suggests doing some form of physical exercise to cleanse the body of the build up of stress-related chemicals. The Follow-up questionnaire revealed that all students considered that Exercise and Nutrition had important benefits for practice and performance. The other strategies — Negative Thought Control with positive Self-Talk, Self-Affirmations, Imagery Rehearsal, and Meditation and Deep Breathing — were assisting three of the five participants. This demonstrates that a multi-modal training program is important to allow for individual differences.

- Trusted known strategies give a sense of control and inner confidence for performance.

The five students stated in the Follow-Up Questionnaire: ‘Just knowing the strategies if I need them is the most positive thing’; ‘knowing the strategies means I feel far less stress in performance’; ‘it means now I know how to calm myself in performance’; ‘it makes the actual day not as nerve-wracking’; knowing the training strategies gives me more focus, concentration and confidence in performance’.

- Anxious feelings in the lead-up to performance can be minimised if mental and physical strategies are rehearsed in the practice phase.

As confirmed by Roland (1994) and Schaupp (1997) (in Section 2.2.2), it is apparent that when practice / performance strategies are familiar, a musician feels in command of nervous symptoms. Nervous symptoms do not necessarily disappear, but they are perceived differently, with less attention paid to them.



### **7.2.2 *Surprise Findings***

#### *Unsatisfactory Practice Methods*

I was surprised to find that all musicians in this study perceived practice often as ineffective or unsatisfactory. That musicians studying performance at a tertiary institution regularly experience feelings of insecurity and stress in the lead-up to performance is then not so surprising.

The present study indicates that performance students lack performance management strategies that include effective practice strategies. It also shows that the ‘practice’ and ‘lead-up’ phases are interconnected. Despite student musicians feeling the need to seek ways to overcome performance concerns, it appears that Schaupp’s (1997, 56) comment could still be valid: that tertiary music students are largely left to ‘fend for themselves’ regarding performance concerns (Section 2.2.2).

#### *Limited Use of Imagery*

Students revealed a very limited use and understanding of Imagery as a performance enhancing skill. All but one student seemed unaware of the multi-sensory aspects of Imagery and its many uses for guiding one’s musical development.

#### *Similar Outcomes*

Despite the personal nature of the performance experience, the collective outcomes appeared remarkably similar. The following points highlight this:

- a) All participants showed an improvement in the three significant issues of concern (Concentration, Stress and Lifestyle Practices, and Sense of Control) in their practice and performance after using the Training Program / Manual.
- b) The combined ‘package’ of strategies promoted positive thought patterns and lifestyle practices, created an increased sense of goal focus, and developed a

general sense of mental / physical wellbeing and performance confidence for all five participants.

- c) Students accepted the Training Manual with relative ease, adapting the strategies to suit their individual needs.
- d) The regular use of strategies during practice and the lead-up phases developed confidence to such a degree, that there was little need for strategies during performance. All students reported only one small incident when positive self-talk was necessary during performance, with this being used automatically to overcome the problem.

### *Summary*

The individual reports all indicated that there was initially a perceived inability to manage practice and performance effectively. Negative feelings about practice created feelings of insecurity, with stress and pressure in the lead-up phase inevitably flowing over into performance. In addition, the students' neglect of lifestyle practices regarding nutrition, exercise and sleep often hindered a sense of wellbeing and confidence for coping with the mental and physical demands of practice and performance.

The study highlights the importance of effective practice strategies as the basis for developing confidence in performance ability. It appears that lack of motivation, along with frustration and stress can all germinate in practice. Students were generally unaware of non-musical strategies to improve music practice. However, once strategies are known and applied to practice, it appears that motivation, a positive attitude, more effective practice and confidence about one's playing can develop in an inter-related (possibly cyclic) process.

## 7.3 A Training Program promoting Performance Confidence

### 7.3.1. *Theoretical Explanation and Literature Connections*

Bandura's (1977) Self-Efficacy Theory provides the theoretical framework for this study with three of the four sources of Self-Efficacy Theory (Section 2.5) being addressed. These sources are (1) Mastery Experience, considered the most important source; (2) Verbal Persuasion; and (3) Physiological and Affective States. The fourth source — Vicarious Experience — being about other people's experiences, was not applicable to this study, which dealt with personal experience.

The second interview reports and the follow-up questionnaire show that the Training Manual 'package' of six combined strategies when applied to practice and the lead-up to performance assists the development of mastery experience, increases verbal persuasion, and creates positive physiological and emotional states. The holistic nature of the study makes it difficult to define *which* strategies had *which* influence on *which* source of self-efficacy. It was apparent even to the musicians in this study that the strategies 'all sort of stick together' (*Etude* No. 3), and 'that the whole is more than the sum of the parts' (*Etude* No.5). As explained in Chapters 2 and 3, this is because each of the selected strategies has mind-body characteristics and influences, and all the strategies are interactive. Wertheimer (in Ellis 1938, 3) would explain it thus: 'See here, this formula [the 'package' of six mental and physical strategies] is not an independent closed fact that can be dealt with for itself alone. You must see its *dynamic* functional relationship to the whole from which it was lifted [the practice and performance experience] or you will never understand it'. Some explanation regarding Bandura's (1977) three efficacy sources follows:

#### *Mastery Experience*

It appears that mastery experience was developed by the combined strategies bringing about positive and effective practice, which in turn influenced the lead-up phase to performance. In the lead-up phase performance confidence was strengthened by the continued practice of the combined strategies, thereby

promoting a sense of mastery experience for the performance itself (reflected by such words as ‘I just know it’s going to be good’).

### *Verbal Persuasion*

Verbal persuasion as another source of self-efficacy was increased through the combination of the mental training strategies — negative thought control with positive self-talk, self-affirmations, and imagery rehearsal. This is explained in the literature survey (Section 2.5.2 Social or Verbal Persuasion) and reflected in the individual *Etudes*.

### *Physiological and Affective (Mood) States and their Alteration*

The combined application of the six strategies of nutrition, exercise, meditation and deep breathing, negative thought control with self-talk, self-affirmations, and imagery rehearsal all promoted positive mind-body states, in both practice and performance. This confirms various findings in the literatures of both music performance and sport performance (Sections 2.2 and 2.3). While it appears that meditation, nutrition and exercise were being trialed for the first time in music performance, the study’s findings show that the Training Program could ‘enhance physical status, reduce stress levels and negative emotional tendencies and correct misinterpretation of bodily states’, these being Bandura’s recommendations for the alteration of physiological and affective states, in order to increase self-efficacy (Bandura 1991a , Cioffi 1991, in Bandura 1997, 106).

## **7.2.2 Other Explanations for the Training Program’s Success**

### *The Holistic Approach to Performance Training*

Just as Roland (1994, iv) suggests that a holistic approach that fully addresses the lifestyle context of music performance shows the greatest promise for the treatment of performance *anxiety* in music (Section 2.2.2), this study demonstrates that the holistic approach addressing the lifestyle context in music performance shows the greatest promise for the training of performance *confidence* in music. Sport psychologists Vealey (1988) in Weinberg and Williams (1998, 343), Ungerleider (1996,7) Ravizza (1998, 171-174) and Hill (2001) confirm the

success of this approach for sport performance (seen in Sections 2.3 and 2.3.2). The foundations for lack of performance confidence were found to be in practice. Conversely, the foundations for confident performance were established in music practice. The explanation for this is that the habitual thought patterns are practised 'into' the music, continued in the lead-up to performance, and 'played out' in performance. Suinn's (1986, 19) comment is relevant: 'What you do with your thoughts can change your life and your performance'.

#### *Knowledge of Strategies Empowers One with a Sense of Control*

From the first and second interviews, the most significant issues shared by the five student performers were Concentration, Stress and Lifestyles Practices, and Sense of Control. Before using the Training Manual, all students were aware of their deficiencies in concentration and sense of control, and even aware of their deficiencies in lifestyle practices, but largely unaware of how to address these issues. The combination of these deficiencies seemed to contribute to insecurity and lack of confidence in performance ability, causing impatience, frustration, inward thinking, and slight depression in practice. The research literature shows that the cognitive processing patterns in relation to the performance situation are crucial to the individual's mental and physical states during performance (Sections 2.3.1; 2.3.2; 2.4).

While sport performance has already demonstrated the manageability of performance with the holistic approach to training, it is now clear that music performance can also be managed with such an approach. Each of the five participants was genuinely surprised at the benefits gained in practice and performance from practising this Training Manual / Program.

#### *Performance Confidence — a Process and an Outcome*

According to Bandura (1997, 82), efficacy beliefs or beliefs about one's ability to produce an intended result are both the constructors and products of experiences. The process towards performance confidence in the present study is one of awareness of sense of control over mind-body connections while familiarising oneself with the strategies, then practising sense of control, while practising the

strategies, and finally, experiencing the sense of control with performance confidence (as shown in Figure 19).

## **7.4 Limitations of the Study / Improvements to the Study**

### ***7.4.1 Monitoring Musicians' Practice Time***

The time students spent using the Training Program was not monitored. There was no exact way of monitoring students' involvement over the five weeks, Monday to Friday. Recommendations were suggested in the handout, 'What you need to know about this Research' (See Appendix 4). However, as the intention was that the Training Program should be flexible and self-managed (to foster intrinsic motivation), this approach created simultaneously a limitation. Given that daily involvement would have undoubtedly varied between the participants, the outcomes were all the more remarkable for their collective similarity. It should be noted at this point that none of the participants knew each other, or even tried to make contact with each other, although this was quite unintentional. In fact, an attempt on my part to get the students to interact with each other (for motivation purposes) remained unsuccessful.

### ***7.4.2 Lack of a Control Group***

Some people would regard the lack of a control group as a limitation of this study. However it must be remembered that this is exploratory case study research dealing with many new aspects. Future studies can view an experimental group with a control group to contrast the natural maturation and strength of self-efficacy in performance over time.

### ***7.4.3 The Hawthorne Effect***

The Hawthorne Effect may be regarded as a limitation of this study. Named after the industrial plant where it was first observed, this generalisation states that any new program works, at least for a while, due to the enthusiasm of the participants for something new and the sense that someone is interested in them (Reber 1995, 330). However, it must be noted, that, although it is true that the students were keen to try out the performance enhancement strategies, it is because they were

aware of their performance insecurities and already seeking ways to enhance their performance, but without complete success. Consequently, they were both sceptical and keen to critique any new strategies.

#### ***7.4.4 The Follow-Up Questionnaire***

The follow-up questionnaire followed at various intervals as previously explained (The Process outlined in Section 4.9). This data followed up information on the Practice, Lead-Up and Performance experience regarding the end-of-year recital. Despite this follow-up being at various intervals, the outcome experiences were remarkably similar.

The addition of a unified time lapse for a follow-up questionnaire or interview, and a longitudinal study could address these limitations.

#### ***7.4.5 Improvements to the Study***

The use of a specifically designed cassette tape with an additional outline of mental training strategies could perhaps be beneficial for some musicians. From the students' perspective, three of the five students reported that meditation was difficult in the initial two weeks of the five-week program. A cassette tape could probably facilitate the faster acquisition of the mental strategies. The participants were given non-commercially produced meditation tapes (from a Tibetan master) as one example of meditation, with an additional videotape of various other forms of meditation as options. However, students were encouraged to find their own style of meditation. While the time and finances involved with making a specific tape for mental training were considered prohibitive for this particular study, it was also felt that a specific tape was not in keeping with the aim of a self-directed style of learning.

## 7.5 Implications of the Study

### 7.5.1 *Implications for Performance Educators*

I believe this study presents valuable lessons for music performance educators. The major implication appears to be the need for a system of quality assurance for music performance; one that integrates institutions' and teachers' resources with students' needs, based on expectations and responsibilities.

It is clear that musicians, like athletes, need strategies to assist them manage practice and performance in order to increase their confidence in their performance ability. Furthermore, this study demonstrates, along with that of Roland (1994) and Schaupp (1997), that music performance anxiety can be managed when suitable strategies are known and practised. Four of the five participants stated that they believe that the Training Program strategies should be taught at music institutions.

The students' *Etudes* point to the need for a collaborative staff / student approach to performance confidence. Such an approach has been practised successfully at the Trondelag Conservatorium in Norway since 1982 (Spaulding 1995 in Section 2.2.3) where discussion occurs about students' goal setting, and appropriate pathways. The present study reveals that performance students remain unaware of goal setting as a valuable technique for practice and performance. Such information is essential across the student population to assure every student a more positive and effective personal outcome in practice and performance. It is my belief that a more collaborative approach between staff and students could have positive effects not only on students personally, but also on the performance environment and the institutional environment.

Alongside the need for a collaborative approach assisting quality assurance in music performance is the question of the exclusivity of the traditional master-apprentice model in its present form (outlined in Chapter 1). A holistic teaching and learning model that is multi-modal and includes the master-apprentice design appears more appropriate for today's performance education. For the acquisition of performance skills, the combined use of training strategy programs as well as



the use of technology (such as the video camera) could assist students, thereby providing a motivational performance / learning atmosphere. One student reported that she had recently viewed herself performing for the first time — in her final year of the performance course — thanks to a colleague who had videorecorded her performance. She stated how shocked she was at the difference between what she *believed* she was communicating musically and what she saw was being communicated. One can only imagine the increased rate of development and improvement in performance ability over time, were the video camera able to be used *prior* to concert performance as a performance enhancement tool and for the recital itself. The cost may well pay for itself in terms of students' increased motivation, improved performance skills, and documentary evidence of students' development. (The video camera has been used as a performance enhancement tool over many years in tertiary music institutions in Germany and Norway).

Performance research literature from various fields as well as this Training Program demonstrate that the issues of Concentration, Stress and Lifestyle Practices, and Sense of Control all play a significant role in contributing to performance confidence. Therefore, a performance education framework that addresses these issues would be most valuable for performance students. The students of this study learned the importance of awareness of thought patterns and lifestyle practices, and how positive change can affect practice and performance. Performance educators also need to be aware of the importance of thought patterns and lifestyle practices in practice and performance, thereby acknowledging the mind-body connections involved in playing music.

As instrumental teachers struggle with the conflict between honouring the traditional master-apprentice model and serving the economic rationalist model, general performance skills as opposed to technical performance skills are likely to lose out because of the time factor involved in such discussion. New ways will have to be sought to overcome this conflict. The multi-modal, holistic approach to performance provides a solution that could generate successful outcomes.

The present study indicates that discussion rarely occurs about visualisation or imagery rehearsal. As reflected in these case studies, one student had gained an understanding of Imagery from outside instruction, while another student

reported, that visualisation was once mentioned by a teacher as being useful for performance preparation. Other students' comments demonstrate lack of discussion: 'No teacher I've ever come across has discussed that' (*Etude* No.1); 'Teachers don't really talk about those things — they just want you to play everything in tune and fast' (*Etude* No. 2).

Psychological performance skills would seem to be a collective performance education issue – knowledge required by all students. Attentional Focus, Arousal Regulation, Imagery and Self-Efficacy are particularly applicable to music performance when the more familiar terms of Concentration, Stress Management, Imagery Rehearsal, and Performance Confidence are used. I believe this research outlines the main psychological performance skills for music performance for the first time. Although found in psychology and applied sport psychology, it appears that these remain 'a much overlooked set of parameters' (Suinn 1993, 493). Sport performance training programs highlight the training strategies for strengthening psychological skills, rather than the psychological skills themselves. This study's Training Program does likewise, in order not to overwhelm the participating musicians. However, it does seem significant that in the present study's outcomes, the students' three collective issues correspond to three of the four psychological skills required for performance in sport (as seen in Figure 18).

The five *Etudes* demonstrate a need for awareness of the health / stress / performance connection. The mind-body health / stress / performance connection, though currently a popular topic in books and magazines, has not yet been acknowledged within music institutions. However, the health / stress / performance factor can no longer be disregarded as a professional hazard, when research demonstrates that levels of self-efficacy directly affect one's health and performance and vice versa (Bandura 1997, 263-265). Sport training programs demonstrate that stress, health, and performance can be managed in order to develop self-efficacy. Performance institutions can also play an active role in reducing a stress-inducing atmosphere in favour of a supportive performance environment to develop the individual's 'personal best'.

The study shows that nutritional awareness plays an important role in optimal practice and performance. This research points to the need for appropriate

performance nutrition at institutions. With the ‘stress-prone diet’ of sugar, caffeine and cola being un conducive to effective practice and performance (detailed in Section 2.3.4.1), the provision of healthy practice / performance nutrition appears of utmost importance. Students need to know the benefits of healthy nutrition and various forms of exercise for enhancing their practice and performance. As concentration requires a relaxed ‘mind-body state’, the strategies of Walking, Stretching, Meditation and Deep Breathing, Negative Thought Control with Self-Talk, Self-Affirmations and Imagery Rehearsal can all be regarded as complementary to physical practice.

Three of the five students sought assistance for performance problems outside the performance institution. This could suggest that institutions are either not addressing student performance needs, or students do not feel comfortable asking for assistance within the institution. As with previous research studies (Roland 1994; Schaupp 1997), this study demonstrates that performance strategies need to be an important part of performance education. The topics of Performance Enhancement and Performance Confidence invite open, positive, motivational discussion unlike the topic of Performance Anxiety, which has been described as threatening for many people (Schaupp 1997, 36 and Catherine in *Etude* No.1).

### ***7.5.2 Implications for Music Performance Students***

At present some performers feel the need to use beta-blockers or other drugs in order to create a sense of control in performance (Roland, 1994; Schaupp, 1997). It would appear from this study that the main reason a student resorts to this type of control is his/her lack of knowledge of alternative methods for gaining control in performance. The present research provides musicians with lifestyle-oriented strategies to manage performance themselves. This can be empowering for students, allowing performance confidence and wellbeing to flow over into every aspect of daily life. (Sophie in *Etude* No.5 described this ‘flow-on effect’ in her written comments in the Follow-Up Questionnaire.) The study demonstrates that musicians can structure and maintain their own training program in a similar manner to that of athletes, and thereby manage practice and performance effectively. Perhaps the most valuable lesson for the performance student is that

learning how to manage *oneself* through ‘mind-body awareness’ is the key to learning how to manage practice and performance.

## **7.6 Applications of this Study**

### **7.6.1 *Student Musicians and Professional Musicians***

It is believed this research is particularly suited to performance students in the first year of tertiary performance studies. These students are a particularly vulnerable group of people: to risk behaviour (which includes or contributes to unhealthy lifestyle practices), to problems resulting from lack of performance confidence, and to performance anxiety. These factors, contributing to negative experiences within the performance environment, can be addressed with a suitable performance management-training program.

Private music teachers and their students can benefit from this research and Training Program.

Professional music performers can benefit from this study’s framework of strategies. Short-term and long-term benefits can assist a quality performance career as well as an established healthy performance career. Chronic fatigue, burn-out, and lifestyle problems need not be regarded as occupational hazards in music performance.

### **7.6.2 *The Creative and Performing Arts***

This research for enhancing performance is of interest for all creative arts and the allied performing arts of Dance and Drama. Artists and stage performers are always seeking a reliable performance confidence formula, particularly one that acknowledges individual differences. The lifestyle strategies approach allows more individual control over one’s performance outcome than does the dependence on beta-blockers or other relaxant drugs. Because of the health-enhancing consequences of the educative Training Program, this research has applications beyond that of music performance and the allied performing arts.

### ***7.6.3 Middle School Education and Special Education***

This research has special significance in social contexts where performance outcomes are assessed, the most notable being upper primary / lower secondary school education. The so-called ‘middle school years’ are being recognised as increasingly important ones for establishing lifestyle patterns. Lifestyle issues such as anti-smoking campaigns, anti-drug campaigns and sex education are now being targeted at this age group. It makes sense to complement these issues with mind-body confidence training for improved mental and physical performance and health, which can develop into lifestyle patterns. In the area known as Special Education, children showing social and behavioural problems might also benefit from such a program.

### ***7.6.4 Health Education — Preventing and Alleviating Depression***

As each of the six selected mental and physical strategies can alter negative thought patterns to create a positive frame of mind and promote a sense of wellbeing (Literature Survey Chapter 2), this research also has an important application for the prevention and alleviation of depression (Liertz 2000, 60).

## **7.7 Recommendations for Future Research**

As research into the enhancement of individual music performance remains extremely under-developed, there is much scope for further research into music performance. Recommendations are the following:

- 1) Further testing of this particular Training Program is recommended, for example:
  - a) The use of a larger sample of participants with the same program being used across one or more institutions.
  - b) Long-term follow-up studies.
  - c) The use of a control group alongside an experimental group for comparison.

- 2) Quantitative studies are recommended in the areas of Nutrition and Exercise (including mental, physical, and relaxation-type exercise). An appropriate quantitative measure would appear to be the measurement of stress hormones, cortisol or catecholamine (Bassett & Spillane 1993; Bandura 1997, 265). The effects of short-term acute stress and chronic stress can differ greatly. 'Evans et al. suggest that these differences in immune response may be influenced by perceived coping ability rather than by the nature of the stressor' (Adams & Bromley 1998, 331). Stress hormone levels could be a suitable quantitative measurement of perceived coping efficacy for before and after the use of a training program.
- 3) Issues of unique importance were identified which were not within the parameters of this study. For example, the separate roles of the teacher and the institutional environment in the development of performance confidence. This could no doubt be of major interest to musicians and performance educators.
- 4) A study of individual differences or gender differences in performance confidence, along with how students arrive at their perception of performance confidence would be of interest.

## **7.8 Future Directions for Music Performance Education**

I believe it is no longer possible for the individual teacher to be solely responsible for the student's performance learning. A revision of the master-apprentice model in its present form seems appropriate at this point in history. A more holistic approach to performance appears necessary; one that includes not only the master-apprentice teaching / performance model but incorporates multi-modal resources such as strategies for managing performance, thereby acknowledging the importance of the musician's lifestyle context. Technology resources such as the videocamera, videotapes, and videoconference technology (allowing group interaction with performers nationally and internationally) can also be of enormous assistance in strengthening performance strategies (Liertz 1995, 66-69).

## 7.9 Conclusion

‘Research in education is important for extending the knowledge base of the field as well as for understanding and improving practice’ (Merriam 1990, 205). I believe that this research extends the knowledge base of music performance education, while offering new insights into important issues linking music practice and the practice of performance, in order to enhance the performance experience.

This research highlights the significant features for confident music performance: the four psychological performance skills, the ideal mind-body states for optimal performance experiences, and the crucial role self-efficacy beliefs play for performance outcomes. This study demonstrates that a holistic training program of strategies can influence all these areas positively.

Although this research claims to be no more than exploratory, the study surpassed all expectations with the uniformity of expressions of performance confidence reported by all the musicians. As this appears to be the first research study about the phenomenon of performance confidence in music, clearly more research is needed on this topic. However, owing to the depth of insight showed by each participant into how the strategies assisted him or her, as well as each person’s genuine expressions of satisfaction, I feel that the outcome of the study has been most successful. This ‘Mind-Body Awareness’ approach for practice and performance training strongly suggests that musicians can create a self-determining path for musical and personal development, which leads to increased performance enjoyment and performance confidence.

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## Appendix 1 First and Second Interviews

### QUESTIONS FOR FIRST INTERVIEW

#### PART A — THE ‘INSIDE’ REPORT

##### **Performance Experience and Background — Personal Profile**

1 a. Can you tell me something about your performance background and experiences?

(Prompt). When did you begin taking music lessons?

1 b. Were you “inspired” to become a musician or did someone inspire you?

1 c. Did your family support you, push you, or try to deter you in music?

##### **Emotional Response to Practice and Performance**

2 a. How do you generally feel during practice sessions? (Prompt) Can you describe your feelings at that time?

2 b. ... And for the period leading up to the performance - in general?

2 b. (i) Has anybody helped or advised you - perhaps given you a strategy for handling this period?

2 c. ... And how do you feel during the performance itself - in general?

(Prompt) Feelings you experience then?

##### **Mental Response to Practice and Performance.**

3 a. Are you aware of any thought patterns during your practice sessions ie. non-musical thought patterns?

3 b. Are you aware of any thought patterns leading up to the performance?

3 c. ... And during the performance itself?

3 d. Are you aware of what is going on mentally when things are going really well, or, alternatively what is happening when things are 'going off the rails'?

(Prompt) Do you think the thoughts are negative (scolding, self-sabotage-like) or positive (reassuring, affirming)

3 e. (Connection with enough opportunities to perform) Do you think you have enough opportunities to perform at your institution?

### **Concentrational Focus in Practice and Performance**

4 a. Are you aware of your concentrational focus generally?

4 a. (i) How would you rate your concentrational focus during practice sessions generally?

4 b. ... And leading up to a performance?

4 c. ... And during the 'live' performance itself?

4 d. Do you do anything to encourage a state of concentrational focus?

(Explanation) To this point I have been looking at your emotional and mental response.

5 a. Are there aspects of your experience as a performer that I've not touched on? Anything about your approach to practice or performance that you would like to add?

### **Rating your current sense of mastery in performance**

In trying to define a present rating of your current sense of mastery in performance:

6. On a scale of 1 to 10 if "10" is the equivalent of being 'in the flow', when all runs according to how you would like it to (i.e. your optimal performance) and

“1” is virtually the opposite, how would rate your current “sense of mastery in performance”?

#### PART B - THE ‘OUTSIDE’ REPORT (The physiological response)

##### **Nutritional Habits**

7 a. Some musicians have certain rituals to help them through practice, some change their eating patterns around practice. Is there anything you do in this regard? (Any change in eating patterns for practice sessions?)

7 b. ... And what about the period just prior to the performance? What are your habits regarding food at that time? (including time of eating).

7 c. (If any food sensitivities or food intolerances had been revealed in the selection questionnaire and during the interview) How did you discover your food sensitivities (intolerances, allergies)?

7 d. How do you manage them practically during practice and around performance time?

##### **Exercise Habits**

8 a. Again some musicians have their own particular way of tuning in (or out) of their body and mind, physically or mentally, before practice or performance. Is there anything you do prior to practice?

8 b. Anything you do prior to performance?

8 c. ... And during the performance itself? i.e. any strategies you use to help yourself?

##### **Bodily response**

9. Most of us have to deal with signs of “nerves” preceding a performance (symptoms as diverse as maybe sweaty palms, quickening heart rate, dry mouth,

more frequent urination, stomach problems, hand or knee tremor etc. How do you deal with any symptoms of nervousness?

### **Outside Factors**

10. Are you aware of any elements that make performance more or less threatening for you? (Prompt) People or things.

### **Lifestyle Practices**

11. If you had to rate your current lifestyle practices in relation to general health practices, how would you rate yourself on a scale of 1 to 10 taking “10” to be extremely happy and “1” to be extremely unhappy. (Prompt) By lifestyle practices I am referring to such things as eating, drinking, smoking, sleeping, exercise, relaxation etc.

12. If you had to list the three most important things you would like to change about your lifestyle practices, what would they be?

13. Do you think a student’s finances play a role in whether one is able to take an interest in nutrition and exercise?

13. Is there anything you wish to add to this second half of the report?

## QUESTIONS FOR SECOND INTERVIEW

### PART A – THE INSIDE REPORT

#### Completing your Personal Profile

1 a. Your present status at the Conservatorium is ....

1 b. This means you'll be finished when?

1 c. And what is your aim after that?

Explanation: Well, you have just undertaken a 5 Week Programme of Mental and Physical Training Strategies that introduced you to many new ideas I guess, but particularly the concept of 'Performance Management' which incorporates 'Practice Management' and 'Self Management'. We are now looking at any changes that may have occurred over that time as the result of incorporating those strategies into your daily life.

But first of all lets put it all into context. Overall how do you think you went with the 5 Week Programme? (Can you give a general summary?)

#### Emotional Response to Practice and Performance

2 a. I'm interested in finding out how you think you're doing in practice? How has practice been for you over the last 5 weeks?

2 b. And how did you feel this time leading up to your performance?

2 c. And what feelings did you experience during the performance itself this time?

#### Mental Response to Practice and Performance

3 a. What are your thought patterns like now during your practice sessions? Have you noticed any changes over the last five weeks?

3 b. What about your thought patterns leading up to this last performance... Any changes there for you or was it about the same?



3 c. Your previous thought patterns during performance you previously described as ...

Now regarding your thought patterns during this last performance. Did you notice anything different?

3 d. Did you have any moments during this last performance where you became 'unstuck'? If so was this due to negative thought patterns do you think? And were you able to recover quickly?

### **Concentrational Focus in Practice and Performance**

4 a. How would you describe your concentrational focus in practice at this point in time?

4 a. (i) So how would you rate your concentrational focus on a scale of 1 to 10 at present in your practice?

4 b. And leading up to the last performance - a rating please out of 10?

4 c. And during the last performance itself - a rating out of 10?

4 d. Do you feel as though you have found ways to improve your concentrational focus?

What has helped you the most do you think?

### **Rating your Current Sense of Mastery in Performance**

6. How would you rate your present sense of mastery in today's /yesterday's performance on a scale of 1 to 10 with "10" representing 'in the flow', 'it was all just happening' and "1" representing the exact opposite. By "sense of mastery" I mean your overall sense of control and confidence.

**PART B – THE OUTSIDE REPORT (physiological response)****Nutritional Habits**

7a. Would you say you have changed your eating and drinking patterns of late around practice time? If so, in what way? And would you say this makes you feel any different during your practice session?

7b. Do you think you were more conscious about your eating and drinking patterns in the period leading up to this last performance or did you treat Eating and Drinking in the same way as you always had, even before the 5 Week Programme?

7c. If you were consciously using food and drink to aid you in performance, did you notice any changes in how you felt during the performance – perhaps that you might attribute to what you did in this regard just before the performance?

**Exercise Habits (mental and physical)**

8a. Have you introduced any form of exercise as a preliminary part of your practice routine since I last interviewed you?

8b. And is there any mental or physical training strategy that you introduced prior to performance? Did you find this helped you in performance?

8c. Did you feel the need to utilize any strategy during the performance itself? Here I'm thinking of Negative Thought Control and Self-Talk or Self Affirmations. Or were you able to utilize any mental or physical strategy during the performance itself in insecure moments? Or was there another technique you used.

**Bodily Response**

9. Do you feel there was any change in your usual signs of nervousness just prior to this last performance or were the symptoms the same? Did you feel you were

more in command of these symptoms or were things generally the same as before, do you think?

### **Outside Factors**

10. During this last performance do you think you were just as aware of the outside factors you mentioned last interview which were ...

Or do you think you were less affected?

### **Lifestyle Practices**

11 a. If you had to rate your present lifestyle practices today in relation to general health practices, how would you rate yourself now on a scale of 1 to 10, taking "10" to be extremely happy and "1" to be extremely unhappy.

11 b. How are you sleeping presently? Do you notice any signs of stress at any time?

12. Have you changed anything about the following lifestyle practices? (listing the ones from the last interview the person wished to change.)

13. So do you think it is possible, or very difficult, to include Exercise and Nutrition in your daily life, even if you are not well off financially?

14. Is there anything at all that you wish to report since I last interviewed you?

### **The Six Strategies in relation to the Big Picture?**

15. Finally, you said your aim is eventually to do ... or become ...

In your opinion, do you think the mental and physical training skills you have discovered over the last 5 weeks might be of any practical value, in helping you get to where you want to?

Thank you for this final Interview.

## Appendix 2 Follow-Up Questionnaire

### Music Performance Research Project - Training Strategies

#### Follow-Up Questionnaire

**“The Effects of Mental and Physical Training Strategies on Self-Mastery in Music Performance.”**

Could you please answer the following questions and return this questionnaire to me as soon as possible. In each case, simply circle the number, or (where requested) write the appropriate answer that best reflects your own situation.

1a) Since completing the Program, to what degree do you feel the Mental and Physical Training Strategies have helped you manage your practice for your End-of-Year-Recital?

1 = not at all 2 = marginally 3 = undecided 4 = quite considerably 5 = greatly

1b) Since completing the Program which specific Strategies do you think have helped you the most to manage your practice for your End-of-Year Recital?

2a) Have you managed to incorporate the Program Training Strategies into your daily practice schedule since completing the Program?

1 = no 2 = rarely 3 = occasionally 4 = quite often 5 = yes, regularly

2b) Which Program Training Strategies have you managed to incorporate into your daily practice schedule since completion of the program?

3a) At this moment in time, do you think there are long term benefits for your Practice gained from the 5 Week Programme?

1= no 2 = probably no 3 = uncertain 4 = probably so 5 = yes

3b) (If “yes”) For me these are:

4a) How would you presently rate the following in your Practice?

**concentrational focus**

1= poor 2 = not very good 3 = average 4 = good 5 = very good

**energy levels**

1= poor 2 = not very good 3 = average 4 = good 5 = very good

**self-confidence**

1= poor 2 = not very good 3 = average 4 = good 5 = very good

4b) Were there any changes in the following for the week before the  
End-of-Year Recital?

**concentrational focus**

1 = worse 2 = marginally worse 3 = no change 4 = some improvement 5 = great improvement

**energy levels**

1 = worse 2 = marginally worse 3 = no change 4 = some improvement 5 = great improvement

**self- confidence**

1 = worse 2 = marginally worse 3 = no change 4 = some improvement 5 = great improvement

4c) For your End-of Year Recital Performance how would you rate the following?

**concentrational focus**

1 = poor 2 = not very good 3 = average 4 = good 5 = excellent

**energy levels**

1 = poor 2 = not very good 3 = average 4 = good 5 = excellent

**self-confidence**

1 = poor 2 = not very good 3 = average 4 = good 5 = excellent

5a) Do you think the 5 Week Program of mental and physical training strategies changed or contributed to your Sense of Mastery in your End-of-Year Recital Performance? (i.e. your sense of being in command of the situation.)

1 = no 2 = marginally 3 = uncertain 4 = probably 5 = yes

5b) Which Training Strategy(ies) do you presently feel have contributed the most to your Sense of Mastery in the End-of-Year Recital?

5c) How have the Training Strategies contributed to your Sense of Mastery in Performance do you think?

6) How would you presently rate your Sense of Mastery in Performance (using the End-of-Year's Recital) on a scale of 1 to 5 ?

1 = poor      2 = not very good      3 = average      4 = good      5 = very good

7a) How would you presently rate your Lifestyle Practices on a scale of 1 to 5?

1 = poor      2 = not very good      3 = average      4 = good      5 = very good

7b) Which aspects of your Lifestyle Practices have improved to this point in time do you think? (lifestyle practices include anything to do with your daily life — eating, drinking, sleeping, exercise, taking tablets etc.)

8a) Do you intend to continue using some or all of the Training Strategies from the 5 Week Program in the future?

1 = no      2 = probably not      3 = unsure      4 = probably      5 = yes

8b) Which ones, do you think?

9a) Have you noticed any changes in your perception of yourself since completion of the 5 Week Program?

1 = no      2 = probably not      3 = unsure      4 = probably      5 = yes

9b) (If "yes") The change(s):

10) Could you make any comments on the effects of the 5 Week Program from the time of its completion, up to and including your End-of-Year Recital? (Please use the other side of the page if needed).

11a) If you were a teacher or director of a tertiary music institution, would you recommend that the Program Training Strategies be included in the existing curriculum?

1 = no      2 = possibly not      3 = unsure      4 = probably      5 = yes

11b) Which Program Training Strategies would you recommend be included?

**Signature:**

**Date**

You may be assured that this material will be kept strictly confidential.

Thank you for answering and returning this questionnaire in the envelope provided.



## Appendix 3 Participant Selection Questionnaire

### PARTICIPANT SELECTION QUESTIONNAIRE

#### PERSONAL INFORMATION - TO BE TREATED CONFIDENTIALLY

Name .....

Address .....

.....

Tel. No. .... e-mail .....

Main Performance Instrument .....

Would you be interested in trialing a 5 week Program of Mental and Physical Training Strategies to see if this benefits your sense of mastery in music performance?

yes            no

Do you feel you could commit yourself to a 5 week Program, which would include nutritional guidelines, walking, meditation practice, visual imagery rehearsal, negative thought control and self-affirmations?

yes            no

If it meant that you would have to reduce your intake of alcohol, caffeine, cigarettes, or other drugs during the 5 week Programme, do you think you would be able to?

yes            no

The program is looking at nutritional aspects of improving energy levels. Are there any dietary considerations if you participated in this program? These considerations could be of interest in my study. Please tick where the following applies to you.

known food intolerances

vegetarian

known allergies

known medical conditions

diabetic

other -

As the study examines the performer's individual perspective, 2 x 1 hour interviews would be necessary - a 1 hour interview before and a 1 hour interview after the program. Would you be happy to allow your (2) private, confidential interviews to be tape-recorded for correct interpretation and data analysis?

yes

no

Thank you for answering this questionnaire.

Please return to: Ms C. Liertz

.....

## Appendix 4 Consent Form

STUDY TITLE: “Exploration of the effects of certain health enhancement practices on perceived self-efficacy in music performance”

RESEARCHER: Carmel Liertz

SUPERVISOR: Mr. Chris Higginson

Division of Communication and Education,

School of Prof. and Community Education, University of Canberra

### CONSENT FORM

I,.....agree to participate in the study involving the effects of health enhancement practices on one’s sense of mastery in music performance being conducted by Carmel Liertz, as part of a Masters Thesis in Education at the University of Canberra.

I have been fully briefed on the study, and all that it entails: the topics covered in the (2) interviews , certain health enhancement practices to be carried out over five weeks, and the short follow-up questionnaire. I have read and understood the all the information provided in the handout “What you need to know about this research study”.

I understand that there are no expected risks, discomforts, hazards or possible side effects for me during the study, or as the result of the study.

I am aware that information will remain confidential (the records being stored under lock and key at the University of Canberra).

I am aware that my participation is voluntary and that I am free to withdraw from the study at any time, or may refrain from answering questions thought to be too personal or intrusive.

There is no dependent relationship between myself and Ms.Liertz.

I understand that I will be able to comment on the reports documented and have access to the results of the research.

I am nor aware of any medical condition or health problems which might prevent my participation in this study.

If I choose to seek further clarification of the study, I know that I can do so from the researcher through her supervisor, Mr. Chris Higginson, at the University of Canberra on Tel. ....

I have been supplied with all necessary details / guidelines for the study.

Signed.....Date.....(Participant).

## Appendix 5 What You Need to Know about this Research

### WHAT YOU NEED TO KNOW ABOUT THIS RESEARCH

Title of Study: *Exploration of the Effects of Certain Health Enhancement Practices on Perceived Self-Efficacy in Music Performance*<sup>\*</sup>, this being a field study for a masters thesis – a M.Ed. in the Division of Communication and Education, School of Professional and Community Education at the University of Canberra. The Researcher is Carmel Liertz.

The study is designed to explore how mindfulness of various performance strategies may effect self-efficacy expectations. By participating in this study, you will have the opportunity to explore in an equal partnership with the researcher, the effects (if any) of certain health enhancement practices on your personal sense of mastery<sup>\*\*</sup> in music performance.

You would be assessed both before and after the “Certain Health Enhancement Practices” Program of five weeks by:

- In-depth Interview (1 hour)
- A Follow-Up Questionnaire sent to you taking a maximum of ten minutes to complete and return confidentially to the researcher.

The “certain health enhancement practices” being practised by you are:

- Enhanced Nutrition – guidelines given (guidelines used by sports athletes)
- Exercise – walking as regular exercise.
- Meditation (cassette tapes supplied)
- Visual Imagery Practice (handout as guide)
- Negative Thought Stopping (handout as guide)
- Positive Affirmations (examples given)

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<sup>\*</sup> This title later changed to ‘A Training Program Based on Sport Performance’s Mental and Physical Training Strategies’.

<sup>\*\*</sup> ‘Sense of Mastery’ was replaced by ‘sense of control’ as it emerged as a theme and collective issue of significance for the musicians.

The Nutrition Guidelines are designed as guiding principles to point in the direction of 'better diet', simply to encourage you to become more mindful of the part diet may play in performance. You should not have to attempt to make radical or dramatic changes. The choice of foods and drinks is very broad and that choice is yours. Therefore, any known food group you have problems with, or sensitivities to, should naturally be eliminated. Meditation, Visual Imagery, Negative Thought Stopping and Positive Affirmations are all mental training techniques used by sport athletes for performance preparation. However, these techniques allow you to personalise how they can be used to best support and complement your own music practice and performance. It is suggested that practice of all the various elements may be useful to your sense of mastery in performance. (However, some may prove ultimately more useful to you than others).

You will be required to practise the above over a period of five weeks – five days a week – for a total of one hour per day for the first three weeks and two days and then one and a half hours a day for the last ten days, before a music performance. **How you manage this is up to you, as it would be in your own time at times best suited to your daily life.** The effects of these health enhancement procedures on you and your sense of mastery in performance are being assessed by you, and then given to me via an interview and follow-up questionnaire.

In order to help you keep on track, a 'training log' (a simple personal journal) will be supplied to you so you can record each practise session and your feeling along the way etc. I will talk with you by phone (five minutes) once a week to check and discuss your practice plan.

Your participation is really valued. Confidentiality at all times is assured and you do have the right to withdraw from the study for any reason. Needless to say, your input in this study is vital to the study's progress and its validity. Therefore, I require an 'open' approach and interpretation from you at all times, otherwise the study is rendered meaningless and not of benefit to all musicians in the way it is finally intended. If you have any questions along the way please feel free to contact me through my supervisor, at the University of Canberra on Tel ...

Thank you for your participation.

## Appendix 6 Literature Survey

### 2.3.1 Arousal Regulation

#### *Relaxing Type Strategies*

Progressive Relaxation (devised by Edmund Jacobson, 1930) trains the muscles to become sensitive to any level of tension by relaxing progressively every set of muscles.

- Controlled Breathing / Breathing Exercises
- Meditation (any type that suits the individual) for respiration and mind (brain wave changes)
- The Relaxation Response (Herbert Benson, 1975)
- Visualisation - desirable imagery visualising scenes to elicit relaxation.
- Autogenic Training — developed by Johannes Schultz in the 1930's and used extensively in Europe. Exercises for developing the physical sensations of warmth and heaviness using self-hypnosis.
- Energy Conservation
- Concentration / Focus
- Work Out (four to six hours beforehand.). Athletes show a reduction in tension and anxiety.
- Goal Setting — setting realistic goals helps control anxiety, better concentration, gives a more self-confident performance
- Positive Thought Control

### *Energising Type Strategies*

- Breathing Control: regular, relaxed breathing at first becoming accelerated but still rhythmic.
- Stretching and exercise - to warm the body with increased circulation (used with proper breathing)
- Formulating energising verbal cues
- Using energising visual imagery
- Combined energising cues, images and breathing - Raiport (1988)
- Goal Setting

(Harris & Harris 1984).

### **2.4.2 *The Musician's Need for Physical Exercise***

#### *The Physical Benefits of Exercise*

1. Increased respiratory capacity
2. Increased muscle tone
3. Increased strength in bones, ligaments, and tendons
4. Physiological toughness
5. Improved cardiovascular functioning (aerobic)
6. Reduced risk of heart disease
7. Improved circulation
8. Lower LDL cholesterol and triglyceride levels
9. Increased levels of protective HDL cholesterol



10. Increased Energy
11. Improved sleep and decreased need for sleep
12. Increased rate of metabolism
13. Reduced body weight and fat metabolism
14. Reduced risk of injury from slips, falls, and so forth
15. Slower aging process

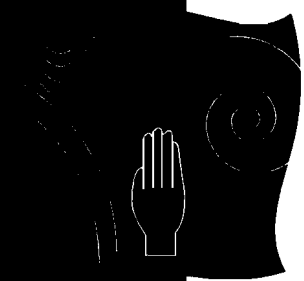
*The Mental Benefits of Exercise*

1. Reduces the reaction to psychosocial-stressors
2. Reduces depression or prevents depression
3. Runner's euphoria
4. Increased feelings of self-control, independence, and self-sufficiency
5. Increased self-confidence
6. Improved body image and self-esteem
7. Mental change of pace from the pressures of work, even when work is physical
8. Improved mental functioning, alertness, and efficiency
9. Emotional catharsis, or cleansing of tensions from interpersonal conflict and job stress
10. Reduced levels of stress
11. Relief from mild depression

(Rice 1992, 390-391).



PERFORMANCE  
ENHANCEMENT  
FOR MUSICIANS



STRATEGIES  
& TRAINING LOG





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*How we perceive ourselves  
defines our boundaries,  
affecting our choices in life  
and creating who we are.*

*(Louise L. Hay)*

Contents



## HOW TO USE THIS BOOKLET

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I hope you will keep this Training Log Booklet close by you - taking it with you - so you can refer to it during spare moments.

### Performance Management

---

This booklet invites you to view Performance in a new light ie. in terms of "Performance Management". By considering the areas of common ground that all performance-oriented people have, music performers could utilise the research knowledge that has accumulated over the last 25 years in other performance-based areas, particularly sport performance. This booklet encourages you to view yourself more - holistically in practice and performance, in the way elite athletes do - caring about and nurturing the mind-body connections - to create the mental and physical edge so necessary for giving one's best in performance. All but one of the Training Strategies suggested here are now an integral part of many sport performer's daily lives, helping them, they say, to reach and maintain their optimal performance levels. The other one - regular moderate exercise - (Stretching and Walking) is more appropriate for musicians and recommended for the general population.

### Training Strategies

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The 'management' of music performance is left up to you. Therefore it makes sense to have some trusted strategies that are tailored to suit your personal needs, so that you feel you have more control and a better sense of self-mastery in music performance. It is possible that the following six mental and physical training strategies will benefit you as a music performer - on a personal level, as well as in practice sessions and performance - helping you develop lifestyle practices to attain your goals in a more direct way. Therefore you are being encouraged to understand and practise the following strategies regularly, in order to judge for yourself their effects:

- Nutrition
- Exercise - Stretching and Walking
- Meditation and Deep Breathing
- Negative Thought Control and Self-Talk
- Self-Affirmations
- Imagery Rehearsal.

## Putting it all together

It is up to you how you incorporate the various strategies into your daily life. Some ideas that may help with this are included in the section entitled "Putting it all Together." However, 'putting it all together' in the way that suits you individually is vital for your success with the Strategies. You will only begin to feel stronger when you feel comfortable with how everything is coming together - supporting and complementing your practice and performance in everyday life. The Health Enhancement Programme using Mental and Physical Training Strategies is based on the premise that the independent elements may operate interdependently and therefore are all needed to interact with each other in order to give the best results - the whole probably being more than the sum of its parts. Remember that the time required to master new skills is anything from 6 weeks to 6 months, depending on one's motivation. So it is important to stay motivated during the initial practice weeks while Putting it all together being self-supportive and patient with your progress.

## Guiding Principles

The Guiding Principles "Kindness, Truth and Beauty" have been borrowed from Albert Einstein (one of the greatest scientists and thinkers of the Twentieth Century, and a committed violinist ) who maintained that these principles guided and served him well throughout his life. They seem particularly appropriate for a new kind of individual music performance training, catering for today's musicians - caring about and nurturing one's whole being to create harmony within mind, body and soul. Our thoughts and perceptions can have a direct bearing on how our mind and body function, affecting our physical health. Conversely the quality of nutrition we give our bodies can affect our physical health and how the body and mind function and perform.

### Kindness:

The times of harsh physical discipline often associated with music performance training no longer seem appropriate, with the already stressed and stressful environment in which we live. A nurturing discipline, one of kindness to oneself, is surely more appropriate, allowing the individual needs to be catered for in the most beneficial way, and thereby helping one achieve one's optimal performance. Kindness to oneself then allows for kindness to others to follow naturally.

### Truth:

Of course there are many paths to different truths. However if "the experience of truth comes from one's own mind" (Gotama Buddha in Goldstein 1976, 153), this booklet, with its training strategies supporting mind-body connections, might represent one way of experiencing a truth for yourself as a person - helping you negotiate a path for yourself. Being true to yourself, your values, your instrument, and the music you perform, all create a firm foundation for you to feel good about yourself and what you are doing. If you are truly aware of your thoughts and mind-body connections, this could help you to function and perform optimally with a new sense of freedom.

## Beauty:

Seeking beauty - in visuals, sounds, aromas, touch and taste is uplifting, changing your mental outlook. Enjoying the beauty in Nature is the source and continuation of beauty for the senses and of course therapeutic for your whole being. It is not by chance that all types of artists throughout the ages have sought and found inspiration in Nature for their artistic endeavours.

## Developing a path to your dream

You are being encouraged to manage your practice and performance in ways that might help you plan, develop and realise your dream - at whatever stage you are at this point in time. Guiding Principles are extremely valuable as a foundation for the path to one's dream. However you may, or may not know where you are heading right now: some people are goal-focused in orientation, while others are more process-focused. Although some people might say, 'if you don't know where you are going, all paths lead nowhere', it could also be said that in a sense 'all paths do lead nowhere'. It is the manner of walking that matters. The suggested training strategies enable you to be mindful of the navigation process, being equally useful for those who presently know or do not know their end goals. These Strategies should be seen as tools to support you, helping you navigate the path ahead. Good Luck on your Journey!



*It is well documented  
in both scientific and  
popular literature  
that nutrition is  
crucial to  
performance and  
recovery.*

(Deakin 1995,1)

## NUTRITION

---

The following guidelines are general principles to point you in the direction of a 'better diet', to encourage you to become more mindful of the part nutrition may play in your life and specifically in your Music Practice and Performance. In practice and performance, an instrumentalist is generally focused on the 'end-product' - how the music is sounding - rather than listening to or pre-empting the body's needs to create the desired music. Though we would not expect a car to run on poor quality fuel nor insufficient fuel, we do expect our bodies to perform at their best most of the time! Since the brain needs to be alert and muscle groups need to function well, good performance is reliant on the positive smooth flowing mind-body connections. It is therefore suggested that you explore the benefits of nutritious eating patterns and incorporate these into your practice, pre-performance, and post-practice / post-performance.

### Considering a Practice and Performance Diet

---

Athletes, irrespective of the type and intensity of training, have nutritional guidelines for training and performance, to maximise their energy and help in the body's recovery process. However, for the same reasons, these guidelines have more recently been suggested for music performers (Roland 1997,49). At a glance this is a training diet high in 'complex' carbohydrate-rich foods (bread, breakfast cereals, legumes, pasta, rice, starchy vegetables and fruit), low in certain fats and sugary processed foods (fried foods, butter, margarine, pastry, cakes biscuits) and having small amounts of high quality protein foods (lean meat, chicken, fish and low fat dairy). What may not be so well known is that carbohydrate-rich foods are also good sources of 'plant' protein (See plant sources of "Recommended sources of protein" p.6).

As you become more mindful of your diet, you will start to notice that all foods contain a combination of nutrients. Do not feel confused by this. It is best to find what foods you like or wish to try, from across the board and keep them in mind when shopping or eating out. The aim is for as much variety as possible from all food sources.



## General Nutrition Principles ( Deakin 1995, Hawley and Burke 1998 and Cabot 1997)

1 To create the balance of carbohydrate, protein and fat in your diet to meet the demands of practice and performance. It is important to remember that in practice and performance the body's main dietary energy source is carbohydrate so that this will be substantially more than protein or fat.

(In the total dietary intake, a ratio of approximately 60% carbohydrate-rich foods, 20% high quality protein, and 20% essential, 'good' fats is being suggested. However this is not prescriptive, merely a guide. Individual's optimal ratios may vary).

2. Adopt regular daily eating patterns.
3. Recover fuel reserves by eating/drinking healthily soon after practice and performance.
4. Drink adequate fluids.
5. Minimise intake of salt, alcohol, caffeine and sugar.

With this in mind the following is suggested for improving health and performance energy (Hawley and Burke 1998, Cabot 1997):

- Increase the number of eating breaks over the day when energy / carbohydrate needs are high, without increasing the size of meals. Have healthy snacks handy.
- Eat more raw foods (About 40% of diet as raw fruit and vegetables). Fresh juices can provide a boost of energy or help in recovery from a stressed immune system.
- Avoid artificial chemicals, artificial sweeteners, colourings, flavourings and preservatives.
- Reduce sugar and salt in foods, being also aware of added sugar and salt to canned foods.
- Aim for natural sugars in foods - eg.honey, dried fruit, fresh fruit, 'vitari' icecream.
- Avoid processed meats (sausage, ham, bacon) which contain sodium nitrites and highly processed foods (white flour, white sugar) found in cakes and biscuits.
- Reduce caffeine (found in cola drinks, tea, coffee, chocolate, and cocoa). Coffee may be substituted with 'ecco' or 'caro' and a large variety of herbal and fruit teas are non-caffeine.
- Reduce alcohol. Although socially acceptable, both caffeine and alcohol are nevertheless drugs. One can become easily dependent on them and they can affect your performance negatively.

## Carbohydrate-rich foods and their importance in your diet.

It is suggested that carbohydrate-rich foods make up at least half of all meals and snacks (Hawley and Burke 1998, 214):

- breakfast cereals (little or no added sugar), rice flakes, oats, porridge
- fresh fruits, dried fruit
- wholemeal , rye, soy linseed breads
- rice (brown rice when possible)
- starchy vegetables - corn, pumpkin, potatoes ( not chips cooked in fat)
- pasta, noodles
- legumes - lentils, beans, soy-based products
- low-fat dairy products - fruit-flavoured yoghurts, low fat / skim milk,

→ \*soya milk, rice or oat milk is always recommended for those who are asthmatic, bronchial, or have a stressed immune system. \*'Vitari' can be substituted for icecream.

## Carbohydrate-rich drinks

Fruit and vegetable juices (preferably freshly squeezed)  
Fruit smoothies

## Recommended sources of protein from animal or plant sources. (Deakin 1995).

It is suggested you consume a diverse range of proteins. Vegetarians can find a wide choice among plant sources.

- Animal sources - lean lamb, lean beef, (occasionally) skinless chicken, fish, seafoods, skimmed milk, low fat cheese, eggs ( only a few a week to maintain low cholesterol).
- Plant sources - grains, nuts, seeds (eg. pumpkin, sesame, sunflower seeds) breakfast cereal (low/no sugar), grain bread, cooked (brown) rice/pasta, baked beans, lentils, soya milk, nuts and potatoes.

\*  
→ **New information is now available highlighting problems with soy products. To become better informed please look at the website: <http://www.geocities.com/nosoy2000/what.htm>**

**Some essential fatty acids are important - 'the good fats'** (Health Reader / Choice Publications Vol.5  
No.3 April, 1999; Cabot 1997)

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There are the 'bad' fats (already spoken about) and the 'good' fats. Essential fatty acids are good for the brain, hormonal system, nervous system, and liver. A lack of these causes you to feel moody, tired, and have a sluggish metabolism.

- Virgin olive oil, canola oil, corn oil, evening primrose oil, seed oils - mustard seed oil, grapeseed oil, flaxseed oil, sunflower seed oil, safflower seed oil, wheatgerm oil ( These should have the label "cold pressed" and be stored in the refrigerator as they are easily damaged by light ,heat and air). For cooking, olive oil is considered the best as its nutrients aren't damaged by heat. The other oils are ideal for salads.
- Omega 3 fish oils found in salmon, tuna, sardines, oily fish - deep sea cod, mackerel.
- Raw nuts, raw seeds (sunflower seeds, pumpkin seeds, sesame seeds).
- Avocados (use instead of butter or margarine), tofu, butternut pumpkin.
- Reduce saturated fats - in whole dairy foods, processed meats and farmed animal flesh. Avoid hard cheese (unless fat reduced), cheese spreads, cream cheese, camembert cheese, cream, chocolate, icecream).
- Reduce polyunsaturates and mix of saturated / polyunsaturated fats - ie butter and margarine. Avoid mayonaise unless soya based.
- Avoid completely deep fried foods, margarines, processed fats, hydrogenated vegetable oils, takeaway fast foods. Steamed or grilled foods are preferable to fried foods.

## The Importance of Fluids - suggested choices

Bottled water, mineral water, fresh fruit juices or fruit juices with no added sugar, skim milk fruit smoothies, herbal teas, electrolyte sports drinks, and 'Ch'I' (Sparkling New Zealand mineral water blended with chinese herbs - ginseng and gotuocola).

Be aware of the 'stress-prone diet' which adds to the normal stress of everyday life, creating chemical imbalances in the brain and depleting vitamins and minerals from your body (See 'mood foods' p.27-30).

This contains :

- Caffeine (in cola drinks, soft drinks, tea, coffee, chocolate)
- Sugar in foods, added sugar
- Salt in foods, added salt
- Smoking
- Depletion of B complex vitamins (through the above)

Musicicians, like other performance-oriented people, could benefit from the following 'antistress' foods:

---

### Vitamin sources

**Vitamin B Complex Foods** - Brown Rice (B1), Milk (B2), Eggs (B5), Bananas (B6), Liver (B12), Green Vegetables (folic acid), Shellfish (B12)

**Vitamin A Foods** - all fruits and fruit juices (as fresh as possible)

**Vitamin E Foods** - all nuts, soya, lettuce

**Vitamin C Foods** - all fruits and vegetables

### Essential fatty acids

**Omega 3 fish oils** - sardines, salmon, mackerel, deep sea fish

### Mineral sources

**Zinc Foods** - carrots, nuts, oysters. This mineral can be lost in sweating. (Vegetarians and vegans may be low in zinc)

**Magnesium foods** - dark green vegetables, nuts, whole grains, spinach, oysters, sunflower seeds, lima beans

**Potassium foods** - seafood (high potassium/ low salt)

**Chromium** - balances blood sugar levels, thereby controlling mood swings: whole grains, shellfish—prawns, crab, lobster, scallops, Balmain bugs, mussels, yabbies (Just be aware that some people have allergic reactions to some or all shellfish). It is always important to buy shellfish from reliable sources as shellfish varieties are highly perishable.

**Selenium** - an antioxidant mineral found in citrus fruits, whole grains, dairy products (especially hard cheeses), avocados, meats, fish, shellfish

## **Incorporating Nutrition Guidelines for Practice Sessions:**

(Burke and Deakin 1994, Clark 1997, Hawley and Burke 1998)

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- Have a snack/ drink before practice session of 60-90 minutes.
- Include adequate carbohydrate-rich foods if the session is to last longer than 90 minutes.
- Eat small meals/snacks more often, (about every 3 hours) in long practice sessions- to keep the body adequately fueled for energy and to avoid fatigue. Have healthy snacks handy.
- Drink regularly - before, during and after practice, before getting thirsty.

## **For Pre-Performance** (Roland 1997, 50)

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- Eat carbohydrate rich foods 2-3 hours before a performance.
- Drink adequate fluids.
- Avoid foods high in proteins and fats (these take longer to digest).
- Eat familiar, enjoyable foods that agree with you.
- Avoid sugary foods.
- If a snack is needed shortly before, or during a performance, fruit (eg. banana), bread, juice (no added sugar), or crispbread are suitable.

## **Incorporating Nutrition Guidelines For Post-Practice and Post-Performance recovery** (Hawley & Burke 1998, 330)

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- A carbohydrate rich snack or meal within 30 minutes of finishing the performance.
- Drink suitable fluids soon after the performance to rehydrate - eg. water, fruit juice, sports drink, but not alcohol or caffeine.

## EXERCISE

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The following guidelines, now widely accepted for general health, are intended to encourage you to become more mindful of the role Exercise may play in your life and specifically in your Music Practice and Performance. Regular moderate exercise is known to enhance one's mental outlook as well as one's level of physical fitness. With exercise having so many beneficial aspects for your daily life, it seems plausible that benefits could flow on to your music performance. Therefore it is suggested you explore the benefits of regular moderate exercise through Stretching and Walking for your music practice and performance.

### Physical Activity Guidelines

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Physical activity guidelines for the whole population released recently by an Australian scientific advisory committee state:

1. Think of movement as an opportunity, not an inconvenience.
2. Try to be active every day in as many ways as possible.
3. Put together at least 30 minutes of moderate intensity physical activity on most days.
4. If you are able, also enjoy some regular, vigorous physical activity.

"People are advised to carry out as many of the guidelines as possible from 1 to 4. The benefits however are accumulative and individuals carrying it all out are likely to receive the most benefits". (The Health Reader, June 1999.)

### Why Regular Moderate Exercise:

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- |                                       |                                 |
|---------------------------------------|---------------------------------|
| •to stay healthy                      | •to alleviate depression        |
| •to improve creativity                | •to reduce levels of stress     |
| •to increase feelings of self-control | •to increase productivity       |
| •to improve the clarity of thinking   | •to increase your energy levels |
| •to improve sleep                     | •to improve circulation         |
| •to increase respiratory capacity     | •to increase muscle tone        |

*Physical activity is a natural way of putting mind-body back together.*

(Dusek in Girdano and Everly Jr. 1986,196).

*Exercise has an immediate arousing effect, so that the participant's perceived health is usually enhanced: the exerciser 'feels better'.*

(Morgan and Gladstone in Shephard 1997, 28).



## Why Stretching is important ?

Stretching increases flexibility and flexibility is required in the major muscle groups to increase the blood flow to the muscles (Roland 1997, 52). Therefore stretching (particularly for the muscle groups about to be used) is advisable prior to practice sessions and as part of the pre-performance warm-up. Once learned in a familiar sequence, stretching exercises can be performed quickly and effortlessly with good results. It's just a matter of learning this good habit and making it part of your daily routine - like brushing your teeth. Stretching on rising, or prior to walking, will prevent stiffness and muscle tension. Stretching for a few minutes at intervals throughout the day is also useful for mental and physical breaks - to combat sluggishness and regain energy.

Suggestion: The stretching exercises can be done as a whole (as a physical workout) or divided up during the day eg. pre-practice = upper body ; pre-walking = lower body

## Why Walking is important?

For all its simplicity walking has been established as one of the most effective methods of exercise - an ideal form of regular moderate exercise - easily accessible and affordable on a daily basis ( Seiger, 1994 ). Intensity in exercise is no longer regarded as important as a daily moderate form of exercise for achieving and maintaining overall health and wellbeing. Brisk walking 30 minutes daily is recommended. Choose special places or routes that give you pleasure and inspiration, as well as using any opportunity during the day for walking to get there. A walk in pleasant surroundings allows you the necessary space for the following:

- Relaxation for mind and body - putting mind and body back together
- Monitoring your thoughts
- Changing Negative Thought Patterns using "Self-Talk" and "Self-Affirmations"
- Setting Goals - thinking out what you really want to do or need to do ie. planning for the long term, medium term or for the coming weeks
- Problem Solving - finding solutions to concerns you might have about certain aspects of practice and performance, or other aspects of your life
- Seeing your life from a broader perspective

## What Works for me: (eg: time, place...)

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- 
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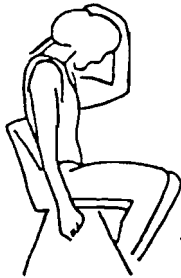
## STRETCHING THE UPPER LIMB & TRUNK

A guide produced by the Sports Physiotherapy Group  
(a special interest group of the Australian Physiotherapy Association)



- STRETCHES**
- are designed to produce both muscle and joint flexibility
  - should never be painful
  - a sustained stretch of 15 seconds or longer is preferable.
  - following injury, stretch should be felt at the site of the lesion, without pain
  - over stretching may aggravate the problem
  - body position is of utmost importance for an effective stretch
  - the best results are achieved by stretching a little bit, often.

### NECK



- Pull chin to chest



- Pull ear to shoulder



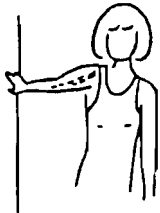
- Head 1/4 turn to opposite shoulder
- Pull chin to chest

### SHOULDER



- Pull elbow across to opposite shoulder

### BICEPS

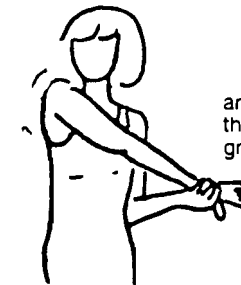


- Hold onto door at arms length, thumb down
- turn body away from arm let shoulder roll in

### TRICEPS

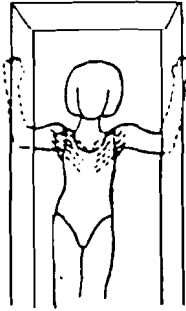


- Hand behind head
- Pull elbow behind head with opposite hand



arm across body, thumb towards ground

### PECTORALS



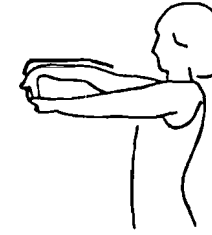
- elbows against doorway
- lean body forwards

### WRIST/FOREARM EXTENSORS



- elbow straight
- pull on back of hand

### WRIST/FOREARM FLEXORS



- elbow straight
- pull on palm of hand till stretch is felt in forearm

### BACK EXTENSORS



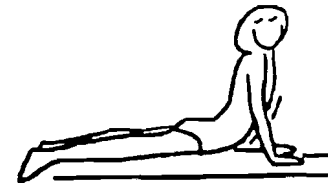
- curl into a ball

### LATISSIMUS DORSI



- hand over hand stretched forward as shown
- hips in air
- lean hips toward side to be stretched
- feel stretch from shoulder blade to armpit

### ABDOMINALS

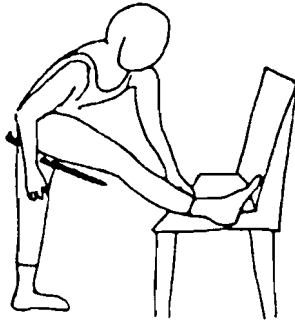


- hips remain on floor



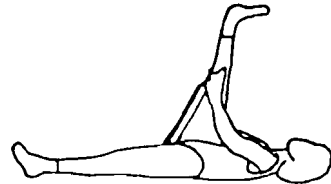
## STRETCHING THE LOWER LIMB

A guide produced by the Sports Physiotherapy Group  
(a special interest group of the Australian Physiotherapy Association)



- back straight when leaning forward
- knee is straight
- change body or foot position to stretch each muscle

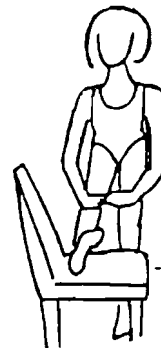
### HAMSTRINGS



- feet and pelvis pointing forwards  
(stretch both hamstrings)



- foot turned out, taken across body  
(lateral hamstring)



- foot turned in, placed away from body  
(medial hamstring)

### QUADRICEPS



- opposite hand holds foot
- use other hand to balance if necessary



### CALF

- feet pointing forwards
- back straight
- lunge forwards with knee bent
- heel remains on ground

### SOLEUS

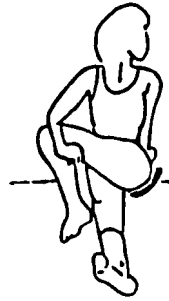


### GASTROCNEMIUS



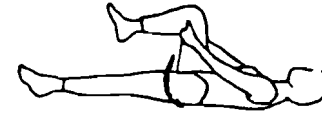
- same position as soleus but knee is straight

## BUTTOCK STRETCHES



- keep both buttocks on ground with back straight
- press against knee as shown while turning leg away from body

- pull knee to chest
- both buttocks stay on ground



- place foot against knee, hands linked below
- pull toward chest

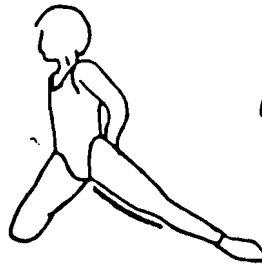
## TENSOR FASCIA LATA/ILIO-TIBIAL BAND



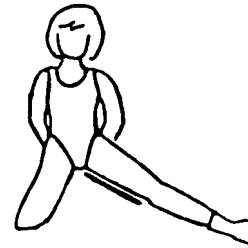
- Step behind with leg to be stretched, this knee straight
- let other knee relax as rotate and bend away from leg to be stretched



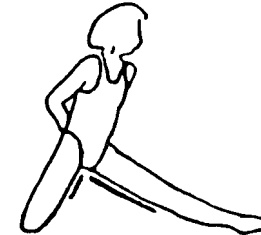
- weight on leg to be stretched, knee straight
- this hip pushed to side
- other leg forward, let this knee bend as go into stretch



## GROIN



- keeping back straight, lean trunk forward changing body direction as shown



- push knees towards floor

## MEDITATION AND DEEP BREATHING

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Meditation is a form of relaxation, a way of enabling a certain kind of consciousness to be established in which clarity and detachment can be found. The purpose of meditation is to get you passively relaxed, yet still positively focused (Ungerleider 1996, 25). Scientific research has shown that during meditation, the nervous system enters a state of "restful alertness" - i.e. the mind remains awake while the body goes into a deeply relaxed state (Chopra 1993, 164). This occurs as the brain wave activity shifts from beta, our normal daily operational mode, to alpha, a more relaxed and slowed brain wave (Ungerleider 1996, 25). You can reach a meditative state very quickly which is much deeper than sleep itself. How does this happen? As one learns to 'let go' one's thoughts, the surface chatter becomes less pronounced and the mind gradually quiets down, thereby reducing anxiety - giving peace to the mind and body. (One is developing the ability to concentrate one's attention on the present.) The aim of practicing the technique is for you to develop a more peaceful state of mind, inner calm, and to maintain clarity and focus in your practice and performance.

### Meditating - finding a style that suits you

There are different styles of meditation coming from various traditions, some having been practised over many centuries eg. Hindu, Tibetan or Japanese traditions, with of course the ritual and meaning coming from inside the culture. It is important that you find the style or aspects that suit you. Over the last 30 years, Westerners have increasingly found value in practising meditative techniques. Many elite athletes meditate to shut out the external world allowing only one thought or object to enter their minds, thereby reducing any extra stimulation that might interfere with their quiet time just preceding a performance. Similarly, music performers could create a suitable mental framework, to calm and prepare the mind prior to a performance. However, meditative 'moments' could also be found during the course of one's daily activities eg. during times of travelling enroute or waiting in queues.

*The philosophy behind meditation is to quiet the mind, reduce external stimulation and allow the body to get in sync with a relaxed focus.*

(Ungerleider 1996, 25).

*The art of meditation is the ability to maintain a passive concentration state in which alertness and control are maintained, but in such a way as not to be tension producing.*

(Girdano and Everly Jr. 1986, 211).



## Some basics of meditation

Certain elements facilitate the practice of meditation:

- A quiet, comfortable place to practice.
- Posture needs to be appropriate - relaxed but not slumped to hinder deep breathing. Postures can differ between cultures: either sitting cross-legged, sitting in a chair, lying on the floor, or walking very slowly. However what is common in these postures is an erect but not rigid spine.
- Breathing needs to be steady. The observation of one's breath moving in and out is an integral part of meditation.
- A mantra (either a single word or phrase repeated over) can be useful to allow the mind to reach a calm, non-arousal state, eg. "om", "peace" or "in the flow" and this can instigate a calm state anytime, any place. (Alternatively watching your breath may suffice).
- Eyes are gently half-shut, half-open, a steady gaze looking down, or fully closed depending on the style.

All meditative techniques have two phases: first to quieten the body, then to quieten the mind (the various rituals, exercises, and postures having all been developed within the respective cultures in an attempt to gain the physical quiet as preparation for the quietening of the mind) (Girdano and Everly Jr. 1986, 211).

## How to go about it - some general guidelines

1. Beginning by keeping the body still, though relaxed in the preferred posture, one gets to know one's body. Within the stillness, you'll feel in harmony with your body.
2. Proceeding through every muscle group or section of the body, check that there is no tension anywhere. (This includes the mouth and jaw, with the upper and lower teeth kept apart and the tongue relaxed touching the top teeth). The relaxation process might begin from bottom to top or top to bottom, saying to yourself the parts of the body eg. "shoulders are relaxed".
3. Concentrating on the natural flow of breath - 'watching the breath' - you may notice it slowing down to a steady inhalation and exhalation. (A mantra may be useful to help acquire a sense of calmness, but deep breathing may be sufficient.)
4. During all this time one is becoming aware of one's thoughts (at first often distracted by them). However as one learns to simply let the thoughts come and go, one becomes less attached to them and a sense of calm is felt.

Acquiring the ability to focus on the present moment (always bringing the mind back to the present) is extremely valuable - for calmness in meditation, in daily life, and in a performance situation. As with all the other training strategies, the technique can be learned in a short time, but it is in the regular practice that its effects will become apparent in your daily life.

As you proceed through this manual, you will soon discover that Meditation, Deep Breathing, Negative Thought Control and Self-Talk, Self-Affirmations and Imagery Rehearsal are not separate practices but closely interrelated.

How Meditation works for me:

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*It is almost impossible to be tense and have slow, relaxed, deep breaths so control breathing and you control tension. Condition breathing and you condition your system to be more tranquil.*

(Girdano and Everly Jr. 1986,139)

## DEEP BREATHING

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By learning to breathe appropriately, we take in air more efficiently; the respiratory system is strengthened and conditioned; the function of the cardiovascular system is enhanced; greater oxygenation is promoted ; the nerves are calmed; and restfulness occurs (Girdano and Everly Jr. 1986, 138-139). Although breathing is a natural part of life, we probably do not pay due attention to how the quality of our breathing affects what we do. Being mindful about your breathing could result in renewed energy, less fatigue and an altogether calmer approach to practice and performance.

- Deep Breathing as a tool in meditation. Just observing one's breathing can help you acquire a meditative state - by becoming more aware and mindful of your breathing. This might occur anywhere eg. when you are travelling, you could just concentrate on your breathing and without knowing it you are actually doing a meditative practice. Here you are using breathing to achieve a certain state of mind.
- Deep Breathing as a tool for relaxation and performance preparation. Instead of just watching the breath and not doing anything with it, you can use breathing more intentionally as a physical practice - as a calming strategy in certain situations eg. just preceding a performance in order to have a calming effect on the heart rate, on the whole being.
- Deep Breathing as a tool during performance. You can consciously use deep breaths ( replacing shallow breaths caused by 'nerves') at suitable places in the music during performance: for recovery, calming yourself, relaxing and regaining energy. These places would be best planned previously during practice and written in as a reminder eg. at the ends of sections or between movements; just prior to a difficult technical section; during accompanimental sections, or during 'rests' and 'pause' signs. You may need to experiment with 'in' and 'out' breaths as to length eg. sometimes the 'out' breath may need to be longer to maintain calmness through a difficult passage. (Be aware of the dangers of hyperventilating with shallow breathing).

## A simple deep breathing exercise to calm down (Girdano and Everly Jr. 1986)

1. Sit in a comfortable position. Place your left hand (palm down ) over the top of your navel. Now place your right hand on top of the left hand. Your eyes should remain open.
2. Imagine a hollow pouch lying internally beneath the point where your hands are resting. Begin to breathe in. As you breathe in, imagine that the air is entering through your nose and descending to fill up the pouch. Your hands will rise as you fill the pouch with air. As you continue to breathe in, imagine the pouch being filled to the top. Your rib cage and upper chest will continue the wave-like rise that began at your navel.

The total length of your inhalation could increase from 3 seconds in the first week , to 4 or 5 seconds as you become more skilled.

3. Slowly begin to breathe out - to empty the pouch. As you do, repeat the word "RELAX" to yourself. As you breathe out, you will feel your raised abdomen and chest recede.

Repeat this exercise twice in succession. Then continue to breathe normally for 5 to 10 rounds of breath, being sure to emphasize the out- breath as the point of relaxation. Then repeat the entire process. This can be practised at different times of the day as well as during stressful situations. After a week or two of regular practice, you will notice you are capable of relaxing "on the spot" helping you to develop an anti-stress attitude, so that when you do have stressful moments, they will seem less severe. (The reason is that you now feel more in control).

In learning to deal with stress it is important to: 1) identify what triggers it (eg. environment, words) and 2) identify how you react under stress (eg. sweaty palms, elevated heart rate etc.). Practising the relaxation methods of Meditation and Deep Breathing regularly will help with your reaction to stress. But remember it is your interpretation or perception of the event or environment that is causing your stress response to become triggered in the first place, so you also need to work on your mind's response ie. change the meaning or interpretation / perception of the stressors around you (Girdano and Everly Jr.1986, 136,137).

## How Deep Breathing works for me: (eg: time, place...)

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*Our consistent  
thinking patterns  
create our  
experiences.*

(Louise Hay 1989, 5 ).

## NEGATIVE THOUGHT CONTROL

When you have been practising Deep Breathing or Meditation, you may notice that your thoughts are sometimes positive and sometimes negative; perhaps occasionally containing patterns of troublesome negative or self-defeating thoughts. It is possible to control the negative thought patterns in order to improve our experiences. This requires practice in awareness and monitoring of your thought patterns. If the patterns are suggesting a specific negative characteristic, one can allow one's judgment to step in and take control by letting go of the thought or saying "stop". The negative thought is then replaced with a positive one by using Self-Talk. As negative thought patterns are detrimental to one's practice and performance, it is suggested that you become mindful of your thought patterns to see if and when negative thought control is required.

### How can one practice this ?

You require some time with yourself. Meditation, Deep Breathing or Walking in Nature allow you the necessary space for being aware of your thoughts and monitoring them.

eg. During meditation when you calm your mind and adopt detachment, you'll notice thoughts as they proceed, you'll notice patterns within the thoughts and you may discover a certain pattern of thoughts eg. self-doubts, putting yourself down, or catastrophising.

1. Be aware of your thoughts.
2. Monitor your thoughts.

Outside of meditation you can decide that you wish to control the thoughts and change them. This would be during times by yourself eg. during deep breathing, walking in nature, or during practice sessions. Moving into a new area of minding the mind, you are now exercising judgment by changing the content of the thoughts and replacing the thoughts. This is Negative Thought Control and the way one replaces the thought is with Self-Talk.

3. Take control - let go of the negative thoughts, or say "stop!"
4. Replace the negative thought with a positive one.



### Some Negative Background 'Voices': examples of Self-Talk

"You're hopeless" change to "You're OK"

"It doesn't matter" "Everybody makes mistakes"  
"It's fixable"  
"Move on, forget it"

"What if I make a mistake" change to "Of course I'll be fine"  
"I trust my preparation"  
"Mistakes are not so important"

"That's ruined everything" change to "I'm fine now - I'm in the music"

### Common 'Faulty' Thought Patterns: (You might find one among these)

The tendency to jump to conclusions (needing you to search for more evidence that the conclusion is right).

The tendency to blame oneself always when there is little or no evidence for such a conclusion (needing you to search for other possible explanations to explain the problem).

The tendency to see things as "all or none", "good or bad" only extremes (needing you to search for the inbetween states as few things are all bad or all good).

The tendency to catastrophize about unpleasant events 'making mountains out of molehills'. (needing you to assess the realistic chances of the catastrophe occurring). If chances are high then begin social engineering or problem solving strategies; if chances are low then ask yourself, "Couldn't I be using this energy in a better way other than wasting it in worrying?"

The tendency to be limited in problem-solving alternatives; that is, unable to see potential solutions (needing you to practice creative, nontraditional problem-solving).

### My Negative Thought Patterns: Change to (My "Self-Talk")

- |   |   |
|---|---|
| ● | ● |
| ● | ● |
| ● | ● |

Notes

## SELF-TALK

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Self-Talk (like Self-Affirmations) can help correct self-defeating thoughts, create a positive mood, focus attention, build competence and confidence, and help prepare for performance (Ungerleider 1996, 20). Further use of self-talk can be the use of cue words or phrases during your practice and performance in ways to help you achieve the desired goal or effect. Perhaps you do this in practice already. However you might consider extending the concept in your practice and performance.

### At a technical level:

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At a technical level: Incorporate cues into your playing eg. "shoulders relaxed"; "more vibrato",

### For evoking the right emotions / moods musically

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Decide during practice (writing in) cue words, eg. "dream-like", "passionate", "wild", "in the distance" - whatever helps to create the right sounds for the particular passage.

### To help yourself mentally:

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"Get over it", "Let go", "In the music", "Stay focused"

### To help yourself physically:

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In a difficult passage - "Easy"; "Flowing"; "Relax". After a mistake - "Keep going", "Stay calm"

### At strategic places in the music:

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End of section - "Relax", "Revive".

Before a technical passage - "Breathe", "This is easy"

Between movements - "Deep breaths", "Gain energy"

### What works for me:

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#### Situation

- 
- 

#### Self -Talk

(as Cue Words and Phrases)

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*The ultimate goal of teaching self-talk and positive affirmations is to help you achieve a sense of mastery – a proficiency that becomes automatic.*

(Ungerleider 1996, 20).

Notes

## SELF-AFFIRMATIONS

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Self-Affirmations are a very specific and individualized type of Self-Talk. This practice can help you correct unwanted habits, create a positive mood, focus attention, build competence and confidence, and help prepare for performance (Ungerleider 1996, 19). To some, affirmations may simply seem too magical. However it has been shown that many successful performers as well as other people use them. Affirmations allow you to keep a positive perspective on life which then helps keep your thought patterns positive. Some of the following examples may be useful to you. It is important that you personalise affirmations by choosing what suits you, or creating your own. Affirmations are more effective if kept short and simple.

*There is power in  
the words and  
thoughts that  
create experiences.*

(Louise Hay 1989,5)

### On Waking in the Morning - for a positive start to the day

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"This is going to be a great day"  
"I'm going to achieve a lot today"  
"I accept myself as I am "

### On Falling Asleep at Night - to end the day peacefully

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"I feel really good about myself"  
"I'm at peace with myself and the world"

### In Difficult Times - to give yourself support

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"You can do it ...(your name)"  
"You will be rewarded...(your name)"  
"There is a good reason for this"  
"I will learn a lot from this"  
"Everything turns out for the best"  
"I can work my way through this"

### Just Coming Out Of / Getting Over A Difficult Time - to help recovery

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"I am a wiser person now"  
"Everything is unfolding as it should"; "Some good will come out of it"





### Changing Negative Thought Patterns - to create a positive approach

"I find this really hard" could become "I am capable of this challenge"

"I hate doing this" could become "This is doing me some good"; "This is teaching me patience"

### Combined with Imagery (in the weeks leading up to performance)

"It's going to be a wonderful performance"

"I'm going to play really well"

### Just prior to the Performance (waiting) - to set the right mood

"I am really going to enjoy this"

"I want to give this audience a fine performance"

" Show them what you can do ...(your name)"

### What works for me:

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## IMAGERY REHEARSAL - the mental equivalent of physical practice

The practice of creating images in the mind - Imagery Rehearsal - is a very specific and focused type of mental practice. This technique has been highly developed for sport performance with the same principles now being adopted by many people preparing for any type of performance where presentation skills are involved. It has been shown that the mind's inner pictures can act as powerful tools for the learning of performance skills and performance preparation - helping one establish and achieve the necessary goals as well as preparing oneself emotionally. Imagery Rehearsal is best practised when the mind and body are in a relaxed state, therefore just after some method of relaxation has occurred. It is suggested that you draw on as many of your senses as possible separately and in combination. Imagery may not be limited to the visual, but can be auditory, tactile, muscular and emotional, and may even include the senses of taste and smell (Schaupp 1997, 14).

### Imagery Rehearsal could be useful for your own practice and performance:

- to extend your routine practice .
- to enhance your practice by imaging error analysis and correction.
- to replace physical practice with mental practice when too fatigued.
- to memorise the music away from your instrument.
- to imagine yourself positive and successful in a forthcoming performance.
- to rehearse mentally parts or the whole of your performance - combining aural, visual, and kinesthetic imagery.

*Since our nervous system cannot distinguish between a real and an imagined performance and we often believe that we are only as good as our last performance, imagery training makes a lot of sense... Using imagery one can pair positive thoughts and emotions with performing, thus leading to a reconditioning of how we perceive a performance situation.*

(Schaupp, classical guitarist 1997,97).



The following exercises help 'sharpen up' your senses.

These can be rehearsed while walking, while travelling enroute, or while relaxing anywhere (eg. in bed, in the bath or shower).

1) Concentrate on each one of the five senses by imaging in your mind:

- a specific visual scene (eg. a beach, a rainforest, a mountain view)
- specific aural tones (eg. rain on the roof, a particular bird call)
- a specific feeling sensation (eg. your favourite material)
- a specific smell/aroma (eg. your favourite meal being cooked)
- a specific taste sensation (eg. your favourite drink or food)

No. 1 exercise may not need practice if you are able to do this easily.

2) Picture your favourite scene or place.

Practise not only seeing it, but hearing the sounds associated, the smells associated, feel the textures present at your particular scene or place - so that you feel right there and part of it. Relax completely into it. Stay there until you feel totally relaxed, mentally and physically.

No.2 exercise (an 'escape' exercise) is useful for 'de-stressing' or calming yourself quickly.

3) Practise seeing one of your past successful concert performances.

Visualise and hear in your mind - the beginning, the end, the aftermath of applause and congratulations. This will be an external image ie. as though you are viewing yourself on video. (Perhaps a video is available for you to see and confirm your successful past performance).

4) Imagine your future concert performance.

Visualise the venue, the surroundings. Imagine yourself walking onto the stage and taking a bow. This should be preferably now an internal image ie. looking out from inside yourself. Imagine the beginning of each movement or piece to be performed. Now experience the end of your last piece, the bow and the audience's appreciation. Use as many of your senses as possible to make it as real as possible.

Nos 3 and 4 can be used for desensitizing the perceived stressful aspects of performance, and rehearsing the success of your future performance.

## You could build on the above exercises to suit your own needs

### External Imagery Rehearsal:

- Aurally, visually, and kinesthetically going right through the performance mentally, in order to find out your weaker spots.
- Correcting or improving specific parts (zooming in) for physical movements or sounds you are not happy with.
- Practising 'freeing up' more using a combination of your visual, aural and kinesthetic senses (stepping back to observe yourself) and 're-frame' as in a video to show yourself playing with more abandon and enjoyment.

### Internal Imagery Rehearsal:

- Pairing your favourite place/ scene and your accompanying feelings of absolute relaxation with your future performance scene, in order to get the same sense of relaxation ie. mentally switching quickly from one scene to the other.
- Practising your performance program away from your instrument eg. while on a walk, lying in bed, sitting outside in a comfortable chair and using as many senses as possible. If you visit the venue in advance and get to know it well, you can include it in your imagery rehearsals. By incorporating as many "senses" as possible into your internal imagery rehearsal, you will feel more 'at home' when you actually do perform.

## How Imagery Rehearsal works for me:

*Having time for yourself will help you feel revitalised, confident, and energetic.*

(Lisa Curry 1992, 178)

## ENERGISING - HOW TO GET YOURSELF "UP" WHEN YOU ARE "DOWN"

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We all experience days when for some reason or other we feel really "down" and consequently it seems impossible to do any good quality work (or anything at all). As you are not getting anywhere trying to continue practice while totally "down", there is no point in wasting time producing poor quality work. Instead it would be more sensible to concentrate on getting yourself "up" as quickly as possible to resume quality practice. If you had some trusted strategies and knew what "energisers" were most effective for you, you would soon be able to achieve what you wish to. A good approach is to take time out for "self nurturing". Mood alteration can be achieved through some, or all of the five senses. The suggestions for mood alteration could all fit into a half-day or over a full day, while other times you may only have time for a quick "pick-up" using some of the five areas. However it is important to be aware that 1) the chemicals in our brain help to create our feelings, moods, thoughts, and behaviour and 2) our brain chemistry can be altered by food, exercise, thoughts, emotions, and actions. (Robertson and Monte 1997, 3).

- You will need to be creative and try different things.
- Personalise the following suggestions - find the best formula for you and write it down. Remember your personal formula will need to be reviewed from time to time as your needs change, you discover new approaches, or your situation changes.
- By allowing yourself a regular nurturing time (say once weekly), you may find that the "downs" occur less frequently. You could look forward to these special times for yourself.

**SOUNDS** Uplifting mood music. This may be other instrument(s), classical or perhaps non-classical - jazz, musicals or pop. Find what works best for you in different circumstances. It might be non-musical as in the recorded sounds of nature (for a break from music).

**SIGHT/VISUALS** It is really important to take yourself out of your four walls and get yourself out, as one's whole perspective changes. A nature walk in a very pleasant environment (anywhere with water, parks, the bush, an uplifting movie, or visit to an exhibition). Whatever you choose, it's only after the 'doing' that the positive effect becomes apparent. All relaxing forms of exercise work as an anti-depressant, by boosting the serotonin levels in the brain. (See also Tastes).

**AROMAS** Aromatherapy is the use of highly concentrated oils ("essential oils") extracted from bushes, flowers, fruits, and trees, "to heal and strengthen the body, and delight the mind and spirit" (Rowley 1998,5). You may visit an aromatherapist for healing the mind-body. The aromatherapist addresses the muscle pain, or mental pressure that may be the cause of the muscle tension by using the appropriate oil(s). You may also use aromatherapy for self-care once you know which oils are suited for which purpose. (Information can be found through health shops or books). Different methods can be used: **Indirect Inhalation:** using electric diffuser or oil burners in a room: fill the bowl on top with water, light the candle underneath and add 6 drops of essential oils to the water. (An oil burner is inexpensive). You can otherwise add a few drops of your favourite essential oil to the wax of a burning candle but not the wick. **In the Bath:** add a few drops of essential oils to the bath water, taking care not to overdo it (4-6 drops) as too much can cause headaches. **Steam Inhalation:** (eyes closed). (2) drops of eucalyptus or tea tree oil in a basin of hot water can be useful for tending to colds and flu or sinus problems (using a towel over the head and basin). Treat essential oils with respect and care. These are toxic in overdose so do not be tempted to add more for a better effect. Always keep oils away from your eyes and do not take them orally or put on the skin undiluted. Keep the room ventilated while using essential oils. Incense Sticks also have a positive effect on your nervous system.

**NB. Make sure the oils of your choice are pure "essential oils" and not cheaper imitations.**

**TOUCH RELAXATION** A bath with mineral and herbal salts, or bath oils. Various ones need to be on hand when you need them. ('Epsom' salts are inexpensive and ease the tension in the body or 'Radox' Sports mineral and herbal bath salts). Bath oils chosen for your special needs are good to have on hand. Even a warm shower followed by a few seconds cold shower can help you to get moving. If you can manage it, a therapeutic massage is money well spent. If you have been depressed or stressed for a week or more, massage therapies can help the body remove the build-up of toxins and stress hormones.

**TASTES** Energy nutrition. If you don't feel like eating, try fruit 'smoothies' in the blender or freshly squeezed fruit and vegetable juices which work fast as energy boosters and cleanse the system. Drinking plenty of pure water is a good way to start recuperating and energising your brain and body. Think about mood food. The food we eat can have a profound effect on our emotional state as nutrients play a crucial role in promoting optimum brain chemistry (Hamilton 1998,54; Robertson and Monte 1997). Brain chemistry imbalance is the source of depression, anxiety, low levels of energy, mood swings, or at the other end of the spectrum - hyperactive behaviour and aggression. A growing body of literature demonstrates that it is possible to balance the brain chemistry with the correct choice of foods eg. complex carbohydrates found in whole grains, fresh fruit and vegetables tend to provide a long-lasting flow of energy and tryptophan to the blood and brain. Tryptophan is a precursor of serotonin - the neurotransmitter which has both a calming and anti-depressant effect on the brain (Robertson and Monte 1997).

Emotional, environmental, and physical stress also upset the brain chemistry. Alcohol needs to be avoided particularly when you are feeling low as it is a depressant. Protein-rich foods, eg. fish, meat, and eggs boost the neurotransmitters dopamine and norepinephrine, which are excitatory brain chemicals. (Fish is known as 'brain food' because it can boost neurotransmission, causing thoughts and reaction times to speed up within half an hour). It is all a matter of balancing yourself out when you detect your moods are on the too low end of the spectrum, or too high end of the spectrum.

Consider also Bach Flower Essences (healing with flowers) that operate through the medium of water, influencing the emotional state by adjusting moods and anxieties in a safe and positive manner. (Using the designated chart and carefully diagnosing the present state of your predominant emotions it is possible to alter negative aspects using the appropriate combination of flower essences). Some naturopaths specialise in this for a more accurate reading. However with some knowledge, self-care is possible. Bach Flower charts and essences are available at health shops (eg. 'Rescue Remedy' is a well-known ready-made combination for general 'anxious' states).

What works for me:

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Sounds

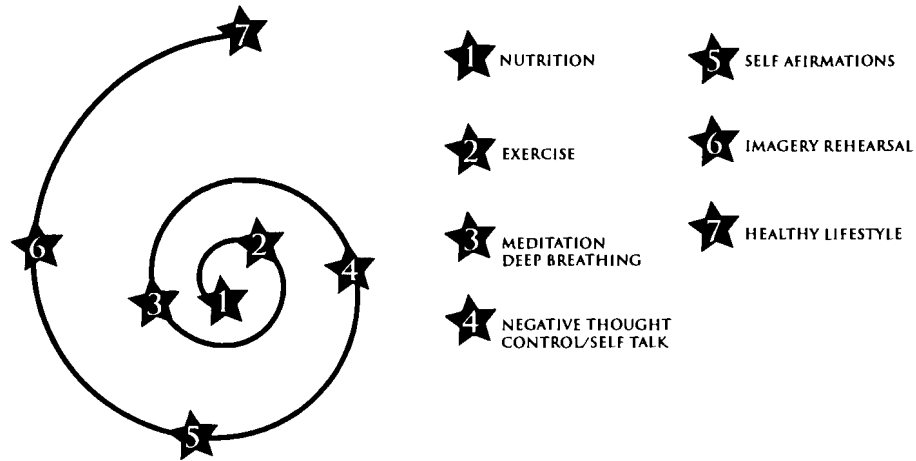
Sights/ Visuals

Touch

Aromas

Tastes

PUTTING IT ALL TOGETHER -incorporating the strategies into daily life.



● **Goal-Setting** Some useful techniques can help you bring together all the training strategies and incorporate them more easily into your daily life, thereby encouraging you "to get your act together". These techniques are all related to Self-Management. Goal-Setting can give you a sense of direction, allowing you to focus on what is really important. When you are able to determine your long-term goal, it needs to be supported by the appropriate choice of intermediate and short-term goals. But even having weekly goals may be vital for your sense of purpose and achievement. Determining your weekly goals prior to the beginning of the week allows you to break down the requirements on a daily basis. By completing separate tasks, stress can be relieved giving you a sense of accomplishment. Breaking down the whole into manageable parts and prioritising as you go is the secret to successful completion of tasks. It can help if you make your goals visible, eg. on a wall planner, so you can see and be reminded why you are working on your weekly goals.

● **Developing a Work 'Structure'** that really works for you creates efficient, quality practice within or around all your other commitments. This includes your Daily Agenda and Practice Agenda.

● **Your Daily Agenda** (possibly different every day or with some practise days being more the same). This needs to show how the mental and physical training strategies can be interspersed throughout the day so that the strategies seem most supportive of your practice and performance while helping you stay refreshed, energetic and healthy. (Some examples follow).



### Example 1 (practice day at home)

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Self-Affirmations on waking

AM	PM
7.00: 35 min stretch/walk	11.00: Practice/Self-talk
7.45: Nutritious Breakfast	12.15: Imagery / incl.Neg.Thought Control
9.00: Meditation/Breathing	12.30: Lunch Break
9.15: Practice/Self-Talk	1.30-3.00: Practice/Performance Practice
10.45: Nutrition Break	9.30: Meditation/Deep Breathing

Total 4.25 - 4.5 hours efficient practice including all the training strategies. Times are only given as a guide to show how the strategies fit within a particular time-frame.

### Example 2 : mixed day -lectures/practice/rehearsal

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Affirmations on waking

Full body Stretch straight after getting up  
Nutritious Breakfast  
Walk on way / Negative Thought Control/ Imagery  
Lectures/ Lesson / Other (Deep Breathing)  
Nutritious Lunch  
Practice / Rehearsal - Self-Talk; Hydration  
Nutrition Break  
Practice / Rehearsal - Self-Talk; Hydration  
Walk on way home / Imagery/ Negative Thought Control  
Nutritious Meal  
Evening Meditation/ Deep Breathing to calm body and mind  
(All training strategies included here)

- **A Realistic Practice Agenda.**

Try to reserve your '2' peak mental times in a day for your most demanding practice. It is important to have a daily planned, 'realistic' written practice agenda, which has been broken down to a daily basis from the expected week's workload. Prioritise by doing the most difficult tasks first. Tick these off with a comment to remind you about the progress. Have something nutritious to eat and drink before you begin and have water handy for during the practice session.

- **Create a good working environment for practice at home.**

Create quiet times. Have the essential materials at hand. Decorate with a few posters and plants to create an inspiring working atmosphere.

- **Energy Control is essential for pacing your energy efficiently and preventing stress.**

This means allowing yourself 'mental' breaks, 'exercise' breaks and 'nutrition' breaks. Working long hours without pausing may seem to work at the time, particularly when you feel 'in the flow'. However unfortunately you are running yourself down preventing yourself from recovering fully for the next practice. (This style of working would be particularly stressful if carried out leading up to a performance). Instead aim for no more than 60 to 90 minutes of concentrated practice in one block (Schaupp,1997). A short mental, nutrition or exercise break between practice sessions can refresh you, making the next 60 to 90 minutes' practice more productive than practising non-stop. The Mental Training Strategies can be helpful when you are not able to carry out physical practice. (See the last section: Looking after Yourself). You can also instigate change in the normal practice routine by working on specific mental aspects of your practice away from your instrument.

- **Self-Awareness.**

Listen to your body and don't measure yourself by other people's capabilities. A sudden headache, lethargy, or sickness may be signs of overtiredness, stress, or poor nutrition (Curry, 1992). Being in tune with yourself allows you to know which sign means what and to act upon it for quick recovery.

- **Meditation or Deep Breathing.**

This is useful just before beginning practice or a performance, allowing you to centre yourself and focus more clearly. A few deep breaths, while positioned and poised ready to start, help calm the mind and control the racing heart. If you are in the habit of doing this before practice begins, it will seem quite natural before a performance.

- **"Loosening Up" Physically.**

Before you begin practice or performance, do stretching exercises for at least the upper part of your body and if possible the lower part of the body. This stimulates the blood circulation, primes the muscles, and makes you feel more alert and focused. Regard this as a part of your practice time so you won't forget to do it.

## ● Rituals / Routine

Your own 'tried and true' routine needs to be developed for the day of performance, to make you feel in the right frame of mind. Your special routine allows you to take control and filters out negative distractions (Ungerleider 1996, 66). Some basics you might wish to build in to your routine are: Deep Breathing; Short Imagery Rehearsal/Visualisation using familiar scenes, the venue, successful scenes; Positive Self-Talk and Affirmations (while getting ready) showing you are ready to perform; Your Own Cue Phrase to go on stage (reminding yourself to enjoy the performance).

## ● Looking after Yourself ( Rest for Health Maintenance).

It's ideal to set aside at least one day of rest a week from the usual physical practice. (If that's too difficult with your lifestyle, then at least two half days).

**Before a major performance**, at least one week's tapering off from intensive practice sessions is recommended in order to be well rested (favouring instead the Mental and Physical Training Strategies) but maintaining the usual Practice Nutrition. Performance nutrition needs to be maintained even in the last three days - to allow for refueling (carbohydrate stores) and rehydration (with water, fresh fruit and vegetable juices but not alcohol or caffeine). The best energy enhancers are considered to be in preventing dehydration and maintaining normal blood sugar levels by regular eating patterns with plentiful carbohydrates, adequate proteins and minimal fats, so that one gains strength and is well fueled for the performance.

**The day after a performance**, it is important to rest up, as well as the day after a particularly long, intensive rehearsal, or just whenever muscles are tight or tired. This allows mind and body to recuperate, thereby preventing vulnerability to illness.

**Mental Training Strategies** "The armchair method of rehearsal" (Roland, 1997) can assist normal practice and performance practice on a daily basis. These strategies might be used eg. in the armchair or while on a quiet nature walk. Physical practice may well become more efficient, thereby avoiding the tendency to overpractice which over time can lead to injury or burnout (chronic fatigue).

**When feeling unwell or too fatigued to practice** You can concentrate on rest periods using the mental training strategies for practice away from the instrument: score practice/analysis and memory; aural imagery for memory work; meditation (lying down) and visual imagery practice (lying down). Time out for healthy nutrition will help boost your immune system and help you recover faster (eg. plenty of easily digestible foods perhaps in the form of fresh fruit and vegetable juices and soups).

- **Listening to Your Mind-Body Needs.**

**Knowing your optimal level of stress is important.** The best way to find your optimal stress level is to recognise the signs of distress and continue to reduce stress to the point where these signs disappear. Though this seems simple, people have often lost their innate sensitivity to excessive stress and need to become sensitive to the early warning signs of distress.

**Be in tune with your particular warning sign of stress.** You probably know what your physical symptom is (eg. dry throat, cold sore, hair or skin problems). A rest period (including more sleep), eating more frequently, walking in nature, meditation, imagery, self-affirmations or negative thought control can all assist in calming the mind. (When outside help seems necessary, a therapeutic massage hastens the relaxation effect.) Try to learn to protect yourself against stress build-up so your health does not suffer.

**Common signs of long-term stress** might be any or some of the following: sleepless nights, an elevated pulse rate, frequent colds and other infections, swollen lymph glands in the armpits, and in the groin, stomach disorders, skin disorders, loss of enthusiasm for practice and performance, mood swings, frequent sore throats, or perhaps a noticeable decline in practice and performance ability.

**Keeping physically fit** (eg. through Stretching and Walking) is not only important to maintain your health but helps you to cope better with the normal stressors of everyday life and when extra pressures are put upon you.

**Keeping a balanced lifestyle** with an eye on what else is happening in your life, allows you to set priorities to match your goals, as well as find time for outside activities so you can recharge the batteries.



WEEK 1		MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
NUTRITION	<ul style="list-style-type: none"> <li>• FREQUENCY, MEALS/SNACKS</li> <li>• FLUIDS</li> <li>• CARBOHYDRATES</li> </ul>					
EXERCISE	<ul style="list-style-type: none"> <li>• STRETCHING</li> <li>• WALKING</li> </ul>					
MEDITATION & DEEP BREATHING	<ul style="list-style-type: none"> <li>• MEDITATION</li> <li>• DEEP BREATHING</li> </ul>					
NEGATIVE THOUGHT CONTROL SELF-TALK	<ul style="list-style-type: none"> <li>• THOUGHT CONTROL</li> <li>• SELF TALK</li> </ul>					
SELF AFFIRMATIONS						
IMAGERY REHEARSAL	<ul style="list-style-type: none"> <li>• EXTERNAL</li> <li>• INTERNAL</li> </ul>					
PROGRESS NOTES						



<b>WEEK 2</b>						
	<b>MONDAY</b>	<b>TUESDAY</b>	<b>WEDNESDAY</b>	<b>THURSDAY</b>	<b>FRIDAY</b>	
<b>NUTRITION</b>	<ul style="list-style-type: none"> <li>• FREQUENCY, MEALS/SNACKS</li> <li>• FLUIDS</li> <li>• CARBOHYDRATES</li> </ul>					
<b>EXERCISE</b>	<ul style="list-style-type: none"> <li>• STRETCHING</li> <li>• WALKING</li> </ul>					
<b>MEDITATION &amp; DEEP BREATHING</b>	<ul style="list-style-type: none"> <li>• MEDITATION</li> <li>• DEEP BREATHING</li> </ul>					
<b>NEGATIVE THOUGHT CONTROL SELF-TALK</b>	<ul style="list-style-type: none"> <li>• THOUGHT CONTROL</li> <li>• SELF TALK</li> </ul>					
<b>SELF AFFIRMATIONS</b>						
<b>IMAGERY REHEARSAL</b>	<ul style="list-style-type: none"> <li>• EXTERNAL</li> <li>• INTERNAL</li> </ul>					

**PROGRESS NOTES**

**WEEK 3**

MONDAY

TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

NUTRITION

- FREQUENCY, MEALS/SNACKS
- FLUIDS
- CARBOHYDRATES

EXERCISE

- STRETCHING
- WALKING

MEDITATION  
& DEEP  
BREATHING

- MEDITATION
- DEEP BREATHING

NEGATIVE  
THOUGHT  
CONTROL  
SELF-TALK

- THOUGHT CONTROL
- SELF TALK

SELF  
AFFIRMATIONSIMAGERY  
REHEARSAL

- EXTERNAL
- INTERNAL

PROGRESS  
NOTES



<b>WEEK 4</b>						
	<b>MONDAY</b>	<b>TUESDAY</b>	<b>WEDNESDAY</b>	<b>THURSDAY</b>	<b>FRIDAY</b>	

<b>NUTRITION</b>	<ul style="list-style-type: none"> <li>• FREQUENCY, MEALS/SNACKS</li> <li>• FLUIDS</li> <li>• CARBOHYDRATES</li> </ul>					
<b>EXERCISE</b>	<ul style="list-style-type: none"> <li>• STRETCHING</li> <li>• WALKING</li> </ul>					
<b>MEDITATION &amp; DEEP BREATHING</b>	<ul style="list-style-type: none"> <li>• MEDITATION</li> <li>• DEEP BREATHING</li> </ul>					
<b>NEGATIVE THOUGHT CONTROL SELF-TALK</b>	<ul style="list-style-type: none"> <li>• THOUGHT CONTROL</li> <li>• SELF TALK</li> </ul>					
<b>SELF AFFIRMATIONS</b>						
<b>IMAGERY REHEARSAL</b>	<ul style="list-style-type: none"> <li>• EXTERNAL</li> <li>• INTERNAL</li> </ul>					

**PROGRESS NOTES**



**WEEK 5**

MONDAY

TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

**NUTRITION**

- FREQUENCY, MEALS/SNACKS
- FLUIDS
- CARBOHYDRATES

**EXERCISE**

- STRETCHING
- WALKING

**MEDITATION & DEEP BREATHING**

- MEDITATION
- DEEP BREATHING

**NEGATIVE THOUGHT CONTROL SELF-TALK**

- THOUGHT CONTROL
- SELF TALK

**SELF AFFIRMATIONS****IMAGERY REHEARSAL**

- EXTERNAL
- INTERNAL

**PROGRESS NOTES**

## PLANNING YOUR NUTRITION - SUGGESTIONS

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### Useful Supplies to have in the cupboard:

- pasta, noodles, rice, cous cous (different varieties)
- potatoes, onions, garlic, ginger
- tins of (sugar- free, low-salt) tomatoes, sweet corn, salmon, tuna, sardines
- vegie burger mix, falafel burger mix, buckwheat pancake mix
- cracker biscuits, rice cakes, ryvita
- cereals, oats, LSA ready mix, muesli bars (low sugar)

### Suggestions for Healthy Breakfast Choices -

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Breakfast is extremely important. It breaks the fast and needs to be substantial for a good morning's work. Allow time for breakfast - you deserve it.

- A glass of fruit juice or glass of water with juice of lemon, lime, orange to cleanse the system followed by perhaps:
- Oat porridge with fresh fruit
- Muesli - home made is more economical with eg. oats based, LSA ready mix (linseeds, sunflower seeds and almonds), rice flakes, bran flakes, sultanas and nuts, coconut etc.
- Any low fat, low sugar, high fibre cereals
- Fruit yoghurt and toast with almond spread or pure fruit spread (better than jams)
- Extras of bread and fruit concentrate, fruits, fruit yoghurt, boiled egg as desired and/or have any of these as midmorning snack
- Herbal tea, 'ecco' / 'caro' ( coffee substitute based on malted barley, rye and chicory)

*N.B. ☞ high in cholesterol*

## Suggestions for Healthy Lunch Choices

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These are interchangeable with dinner choices, depending on performance or practice times.  
Aim to balance the meal - Two thirds carbohydrates and vegetables and one third protein from different sources - animal and plant.

- vegetable soup or lentil soup, and fresh salad with avocado
- breads: wholegrain, rye, soy linseed, sour dough roll /bread, pita bread, ryvita, rice cakes with fillings:
  - salmon, tuna, or sardines, and fresh salad
  - chicken and fresh salad
  - felafel and fresh salad, tabouli
  - boiled egg and fresh salad
- lentilburgers, falafel roll
- stir-fry vegetables and rice (with or without <sup>\*</sup>tofu ; with or without prawns , lean meats)
- pasta with meat sauce and salad
- pasta and vegetables

*\* See note on soy products p. 6.*

## Suggestions for Healthy Dinner Choices

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### some quick, easy, economical ideas

- salmon or tuna patties (chopped raw onion, herbs, tomato, raw egg, bread crumbs, tuna mixed together,, made into patties and dusted with wholemeal flour, then fried in olive oil ) served with mashed potatoes and vegetables / fresh mixed salad.
- potato and spinach patties ( adding nuts or sesame seeds and onion, raw egg to cooked potatoes and spinach) and made in the same way as salmon / tuna patties) - served with rice /noodles and green salad. Patties taste excellent cold for snacks / lunch.
- pasta and vegetables (combinations with zucchini, tomato, carrot, peas, broccoli, onion).
- pasta and meat sauce), with vegetables / plus mixed salad.
- stir-fry vegetables with garlic and ginger and brown organic rice, with additions of prawns, chicken or firm tofu ) Tofu can be marinated beforehand in soya sauce or Tamari. (Tamari is wheat-free soya sauce)
- grilled fish (eg fillets of red fish, flake, deep sea fish, baramundi,) baked potatoes, mixed salad.
- baked fish eg rainbow trout stuffed with kiwi slices or tomato /shallot/ fresh herbs. baked pumpkin and potato plus green salad.
- baked vegetable casserole (any combination of the following vegetables: thinly sliced onions, (garlic optional), sliced choko, potato, sweet potato, tomato, pumpkin. Placed in layers with onions on the bottom, and potatoes on top (caraway seeds over potatoes) Pour mix of 1 egg and a little milk or cottage / ricotta cheese over the top and add some grated parmesan or wholemeal /rye bread crumbs on top. Bake approximately 40 minutes in 180 degree oven.
- thick vegetable homemade soup - any vegetables with onion (Add V8 vegetable juice as base or add vegetable cube (no msg) with water. ( split pea or lentils give variety). Serve with rice, rice noodles, other noodles or with brown breads sprinkled with garlic and grilled.
- vegetarian nut loaf, baked potatoes or rice and salad.
- lentil patties (lentils in pack ready for immediate use), mashed potatoes or rice and mixed salad.
- vegetable omelette (zucchini, tomato, onion and Italian herbs or English spinach and onion) with added greens plus noodles/ rice /boiled potato.
- cous cous (served with satay chicken on skewers, which can be bought made-up).
- grilled vegetables with dahl.
- ricotta and spinach pancakes - pancakes made first. Mixture of spinach, ricotta/cottage cheese, egg, pepper, nutmeg wrapped inside pancakes and cooked in moderate oven for about 15 mins. (A low fat milk/cheese sauce over the top may be added before putting in oven but is not really necessary).

\* See p.6 note

## Suggestions for Snack Choices

- Sultanas and nuts with sunflower seeds and pumpkin seeds (make up your own mix to have on hand). Sunflower seeds are particularly a good energy source .
- small sticks of celery, carrot, capsicum (carefully washed or organically grown).
- Health bars /muesli bars (low sugar choices).
- Crackers and low fat cheese, fresh made pate (without preservatives, colourings etc.).
- Fresh fruit pieces - bananas, mandarines, apples, small bowl of fruit salad.
- Toast / brown bread/ ryvita/ soy and linseed multigrain crackers with boiled egg.
- Toast / brown bread with almond or cashew spread (available health section of supermarket).
- Sandwiches/rolls.
- Small can of tuna and salad ready mix - choice of different salad types (now in supermarket complete with spoon).
- Avocado and crackers.

## Suggestions for Hydration before and during practise or rehearsal.

- Avoid caffeine before practice and performance sessions.
- Remember to take something with you to outside practice sessions (*eg. fruit, water, salad, sandwich*).
- Avoid sugary drinks - even fruit juices may need to be diluted or taken in very small amounts.
- Bottled/purified water is best.
- Sports drinks.
- Hot (or cold) herbal teas - ginger, peppermint, apple and blackcurrent, peach and passionfruit (many varieties available).
- 'Ecco' / 'eccocino' or 'caro'.

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