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THE RELATIONSHIP BETWEEN INSTRUMENTAL AND PEDAGOGICAL TRAINING OF STRING TEACHERS AND THEIR SELF-PERCEPTIONS OF TEACHING EFFECTIVENESS

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ABSTRACT

String teaching has traditionally adhered to an apprenticeship model involving the passing of practical skills and experience from master to student and research exploring the process of pedagogical development and the impact of pedagogical training is scarce. This study explores the interaction of instrumental and pedagogical influences in the development of teaching effectiveness in string teachers and examines the factors that predict effective teaching in a range of contexts. The perceived needs of teachers for further training are also investigated. The influences considered in this study were; instrumental training, performance experience, formal pedagogical training and professional development activities. The study was conducted in the state of New South Wales, Australia, using a cross section of string teachers as participants. A predominantly qualitative design was adopted using data from semi-structured interviews and a questionnaire. The results showed that the instrumental training and performance backgrounds of string teachers encompassed a wide range of experiences and outcomes and that these influences on their own did not ensure a consistent level of teaching competence across all levels of teaching and teaching contexts. Formal pedagogical training was found to be an advantage to teachers in that it could provide a starting point and framework for future development but within the training models examined there was a considerable range of content and strategies and the effectiveness of the courses varied accordingly. Where this training had been comprehensive it was found to complement the skills derived from teachers’ performance backgrounds very effectively. Teachers’ professional development preferences revealed that most teachers desired further pedagogical support throughout their careers but that they frequently found it difficult to find the type of activity that would suit their particular needs. The findings of this study indicate that string teachers would benefit from formal pedagogical training and that professional development activities need to be carefully designed to cater for the needs of specific groups within the community of string teachers. These findings have implications for both tertiary music institutions and for educational bodies providing professional development activities for string teachers.
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CHAPTER 1

INTRODUCTION

The teaching of stringed instruments has traditionally been a process of transmission of skills and the sharing of experience between master and student in what is effectively an apprenticeship model (Gellrich & Sundin, 1993/1994; Zhukov, 1999). String teaching is an area of music education that is relatively unregulated and many teachers receive no formal teacher training, but rather model their teaching on the practices of the teacher or teachers who taught them (Hallam, 1998; Persson, 1994b, 1996). The ability to play an instrument has historically been considered sufficient to be able to teach it as well.

This study investigates the perceptions of string teachers in order to discover in what ways the various aspects of their instrumental and pedagogical training influence their teaching effectiveness. Selected string teachers in the State of New South Wales (NSW), Australia were asked for their views on a number of topics relating to instrumental training background and performance experience. The widely held assumption that playing expertise leads to superior teaching ability was also considered. Pedagogical training and influences were then examined to determine the effects of interaction between these factors and teachers’ practical training and expertise.

Context

Australian society incorporates elements of many different cultures as a result of migration from a huge range of different countries. Given that music is a profession that allows for considerable mobility, many musicians from different countries and backgrounds have joined the Australian musical community over the decades and have contributed to the development of a musical environment that includes a considerable diversity of musical backgrounds. As a consequence, string playing in Australia incorporates many approaches to instrumental performance and pedagogy. This, combined with a tradition of seeking further advanced training overseas, contributes to a great range of approaches to string playing and training being present within this community of string players.
Australia has numerous professional music ensembles including six full-time symphony orchestras, two opera orchestras, and a number of chamber orchestras and smaller ensembles. In NSW there are three full-time professional orchestras resident in Sydney, and a number of smaller professional ensembles also base themselves in Sydney. In regional areas of NSW there is little opportunity for full-time professional playing and, as a result, most players who wish to work as performers are concentrated in the capital city and its immediate environs.

There is considerable activity in semi-professional and community music groups in most of the larger metropolitan areas of NSW and many of the larger centres also have youth orchestras. However, smaller regional centres in NSW often do not have music ensembles and the large distances between centres in regional areas often prevent musicians from participating readily in performance activities. The constraints of distance also have ramifications for students wishing to study stringed instruments. Attending lessons can involve many hours of travel and teachers are often difficult to find in remoter areas because of the tendency for performers to gravitate to the larger metropolitan centres.

String teaching in NSW takes place in a variety of situations. Most teaching occurs in private studios in a one-to-one teaching environment. Many schools offer tuition in stringed instruments, either as part of their curriculum or as an extra activity outside school hours. However, this option is far from universal and many children do not encounter this opportunity through the school system. Tuition in schools can involve the group teaching context, but again, individual lessons are the more common mode of teaching. Moss (1993) found that 95% of Sydney violin teachers taught in private studios and only a third taught in schools.

Tuition is also available through music schools and at both metropolitan and regional conservatoires. Metropolitan conservatoires generally offer undergraduate and postgraduate courses in performance, music education, composition and musicology and frequently include junior programmes that are directed towards talented school-aged children. A network of regional conservatoires in larger country centres has begun to appear in the last three decades and these offer instrumental tuition on a range of instruments. However, they do not offer courses at a tertiary level.
Teachers use a range of examination systems, but by far the most widely used is the Australian Music Examinations Board (AMEB) system. Moss (1993) found that almost 80% of Sydney violin teachers used this system of examinations whereas only about 15% used the Suzuki programme and 12% used Trinity College examinations. However, almost half used Suzuki repertoire as part of their teaching programmes.

Australia as a whole has no mandatory formal system of accreditation for instrumental teachers. The Suzuki Association provides training for its teachers and maintains a system of accreditation but beyond that, there is no obligatory level of achievement in place to regulate the playing expertise or pedagogical skills of string teachers either in private teaching studios or in music institutions. Several independent bodies offer a service of this nature, with publicity and referral components, but it is not obligatory for teachers to register.

String teachers in Australia have access to various associations for peer support and professional development. The Australian Strings Association (AUSTA) provides national and local teacher workshops, and magazines for teachers. The Suzuki Association provides professional development and formal training courses for its teachers with accreditation to teach, but this method is not widely assimilated into the main teaching institutions. In addition, string workshops and masterclasses are made available from time to time by conservatoires, the AMEB and other promoters.

**Justification, Aims and Significance**

Eminent pedagogues have long regretted the variable quality of teaching received by young string students (Flesch, 1930b; Nelson, 1972) and many voices have emphasized the need for the provision of pedagogical training to string players in order to address this problem for future generations (Flesch, 1930b; Mills, 2002, 2006a; Nelson, 1972). However, research in the field of the education of string teachers has not been extensive (Kantorski, 1995; Nelson, 1983) and little is known about the needs and beliefs of string teachers regarding their pedagogical development.

Whereas string teacher training has become well established in the USA during the last half century (Hurley, 1998; Kantorski, 1995; Smith, 1995; Witt, 1998) and has been evident in the
programmes of conservatoires in much of continental Europe for at least a century (Andrievsky, 1990; Behrens, 1979; Kolneder, 1972/1999; Sand, 2000), there is less evidence of such endeavours in Australia. String pedagogy training for string players, as part of tertiary performance or music education courses, has not been available until recent decades in most Australian tertiary music institutions. Many of these courses have endured difficulties due to budgetary constraints and lack of support for this training with the result that courses in pedagogy training are often limited in scope. In general, these pedagogy courses are offered as an elective course component rather than as an obligatory subject, unless the course is one that is dedicated to pedagogy, and many students do not receive any pedagogy training at all. Mills (2006a) noted that training in instrumental pedagogy was not emphasized in the two Australian tertiary music institutions included in her study of music students as instrumental teachers. It is uncommon to find a background in pedagogy training in older generations of string teachers who were trained in Australia.

Moss (1993) found limited evidence of teacher training amongst Sydney violin teachers, and also established that teachers' instrumental training backgrounds encompassed considerable variety and levels of expertise. The results of a survey distributed to teachers who attended the 2004 Winter Violin Forum at the Sydney Conservatorium of Music (Conservatorium Access Centre) indicated extensive interest in further training in a range of pedagogical issues that would normally form part of basic string pedagogy courses at tertiary level (C. M. Smith, 1995). This implies that a shortfall in teacher training amongst string teachers remains a concern.

With regard to professional development activities, Moss (1993) found that string teacher workshops provided by the Australian String Teachers Association and courses provided by the Suzuki Association were the most significant sources of training and professional development for the majority of teachers. She also found that isolation and distance were important contributing factors to the difficulties experienced by regional and rural teachers when seeking to access pedagogy training.

As a player and practising teacher working in Sydney, and in my capacity as the String Advisor for the Australian Music Examinations Board in NSW, I have had the opportunity to interact with string teachers from a wide range of backgrounds and locations. It has become
apparent that many teachers have had quite limited opportunities for learning basic teaching skills and that these appear not to be addressed in many cases by the playing skills that they have acquired during instrumental study. Teachers consistently express a desire to further develop their skills as teachers and express frustration at the lack of suitable opportunities that would make this possible.

This study aims to investigate the factors that influence the development of pedagogical skill in string teachers. It endeavours to discover what skills and understandings are acquired through instrumental training and performance experience, and how well these equip string players to become teachers. It also attempts to determine the effects of various forms of pedagogical training and to discover how these interact with or alter string players’ perceptions regarding their own effectiveness as teachers. Finally it seeks to understand the needs of string teachers in terms of their development as teachers. Three research questions were posed to achieve these aims:

1. In what ways do string teachers’ instrumental training and performance backgrounds affect their perceptions of teaching effectiveness?

2. In what ways do formal pedagogical training and professional development activities affect string teachers’ perceptions of teaching effectiveness?

3. What are the perceived needs of string teachers in relation to the development of teaching effectiveness?

This study is not concerned with the evaluation of teacher competence. It seeks to isolate and understand the factors that lead to effective teaching, both perceived and actual, and to develop an understanding of the methods and strategies that might make suitable training opportunities available to both pre-service and experienced teachers. Much research has focused on the use of student observations to develop an understanding of teacher effectiveness (Abeles, 1975; Abeles, Goffi, & Levasseur, 1992). This study approaches this question from the point of view of the teachers themselves.
It is anticipated that the findings of this study will assist in the development of appropriate models of pedagogy training for string teachers in a number of situations. It may add weight to the argument that such training is advisable as a component of tertiary music courses, and it may also give further insights into the content and strategies that should be included in such courses. A better understanding of the needs of existing string teachers could facilitate the planning of appropriate professional development activities that target the requirements of specific groups of teachers.

The demand for well-trained string teachers generally outstrips the supply in NSW and this is particularly so in regional areas where lack of employment in performance acts as a deterrent to players locating to those areas. However, increasingly there are employment opportunities for trained teachers through the network of regional conservatoires. Metropolitan settings present even more employment avenues for string teachers. It seems logical to suggest that better teacher training would facilitate the involvement of many players who currently choose not to teach due to insecurities regarding their ability to do so effectively.

Outline of Thesis

The following chapter presents a review of the research and other literature relating to this study. It outlines the history and background to string playing and examines various approaches to string pedagogy and the nature of effective teaching in this context. In the field of string pedagogy, many aspects of practice have not been the subject of extensive research and it has been necessary to draw on the wide body of literature relating to string players and pedagogues to create an overview of this field of study.

The third chapter describes the research design of the study and explains the methods that were used. The following two chapters present the results of the study and discuss the findings. Chapter 4 reports the findings relating to the effects of instrumental training and performance experience on the development of teaching effectiveness. The effects of formal pedagogy training and its interaction with instrumental background are considered in Chapter 5 along with the perceived needs of teachers in the field of professional development. The interaction between these four factors is considered throughout these two chapters. The final
chapter presents a summary of the findings and considers their implications for the training of string teachers.

Definitions and Abbreviations

AMEB Australian Music Examinations Board. A national examination board providing graded music examinations in a wide range of musical instruments as well as in music theory and musicianship.

AMEB Preliminary to Grade 4
Level 1 (Beginning) of the AMEB examination syllabi. Equivalent to Associated Board Grades 1 to 5.

AMEB Grades 5 to 8
Level 2 (Developing) of the AMEB examination syllabi. Equivalent to Associated Board Grades 6 to 8+.

A Mus A Associate in Music, Australia. Level 3 (Advanced Development) of the AMEB examination syllabi.

L Mus A Licentiate in Music, Australia. Level 3 (Advanced Development) of the AMEB examination syllabi.

AUSTA Australian Strings Association. A professional organisation promoting excellence in all aspects of performance, teaching, conducting and the making of stringed instruments.

Regional Conservatoire
A music conservatoire in a large regional town. There are fifteen of these in NSW.

Instrumental set-up
The manner in which instrument and bow are held and played.
CHAPTER 2

REVIEW OF RELATED LITERATURE

This study examines the ways in which instrumental and pedagogical training affect the development of teaching effectiveness in string teachers. In reviewing the literature relating to this study, this chapter examines appropriate research literature, and also relevant historical, pedagogical and biographical literature in areas where little research has taken place or where this material will give a clearer perspective on the context and findings of research studies.

The history of stringed instruments, and the manner in which they were played, is outlined in the first part of this chapter. The instruments themselves have evolved considerably in construction and design over the centuries due to innovations on the part of instrument makers and also to their response to the demands of players and the requirements of changing repertoire. Playing styles were in turn somewhat dependent on the constraints of construction of the instruments. Given that this process of change was not consistent from place to place, many differing approaches to playing evolved and were passed on to future generations of players. This has resulted in considerable diversity in current approaches to instrumental technique and pedagogy. The implications of this diversity in playing styles are considered in subsequent sections of this chapter.

The second section of this chapter discusses a number of aspects of string pedagogy. The implications of instrumental training and performance background for the development of teaching skills are considered, and a variety of other means by which pedagogical skills can develop are discussed. The nature of teaching effectiveness is examined in the last part of this chapter.

Historical Background to the Development of Stringed Instruments and Manner of Playing

The stringed instruments being considered in this study are the violin, viola, cello and double bass. This ‘violin’ family began to emerge as favoured instruments in ensembles from the
sixteenth century and subsequently developed as solo instruments with the rise of purely instrumental music that followed (Boyden, 1965; Kolneder, 1972/1999). Given that the construction of these instruments is inextricably linked to the manner in which they were played, an historical outline of the development of these instruments and their usage provides a background to the evolution of the diverse approaches to playing and pedagogy that still exist to some extent today.

**Violin and Viola**

The design of the early violin and viola was subject to considerable experimentation, with a range of sizes and shapes being in use, and many variations in construction and fittings. Bows also varied in shape and length as they evolved from those used with rebec, fiddle, lira da braccio and viol (Boyden, 1965; Boyden & Woodward, 2007; Nelson, 1972). The shape and size of the body of the violin has remained relatively constant since the early eighteenth century. However, in the case of the viola this has never been standardized, and there is still a considerable range in the length of the body and depth of the ribs (Boyden & Woodward, 2007; Nelson, 1972). Fittings, such as necks, fingerboards, bridges and strings, also evolved gradually, according to the demands of players and composers. By late in the eighteenth century bow construction had been largely standardized by the French bow maker, François Tourte, to the form that is currently still in use (Boyden, 1965).

In the early stages of the evolution of the upper string instruments, in the sixteenth century, players were very likely to have taken up the violin or viola, having already played other related instruments such as the rebec or the viol (Stoeving, 1904). As a result, the manner of holding the instruments was far from standardized, and iconographic evidence from this time indicates a variety of approaches with the most common having the instrument held against the chest rather than under the chin. Bow holds also showed variation in the placement of the fingers, thumb, wrist and elbow according to factors such as national style and personal taste.

Left hand technique and mobility was limited by the early approach to holding the instrument as the hand was used to support the instrument, thereby restricting the use of the higher registers (Kolneder, 1972/1999; Yampolsky, 1967). As the violin began to be held more on the shoulder or at the neck, and with the invention of the chin rest and shoulder rest in the early nineteenth century, the left hand was freer to move and this facilitated the development
of the more virtuosic left hand technique demanded by the virtuoso repertoire of this period. Acceptance of these changes to instrument hold appear to have been gradual, and considerable variation in violin hold and technique were still in evidence at the beginning of the nineteenth century (Yampolsky, 1967). Debate continues on some issues and the use of shoulder rests to support the instruments is a good example. Baillot (1835/1991) first recommended their use for those with narrow shoulders and for women violinists in the 1830s, but some leading teachers were adamant that shoulder pads should be avoided almost a century later (Auer, 1921 38; Martens, 1919). Others have recommended their use only for some students (Flesch, 1930a; Galamian, 1964; Havas, 1978) and some leading teachers still remain opposed to their use (Sabo-Skelton, 1998; Stowell, 1992a).

With the general acceptance of the Tourte model of bow from the late eighteenth century there came some degree of standardization of bow holds. Variations of placement of the thumb and fingers still define distinctions between national schools and individual styles, however (Stowell, 1992a). The respected teacher, Leopold Auer (1921), described the different bow holds of Joseph Joachim, Eugène Ysaÿe and Pablo Sarasate, all eminent violinists of his day and from different schools of playing, and pointed out that each one had an individual and quite distinctive manner of holding the bow. Another leading violin teacher, Carl Flesch (1930a), described the three predominant methods of holding the bow in the early twentieth century: the German, the Franco-Belgian and the Russian, and advocated the last as his preferred choice whilst conceding that this was not a view that was generally shared. Interestingly, this was not the bow hold that became predominant in much American teaching later in the century where the influential teacher, Ivan Galamian, advocated the use of the Franco-Belgian approach (Galamian, 1964).

Many methods have sought to codify the principles of violin fingering throughout the history of violin playing but differences are still very apparent between national schools of playing and individual players. Yampolsky (1967) comments that the editorial work of leading violinists of the nineteenth century shows the range of approaches to fingering at the time. “Each violinist’s editions and transcriptions reflected his own peculiarities of style and execution…” (p.12). Current editions continue to reflect the same diversity of approach to fingering (Sabo-Skelton, 1998).
Cello and Double Bass

Like the violin and viola the cello first appeared in the mid sixteenth century, and probably existed in two sizes with different tunings. By the early part of the 18th century a standard body length had been established by the Italian maker Stradivari, although larger instruments for orchestral playing continued to be made (Wijsman, 2007b) and the construction of the instrument did not change greatly into the 20th century (Campbell, 2007). The early cello bow existed in a variety of sizes and shapes. Bow design changed little after the Tourte design of bow was adopted in the mid to late eighteenth century (Wijsman, 2007b).

The double bass emerged from the viol family of instruments some time in the very late fifteenth or early sixteenth century. The difficulties associated with negotiating such a large instrument led to there being much variety in tunings and fingerings, in the number of strings on the instrument, and also in the shape and size of the instrument itself. Two different shapes of double bass are still in common usage today and considerable variation remains in the actual size of instruments. Whilst the norm is now to have four strings, some double basses are fitted with a fifth string or an extension to allow the lowest string to be lengthened. Two types of double bass bow are in common use today, the French and the German (Slatford & Pettit, 1985; Stanton & Isaac, 1982).

Early players of the cello rested the instrument on the floor or supported it with the calves in the manner used for playing the bass viol (Bonta, 2007). The ‘viol’ manner of playing generally prevailed through to the end of the nineteenth century when the use of an endpin became more widely accepted. This modification had advantages in terms of general comfort and for playing in higher positions (Wijsman, 2007b). The manner of holding the double bass remains varied and players can either sit or stand when playing (Stanton & Isaac, 1982).

The early left hand technique of the cello evolved along two lines influenced by the technique of the violin or of the viol. Cellists at the time may have previously played either of these instruments. There was no single well established system of fingering, and opinions differed as to the preferable placement of the hand on the neck of the instrument right through until the early nineteenth century. The fingering system of the French teacher, Jean-Louis Duport, became influential at this time; however, the German school of playing still differed in hand position and developed the use of thumb position to a greater degree. Innovations in approach
to fingering by different schools, and individual players, have continued in recent times (Wijsman, 2007a). In the case of the double bass, many fingering systems have also been devised and there remains a lack of standardization amongst modern methods (Slatford, 2007).

The bow hold used by cellists also developed along two lines. The underhand grip used in viol technique was still in evidence until late in the eighteenth century but the more common manner of holding the bow was the overhand grip used in violin technique. Variation existed in the placement of the thumb and hand with distinctions along national lines being evident in the eighteenth and nineteenth centuries. The German and Russian techniques have become the normal practice for most modern cellists (Wijsman, 2007b). Double bass players still utilise two different bow holds according to their choice of bow design (Slatford & Pettit, 1985; Stanton & Isaac, 1982).

Teachers’ approaches to the fundamental aspects of string playing, such as set-up, bow hold, and most physical actions associated with playing, are influenced by the design of the instruments and bows that they use. They are also influenced by the schools of playing that form their background. It seems probable that these factors must have implications for teachers’ styles of pedagogy and this issue is considered in subsequent sections of this chapter.

String Pedagogy

The Pedagogical Literature

Publications on instructional methods for stringed instruments began to appear by the middle of the seventeenth century. Many of these were limited in content and focused on ornamentation and embellishment skills relevant to a range of instruments, rather than instrumental techniques applicable to individual instruments. Self-instruction manuals for amateurs also became popular at this time (Kolneder, 1972/1999 41; Stowell, 1992b). It was not until the mid eighteenth century that publications such as Geminiani’s *The Art of Playing on the Violin* and Leopold Mozart’s *A Treatise on the Fundamental Principles of Violin Playing*, which were directed more towards aspiring professional players and to some extent to teachers, began to appear. These publications reflected a wide range of approaches to
technique and stylistic matters according to the backgrounds and views of the authors (Campbell, 1999; Stowell, 1992b). Good affordable instruction books were still few in number at this time (Campbell, 1999; Stoeving, 1904) and students were largely dependant on their masters in order to learn techniques and performing conventions.

The nineteenth century saw a proliferation of methods and complementary study material, which again reflected a diverse range of playing styles. Much of the technical repertoire from this era, such as the etudes of eminent pedagogues and performers of the era Rodolphe Kreutzer, Pierre Rode, Niccolo Paganini, Jacques-Féréol Mazas, Charles Dancla, Charles de Bériot, Franz Wohlfahrt, Jean-Louis Duport and David Popper are still to be found in currently used syllabi and repertoire selections (American String Teachers Association, 1986; Australian Music Examinations Board, 2007). With regard to literature relating to the violin in this period, Kolneder (1972/1999) draws our attention to the increasingly analytical nature of pedagogical works by this time. The works of Otakar Sevcik, in particular, illustrate the much greater attention paid to detail in isolating the component parts of problems that arise in violin playing. With regard to the effectiveness of elementary instruction methods of this era, Kolneder expresses some reservations because of the limited experience amongst many of the eminent players, who were the authors of such material, in the field of teaching students of an elementary level.

Pedagogical material in the twentieth century has included further analytical works designed for the development of virtuosity in advanced performers such as Galamian’s *Principles of Violin Playing and Teaching*, as well as memoirs and advice written by eminent players and teachers based on their own experience of playing and of teaching. Such teachers have generally honed their skills working with advanced students and this is the intended readership of such works, along with their teachers and professional players in general (Kolneder, 1972/1999). Literature relating to students of an intermediate level is less plentiful but there have been some notable innovations in the field of teaching beginners since the mid 1900s. The most significant amongst this latter group are perhaps the methods of Sinichi Suzuki, Paul Rolland and Geza Silvay (Stowell, 1992b). There is considerable focus on the needs of the teacher as well as the student within all of these methods for beginners.
Teachers who have contributed to the pedagogical literature have generally done so in order to give the benefit of their own ideas and experience to future players and teachers. However, a reluctance to impose their ideas on their colleagues has at times led to hesitancy, and may account in part for the many pedagogues who have not recorded their pedagogical ideas. Leopold Mozart (1756/1978) described his concern for the many badly taught students and adults that he encountered, and the absence of a guide to the playing of the violin, as his reasons for writing his treatise. Whilst this treatise became widely used and influential, Mozart admits to having been ‘bashful’ in coming forward with his ‘modest work’ (p. 7).

Auer (1921) wrote his treatise with the serious teacher and student in mind and explained his purpose as being to “explain the art of violin playing as well nigh sixty years of experience as an interpreting artist and teacher have revealed it to me. . . . my conclusions, are all the outcome of my experience. They have all been verified by years of experiment and observation” (p. v). Nelson (1972) notes that the extraordinarily thorough treatise by Carl Flesch, *The Art of Violin Playing*, is also based on the author’s experience and the methods that he found successful in performance. She points out that this does not necessarily allow for those who might have different physical or psychological problems from the author.

Auer (1921), on the subject of literature relating to violin playing, maintained that “everything that can be said on that subject has been said over and over again” (p. 2). Dickson (1981) suggests that string teaching is not always a matter of discovering something new, as most ideas have appeared before at some point, but the knowledge can become lost or changed with time. The challenge for the teacher is to piece it all together again. Fischer (1997) makes the same point: “. . . in a field as old and widespread as violin playing, new ideas usually turn out to have been thought of before” (p. vii). Nevertheless, many teachers leave no documentary evidence of their teaching methods and it remains for their students to pass on the ideas of their masters with whatever modifications they in turn may see fit to add. With this in mind, it has been suggested that the pedagogical literature may still not necessarily represent a comprehensive documentation of the collective experience and wisdom relating to string pedagogy (Stowell, 1992c, 1999). Kolneder further points out that written instruction on its own is of limited use, and serves best as a supplement to the traditional method of transmission of instrumental skills, that of student imitating and following the instructions of a teacher or master (Kolneder, 1972/1999 41).
**Instrumental Tuition**

During the early stages of the evolution of string playing there is little available information regarding the training of young players. There was no system of music schools at this time so the opportunity to learn an instrument was limited. Tuition was offered as part of the curriculum at choir schools, or for a talented student, lessons with a good teacher could be made possible through patronage from a benefactor (Golby, 2004; Kolneder, 1972/1999). A common solution was an apprenticeship with an established player. Musical apprenticeships were the norm in France until the late eighteenth century and were strictly controlled by a guild (Kolneder, 1972/1999), and in Germany, instrumental training was to be found in the local court orchestras or again through apprenticeship (Stoeving, 1904). In England instrumentalists were also generally trained through apprenticeships and less often through private tuition through to the nineteenth century (Golby, 2004).

Instrumental practice at this time was regarded as a craft, and the rules were passed on by modelling and by word of mouth during the apprenticeship. Skills were practised according to the rules handed down by the master and then elaborated upon by the student (Gellrich & Sundin, 1993/1994). In the preface to his treatise on violin playing, Leopold Mozart indicated that poor teaching was a common problem at the time and expressed his wish to influence those responsible for the disappointing standard amongst the students that he encountered (Mozart, 1756/1978). It has been suggested that apprenticeship had some disadvantages as a method of training in that the apprentice, who lived with the master and was entirely dependent on him, was limited to learning from that one master and constrained by the abilities and professional connections of that individual, rather than having access to other leading professionals in the field (Golby, 2004; Stoeving, 1904). Stoeving (1904) notes that an apprenticeship usually led to a career as an orchestral or court musician, rather than as a soloist. Flesch noted that the vast majority of great violinists had had teachers who were also great violinists (Flesch, 1930b). Outstanding violinists and cellists who taught, such as Arcangelo Corelli, Giuseppe Tartini, Jean-Louis Duport, Giovanni Battista Viotti and Bernhard Romberg were much sought after as teachers during this time and their students in turn enjoyed considerable success (Stoeving, 1904).

Conservatoires providing music education began to appear in Italy in the late 1700s, and the Paris Conservatoire was opened in 1796. This latter institution gave tuition to talented...
students regardless of their financial means and developed a systematized method of tuition that in turn became a model for other countries (Kolneder, 1972/1999). Pierre Baillot de Sales, Rodolphe Kreutzer and Pierre Rode, all excellent violinists, were charged with the task of devising a method for teaching the fundamentals of violin instruction at the new conservatoire. Baillot's (1835/1991) opening comments to his revision of this method indicate the lack of formalisation of instruction methods they faced at the time:

We had previously acquired almost no practical knowledge of the art of studying this instrument; our instruction had never gone beyond vague notions and incomplete traditions: we were obliged to wander or grope for many years before arriving at some of these processes that are called the secrets of the art. . . . we looked for the most notable elementary methods. . . . there were very few of these works, and they had been written too long ago to help in surmounting new difficulties or in giving the flexibility of resources that modern composers were making more and more necessary. (p. 5)

Whilst the apprenticeship system died out in the early 1800s, the teaching methodology in instrumental instruction continued to be based on the passing on of personal experience (Gellrich & Sundin, 1993/1994; Zhukov, 1999). Students, however, became increasingly free to pursue the teachers of their choice and outstanding players who also taught attracted large classes of students who had often travelled great distances for this purpose (Bosanquet, 1999; Campbell, 1999; Kolneder, 1972/1999). As a result, teachers at the newly formed conservatoires were generally appointed on the basis of their playing expertise as this led to a demand for their teaching activities. The literature sheds very little light on whether a demonstrated teaching aptitude was considered in such appointments. The characteristics of the performer-teacher are discussed at greater length later in this chapter.

Whilst there is abundant information on the background and teaching of the more famous pedagogues and the successes of their outstanding students, much less is known regarding the teaching practices of those who worked with younger or less able students. Amongst the writings of eminent pedagogues there are frequent references to the poor general standard of teaching (Auer, 1921; Flesch, 1930b; Morreau, 2002; Mozart, 1756/1978). Auer commented, in describing his first teacher in a small Hungarian town, that there was no method or system of instruction as such, and teaching materials were scarce. He noted that "every teacher taught as best he knew how, and without supervision" (p.10). It would appear that limited training and isolation may have been a common problem. Flesch (1930b) complains that "the
phenomenon of the technically perfectly prepared pupil of the medium grade...is very rare...almost never encountered”. He attributes this to the fact that the few really good teachers teach the more advanced students which leaves “elementary instruction to the multitude of less gifted teachers” (p. 129).

The somewhat haphazard evolution of both stringed instruments and the manner of playing them have led to many different approaches to playing technique generally, and to the development of differing ‘schools’ of playing on all the instruments discussed in this study. Often these ‘schools’ of playing initially derived from the teaching of one or more outstanding performer-teachers, and their methods were then perpetuated as successive generations of students modelled themselves on the playing styles of their teachers (Kolneder, 1972/1999). Historical accounts of eminent players’ performances and iconographic evidence indicate that successful performance was achieved using a great diversity of playing styles and instrumental equipment, and since the advent of the recording industry it has also been possible to hear and see the musical results of this diversity. As Eales (1992) points out, violinists at the end of the twentieth century “are faced with a bewildering range of teaching and playing styles” (p 92). Bosanquet (1999) describes a similar diversity in relation to the cello in the twentieth century. It is apparent that good playing can result from a range of different playing styles or ‘schools’ of playing.

Instrumental learning was thus, to an extent, a process of learning to play according to the playing styles and abilities of the teachers who were available and accessible at a given place and time. Talent, opportunity and a multitude of other factors might have affected the outcome for students and this would in turn have determined their subsequent pedagogical competence. Taken in the light of the fragmented evolution of both stringed instruments and the manners of playing them, it is perhaps not surprising that there were many differing views on what constitutes good playing. Gustav Saenger, speaking of master violinists and teachers, commented that they “hold radically different views with regard to practically every detail of their art” (Martens, 1919, p. 286). For the development of pedagogical skills, however, this diversity presents many problems and questions. These are discussed in the following section.
Acquisition of Pedagogical Skills

Pedagogical skills can be developed by a variety of different means within both formal and informal contexts. This next section discusses a number of methods by which players may develop pedagogical expertise.

Formal Pedagogy Training

It has been suggested that most young string players, even those who aspire to become performers, will teach at some point in their careers (Dickson, 1981; Flesch, 1930b; Nelson, 1972). Much has also been said supporting the need for string teachers to receive pedagogy training (Flesch, 1930b; Mills, 2002, 2006a; Nelson, 1972). In the words of Flesch (1930b), “an abyss yawns between the learning and the teaching of an art” (p.129). In the context of individual instrumental instruction there has been little research to substantiate these views or to shed light on the comparative merits of different approaches to method and content in pedagogy training models. Uszler (1996) likens the search for information about private music teachers to “trying to assemble a puzzle that has many missing pieces” and points out that “statistics and facts are not plentiful” (p. 20). Similarly, the attitudes of performer-teachers towards pedagogical training and their perceptions of its effect on the development of teaching skills have not been widely investigated, although Nelson (1972) points to a resistance to tertiary pedagogy training from professorial staff out of concern that their authority or methods might be questioned. In contrast, whilst the tradition-bound field of individual instrumental instruction has been somewhat neglected, much systematic research has focused on the group or classroom teaching context that is extensively utilised in the USA (Duke, 1999; Schmidt, 1989b).

Several British studies shed some light on the attitudes of students and their teachers to teaching and pedagogical development. In a study involving 61 undergraduate students at a London conservatoire, Mills (2004a) found that 77% were already giving instrumental lessons. Most students did expect to teach as part of their career and most thought they needed some training in how to teach. There was strong disagreement with the suggestion that good performers are always good teachers. Mills (2004b) points out that most instrumental teachers in British conservatoires are distinguished performers, but of the 37 professors interviewed in this study, only four reported having received any training in teaching skills. Many reported that they had developed their teaching abilities by reflecting on their own experiences of
teaching and some felt they had benefited from the input and advice of other teachers. Mills stresses that “it is difficult to believe instrumental pupils’ learning needs would not be met more effectively by teachers who were trained” (2006a, p. 388).

This raises the question of the availability and uptake of pedagogical training, both currently, in past decades, and from country to country. There appears to have been little systematic research that would enable effective comparisons to be made between different approaches to the provision of such training, but there is indication of considerable variation from place to place. Mills (2006a) indicates that training as instrumental teachers is not emphasized in the undergraduate courses of the four conservatoires, in the UK and Australia, covered in her study of music students as instrumental teachers. Abeles (1992) suggests that performers often arrive at their first tertiary teaching position with little teaching experience or competence, which would imply a lack of pedagogical training. A Polish study similarly indicates that teaching skills there are generally considered to develop through the experiences gained as a performer (Manturzewska, 1990), although it should be noted that musicians in that country would normally have experienced the very systematic course of study provided by Polish music schools, during their own training (M. Durek, personal communication, July 21, 2007). By contrast, Paul Rolland spoke of the pedagogical training provided to performance students at the Budapest Academy around 1930, which included a year of pedagogical method and a year of guided practical teaching experience with highly regarded tutors (Behrens, 1979). Instrumental pedagogy is a mandatory part of the training at Russian tertiary music institutions (B. Rosenblitt, personal communication, July 18, 2007).

Regarding the content and effectiveness of studio teaching courses, information is scarce. One Australian conservatoire offers four elective units of string pedagogy for studio teaching at undergraduate level. These courses include pedagogical methods and practicum, instructor feedback and observation. Topics covered include instrumental set up and technique, curriculum and repertoire, learning theories and motivation. At postgraduate level, a further two units of internship are offered in which student teaching is videotaped, discussed and analysed with a master teacher, on the basis of the material covered in the previous courses. This training was introduced in the early 1970s against considerable opposition from other staff, however feedback now indicates that the course is very beneficial. As the course is not compulsory, many students take only one or two of the units and numbers decrease.
considerably at postgraduate level (E. Morgan, personal communication, April 2, 2006). A comparable studio teaching pedagogy course in an American university comprises two compulsory units of study over one year. Topics include instrumental set up and techniques, methods and repertoire, remedial teaching and performance injuries. Students submit a portfolio of repertoire for use in their teaching as well as a log, video and reflections of their practical teaching activities (J. Palac, personal communication, May 2003). In Russia, a pattern of systematic training in teaching skills emerges comprising years of pedagogical methods classes, supervised practice teaching, observation of master teachers in the masterclass situation and assistantships to master teachers (Andrievsky, 1990; Jusefovich, 1977; Sand, 2000).

It is unclear for how long such courses in pedagogical training have generally been available in tertiary institutions. In a study of independent music teachers, Uszler (1996) suggests pedagogy programmes have become more common in the last two decades in America. Given that much of the research relating to performers and teachers indicates that pedagogy training is not common amongst this group, this might be attributed to it not having been available when these teachers were studying or to a choice not to take such a course. Uszler suggests that there is an underlying assumption in many music schools and conservatoires that a performance degree, presumably without pedagogy, provides an adequate starting point for a teaching career.

Meske (1985) suggests that good teacher training depends on the clear identification of the knowledge and skills needed to teach effectively and the implementation of suitable, well-sequenced experiences that will facilitate the achievement of this goal. Uszler (1996) notes that much pedagogical training focuses on the teaching skills needed to play specific instruments but not on more general pedagogical concepts which could be taught in heterogenous groups of performers, such as learning theories, child development, and techniques to develop critical listening and problem solving. Training to prepare for teaching pre-school children, and to develop the use of technology in teaching and in business skills are also mentioned as topics which are often overlooked. Mills (2006a) has also suggested that the benefits of performers and composers being taught together with education students for some courses, may be worthy of further research. It would seem practical to consider such an option for teaching more general concepts of instrumental pedagogy in heterogenous
groups, both in terms of cost efficiency and for the benefits gained from a wider cross-section of experiences and ideas. It is also worthy of note that the management of performance injuries and anxiety does not appear to feature prominently in the courses outlined above. These topics are considered in more detail in the last section of this chapter.

Pedagogical training and qualifications are also available through some national music examination bodies. The Australian Music Examinations Board (AMEB) offers examinations leading to three levels of qualification as a Teacher of Music: a Certificate, an Associate and a Licentiate. Each of these incorporates written and practical components and includes child development, general and instrument specific pedagogy, repertoire planning, resources portfolio, instrumental performance and live or video presentation of teaching with discussion (Australian Music Examinations Board, 2007). The Associated Board of the Royal Schools of Music (ABRSM) similarly offers examinations leading to three levels of diploma in Principles of Instrumental Teaching. Examinations incorporate written, practical and viva voce sections and include topics such as pedagogy, repertoire, style and interpretation, history and background of instrument and professional values and practice. In addition, the ABRSM offers a Certificate of Teaching course for the professional development of teachers. This course covers instrument specific pedagogy and other issues as well as general music education topics. Students have the guidance of a mentor and receive feedback on their teaching, as well as doing written work and action research, and attending workshops (Associated Board of the Royal Schools of Music, 2007).

Some teaching methods such as the Suzuki method require their teachers to undergo regular training and to gain accreditation (Suzuki Talent Education Association of Australia, 2007). Other than in specific methods such as this, any form of accreditation or certification of independent or private music teachers is not required in most countries (Anderson & Geake, 2000; European String Teachers Association, 1981; Persson, 1996; Uszler, 1996).

During the last fifty years, many American universities have developed programmes for training instrumental teachers preparing for careers in class orchestral teaching in schools. Teachers intending to teach instrumental music in schools are trained to teach a range of instruments as well as their specialist instrument (S. Dackow, personal communication, June 30, 2006). These courses incorporate theoretical study, observation, practical experience and
evaluation and feedback from supervising teachers (American String Teachers Association, 2004; Hurley, 1998; Smith, 1995; Witt, 1998). American studies have investigated the curriculum and models of teacher training available to pre-service teachers, along with their perceptions of its effectiveness (Conway, 1999, 2002; Paul, 1998; Paul et al., 2001; Schmidt, 1989a; Smith, 1995) and also the views of existing teachers as to the value of what they were taught (Bridges, 1993; Teachout, 1997).

The benefits of various aspects of teacher training in preparation for the class-teaching context have been well documented in recent decades. Whilst much of this data has limited relevance to the development of individual instrumental teaching skills, there is some overlap. Researchers found that practical experience and the opportunity to observe and obtain feedback from a mentor or master teacher was beneficial in the training of class instrumental teachers (Bauer & Berg, 2001; Conkling, 2003; Conway, 2002; Owen, 2004). A teaching project at the University of Texas, in which students give individual and group lessons to local children, under the guidance of more experienced teachers, has had considerable success and has been adopted by a large number of other American universities (American String Teachers Association, 2004; Owen, 2004). Phyllis Young (Witt, 1998) reports a strong correlation between former students from this teaching project at the University of Texas, and the next generation of leading string educators. The merits of similar methods of training for studio teachers are discussed later in this chapter.

Other Processes of Pedagogical Development
The most significant influence on the development of instrumental teaching expertise has traditionally been the teacher’s own instrumental training and experience. According to Kennell (1992), “applied music teachers are members of an important oral tradition in which personal experience and historical anecdote form the basis of contemporary common practice” (p. 5). He maintains that performance skill passes from generation to generation as a result of instrumental lessons and personal experience. Instructional manuals and the pedagogical literature may provide an overview of the issues that pedagogues considered important, and varying degrees of detail as to how and when these issues should be addressed, but, as previously mentioned, this material is essentially a supplement to the master/student transmission of skills and musical ideas.
The next section explores a number of issues that arise in the context of instrumental learning and related experience and discusses their implications for the development of pedagogical expertise.

Modelling.

Demonstration and imitation forms an important part of instrumental learning. A number of studies have found that modelling by teachers is a very effective teaching strategy and that it achieves better results than the verbalisation of instructions (Dickey, 1991; Rosenthal, 1984; Sang, 1987). In a review of research on modelling, Dickey (1992) concluded that this was an effective teaching strategy across a wide range of ages and that it contributed significantly to the development of musical skills. He also pointed out that teachers who are more skilled players demonstrate more than those who are less skilled, and stressed the value of being able to demonstrate accurately. Whilst the evidence in support of the use of modelling is compelling, it should be noted that much of the research has taken place in a classroom teaching context, and, in most cases over a relatively short period of time. Further, more long term research in the individual teaching context of applied teaching, and with a wide range of student abilities, would give greater clarity to the relevance of these findings for individual instrumental teaching.

Nevertheless, the implications of these findings for string teaching are significant in that they support the view that teaching is more effective if the teacher is a competent player and uses this ability to demonstrate in lessons. Many fine players stress the importance for teachers to be active soloists in order to teach effectively. Zakhar Bron commented that gifted children can often be frustrated if their teacher is not in complete mastery of his instrument (Solare, 1996) and Igor Ozim felt that his active concert career enabled him to deal with problems that teachers who only taught might not be able to imagine or recall (Campbell, 1995). However, these views could be seen to be at odds with the success of renowned pedagogues such as Ivan Galamian who reputedly used demonstration very little in the latter part of his teaching career (Koob, 1986). Some research indicates that teachers actually demonstrate for only a very small proportion of lesson time and use verbal instruction considerably more. In a study of 48 private piano teachers across a wide range of experience and age groups, Kotska (1984) found that teacher performance constituted little more than 5% of lesson time. Teacher talk was found to be approximately 40% of lesson time. The development of adequate
instrumental expertise appears to be an important consideration for effective teaching but it could also be argued that the level of instrumental expertise needed for effective modelling may be dependent on the level of advancement and age of students.

Amongst the memoirs of eminent pedagogues, there is some indication that modelling alone may not always be perceived as an ideal way for a student to learn. The well respected violinist and teacher, Joachim, reputedly rarely discussed technical issues and never discussed how to practise them, according to his student Leopold Auer (1921). He would tell his students that they must play as he had demonstrated. Those who could grasp what he wanted did well, and others were left to copy his mannerisms only, without understanding what might have been intended. Auer, who already had a solid technical grounding, thrived on his master’s musical inspiration but he indicates that other students may not have been so fortunate. Similarly, Dorothy Delay spoke of teachers she had experienced who taught by example. She was told to “do it like this” but found it impossible to tell what she was required to change. She commented that she found this “upsetting” and “the most frustrating experience I have ever had” (Sand, 2000 p. 67). The renowned cellist and pedagogue Joan Dickson pointed out that, whilst it is possible to benefit greatly from imitating someone who has great natural gifts as a player, most people need specific instruction as well (Dickson, 1981).

The extent to which teachers actively use the example or model of their own experiences of learning in their teaching has been examined by Mills and Smith (2003). Of the 134 school instrumental teachers in this study, over three-quarters indicated that they were conscious of being either positively or negatively influenced by the models of teaching they had experienced in their early learning environment.

*Observation.*

Applied music instruction frequently occurs on a ‘one-to-one’ basis without the presence of observers. In some instances, however, instruction can take place in a masterclass, where individual lessons between master and student are observed by other students. This approach enables students to experience a wider range of repertoire and teaching issues than would be possible just in their own lessons. Flesch (1930b) was an advocate of this teaching context. He pointed out that the listener benefits as much as the player in a class situation and acquires
a deeper understanding of the teacher’s method of instruction. He particularly encouraged those interested in teaching to watch other students being taught. He stressed the advantages of having seen others learning, in avoiding the risk of teachers basing their teaching only on their own learning experiences and teaching only as they had been taught.

The masterclass teaching context has a long history. Baillot (1835/1991) wrote of teaching in classes so that all his students learned his method and had a good knowledge of repertoire and teaching techniques from observation of lessons. Auer also generally taught in a master-class situation (Kosloski, 1993). This teaching context is also a popular medium for sharing the expertise of visiting master teachers. Yehudi Menuhin (Daniels, 1980) suggests that a masterclass of this nature is really “a cross between a lecture - an exposition with illustrations - and specific attention given to individual students” and likens it to “the scattering of seed” (p. 138). Some of the ideas “will fall on fertile ground” (p. 139) and be of great benefit. He points out that this form of teaching is not a substitute for a regular teaching routine but a useful addition to it, as contact with a new teacher and ideas can provide a stimulus to progress. It appears that the opportunity to learn in a masterclass context may provide benefits in terms of student learning and for the development of pedagogical expertise. Further investigation of the differences in outcomes between students who have learned in a masterclass context and those who have learned through private lessons could be of value.

Assistantships.

Many master teachers have used assistant teachers to help with the preparation of their students. This allows the master teacher time to focus more on artistic matters, with the more routine technical groundwork already having been done by the assistant (Flesch, 1930b). For the assistant, who is often an advanced student of the master or another teacher from the same ‘school’, there are many advantages. Assistants have the opportunity to work on an ongoing basis with the students of a master teacher and can develop their teaching skills under the guidance of that master teacher. A number of eminent teachers began their careers this way, which may indicate that this is an effective means of acquiring pedagogical expertise. The renowned teacher Max Rostal began teaching as an assistant to Carl Flesch (Potter, 1992) and Felix Andrievsky was an assistant to the famous Russian teacher, Yuri Yankelevich (Daniels, 1980). Eugene Levinson, principal bass in the New York Philharmonic and teacher at the Juilliard School of Music, recalls how the experience of assisting his teachers with the
preparation of his fellow students at Leningrad Conservatory “prepared me to become a teacher myself” (Smith, 1997, p. 937). Two very successful American teachers, Ivan Galamian and Dorothy Delay also began their teaching careers through assistantships. Galamian worked as an assistant to Lucien Capet in Paris early in his career (Green, 1993) and Delay worked as an assistant to Galamian for 20 years (Duchen, 1990). The students of these two teachers include many of the current generation of virtuosi such as Itzhak Perlman, Pinchas Zuckerman, Shlomo Mintz, Kyung-Wha Chung, Cho-Liang Lin, Midori, Gil Shaham and Sarah Chang.

Assistantships as an approach to teacher training rarely receive more than a passing mention in the pedagogical literature. Given the influential teachers who have been associated with this practice it would seem relevant to advocate further research in this area.

Other factors.

In his prefatory note to the Compleat Violinist, Menuhin (1986) describes three concurrent stages of learning as he sees them. In addition to imitation and formal learning he draws attention to learning by “teaching oneself, taking advantage of every hint, example, opportunity, encounter with colleagues, master and private study” (p. x).

Research has identified contact with colleagues and the opportunity to discuss teaching and learning issues as a positive stimulus for teachers to develop and reflect upon their teaching skills (Mills, 2004b; Turner, 2001). Mills (2004b) has also identified individual reflection on teaching activities as a means by which teachers seek to improve their teaching. Upitis, Smithrim and Soren (1999) found that professional development activities in the arts caused significant changes in teachers beliefs and practices, although in contrast Ihas (2006) found that professional development activities did not have a positive effect on teachers’ ability to diagnose and remedy errors in student performance. Little is known about the extent to which string teachers actually read and apply relevant research and pedagogical literature. Kolneder (1972/1999) suggests teachers are not always willing to read extensive amounts of text to improve their teaching. These and other aspects of informal pedagogical development warrant further research.
Teaching Effectiveness in Applied Music Instruction¹

Music teacher effectiveness has been the subject of considerable research, predominantly in the field of classroom instruction. Research in the context of individual instrumental instruction has been less extensive (Abeles et al., 1992). In a review of 86 studies in the field of music teacher evaluation between 1972 and 1997, Duke (1999/2000) found that less than 10% of studies involved individual lesson settings.

In seeking a definition of teaching effectiveness, researchers have identified the difficulty of isolating and evaluating its component parts (Duke, 1999/2000; Madsen, Standley, Byo, & Casidy, 1992; Standley & Madsen, 1991). Tait (1992) pointed out that it is difficult to isolate a single ideal model for teaching music, as teachers use a range of teaching strategies and styles according to the requirements of the students with whom they are working. The findings of Mills and Smith (2003) support this argument. They found that teachers showed a marked difference in their beliefs regarding the elements of effective instrumental teaching between school and higher education settings. Whilst being capable, organized and positive were viewed as important attributes in both contexts, the focus shifted from motivation and enjoyment of lessons in a school situation to the prioritisation of technique, detail and individuality at tertiary level.

In the classroom setting, a number of studies have set out to identify and rank teaching competencies (Madsen et al., 1992; Taebel, 1980; Teachout, 1997). The teaching attributes identified in such studies focus significantly on issues that are fundamental to group teaching such as classroom management, organisational skills and motivational ability. As a result the competencies outlined have only limited relevance to studio instruction.

The components of teaching effectiveness in instrumental teaching were investigated by Abeles (1975). In seeking a means of assessing how tertiary students judged their instrumental teachers, he developed a selection of questions that were grouped into five broader areas of teaching competencies. ‘Rapport’ encompassed the ability to relate to the

¹ Applied music instruction denotes music instruction given in the context of individual or group instrumental or vocal tuition.
student and inspire confidence. ‘Instructional systematisation’ related to general clarity of guidance and appropriate choice of repertoire and sequencing of technical development. ‘Instructional skill’ envisaged clear and adaptable explanations and effective diagnosis and correction of technical difficulties. ‘Musical knowledge’ encompassed knowledge of musical styles, repertoire, editions and reference material, and ‘general instructional competence’ covered such issues as quality of feedback, communication and career guidance. These criteria form a functional starting point for the evaluation of teaching effectiveness and have been used by a number of subsequent researchers, but this is nevertheless an area that warrants further investigation. A clearer understanding of the skills and behaviours that contribute to effective music teaching would aid in the development of an informed model for the design of teacher training courses (Madsen et al., 1992; Teachout, 1997; Young, Burwell, & Pickup, 2003).

Teacher characteristics

The following section explores some broad aspects of teacher characteristics amongst studio teachers and discusses their implications for teaching effectiveness in various contexts. The inter-relationship between performance expertise and pedagogical skill is examined with respect to its effect on the levels of students that teachers feel competent to teach and a number of issues relating to the performer-teacher are discussed.

Suitability for Student Levels

The teacher characteristics that are most appropriate for different stages or levels in the training of students are worthy of consideration. Much research in this field has focused, not surprisingly, on the development of gifted or high achieving students. Sosniak (1985a), in a study of the training backgrounds of 24 American concert pianists, revealed that there was a clear pattern in the teacher characteristics that were found to be most effective at various stages of student learning. She found that first teachers were not generally chosen on the basis of musical expertise but rather for their warmth and rapport with their students. She did note, however, that the better the quality of the first teacher the longer it was before the student changed to another teacher. Students were found to move to a teacher with more technical expertise during the middle years, starting from about the ages of 10 to 13, and during this time the focus shifted to the development of solid technical and musical skills and effective practice techniques. By the age of 18 or 19 when they started college, all of these students
were with master teachers who were active performers and who provided the appropriate role models for this level of study. Subsequent studies have supported these findings (Davidson, Moore, Sloboda, & Howe, 1998; Howe & Sloboda, 1991a, 1991b; Sloboda & Howe, 1991).

As Davidson, Moore, Sloboda and Howe (1998) point out, these findings have significant implications for the behaviour of teachers. If the best results are to be achieved in the early stages of learning by creating a friendly atmosphere and being motivating and encouraging, then perhaps an understanding of educational methods with young children would be desirable. Similarly, those wishing to teach effectively in the middle stages of development may need to focus on precision and detail and take a systematic approach to technical development, as outlined by Sosniak (1985b), in order to achieve optimum results. Davidson et al stress the increasing importance of gaining the respect of students by being able to demonstrate playing ability in the more advanced stages of learning.

Flesch (1930b) outlined an ideal course of study for violinists as a progression from elementary instruction with a specialist who establishes a secure technical basis to a pedagogue who teaches the pupil how to learn and finally to an artist teacher who develops real artistry. Whilst Flesch does stress the importance of good communication with students, this model, which focuses largely on the establishment of playing expertise, appears to be the norm in much of the pedagogical literature discussed previously. It is somewhat at odds with the findings of Sosniak (1985a) which stress the importance of rapport above instrumental expertise in the early stages of learning. Bearing in mind that these findings relate to outcomes with successful students it may be that their early teachers possessed not only a friendly disposition but also adequate instrumental skills. Perhaps these students may not have done so well if their first teachers whilst friendly, were not capable of providing a solid technical foundation as well. The converse appears to be the case, as Sosniak (1985a) also observed that students did not stay with teachers who were harsh in the early stages, although these teachers may presumably have been technically capable.

**Performers as Teachers**

The characteristics of performer-teachers feature in much of the pedagogical literature and have also been the subject of considerable recent research. Flesch (1930b) makes a distinction between two types of performer-teacher: the ‘demonstrating pedagogue’ and the ‘art
pedagogue’. The former uses modelling to convey his or her ideas and can only work effectively with students already well equipped technically. The latter combines the ability to demonstrate with the ability to analyse and improve technical difficulties in students.

In the discussion of instrumental tuition in the previous section of this chapter it was pointed out that a teacher’s playing expertise has traditionally been a primary consideration of students when choosing a teacher. Performance profile also appears to be a significant factor in the appointment of teachers to tertiary institutions (Purser, 2005). A demonstrated ability to teach does not appear to be the primary concern and a number of British studies indicate that a large proportion of conservatoire teachers have not had any formal teacher training (Gaunt, 2004; Mills, 2004b; Persson, 1994a, 1994b, 1996; Purser, 2005). These performer-teachers rely primarily on their own conservatoire teachers as teaching models, as well as their own teaching experience (Gaunt, 2004; Mills, 2004b; Purser, 2005).

This raises the question of how effective such teachers are in actually communicating their expertise to others in the absence of any training that might equip them to deal with teaching situations outside their own experience of learning. Berliner (1986) maintains that highly skilled and experienced practitioners or performers have developed their skills to a high level of ‘automaticity’ and consequently can often have difficulty explaining the basis of their expertise. Menuhin (Daniels, 1980) explains this phenomenon differently. He points out that some very fine instrumentalists are not able to teach.

Someone who has been accustomed to playing well all his life, who has had great talent from childhood onwards, may rely mainly on instinct and intuition. He may never have had to analyse and eradicate defects of technique, and so has never discovered intellectually the basic principles. (p.140)

There is also likelihood, in the case of fine players, that they may have received very good initial training at a young age. As a consequence they may not remember the early stages of their own instruction clearly and the absence of a coherent model for this period could present difficulties when teaching students in the elementary stages of learning. This possibility is supported by the findings of Bamberger (1986), who explains that very talented children have the ability, at a young age, to learn instinctively, by imitating what they see and hear without separating out and analysing the skills concerned. It is only later, as they reach adolescence
that they begin to break down, analyse and reflect upon what they are doing. With regard to
effective teaching, Menuhin (Daniels, 1980) makes the point that:

a player of modest ability who has had to analyse and struggle to achieve technique,
and is able to explain and illustrate in words as well as with the instrument, may turn
out to be one of the best teachers. (p.142)

Several studies involving individual or very small numbers of conservatoire teachers indicate
that performer-teachers may demonstrate difficulties in developing a pedagogical approach
that provides adequate emotional support and motivation to their students (Persson, 1994a,
1994b, 1996). Pedagogical training is advocated as a solution. Other studies with larger and
more diverse selections of tertiary level instrumental teachers have identified aspects of
teaching and learning as areas of pedagogy that are underdeveloped in this group (Gaunt,
2004; Purser, 2005). Both Gaunt and Purser draw attention to the problems of professional
isolation amongst these teachers and the need for a forum for sharing experiences and other
means of professional development. From the point of view of students, Presland (2005)
found that performer teachers were appreciated for their credibility and the fact that they bring
real life experience to their teaching and have direct contact with the professional world.

As discussed in the previous section, the importance of a teacher also being an outstanding
player is strongly maintained by teachers who fall into this category themselves. Flesch
(1930b) maintains that the outstanding violinist has an advantage over his less capable
colleagues in being able to demonstrate as well as describe his ideas in words. He notes that
talented students are attracted to the knowledge and expertise of leading players. The greater
the level of talent and achievement a student demonstrates, the easier it becomes to gain
access to leading performers (Sosniak, 1985a) and to first hand access to their expertise and
experience. This in turn facilitates contact with other leading professionals both in the context
of advanced student teacher relationships and ultimately as a member of the professional
world. Amongst performer-teachers, Gaunt (2004) found a great desire and sense of
obligation to pass on knowledge and skills to the next generation. It would seem that able
students are likely to have the most ready access to the collective expertise and wisdom of the
leaders in their profession. With this benefit they in turn can pass these skills on to the most
able of the next generation, thereby perpetuating this process. The question of how less
advanced, less able or less fortunate students gain access to the best levels of technical and musical guidance is less easily answered.

Lesson Content

This section discusses several important issues that are relevant to the content of studio instruction. Choice of repertoire and curriculum design can be an aspect of teaching that is particularly problematic in the absence of pedagogical training. In addition four inter-related issues that have a significant impact on effective teaching: set up, practice skills, performance injuries and performance anxiety are explored.

Repertoire and Curriculum

Suitable sequencing and choice of repertoire is fundamental to effective teaching. Where teachers have not had access to guidance in the choice of material for teaching, through a pedagogy course or from an expert teacher, it may be difficult to build up a suitable portfolio of teaching material. The pedagogical literature provides limited assistance, as many of the texts relate to advanced students and consequently contain repertoire pertaining only to this level of player. Repertoire suggestions as outlined by various examining bodies such as the Australian Music Examinations Board (2007), and specialized methods such as the Suzuki Method, which incorporate graded books of repertoire, can be used as a guide but these do not always constitute an actual curriculum.

An understanding of the editorial process is an aspect of repertoire choice that is rarely discussed in the pedagogical literature. Gustav Saenger, violinist and editor, explained that different editions of a work can reflect a range of intentions, from the solid technical development of playing skills in elementary level students to the inspiration of the individual quirks of virtuoso players (Martens, 1919). A suitable choice by the teacher can make a significant difference to pedagogical outcomes but this appears to be an area of teacher development that is rarely mentioned in the literature.

Instrumental Set Up

The many differing approaches to instrumental hold and bow hold, referred to in the first section of this chapter, present some difficulties when seeking to find a definitive approach to instrumental set up for the purposes of teaching. Both historical evidence and the success of
diverse styles of playing amongst contemporary players indicate that it is difficult to isolate an ideal approach to successful playing but most schools of playing, and many individual variations within these, can apparently yield acceptable results. The opposite can also be true. Polnauer (1964) prefaced his extensive examination of senso-motor function as it relates to violin playing with the comment that “the present state of teaching of instrumental techniques is rather chaotic and characterized by a plurality of teaching methods, which are, in most cases, inefficient and often contradictory to one another” (p. vii).

Dickson (1981) suggests that successful teaching of the physical relationship to stringed instruments is more likely to take place when the teacher has a good knowledge and understanding of the underlying physical principles of playing, and that problems arise when there is a lack of practical understanding of these basic principles. The establishment of a balanced, relaxed and functional set up on a string instrument has significant implications for quality of playing and the mitigation of performance injuries and anxiety as discussed later in the chapter.

**Practice Skills**

Good use of practice time is one of the most important skills that players must develop. The techniques needed to play an instrument, and approaches to interpretation, can be learned from a teacher, but, as Robert Gerle (1983) stresses, it is essential to be able to work constructively when alone in order to implement this learning. Galamian (1964) points out that practice should be a process of “self-instruction” during which the student continues the work from lessons (p. 93). He highlights the importance of teaching students to practise well. The need for practice strategies to be taught in a systematic fashion is also emphasized by Pitts, Davidson and McPherson (2000).

Good ‘deliberate’ practice is defined by Krampe and Ericsson (1995) as “a highly structured activity with the explicit goal of improving some aspect of performance”. They maintain that these skills “are taught by teachers who are experienced performers themselves” (p. 86). Jørgenesen (2001) suggests that the quality of practice is a significant factor in the development of instrumental expertise. Hallam (1998) points out that the appropriate type of practice changes with the age of the student and the gradual development of expertise, and stresses the importance of adapting practice strategies to the needs of the individual pupil.
Beginners need clear models and "repetitious practice" to automate their developing skills, but the focus needs to shift gradually to the students, who must develop effective strategies for practice and take responsibility for their own learning as they progress to a more advanced level of playing (Hallam, 1998, p. 145).

Hallam (1998) points out that there is little information available as to what teachers actually teach their students regarding practice. In a study investigating the teaching of practice strategies in the music studio, Barry and McArthur (1994) found that most teachers indicated that they frequently discussed practice techniques with their students and emphasized the importance of practice. In contrast, research by Jørgensen (2000) indicates that tertiary students report having had little help with practice strategies from previous teachers. A further study by Jørgensen (2001) suggests that we cannot assume that teachers do give good practice advice to their students. The results of this study indicate that many instrumental teachers may not, in fact, place sufficient importance on practice techniques, and that it is common to neglect to place emphasis on the value of having well formulated goals in the practice strategy.

Gerle (1983) maintains that the art of practising is not well represented in the pedagogical literature. It would appear that, in the absence of clear instruction in practice methods from a capable teacher or through training in a pedagogy course, it may be difficult for teachers to acquire the necessary skills to understand and teach them to their students. This in turn has considerable implications for the effectiveness of teaching.

**Performance Injuries**

There is growing acceptance that occupational or overuse injuries are prevalent amongst musicians (Blackie, Stone, & Tiernan, 1999; Fishbein, Middlestadt, Ottati, Straus, & Ellis, 1988; Horvath, 2002; Norris, 1997; Spaulding, 1988) and that this is particularly so amongst string players (Davies & Mangion, 2002; Fishbein et al., 1988). Amongst professional string players, the chance of suffering injuries severe enough to require time off work at some point during their careers can be close to 80% (Fishbein et al., 1988).

Instrumental players can be vulnerable to injury as a result of a number of factors (Brandfonbrener et al., 1985; J. Horvath, 2002) but research indicates that these injuries tend
to be predominantly musculoskeletal in nature (Caldron et al., 1986; Fishbein et al., 1988; Spahn, Hildebrandt, & Seidenglanz, 2001). However, it is important to note that a number of studies have indicated a link between tension caused by anxiety and the development of musculoskeletal complaints (Caldron et al., 1986; Davies & Mangion, 2002; Zaza, 1994). Performance related injuries can have serious consequences for musicians if they limit or prevent playing activities (Caldron et al., 1986) but it appears that performers are often reluctant to discuss playing related injuries. This may be attributed to concerns regarding job security or to the prevailing “no pain, no gain” attitude amongst players (Blackie et al., 1999; Caldron et al., 1986) but it could be argued that effective teaching might create sufficient awareness to encourage the seeking out of good treatment.

Researchers have emphasized the need for training such as Alexander Technique and Feldenkrais Method to prevent injuries (Blackie et al., 1999; Yeung et al., 1999; Zaza, 1994) and a number of researchers have pointed out the need for music teachers to be aware of these issues (Horvath, 2002; Horvath, 2003; Lederman, 1985) and to instil injury prevention techniques in their students (Blackie et al., 1999; Horvath, 2002; Spaulding, 1988). The provision of teacher training designed to develop these pedagogical skills has been recommended by researchers (Hildebrandt & Nübling, 2004; Zaza, 1994).

The extent to which preventative training is available to students in tertiary institutions and music schools is unclear, as is the level of involvement and competence of individual teachers in this aspect of pedagogy. Research indicates that students receive little education in injury prevention (Blackie et al., 1999). However, some studies have shown that training was beneficial to both students and teachers (Hildebrandt & Nübling, 2004; Spahn et al., 2001). Given that performance injuries appear to be a significant problem amongst musicians, further research would be desirable to assist in the development of training measures to assist students and teachers.

**Performance Anxiety**

Research has indicated that most professional players experience some feelings of excitement or apprehension before a concert and up to 60% report that this phenomenon has the effect of detracting from their playing standard (Dorner, 1985). Many well recognized performers have suffered the effects of performance anxiety, although they may not have made this widely
known (Auer, 1921; Bonetti, 1997). As with performance injuries, it was also reported that there was considerable reluctance amongst players to acknowledge and discuss this issue.

The symptoms of performance anxiety can be quite debilitating (Bonetti, 1997). Kee (1993) found that violinists manifested a number of physical and psychological problems due to performance anxiety and it has been pointed out that the consequences of such factors for performers can be a serious reduction in their capacity to perform to the best of their ability (Andrews, 1997; Menuhin, 1986).

The issue of ‘nerves’ appears to a limited degree in some of the pedagogical literature. Auer (1921) discussed the detrimental effects of nervousness for the careers of performers and commented on his own and others’ difficulties as a result of nerves in performance, but he offered no advice as to the management of the problem. Flesch (1930b) on the other hand discussed both technical and psychological causes of stage fright and gave considerable advice for teachers in its management. Havas (1980; 1987) stressed the importance of a balanced way of holding the instrument that was free of physical disturbances, so as to avoid the tensions that precipitate the symptoms of performance anxiety. This view is endorsed by Menuhin (1986) who also stresses the importance of thorough preparation for a secure state of mind in performance.

Given the seriousness of the consequences of performance anxiety, it might be expected that this issue would warrant attention during the training of musicians. However, research indicates that teachers frequently do not address this problem with their students (Eales, 1992; Kee, 1993). The desirability of support and training for teachers and the importance of their contribution to the development of health awareness in students is stressed by researchers in this field (Spaulding, 1988; Zaza, 1994).

**Conclusion**

This review of literature has endeavoured to provide both a background to the current state of string pedagogy and an overview of issues that influence teaching effectiveness in string teachers. It is clear that there are many factors that have affected the development of styles of
string playing and many variations in current practice. It would also appear that consensus on the detail of what might constitute effective playing or teaching may be hard to reach.

The development of pedagogical skill in string players appears to be a very complex issue. It seems that there may be a range of means, both formal and informal, by which teachers learn to teach and that various combinations of factors may lead to a diversity of results. Research sheds light on some of these aspects of pedagogical development, but others remain relatively untouched by investigation. Additionally, the findings of much of the research that has been done are specific to the teaching environment of the location in which the research has taken place, making it problematic to compare results across a spectrum of circumstances.

In reviewing the literature, it seems apparent that there is a need for continued research in many aspects of instrumental and pedagogical training in order to isolate factors that influence the development of effective teachers and to develop training methods that facilitate more consistent and successful outcomes. In this study the investigation of teachers’ perceptions of the influences on their own teaching effectiveness endeavours to address some of the gaps in the research and to contribute to our understanding of the current body of knowledge in the field of string pedagogy.
CHAPTER 3

RESEARCH METHOD

The previous chapter has given a background to the development of the playing and teaching of stringed instruments and has outlined a range of means by which teachers develop pedagogical skill and understanding. This chapter explains the method that was used to explore the factors that determine string teachers’ self-perceptions regarding their teaching effectiveness, with reference to the research design, the role of the researcher, the data collection process and methods of data analysis.

Research Design

A predominantly qualitative research paradigm has been used in this study. The design chosen combined a multi-case study using semi-structured interviews to gather qualitative data, and a questionnaire to gather both quantitative and qualitative data, and to provide a point of triangulation. Case studies characteristically involve the investigation or observation of a group or unit, or in other words a bounded system (Burns, 2000). In this case, the group consisted of string teachers in a particular setting. The purpose of a case study is to gain a depth of understanding of the group being investigated, and for this purpose the collection of data should be extensive (Burns, 2000). In choosing this design with a mixed methodology, I took into account its appropriateness for gathering descriptive information across a wide target population as well as for gaining more detailed explanatory information from a smaller subset of this group (Cohen, Manion, & Morrison, 2000).

Wiersma (1995) described qualitative research as an holistic approach to the viewing of phenomena occurring in a natural setting. An open approach is taken to information that is collected in order to maximise collection of data. Bresler (1992) identified the distinction between a quantitative and qualitative approach as the difference between studies that seek to make explanations and those that seek to promote understanding. A qualitative approach gives the scope to uncover and understand a phenomenon (Strauss & Corbin, 1990). It allows for the gathering of in depth information and its broad analysis and interpretation. It can facilitate the exploration of participants’ perceptions in order to understand a situation more
accurately (Wiersma, 1995). Through systematic data collection and analysis, grounded theories can emerge and be developed (Strauss & Corbin) and this approach has the flexibility to adapt subsequent data collection as preliminary insights lead to the posing of new questions (Locke, Spirduso, & Silverman, 1998). Bresler (1992) suggests that qualitative research is often specifically designed to assist practice. The themes that emerge from this study may promote better understanding of issues relating to the group being investigated and may also assist in the development of improved strategies for the development of effectiveness in string teaching in the target population.

The degree to which the results of a qualitative study can be used to generalise to other like situations is questionable (Cohen et al., 2000). Burns (2000) suggests that there are risks inherent in making general conclusions from case studies as it is not possible to know how typical the selected case or cases may be. However, he points out that the use of multiple cases can provide more convincing evidence to either support or question the issues being studied. Bresler (1992) suggests that the possibility of good transfer relies on the similarity in the situations. With this in mind, it must be assumed that the results of the current study may be most relevant when used to facilitate understanding of practice in an Australian context. However, other locations that share a similar educational context in terms of attitude to pedagogical training and/or the predominance of a one-on-one teaching mode, may find points of reference.

Husén (1988) drew attention to the fact that educational practices are dependent to some extent on their cultural and social context. Australia’s culturally diverse community provides not only a wide range of community expectations relating to the study of musical instruments, but also an extraordinary range of backgrounds and attitudes amongst the teachers who provide the tuition. This location is somewhat unusual with respect to the diversity of viewpoints that can easily be accessed amongst musicians. Australian Bureau of Statistics information indicates that 22% of Australians are born overseas (Australian Bureau of Statistics, 2002) but there is reason to believe that this proportion could be higher in the music community. Amongst musicians in the Sydney Symphony for instance, more than 40% were born overseas, in over twenty different countries (Luke Shaw, Personal communication, November 15, 2002). This represents a wide range of training and performance backgrounds, especially when considered in addition to the backgrounds of local players who have pursued
training and career outside Australia. The existence of this diversity across the musical community has enabled the gathering of data from teachers who represent a considerable range of backgrounds.

Burns (2000) suggests that it can be difficult to establish reliability and validity within a qualitative paradigm and stresses the importance of establishing points of triangulation to address this issue. When studying human behaviour, triangulation involves the use of two or more sources of data or methods of data collection in order to view the issue in question from more than one perspective (Cohen et al., 2000). In this study, data relating to teachers’ perceptions of their teaching effectiveness have been drawn from both questionnaires and interviews, providing a point of methodological triangulation (Cohen et al., 2000). Comparisons were made between the two sets of data in order to verify results. A further method of triangulation was provided within the semi-structured interview process by including additional interviews with employers and trainers of string teachers. The triangulation procedures used in this study are discussed further in later sections of this chapter.

The Role of the Researcher

In qualitative research it is not possible for the researcher to be remote from the situation that is the subject of the research nor to neutralize the effect of the researcher on the data that is collected (Hammersley & Atkinson, 1995). The researcher is, in effect, the research instrument (Bresler, 1992; Hammersley & Atkinson, 1995). According to Hammersley and Atkinson (1995), social research involves researchers participating in some manner in the social situation they seek to research and reflecting on what they observe. The understandings that they develop from this process are necessarily influenced by their own background and perspective. They argued that it is not possible to separate out a body of data that is not in some way influenced by the perceptions of the researcher (Hammersley & Atkinson, 1995). Delamont (1992) put forward the view that the scholars must use their knowledge and that they are, in fact, their own best data collection instruments.

Cohen et al. (2000) state that the first stage of research is the gaining of permission to undertake research in the target community by demonstrating fitness to do so. In this study, I
was working within a community with which I was intimately associated as a performer, teacher, colleague and friend. Many of the participants were professional colleagues and others were aware of my work in the music community. This facilitated and enhanced access to participants and sources of information, and brought a depth of understanding of the issues arising from the study that would be difficult for an outsider to achieve.

As a longstanding member of the violin section of the Sydney Symphony I have established connections with a wide cross section of the classical music performing community in NSW, and as a teacher at the Sydney Conservatorium of Music I have worked within this same community as an educator for over 20 years. My position as the Advisor for Strings in New South Wales for the Australian Music Examinations Board (AMEB) has involved giving advice to teachers throughout the State on a range of issues and assisting with policy and syllabus design. I occasionally serve as an examiner for students of this same group of teachers, although in this context the identities of the teachers always remain anonymous.

In his summary of ethical codes of behaviour in research, Burns (2000) stresses the importance of voluntary participation and informed consent. I was conscious that my position in the community could put pressure on individuals to agree to participate and that I needed to approach this matter with sensitivity and to ensure that participation was voluntary. Potential interview participants were approached either personally or by telephone and invited to consider participating in the interview process. I gave a verbal outline of the project, whilst avoiding giving so much information that it prejudiced future responses. It was stressed that the purpose of the study was to explore perceptions rather that to evaluate or judge the teaching effectiveness of individuals and that participation was entirely voluntary. House (1988) stresses the importance of reducing the power differential between evaluator and participant by ensuring that participants feel free to volunteer to the research and that they are well informed about the research. There was a high degree of interest in the project and no one declined to participate. The number of volunteers exceeded the requirements for the study.

Given the closeness of my association with many of the participants, assurances of privacy and confidentiality were vital to the success of the project (Burns, 2000; Cohen et al., 2000) and needed to be considered carefully. Bresler (1996) stresses the need to establish a
relationship of trust with participants. I needed to reassure interview participants that their responses would be discreetly handled and confidentiality maintained. As Bresler (1996) points out, participant consent agreements are a starting point, but do not replace genuine care and sensitivity to the needs of the individuals concerned. Interview participants were assured that they would be represented by pseudonyms and that all data would be used in such a way as to conceal their identity, stored securely, and separated from the coding key (Burns, 2000). Dockrell (1988) advised that one of the obligations of the researcher to colleagues is to ensure that anything they say does not detract from their status in the community. Great care was taken to avoid mentioning other participants’ views either during interviews or at other times. I also reassured participants by pointing out that any lapse of confidentiality would reflect negatively on my own profile and respect in the community.

Bias deriving from my own views was a constant consideration. I was aware of the need to avoid imposing my own views during the course of interviews and also careful not to allow my analysis of the data to be unduly coloured by my previous assumptions on the issues that arose. As Strauss and Corbin (1990) pointed out, however, we each bring our own knowledge, assumptions and patterns of thinking to the analysis of data. As I reflected on my evolving understanding of the data I tried to take these factors into account.

Data Collection Methods

The data collection in this study was divided into three sections. A questionnaire was administered to a wide cross section of string teachers in metropolitan and regional NSW in order to gain an overview of the profiles of the population of teachers and their perceptions regarding their teaching effectiveness. Semi-structured interviews were arranged with selected string teachers and these were conducted either face to face or by telephone and audio taped for later transcription. The interviews were designed to gather detailed descriptions of teachers’ backgrounds in instrumental and pedagogical training, and their performance and pedagogical profiles, in order to place their self-perceptions of teaching effectiveness in a clear context. These interviews provided the greater part of the data for this study. In order to provide a point of triangulation, several additional semi-structured interviews were conducted with established and respected educators. Two of these were with instructors of string pedagogy training courses at universities, and two were with heads of strings who were
responsible for teaching appointments and administration, one at a metropolitan school and one at a metropolitan conservatoire. The remaining interview was with a director of a regional conservatoire. These interviews provided another perspective on the issues discussed in the teacher interviews. The following section discusses the data collection aspect of this study.

**Teacher Questionnaires**

Survey research is probably the most widely used descriptive method in educational research (Cohen & Manion, 1994; Wiersma, 1995). It is characterised by the gathering of descriptive data relating to any number of variables from a target population in its natural setting (Cohen & Manion, 1994; Wiersma). It aims to give as clear a picture as can be attained of the characteristics of a population or to estimate these as far as possible (Burns, 2000), and may also seek explanatory information, examining the relationships between variables without actual experimental manipulation (Burns, 2000; Rosier, 1988). Denscombe (1998) explained that the survey approach is a research strategy rather than a method, and can incorporate a range of methods including questionnaires and structured interviews.

Questionnaires are an efficient means for surveying a large group and have the advantage of being a less time consuming method of gathering data than an interview method (Cohen & Manion, 1994). Anonymity can be assured, and the use of predominantly closed questions makes them quick to complete and allows for ease of coding (Cohen et al., 2000). They also have the advantage that respondents can take their time answering if they wish and are not in direct personal contact with the researcher, which can prompt more open responses (Burns, 2000).

A questionnaire was administered to a cross section of string teachers \((N = 286)\) throughout NSW during May and June of 2005 (see Appendix B). The majority of the questionnaires were distributed by post \((n = 224)\), and the remainder were hand delivered to local venues \((N = 62)\). The distribution of questionnaires is explained further within the discussion of sampling procedure later in this chapter.

The questionnaire was designed to gather descriptive information and attitude measurements from a broad spectrum of teachers, and questions allowed for the collection of both quantitative and qualitative data. The first three sections of the questionnaire gathered
descriptive information about teachers. Questions 1 to 5, in section 1, asked for information about their playing profiles and questions 6 to 14, in section 2, inquired about their teaching profiles. Section 3 asked for general demographic information regarding age brackets, gender, music qualifications and the countries in which they had studied. Most questions were closed and allowed for the choice of one or more responses, although the last option in most of these questions also offered an ‘other’ option which gave the possibility of a more detailed response. There were four open-ended questions in these sections that gave the flexibility to respond more fully (Burns, 2000).

Section 4 used a five-point Likert scale to measure degrees of agreement or disagreement as to the importance of four factors that might have influenced the teaching of the respondents. These factors were: formal instrumental training, performance experience, formal pedagogy training, and professional development activities. These factors were measured against a list of teaching attributes drawn from research studies in teaching effectiveness. These attributes were based, in part, on a range of criteria for evaluating effective teaching identified in research undertaken by Abeles (1975) as discussed in the previous chapter. Several additional attributes were added to address issues that emerged as being significant from the review of literature. A list of 12 components was devised for the purposes of the questionnaire. These were: rapport with students, instrumental set-up, planning of teaching curriculum, practice skills, diagnosis of technical difficulties, correction of technical difficulties, repertoire knowledge, musical styles, student learning styles, motivation, performance anxiety, and performance injuries. This list was also used as a prompt during the semi structured interviews that are discussed in the next section.

Section 5 asked for attitudes relating to a range of professional development activities, and the last two questions were open ended allowing respondents to give broader expression to their views (Burns, 2000). A final section asked if respondents would be interested to participate in a follow-up interview.

A covering letter (see Appendix B) indicating the aim of the survey, its importance, and giving an assurance of confidentiality was supplied with each questionnaire (Cohen & Manion, 1994) and a self-addressed envelope was also included (Burns, 2000). Respondents
were asked to return the questionnaire by a set date and thanked for their participation. The sampling procedure for the questionnaire is described in the following section.

**Sampling for Questionnaire**

The sample for the questionnaire was selected on a non-probability basis. A variety of sampling procedures was used according to the information available about various sub-groups within the population of string teachers in NSW. Where possible, a modified quota sampling approach was used, attempting to represent the proportions of certain significant characteristics in the wider population of string teachers (Cohen et al., 2000). As Cohen et al. point out, it can be difficult to be sure the proportions of a sample are correct when the proportions in the whole community are not known. As there is no mandatory form of certification or registration for string teachers, it is very difficult to establish the overall makeup of the group or the proportions that fall into any particular sub-group, such as metropolitan or regional, performer or non-performer, for instance.

The largest sub-group within the sample was drawn from the database of the Australian Music Examination Board (AMEB). As the AMEB examinations are arguably used by the widest cross section of teachers, it was felt that a sample drawn from this group would reach the most representative selection of teachers. Burns (2000) emphasises the importance of having a representative sample in order to make valid generalisations. The AMEB maintains a database of all teachers who have entered students for examinations. Because of privacy legislation it was not possible to have access to this database, and the identities of the individuals to whom the questionnaires were sent remained anonymous, as the mail-out was arranged by the AMEB office after a sampling procedure had been agreed upon and implemented. A modified quota sampling procedure was used (Cohen et al., 2000). This involved taking string teachers who had entered students for examinations in the last two years ($N = 683$) from the database and sorting this group according to location, age group and number of examination entries. The resultant proportions were used to draw a sample ($n = 150$) from the original group ($N = 683$).

In order to reach a representative cross section of teachers in metropolitan, regional and rural locations, and to encompass teachers who were professional players, as well as those who were predominantly involved in teaching, a further sample of teachers was drawn. Discussion
amongst colleagues indicated that some groups of teachers might be under-represented in the AMEB database. In particular, this was felt to be the case amongst Suzuki teachers and also amongst performer-teachers working with more advanced students or in institutions that have internal student evaluation procedures, as is the case of some conservatoires. Professional performance work is primarily available in the larger metropolitan centres so performer-teachers are also likely to be under-represented in regional areas.

For this reason, purposive sampling was used in selecting teachers at one large metropolitan \( (n = 26) \) and five smaller regional conservatoires \( (n = 46) \). String teachers at regional conservatoires teach a range of student levels, generally from beginners up to the end of high school, whilst teachers at metropolitan conservatoires have a higher proportion of tertiary students. These two groups ensured coverage of teachers in regional and rural settings and of performer-teachers in a metropolitan setting. Questionnaires were also given out to selected teachers from the Suzuki Association \( (n = 29) \) to represent this sub-group. The remainder of the questionnaires were distributed on the basis of convenience sampling. Questionnaires were given out at a meeting of the Australian String Teachers Association AUSTA \( (n = 7) \) and a further selection of metropolitan teachers \( (n = 28) \) were sent questionnaires in order to more closely represent a similar balance between metropolitan and regional teachers to that revealed by the breakdown of localities in the AMEB sampling process.

**Interviews**

Interviews are chosen as a research method when a choice is made to seek in-depth information from fewer informants rather than the broader coverage possible from a questionnaire (Denscombe, 1998). Semi-structured interviews were chosen in this study because they give greater flexibility than a structured format. Burns (2000) suggests that this type of interview has advantages in some situations as participants are freer to express their ideas in their own words, and it places the participant and researcher on a more equal status which facilitates a more open dialogue. This approach suited the needs of this study, as many of the participating teachers were also my colleagues. The use of an interview guide allowed me the flexibility to vary the ordering and wording of questions and to accommodate each informant’s individual interests and perceptions (Burns, 2000). It also allowed for probing and following the interviewee’s sense of what was important (Bresler, 1992).
The questions in the interview guide (see Appendix C) were derived from the research questions of this study and the review of literature. In particular, the criteria for teaching effectiveness generated by Abeles (1975), Abeles, Goffi & Levasseur (1992) and Bauer & Berg (2001) influenced my choice of questions. Questions allowed for in depth discussion of both playing and teaching backgrounds, and the teachers’ perceptions of their influence in their own teaching. The checklist of teaching effectiveness attributes that was used in Section 4 of the questionnaire was also used as a prompt during the interviews (see Appendix D). The following paragraphs give a more detailed outline of the questioning process.

Participants in the teacher interviews \( n = 18 \) were asked to describe their instrumental training and to comment on any aspects that they had found particularly helpful or otherwise. They were also asked to discuss their playing profile and performance experience over their career. Questions were asked to promote discussion regarding their teaching profile, and also any teacher training that they had received. As the discussion evolved, the participants were encouraged to reflect on how these various experiences had influenced the way they teach and to consider any areas of their teaching where they felt they would have liked more training. They were also asked what professional development activities they found helpful and to explain why they felt this was the case. Towards the end of the interview, I also asked them what changes they would like to see in the way string teachers are trained. The order in which the questions were asked was flexible and I allowed the focus to vary between individuals according to their particular profile. For instance, I attempted to draw out considerable detail on the influence of performance background from performer-teachers and altered the focus more to pedagogy training for career teachers. The emphasis was to allow a free and open dialogue and the questions, whilst appearing quite detailed, were used more as a guide for myself to keep the interview on course.

Interviews with employers and trainers \( n = 5 \) followed a similar procedure but they sought a slightly different perspective on the relationship between the training backgrounds of teachers and their effectiveness (Conway, 1999). The interview guide was adapted so that questions to employers investigated the qualities they sought when engaging string teachers. They were asked what they looked for in a prospective teacher and if they had observed any patterns in the training or backgrounds of successful teachers. They were also asked what professional development activities they encouraged their staff to undertake. The questions to pedagogy
trainers investigated the training models they used and any patterns of career development they had observed in former students.

Denscombe (1998) points out that the feasibility of a multiple interview study needs to be considered in terms of access to the interviewees and issues of time and travel. My connections in the musical community facilitated this access. Interviews were conducted in person where possible and were arranged to suit the participants. In many cases the interview took place at a mutual work venue, either arranged around rehearsal schedules or between students. Where it was more convenient, I conducted the interviews in the homes of the participants or in my own home, which allowed for a more informal atmosphere. Geographical considerations were overcome by either conducting interviews during visits to regional centres or by the use of telephone interviews, pre-arranged at a time to suit the participant. The interviews were conducted from April 2005 through to April 2006. The interviews with employers and pedagogy trainers were left until late in the interview process where possible so that the questions could seek clarification on the various themes that had begun to emerge from the coding of the teacher interviews and questionnaires. Details of dates and modes of interview can be seen in Table 3.1.
TABLE 3.1 Interview details.

<table>
<thead>
<tr>
<th>Name</th>
<th>Date of Interview</th>
<th>Type of Interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elise</td>
<td>23-6-05</td>
<td>Live</td>
</tr>
<tr>
<td>Mary</td>
<td>18-10-05</td>
<td>Live</td>
</tr>
<tr>
<td>Kim</td>
<td>23-6-05</td>
<td>Live</td>
</tr>
<tr>
<td>Arvin</td>
<td>16-6-05</td>
<td>Live</td>
</tr>
<tr>
<td>Ron</td>
<td>23-6-05</td>
<td>Live</td>
</tr>
<tr>
<td>Hedy</td>
<td>15-7-05</td>
<td>Live</td>
</tr>
<tr>
<td>Nina</td>
<td>14-11-05</td>
<td>Telephone</td>
</tr>
<tr>
<td>Erna</td>
<td>4-5-05</td>
<td>Live</td>
</tr>
<tr>
<td>Vera</td>
<td>26-4-05</td>
<td>Live</td>
</tr>
<tr>
<td>Sophia</td>
<td>10-5-05</td>
<td>Live</td>
</tr>
<tr>
<td>Klara</td>
<td>21-8-05</td>
<td>Live</td>
</tr>
<tr>
<td>Amy</td>
<td>16-6-05</td>
<td>Live</td>
</tr>
<tr>
<td>Anne</td>
<td>29-6-05</td>
<td>Live</td>
</tr>
<tr>
<td>Hans</td>
<td>9-5-05</td>
<td>Live</td>
</tr>
<tr>
<td>John</td>
<td>10-5-05</td>
<td>Live</td>
</tr>
<tr>
<td>Mavis</td>
<td>6-11-05</td>
<td>Telephone</td>
</tr>
<tr>
<td>Beth</td>
<td>6-11-05</td>
<td>Telephone</td>
</tr>
<tr>
<td>Lisa</td>
<td>16-6-05</td>
<td>Live</td>
</tr>
<tr>
<td>Sheryl</td>
<td>3-9-05</td>
<td>Live</td>
</tr>
<tr>
<td>Greg</td>
<td>16-6-05</td>
<td>Live</td>
</tr>
<tr>
<td>Martin</td>
<td>4-1-06</td>
<td>Live</td>
</tr>
<tr>
<td>Rachel</td>
<td>6-11-05</td>
<td>Live</td>
</tr>
<tr>
<td>Fred</td>
<td>8-4-06</td>
<td>Live</td>
</tr>
</tbody>
</table>

Interviewees were provided with an information sheet, outlining the purpose of the study, and a consent form, before the interview began (see Appendix E). Where possible, these were sent in advance when the appointments for the interviews were arranged. At the beginning of the interview they were encouraged to ask any questions they had regarding the procedure of the interview or about the project itself. Participants were assured that they would be represented by a pseudonym in the written report and that the information and views they discussed with me would remain confidential. They were also reassured that they did not have to answer any question if they did not wish to discuss those issues. All interviews were recorded on audiotape so that I was able to converse freely rather than take notes (Burns, 2000). To allow for any self-consciousness due to the interview being recorded, I began each interview with some general conversation before embarking on the interview questions.

During the interviews I tried to be aware of the influence of my own pre-conceived ideas regarding any of the issues that were raised and to be alert to any bias or evasiveness in the
responses of the interviewees. In particular I was conscious of avoiding making any judgmental comments regarding the views of the participants, and to display interest and acceptance of their views so as to create an atmosphere of trust (Burns, 2000). I also avoided interviewing anyone, such as my own students, who might have felt unduly uncomfortable in giving open responses to my questions. In general the focus of the study seemed to tap into a considerable level of interest amongst teachers and there was a willingness to take the opportunity to share ideas and express their views freely.

Selection of Interview Participants

The participants for the interviews were chosen in order to provide a cross section of backgrounds that was as representative as possible. As mentioned in the discussion on sampling for the questionnaire in this study however, it is difficult to ascertain accurate information on teachers’ characteristics in NSW. Burns (2000) points out that non-probability sampling is normally adopted in case studies and that there is no assurance that every element or background has had an equal opportunity to be included, thereby reducing the validity of any generalisations of findings. The interviewees for the semi-structured interviews of teachers were chosen by means of purposive or criterion-based sampling. This was done on the basis of their typicality in certain selected areas of teaching circumstance which was determined from the information on geographic location and age brackets revealed in the AMEB sampling process and criteria revealed in the review of literature (Cohen et al., 2000; Ward, 2004). Appendix F gives a breakdown of the characteristics of the interviewees according to age, location, instrumental training, pedagogical training, teaching experience, levels of students taught and location of training.

All the teachers were working in NSW at the time of the interviews as were the director of the regional conservatoire and the head of strings at the metropolitan school. Both of the pedagogy trainers and the head of strings at the metropolitan conservatoire worked in different states of Australia. The decision to include participants from outside NSW for these categories was motivated by a desire to avoid a conflict of interest where trainers might be speaking about the success or otherwise of their own pedagogy students or a head of strings could be discussing the effectiveness of participants in the actual study. One of the teachers was also involved in giving pedagogy training at a conservatoire as part of his duties and
another teacher had administrative responsibilities that involved selection of string staff in a school.

Through informal discussions with colleagues I was able to identify individuals who had suitably diverse profiles for the purposes of this interview process. I also drew on questionnaire respondents who had offered to do follow-up interviews to find teachers who had characteristics that were not prevalent amongst professional colleagues, and recommendations from these teachers led to others who were of interest for this study in what is described as snowball sampling (Cohen et al., 2000).

**Data analysis**

Both qualitative and quantitative data were used in this study and the analysis methods have been chosen accordingly. The first part of this section discusses the analysis methods used for the questionnaires. The second part explains the process of analysis used to interpret the more substantial qualitative part of the data. These methods of analysis for qualitative data were applied to all the interviews and to the qualitative data from the questionnaires.

**Teacher Questionnaires**

The questionnaire was designed to collect information that would supplement the data gathered in the interviews and to provide a point of triangulation. The quantitative data were intended to give a broad perspective on the issues in question, and were designed to be presented in the form of tables or bar charts. The aim was to give a simple visual presentation of issues (Denscombe, 1998) that were then illustrated in greater detail in narrative style when discussing the qualitative material in the interviews and open-ended questions in the questionnaires.

The return rate for the questionnaires was 17 percent (N=50), which was insufficient to allow for detailed statistical analysis (Cohen & Manion, 1994). However, the data allowed for the presentation of simple descriptive information. Nominal data from the first three sections of the questionnaire were entered into Excel spreadsheets where teachers were grouped in various categories relating to playing expertise, performance profile, levels of students and types of teacher training. Data from the scaled questions in the last two sections of the
questionnaire were also entered into Excel spreadsheets and used to create simple bar charts illustrating frequencies of responses. Questionnaire respondents comprised 34 teachers who were based in metropolitan locations and 16 who were based in regional or rural locations. There were 43 female respondents and 7 male respondents. With regard to performance profile, 60% indicated that they played at a professional level, 25% indicated that they played at a semi-professional level and the remainder considered their playing profiles to be either elementary or moderately advanced. Table 3.2 gives an overview of the teacher training backgrounds and teaching profiles of the questionnaire respondents.

Table 3.2 Teaching backgrounds and characteristics of questionnaire respondents. (N = 50)

<table>
<thead>
<tr>
<th>Teacher Characteristics</th>
<th>Frequency of nomination (N= 50)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teaching Experience:</strong></td>
<td></td>
</tr>
<tr>
<td>• 0-5 yrs</td>
<td>8</td>
</tr>
<tr>
<td>• 6-15</td>
<td>19</td>
</tr>
<tr>
<td>• 16+</td>
<td>23</td>
</tr>
<tr>
<td><strong>Age Groups Taught:</strong></td>
<td></td>
</tr>
<tr>
<td>• 0-5</td>
<td>21</td>
</tr>
<tr>
<td>• 6-9</td>
<td>47</td>
</tr>
<tr>
<td>• 10-13</td>
<td>48</td>
</tr>
<tr>
<td>• 14-17</td>
<td>41</td>
</tr>
<tr>
<td>• 18-21</td>
<td>28</td>
</tr>
<tr>
<td>• 22+</td>
<td>36</td>
</tr>
<tr>
<td><strong>Student Levels Taught:</strong></td>
<td></td>
</tr>
<tr>
<td>• Early</td>
<td>48</td>
</tr>
<tr>
<td>• Intermediate</td>
<td>43</td>
</tr>
<tr>
<td>• Advanced</td>
<td>24</td>
</tr>
<tr>
<td>• Undergraduate</td>
<td>11</td>
</tr>
<tr>
<td>• Postgraduate</td>
<td>5</td>
</tr>
<tr>
<td><strong>Teaching Syllabi:</strong></td>
<td></td>
</tr>
<tr>
<td>• AMEB</td>
<td>49</td>
</tr>
<tr>
<td>• Trinity</td>
<td>13</td>
</tr>
<tr>
<td>• Assoc Board.</td>
<td>6</td>
</tr>
<tr>
<td>• Suzuki</td>
<td>16</td>
</tr>
<tr>
<td><strong>Teacher Training:</strong></td>
<td></td>
</tr>
<tr>
<td>• Music Education.</td>
<td>13</td>
</tr>
<tr>
<td>• Undergraduate with Pedagogy</td>
<td>25</td>
</tr>
<tr>
<td>• Pedagogy</td>
<td>7</td>
</tr>
<tr>
<td>• Suzuki</td>
<td>8</td>
</tr>
<tr>
<td>• Observation</td>
<td>26</td>
</tr>
<tr>
<td>• Assistantship</td>
<td>5</td>
</tr>
<tr>
<td>• Other Professional Development</td>
<td>28</td>
</tr>
</tbody>
</table>
The questionnaires also supplied considerable qualitative material as a point of comparison or verification with the data derived from interviews. Additionally, the many offers to do follow-up interviews provided access to teachers from backgrounds that might otherwise have been difficult if not impossible to access. Each questionnaire was assigned a number when it was returned and was subsequently referred to as Q1 or Q2 and so forth in the results chapter if qualitative data were used. All open questions were coded according the procedures described in the following section relating to the analysis of the interviews.

**Interviews**

Data analysis in qualitative research aims to find meaning by a systematic process of organising and arranging of the information in order to establish similarities and differences, make comparisons, and create understanding of issues. This is done through a process of data coding that starts in the early stages of data collection and evolves through constant questioning and rethinking of the emerging themes as further data are collected and integrated into the analysis (Burns, 2000). In the case of the teacher interviews the aim of the analysis process was to find patterns of relationships between various aspects of training and background, and teaching effectiveness. Analysis of the employer and trainer interviews sought to find the degree to which their views matched the perceptions of the teachers.

The initial stages of data analysis took place as each interview was completed. The audio recording of the interview was transferred to a computer sound file and reviewed before being time coded and transcribed into an Excel spreadsheet. The spreadsheet was then printed and the margins were used to record memos on subsequent reviews of the audio file. Strauss and Corbin (1990) liken memos to a written version of the abstract thoughts that result from the questioning, reflecting and re-ordering of thoughts that take place during analysis. Reviews of the recordings led to the refining and rationalising of the interview process.

After the majority of the interviews were completed, the second stage of analysis, open coding, was commenced. Open coding involves the isolation of concepts, and their properties and dimensions, in order to group them into categories (Strauss & Corbin, 1990). Similarities and differences are considered and the data are broken down into component parts in preparation for regrouping in the next stage of analysis. Constant review of the data revealed
patterns and new lines of questioning, and subsequent interviews refined understanding. During this stage code names were devised for each main category and abbreviated codes were devised for sub-categories.

Axial coding was used in the next stage of analysis to relate subcategories to categories by discovering relationships between the causes and contexts of the various observed phenomena (Strauss & Corbin). Burns (2000) defines this stage of analysis as content analysis, where each interview is analysed to find the different issues that arise and the concepts that emerge. The issues or themes emerging from the study become clearer and the relationship and contrasts between these themes and existing research take shape. During this stage of analysis, data were taken from the original individual Excel spreadsheets for each interview and merged into composite sheets focusing on specific categories or themes. In many cases the data applied to more than one issue and were copied to several different composite sheets. These were then printed for further reading and review and further memos were recorded.

The final stage of the analysis involved what Strauss and Corbin (1990) define as selective coding. The theories that have emerged in the preceding stages of the coding coalesce into a grounded theory. This is not, as they point out, a stage in itself but rather a continual process of forming understandings and connections between categories, validating these by referring to the data again and searching for more clarity where there appear still to be gaps in the understanding. This process of analysis was applied to all the interviews and also to the qualitative data obtained from the questionnaires. The results reported in the following chapter are derived primarily from this material and are supported by the quantitative results from the questionnaire.
CHAPTER 4

INSTRUMENTAL TRAINING AND PERFORMANCE EXPERIENCE

String teachers have traditionally passed on their playing skills from generation to generation through a master-student or apprenticeship model of teaching. In order to teach, they have drawn from their own experiences as learners, and from the knowledge gained through practical application of their skills in performance situations. Whilst levels of playing expertise and range of performance context amongst string teachers cover a wide spectrum, some degree of influence from these experiences is nevertheless common to all string teachers. They provide a starting point for the development of teachers' pedagogical skills and remain the primary influence in the absence of any pedagogical training.

This chapter presents the findings of this study in relation to the ways in which the instrumental training and playing context of string teachers influence the development of their perceived teaching effectiveness. The subsequent chapter presents the findings of the study with regard to the impact of pedagogical training and professional development activities on the teaching of string teachers. Due to the complex interaction between the practical and pedagogical aspects of teachers' backgrounds in the development of teaching styles, it has been necessary to discuss some issues, in different contexts, in both chapters. Some cross-referencing between chapters will be used to avoid unnecessary repetition.

This chapter relies primarily on qualitative data from the interviews and questionnaires but descriptive data drawn from the teachers' questionnaire have been used to supplement the qualitative data. As explained in the previous chapter, the quantitative results from the questionnaire serve to illustrate some of the issues raised in the interviews and to provide a framework for discussion. Interview participants are referred to by pseudonyms, and questionnaire respondents are indicated by their questionnaire number.

Instrumental Instruction

Interview participants in this study were asked to describe their instrumental training and were encouraged to reflect on the strengths and weaknesses of their experiences and to
comment on how these had affected their own learning. This section illustrates the range of backgrounds amongst the participants of this study, elaborating on material presented in Appendix F.

Most participants had learned from a number of different teachers and most had experienced several different teaching approaches during their learning:

**Arvin** I had to learn the violin in the Year 3 string programme and I was one of three to go on . . . I had a teacher at the school for one year . . . then I changed to another teacher in my area from the age of 9 to about 15 and I went through [the] AMEB grades up to Grade 7. From there I went to [eminent teacher] and did . . . A Mus and L Mus . . . and then I went to the Con . . . (Interview, 2005)

**Elise** I started when I was about five. . . [in the] Suzuki method. I did that for about a year and moved around a lot and went to different teachers . . . I started again in Year 3 . . . [and] for three years . . . I did the Trinity exams. . . I went to [another teacher] for five or six years [and] I did AMEB. (Interview, 2005)

**Kim** I was three and a half when I started and [the teacher] was one of the early Suzuki teachers in Sydney. I studied with her until I was 10 and then I went to [another Suzuki teacher]. By that stage I had finished all the Suzuki graduation repertoire and I was just learning pieces, and I stayed with him until I got to 18, and then I changed over and I went to the Con. (Interview, 2005)

All these participants had completed tertiary performance degrees at an Australian conservatoire but their learning experiences characteristically comprised a range of different influences. In their school years, two had been trained primarily using ‘traditional’ teaching methods and undertaking AMEB examinations, and one had learned solely through the Suzuki method. All had experienced more than one teacher during this time. In their tertiary training they had encountered teachers whose influences or schools of playing derived from a diverse range of backgrounds including Eastern and Western Europe, America, and Australia.

Several participants had begun learning in their teenage years as a result of their school orchestra programmes:

**Anne** I found a violin . . . in the cupboard. We had that glued up and I found a local teacher who gave me a term’s tuition. We stopped . . . but there was an orchestra at high school and I found another teacher and started again in Year 7. (Interview, 2005)
Amy  I had a fabulous high school music teacher who wrote a bass part to everything, and if I didn’t know a note I went to my Tune a Day and worked out where it was on the double bass. I started [having lessons] when I was in Fifth Form . . . I was about 16 . . . (Interview, 2005)

All but five of the participants in this study had begun learning by the age of 11 years of age. In the case of Anne and Amy, their involvement with playing started later than many of the participants so the early formative years of learning in childhood had been missed. They began their learning in the teenage years when they would have been more aware of the processes of learning. Both became professional players but their experiences of learning were different from those who had started to learn at a younger age. These participants continued their instrumental studies beyond school, while pursuing courses other than performance degrees, and developed their playing further before finding work as players. These participants derived many of their learning experiences from being in playing situations. One commented that, “most of my training happened on the job” and she learned to “cope from experience” (Amy, interview, 2005).

Some participants began or resumed lessons as adults, largely as a result of being involved as helpers with children’s Suzuki classes:

Mavis  A lady came to [town and] started [a Suzuki] violin class . . . I actually joined in with the group . . . (Interview, 2005)

Beth  Because I had done violin as a child . . . I’d go and sit in and then I started helping and playing along. (Interview, 2005)

These participants had a very different learning experience from those who had begun as children. Their learning took place almost entirely in their adult years when there is much greater self-awareness. Often they were building on poor teaching from their childhood and had trouble gaining access to teachers who were capable of assisting them appropriately, as many sought-after teachers focus their teaching on younger students. One participant commented that she had problems with tension but “so many of the teachers that I’ve been to, they just let you play, and don’t address that” (Beth, interview, 2005). Their playing opportunities and experiences were also quite different, as they had not had the background of group activities in their youth such as Suzuki events, youth orchestras, and other such activities, or the chance to venture into professional playing.
A number of participants were fortunate to receive well-structured tuition with capable teachers from the beginning of their training. One commented that he had learned from a teacher who was a "state examined string pedagogue, so she was a good teacher" (Hans, interview, 2005). Another participant considered that she had been very fortunate, at the age of seven, to have been "accepted by [eminent Australian teacher] to begin with me from scratch" (Sophia, interview, 2005).

Two participants described very systematic training that they had received as beginner students:

Vera  I started when I was five and luckily enough in the country where I lived [there] was a proper music school where I received 2 [lessons] a week of solfege and 2 times a week I was seeing my violin teacher . . . . My first teacher . . . was . . . extremely methodological, and he was extremely systematic . . . and he would not let you play a certain concerto until you had played this concerto. He was of [the] old school where it was all step by step and you did not jump the steps . . . . you had to do all the studies and everything . . . (Interview, 2005)

Erna  I learned from a teacher who was in the local orchestra. . . [who] was trained in the school from Czechoslovakia . . . [a] descendant of Sevcik . . . . and he played with the Vienna Philharmonic . . . He devoted all his time to me once he realised that I was very keen on the violin . . . and I think he was pretty good . . . . He took me through all this Sevcik stuff and he was really thorough and always gave me two hours lessons or longer . . . (Interview, 2005)

Good early training is greatly valued amongst string players, as the establishment of a solid technical basis in the early stages of learning is generally considered to be of great importance for future development. It takes many years to develop a reliable technique and it is considered advantageous to avoid making a poor start and having to re-learn technical issues at a later stage. All these players were very aware of the advantages of their good early training. They stressed that their teachers were well trained and good at teaching, and they pointed out that they were methodical and that they insisted on all the right material being learned in the right order. From an early age they were exposed to an excellent model of effective teaching.

Research indicates that students who have received a good early training seek out more competent teachers with higher levels of musical expertise as they progress into the intermediate to advanced stages of learning (Howe & Sloboda, 1991; Sloboda & Howe,
1991). Amongst the teachers in this study who had effective early training, most had moved to other more demanding and well regarded teachers by the time they were in their teenage years:

P1 Did you stay with the first teacher until you [finished school]?
Hans No, I went to the principal cellist of the Royal Philharmonic . . . . I didn’t have that many lessons. I was quite self-taught in that period. (Interview, 2005)

Klara [I went to] George Neikrug, a Dounis disciple . . . . I went there as an 11 year old . . . for 2 weeks . . . it was an international seminar and it just opened my eyes . . . . I had lessons with his assistant, Dietmar Mantel, for another four years . . . . as a little child that was terrific . . . to find the inner connections, that the brain was leading you . . . . I feel very lucky to this day to have that guidance . . . (Interview, 2005)

In these middle years of learning these players had found their way to teachers who could stretch them to a higher level of playing. It appears that they had not been looking for the same teacher characteristics, however. One had found a teacher who was a professional player who left him largely to his own devices. The other had found someone who made her become really aware of how she played and had encouraged her to think about what she was doing. In both cases their playing developed to a high level, but through very different means.

A solid instrumental training and the opportunity to have worked with good musicians in the formative years can facilitate even further opportunities for young players to interact with outstanding musicians, either as advanced students aspiring to enter the music profession or as young professional players. This is a stage of learning when the creative use of technique becomes the main focus. Learning is more a process of passing on and sharing experiences, as described by Gellrich and Sundin (1993/1994), rather than the purely technical mastery of the instrument.

One participant commented about her teacher during her postgraduate studies, “Schultz was right for the stage I was at. I needed to be guided and inspired musically” (Sophia, interview, 2005). Another spoke of his teacher, Paul Tortelier, as “the one with the head in the clouds who inspired me” (Hans, interview, 2005). This is a phase of learning when subtleties of style and interpretation can be explored and an individual approach to music making can be formed:

1 The researcher.
Learning to look at a score, look at the voices, look at the meaning of the composer... You learn these things in theory but when your teacher makes it come alive, you really put it to use and make it your own... and you get the confidence to be a musician and not just somebody trying to fulfil what others do... (Interview, 2005)

A number of participants who had reached a very high level of instrumental expertise reported learning experiences that enhanced their approach to interpretation:

John  [I went to] Zoltan Szekely... Bartok wrote most of his pieces for him and he premiered them... so I went and studied the Bartok Concerto with him... He went through the concerto note by note and gave me all his recordings. That was terrific, so any time I teach Bartok now, I have that behind me. I think that’s just invaluable. (Interview, 2005)

Learning experiences with leading performers and teachers allow for an intergenerational transfer of ideas and knowledge that can give unique insights into subtleties of style, interpretation, and traditions of playing. In advanced students, these opportunities can facilitate the development of an individual approach to playing and interpretation. These are not experiences that are common to all learners but rather ones that are usually encountered by those with the expertise to put them into practice. Having had access to learning of this kind would clearly be an advantage for future teaching of more advanced students.

In contrast, where participants had encountered initial teaching that left them with technical problems, the next stage of learning often involved much remedial work to correct problems that would otherwise prevent them from playing as they wished. Several participants described the consequences of poor early training:

Hedy  When presented with a technical problem I would not have had the means to find a solution... [I had a] dysfunctional or barely functional set-up, a poor understanding technically of what I was doing, and minimal means to achieve both technical and musical ends. (Interview, 2005)

Beth  I realised everything I had done had to be unlearned and I had to fix those things up like the vibrato and wrong bow hold. Everything was stiff and tight. (Interview, 2005)

One participant observed that the need to do remedial work on her playing had caused her to miss out on as wide an experience of teaching repertoire as she would have wished to experience:
Hedy  I would like to have more... familiarity with the more advanced repertoire... in my older years, I had to fix up so much stuff that I never covered the amount of repertoire that I would perhaps be wanting my students to cover. (Interview, 2005)

Often it was considered quite a revelation when participants did encounter really good guidance:

Amy  He opened up this whole new world of professional bass playing. That was the first step... He took me back to the beginning. I went back to open strings and I re-learnt to play the double bass with talk about technique... we talked about bow hold, left hand shape... and this was all new stuff to me. (Interview, 2005)

Having to fix playing problems was clearly seen as a very frustrating task. It involved revisiting all the basic aspects of set-up on the instrument and clarifying the technical mechanics of playing. Often the process could take valuable time at a stage when other students were learning repertoire and gaining performance experience, and opportunities to study with the most prestigious teachers could also be limited as a result. Ultimately it could delay or even prevent easy progress to professional playing.

All the participants whose backgrounds are discussed in the first part of this chapter subsequently became teachers, yet every one had a unique profile in terms of the experiences they brought from their instrumental training. There is a considerable range within the ages at which they began learning, the types of teachers they encountered, the teaching methods and schools of playing to which they had been exposed and ultimately the degree of instrumental expertise that they attained. Whilst the implications of this array of backgrounds has not been the subject of extensive research, this diversity of influences has generally been acknowledged to be the case by string players (Eales, 1992; Martens, 1919). The following section discusses some of the characteristics that teachers display as a result of their various experiences of instrumental training.

**Teacher Characteristics as a Result of Instrumental Background**

**Remedial Work and Late Starters**

Players who have needed to restructure their playing can experience some disadvantages, as discussed in the previous section. However, they are often more aware of how they have been
taught the basics of playing because the learning has taken place later when their learning processes were more analytical. This has some implications for their teaching characteristics.

Most participants who had done some work on re-structuring their playing, displayed great determination to teach in a better way than they had been taught:

Beth  I’ve made that my mission, to fix people up . . . because I was badly set up myself. (Interview, 2005)

Hedy  I suffered myself from poor teaching and I wouldn’t want to inflict that on somebody else . . . [so] I was conscientious in my approach. (Interview, 2005)

It appears that the frustration of needing to re-learn aspects of playing heightens the awareness of the importance of good teaching. These teachers were very focussed on making sure their own students were well set up on their instruments and were concerned to give clear technical guidance. It is also notable that participants who had experienced remedial teaching themselves had generally sought out some training in pedagogy to enhance their teaching capabilities.

Many players experience the need to re-structure some aspects of their playing as students. This can be due to faulty playing techniques or simply the need to accommodate the approach to teaching of a new teacher. A number of participants observed that this process of re-visiting technique in adolescence or adulthood might ultimately enhance the effectiveness of teachers:

John  Anybody that’s had a lot of bad habits and had to just go back to square one and work [them] out, I think quite often it makes them a better teacher. (Interview, 2005)

Ron  What does create a good teacher is a player . . . who has had to study their own development and their own technique over time [and make] technical changes. Someone who has actually analyzed their own playing and had to figure things out . . . (Interview, 2005)

Klara  I think somebody who had a hard time . . . who didn’t have it easy . . . [they] make terrific solutions because it didn’t come easily. [They] understand the struggle. It’s very important to be able to understand the struggle of the student. (Interview, 2005)

Remedial learning usually happens in adolescence or early adulthood when students discover or acknowledge that they need to make changes to their technique in order to achieve their
instrumental goals. As a consequence, it happens at an age when learning is a more analytical process than the age when most string players learn the basic aspects of set-up and technique. Embarking on remedial work also generally indicates a determination on the part of learners to solve their problems. These factors can contribute to a much better and more conscious understanding of the basic aspects of instrumental technique than would be the case for those whose instruction had been effective from the start. An understanding of the difficulties of restructuring technique also contributes to an understanding and tolerance of this process when teaching others with similar problems.

Similarly, players who begin learning at a later age, perhaps eleven years or above, are often more aware of how they have been taught the basics of playing. They are more likely to be able to recall the way they were taught than those who began learning very young. One director of a school string department made this observation in the light of his work with teachers over many years:

Martin: Anybody who starts learning violin at 11 or 13 or something like that is going to have a much clearer idea about what they have learnt and how they have learnt it.
(Interview, 2006)

This finding presents something of a paradox. If good early training at a young age is seen as an advantage, a late start, or the need to do remedial learning, could be seen as a disadvantage. However, aspects of instrumental training background that constitute a disadvantage in the process of learning to play can apparently have very positive implications for the development of teaching effectiveness. The experience of beginning learning or re-structuring set-up and re-thinking technique, at an age when learning takes place in an analytical manner, has positive implications for teachers’ subsequent ability to understand and assist students with similar problems.

Preferred Student Levels

The teaching of beginners is an area of pedagogy about which a number of participants expressed concern. Many performers lack confidence in this area of teaching, especially if they themselves have been well taught from an early age. As discussed in the first section of this chapter, they are likely to be very aware of the importance of good early training but they may have difficulty remembering this stage of their own training in order to use it as a model:
Hans  Later on you don't really remember how you were taught at first. I think that is everybody's experience. I don't remember . . . anything from those days. (Interview, 2005)

Sophia I have shied away . . . from taking younger ones . . . and I tend to pass them on to other people . . . . I wish now that I had been . . . documenting what I had been taught when I was young, but when you are young you absorb it, and you don't really think about the future . . . . I think the first teacher is very, very crucial . . . so I would want guidance on what to do with a young person. (Interview, 2005)

Klara  I think if I started a beginner . . . I'd scan a lot of good books . . . . I really would have to immerse myself . . . . I would really want to make sure I would know how to [teach them] . . . . There are key things I would have to . . . . not to let happen . . . . I am not experienced in it. (Interview, 2005)

As discussed previously, string teaching is normally commenced at a young age. Children can begin learning through the Suzuki Method when they are as young as three or four years old and it is common to start by about six or seven years old in most methods. Bamberger (1986) found that musically gifted children learned intuitively when they were young, rather than through analysing the skills they were being taught. If teachers have experienced the early stages of learning as young children themselves, much of their basic instruction would have taken place in an age range when they would have been unlikely to have retained clear and accurate memories of the methods and content used in their lessons. They would not remember their learning in an analytical way, and consequently would have difficulty drawing effectively on these experiences as a model for their own teaching. The age at which players started receiving instrumental instruction may determine how far back in the instruction process they can remember what they were taught.

It is assumed that good early teaching is a likely precursor of success amongst string players. This study has found that players who had good training as young students are aware of the advantages of having had this good training. As a result they also appear to be aware of its importance for potential students, and this might explain their reluctance to teach at a level where they do not feel confident about working effectively with students.

Players in this category often expressed a preference for teaching slightly older students:
Hans: If I get really talented kids I take them from about eight, but I don’t teach earlier on. It’s a whole specialisation of course. (Interview, 2005)

P: What areas of teaching would you feel comfortable with?
Klara: Probably 11 years old, once they are thinking and a little more analytical . . . once there is a little self-awareness . . . from there on [it] is fascinating . . . I love teenagers . . .
P: Is the reason you are comfortable teaching that level because that’s what you can remember well from your own training?
Klara: That’s where I remember the impact of my teachers on me - good and bad - what really needs to be avoided and what marvellous effects there can be if you can have the right key to saying something . . . (Interview, 2005)

These players preferred to work with students once they had reached an age where they were more aware of their learning processes. Taking a student as young as eight years of age was only an exception rather than a preference. They appeared to want to work within the constraints of what they actually remembered of their own learning experiences, and to be concerned that they did not have the necessary insights to work with younger children.

This pattern of avoiding working with beginners and preferring older students was notable amongst most of the performer-teachers in this study. The exceptions were the players who had also had pedagogy training. In these cases there was usually no particular concern for the level or age groups that they taught, as discussed in the following chapter. However, one employer pointed out that this trend in preference of student levels could also relate to such teachers having the option to avoid working with younger students:

Martin: Some [teachers] choose not to [teach beginners]. They know that they are going to have plenty of students at the slightly more advanced level rather than doing the hard [work] of working with beginners. (Interview, 2006)

As discussed in the first part of this chapter, teachers who have developed considerable expertise as players are likely to have had rich backgrounds from their own learning experiences. They may have knowledge and perspectives that they wish to pass on to more advanced students. As Gaunt (2004) pointed out, performer-teachers are motivated by a desire to perpetuate their knowledge in the next generation of players. Given that they may have limited time to teach if they are still performing, and may consequently consider that they have the option to choose whom they teach, this could also be a factor in this trend in teaching preferences. One participant, who was both a performer and a trained violin teacher made
such a choice. She commented that she was quite confident to teach at all levels but pointed out that “my favourite is fifth grade to AMus” (Vera, interview, 2005).

The Relationship between Instrumental Expertise, Performance Experience and Teaching Patterns

The primary purpose of instrumental tuition is the acquisition of playing skills, or in other words, the development of instrumental expertise. Players’ levels of playing expertise in turn determine the performance contexts in which it is possible to use those skills. In the light of the discussion of instrumental tuition backgrounds it is clear that the outcomes in terms of playing skills must vary considerably amongst string players depending on the quality of instruction they received, the age at which they received it, and a range of other factors.

With regard to instrumental training most teacher interview participants reported having undergone some form of tertiary instrumental training with 11 having undertaken some postgraduate instrumental study and four having completed undergraduate instrumental study. Three participants had not studied performance at tertiary level. Of those who had studied at tertiary level, 12 had played regularly in a professional ensemble, two had focussed more on teaching and played in both professional and semi-professional contexts, and one was in the very early stages of her career and had done only a small amount of performing beyond what was required in her tertiary course. Three participants had performed to a very limited degree.

The instrumental backgrounds and performance contexts of the questionnaire respondents are illustrated in Table 4.1. Again the majority of respondents considered that they had achieved a professional level of playing \((n = 29)\) and 26 indicated that they played, or had played, regularly in professional ensembles. Two played regularly in semi-professional or community ensembles and one played infrequently. Of the 12 who considered their playing was of a semi-professional standard, seven played regularly in semi-professional or community ensembles and five played infrequently. Amongst respondents who had taken their playing up to an elementary or moderately advanced stage, three played regularly in semi-professional or community ensembles and four did not perform publicly. Two respondents did not complete answers to these questions.
Table 4.1  Instrumental expertise and performance profiles of questionnaire respondents. \((N = 48)\)

<table>
<thead>
<tr>
<th>Level of Playing</th>
<th>Frequency of Response</th>
<th>Regular Performing in Professional Ensembles</th>
<th>Regular Performing in Semi-Professional or Community Ensembles</th>
<th>Irregular Performing in Semi-Professional or Community Ensembles or no Performing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional</td>
<td>29</td>
<td>25</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Semi-Professional</td>
<td>12</td>
<td>7</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>AMEB Diploma Level</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Elementary to Intermediate</td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

The importance of demonstration in lessons, and the ability to do so effectively, is the subject of considerable debate amongst teachers. As discussed in the previous chapter, demonstration as a teaching strategy has been the subject of considerable research. Some researchers have found that it is more effective than teacher verbalisation of instructions (Dickey, 1991; Rosenthal, 1984; Sang, 1987) whilst other researchers have shown that teachers, in practice, rely far more on verbalization of instructional ideas (Kotska, 1984).

Many participants, who were professional players themselves, believed strongly that being able to play and having had experience as a performer was essential in order to be able to teach effectively:

Erna  I wouldn’t know how you can actually teach without having been out there [performing]. . . Without that how can you be a teacher? (Interview, 2005)

Anne I should think if you didn’t play at a reasonable level you would have difficulty even playing a lot of the pieces at Grade 5 level. . . I would think it would be very hard for people who don’t play much to do. (Interview, 2005)

Hans I think [playing ability] matters a very great deal. Because [if teachers] are not advanced performers they don’t. . . understand [what] would develop a young student. (Interview, 2005)

The conservatoire head of strings commented that she felt that several aspects of teaching were enhanced if teachers had a background as performers. She pointed out that, “you really know repertoire inside out when you have played it, more than when you haven’t” and
“stylistic things . . . you understand more when you have played [them]”. She also noted that players have an advantage as teachers as they have developed skills in “how to be efficient with . . . practice” and “having performed,” they have personal experience of “aspects of performance anxiety” (Sheryl, interview, 2005). One participant commented that performance anxiety was the one thing she “couldn’t talk to [her] first teacher about because he wasn’t a performer himself. He never actually had an understanding for it” (Vera, interview, 2005).

One participant also commented on the problems he encounters with students who have had unsatisfactory tuition, which he felt could be attributed to former teachers’ lack of playing expertise:

Hans The students have all these fundamental physical problems...They just can’t play the instrument very well. So you have to start from the beginning and teach them how to shift, how to extend, how to develop the structure of the hand . . . (Interview, 2005)

It is common for performer-teachers to rely on demonstration as a teaching strategy. Dickey (1992) found that skilled performers rely more on demonstration than those who are less skilled and eminent pedagogues such as Zakhar Bron and Igor Ozim have stressed the importance of being able to demonstrate at a high level when working with talented students (Campbell, 1995; Solare, 1996). As was pointed out by the conservatoire head of strings, “it does motivate when you can demonstrate” (Sheryl, interview, 2005). Many research participants noted that performers understand the experience of performing and the playing skills that are necessary to do so effectively. They have developed understandings of repertoire and style through actual performance and have personal experience of applying effective practice strategies and dealing with performance anxiety.

However, it could also be argued that reliance on demonstration can lead to neglect of analytical approaches to teaching. A number of participants discussed their observations of teachers that they had encountered who used demonstration as their primary teaching tool:

Hans We had a . . . cello teacher . . . he was actually not a good teacher . . . but he was a fantastic cellist . . .
P What was the problem?
Hans It was communication it was methodology. I think it was just that he could always play the cello very easily. . . . he inspired people who could already play the
instrument and he was a good teacher from that point of view, just because he could show the tricks, but to develop a student from earlier on, he couldn't do that . . . . You would think that somebody who was a wonderful instrumentalist . . . . those kinds of instrumentalists were not necessarily good teachers . . . (Interview, 2005)

Vera My third teacher was a child prodigy . . . . he . . . had absolutely no limits in technique, he was just incredible . . . . and it came natural [sic] to him . . . . He could not understand that people have problems with it, so I was very lucky that I came to him after [a] good maybe 15 years of learning, and I had enough base that I could learn and take from him what he had to offer and not get frustrated . . . . I could see other students getting really upset that he would not explain [to] them how to do it. (Interview, 2005)

Flesch (1930b) calls this the “demonstrating pedagogue.” He describes this type of teacher as one who models rather than explains what is required. Many famous teachers are reported to have taught in this way and the findings of some performer-researchers indicate that such teachers often do not have strong teaching and learning skills (Gaunt, 2004; Purser, 2005).

Several employers noted that they had sometimes observed these characteristics in teachers who were performers and who had not had any pedagogy training. Some explained what they saw as the problems of these performer-teachers:

Sheryl Although they can inspire by the way they demonstrate . . . and somebody can learn from imitation . . . they don’t know why something is not working, so it’s a process of elimination . . . (Interview, 2005)

Martin If people have just learnt how to play and it has been a relatively unconscious process then the fact that they are really good players doesn’t necessarily lead to them being good teachers. (Interview, 2006)

Ron Teachers who are fantastic players, who perhaps had that element of prodigy, who learned technique unconsciously before their teens and never really thought about it a lot when their conscious mind kicked in, they’re the people who don’t necessarily make good teachers . . . they . . . just [tell] you how they would play it . . . . (Interview, 2005)

It is apparent that there is a general awareness of the potential weaknesses of performers as teachers. As learners they may have relied on their talent and learned in an intuitive manner. They may not have experienced the detailed instruction and repetition of tasks that a less able player may have needed. When confronted by students with technical problems, who do not learn the way they learned, or cannot mimic from demonstration, they can have difficulty teaching effectively. They have not developed the resources to teach students who do not
learn as they do and have to resort to experimentation to find ways to solve problems. As one employer pointed out “they are better in the postgraduate level where somebody has already been set up well, so they can add to that level” (Sheryl, interview 2005). The findings of this study indicate that performer-teachers may not, however, always share the characteristics described in this section. The approaches to pedagogical development taken by such teachers in this study are discussed later in this chapter and in the subsequent chapter.

The emphasis placed by much of the teaching community on instrumental expertise and performance experience, was often a source of concern for teachers who did not play much or who had only limited instrumental skills. As described in more detail in the next chapter, these participants were often career teachers and had usually made great efforts to develop their pedagogical skills. They had developed expertise in motivating and teaching young children and good analytical skills for teaching the intermediate levels. It was frequently pointed out, when speaking of their performing colleagues, that “being a good player doesn’t necessarily mean they can teach children at all levels” (Beth, interview, 2005). This observation is consistent with the findings of a number of researchers who indicate that a supportive and encouraging teaching environment is of the highest priority when teaching young students, rather than teachers’ instrumental expertise (Davidson, Moore, Sloboda, & Howe, 1998; Howe & Sloboda, 1991; Sosniak, 1985a).

Teachers’ degrees of performance expertise are only one of many factors that contribute to the choice of a playing career. Participants reported a number of reasons for choosing to become career teachers, including the difficulty of balancing working hours and family commitments, living in regional areas where full-time performance is not an option, and limited job opportunities in performance, amongst others.

Teachers who had not pursued professional performance careers or who had not taken their playing to an advanced level often focussed more on teaching younger students, where any limitations due to having less performance experience or ability to demonstrate was less problematic for them. One participant reported that her students were “mostly beginners” and commented that “once [they] get to about fifth or sixth grade I feel I need to move the student on” (Beth, interview, 2005). When students brought orchestral repertoire with which they were not familiar teachers asked “for help from somebody else” (Hedy, interview, 2005).
Teachers with a background in pedagogy felt they did a good job with their students. It is also noteworthy that they were teaching in an age bracket that is more often avoided by performers, as discussed previously. One employer made the observation that teachers “from a strong pedagogical background” who were not necessarily the most capable players “are very comfortable with the early levels of teaching and they set people up well, because they have thought about these things” (Sheryl, interview, 2005).

In general, employers did feel that they preferred teachers to have had some sort of playing experience:

Martin I do look for people who are still players . . . who keep up some sort of playing practice to some extent, be it in a community orchestra, or gigs, or still playing professionally. (Interview, 2006)

Sheryl Having been a player, maybe not necessarily being a fantastic player, but being a player is I think important. (Interview, 2005)

Greg Teachers need to be experienced performers so they can have fleshed out the whole business of performing. (Interview, 2005)

Each of these employers was envisaging a slightly different teaching environment, be it a school or some type of conservatoire, but they all considered some performance experience to be important. There was not always a concern as to whether the teachers were working professionally or not, or if they were still involved with playing, but some sort of playing background was felt to contribute to an awareness of what they were teaching their students to do. When choosing teachers for students, employers endeavoured to match the needs of students with the strengths of teachers. One employer commented that he looked at “their learning styles, and I try to match that to their teaching styles” (Martin, interview, 2006). The importance of matching students to teachers, was also discussed by another employer:

Sheryl If I see somebody who is floundering a bit, I will find them somebody who is a good motivator. If I see somebody who is really gifted musically, but who is all over the place, then I will try to put them with somebody who is good at the correction and the set-up and things like that. I am trying all the time to match those things, not just physically but psychologically. (Interview, 2005)
Clearly a balance is necessary. Not every teacher will suit every student and vice versa. Pedagogical expertise and an affinity with young learners are important in the early stages of learning, and analytical skills are important in the middle stages. If teaching has been secure, then an advanced student will thrive on the inspiration of a performer-teacher but if there are technical problems to be solved then a different choice of teacher needs to be made. The findings of this study with regard to teachers’ skills and knowledge and the students they are best suited to teach are consistent with the findings of much of the research in this field (Davidson et al., 1998; Howe & Sloboda, 1991; Sosniak, 1985a).

**Processes of Skill Acquisition**

The previous sections of this chapter have discussed some of the experiences and characteristics that result from the process of instrumental instruction. During the process of learning to play an instrument and of putting these skills into practice through performance, many informal factors can influence the development of future teaching proficiency. As teachers reflect on these other experiences there can be a continuum of pedagogical development throughout their careers.

**Modelling and Observation**

Personal experiences of instrumental instruction can provide a model for the development of teaching style. In the absence of any pedagogical training, teachers are likely to model their teaching largely on the teachers who taught them (Hallam, 1998; Persson, 1994b, 1996). Further reflection on these experiences can lead to an evaluation of the different models encountered during instrumental instruction and the assimilation, adaptation or rejection of these.

As discussed earlier in this chapter, teachers themselves characteristically experience a range of teaching styles during their formative studies. Teachers’ evaluations of the way that they themselves were taught affect the degree to which they use these experiences as models for their own teaching:

Hedy  It’s almost inevitable that one models oneself to a degree on teachers that one has had, even if only not to repeat some of their mistakes. I often think in my own teaching of the teachers that I had, not so much as a child but in my adult years at the Con. I often
think of their approach. I don’t think I actually follow any of their approaches as such, but it is certainly an amalgam. I take from their teaching and from their approach in lessons the best things that worked for me, or things that I think might work for my students . . . . You develop your own teaching style over the years. Mine is a lot different from any of the teaching styles I had. (Interview, 2005)

Q36 I have been greatly influenced by the training I have received, and the methods and techniques used to teach me have become a key aspect in my current teaching style.

Q23 I have spent a fair amount of time working out ways of not teaching like some of my teachers.

It appears that modelling is not necessarily a simple process of copying how another teacher works. What these participants are describing is a process of reflection on the experiences they have had that involves a selection of the aspects that they wish to use and the rejection of those they wish to discard. Often they make a conscious effort not to repeat the type of teaching they have experienced and to reflect on ways in which they can improve on that model.

Participants who experienced good teaching in the early stages of tuition often acknowledge the importance of this model in their own teaching:

P Do you model your teaching on any of your teachers?
Vera Of course I model . . . . I find that the first teacher, who was so systematical [sic], is still a key to many things, you still have to approach all areas of technique and style . . . . you cannot let somebody go on to something harder if they don’t know the basics . . . (Interview, 2005)

P Did you model yourself on any of your teachers?
Erna The very first one with his dedication, and insisting, and systematic building up . . . (Interview, 2005)

These participants retained quite detailed memories of these teachers. They recalled the systematic approach and the insistence on correct technique and playing style that gave them a good basis as players. It was notable that these two participants who had also undertaken some pedagogy training retained much more detailed recollections of their early teaching experiences than their colleagues who had not had any pedagogy training. Perhaps they were better able to use these early teachers as models having acquired a pedagogical framework within which to evaluate it early in their own development as teachers.
For many participants it was simply the range of teachers or models of teaching that they had seen that enabled them to form opinions about how to use this in their own teaching:

P  How did you go about learning to teach?
Ron  First of all it's just that I had so many teachers . . . . and what that did was it made me start to judge my teachers in terms of whether I thought they were being able to teach me what I needed . . . . because I knew more than one way of teaching from quite an early stage . . . . (Interview, 2005)

Having learned with a range of teachers apparently gives a perspective that might not be so well developed with less experience of different teaching styles. It enables comparisons to be made and opinions about preferred teaching styles to be formed.

A number of participants felt that the opportunity to observe other students in a learning situation had been an influence on their own awareness of teacher-student interactions:

Klara  Often we all made it our business coming to lessons just to listen, because it's just absolutely fascinating . . . . We were all at different levels. Some were soloist level and some were basically [going] from scratch [and] re-doing their playing. It was marvellous to see how he treated every student on their level, from a different culture, different universe, different temperament, different skills. His patience level was extraordinary. (Interview, 2005)

Arvin  I sat in on lots of masterclasses overseas . . . and what I got a lot out of the teachers was of their rapport with the students, and how they attacked the problem or left it for the time being . . . . In terms of teaching styles . . . . it changed from student to student within the one teacher because each student is different. (Interview, 2005)

Class teaching models appear to provide advantages for the development of students’ future teaching skills. They provide the chance to see other students with different needs and from different backgrounds, and to observe how teachers work with them. In individual lessons, students only learn what they need to know and address their own problems. In a group situation they see a range of scenarios and absorb a variety of strategies for addressing problems that are different from their own.

*Teacher’s Pedagogical Guidance*

Some teachers make a point of incorporating pedagogical awareness into the process of instrumental instruction. One pedagogy trainer mentioned that he “always taught [his] one-to-
one teaching with a certain amount of teacher awareness” (Fred, interview, 2006). Several participants commented that they had studied with teachers who took this approach:

Q29 My training had a huge impact on my teaching because my teacher was always aware that I had an interest in teaching. My teacher used many opportunities outside lessons (performance classes, concert practices etc) to encourage her students to be analytical about violin playing.

Rachel He would never ask a straight question, he would get you to think about it . . . because the straight question might answer the person at the time but not the student you are going to teach, so you have to think ‘why?’ . . . I am sure that most of my ability to actually analyse problems comes from [that] time . . . (Interview, 2005)

This type of approach by teachers could provide many benefits for students. In the first instance it creates a heightened awareness of their own learning processes. A teaching philosophy that incorporates the reasons for doing things in a certain way and some exploration of how to impart skills to others may aid the learning of the student and may also contribute to their own reflection on the learning process for use when they, in turn, become teachers. In due course this may have positive implications for the development of teaching skills.

**Other Strategies**

In the absence of any specific training in pedagogy, performers resort to a variety of means to develop their teaching ability. As mentioned earlier in this chapter, some performers rely on demonstration as a means of communicating their ideas. However, many performers identify what they feel they need to know and find ways to access the information, either through their own endeavours or through whatever opportunities are available:

John My teacher training was on the job really. . . . When I was at [University] I was totally fresh to it so I used to go and have lessons with [Shumsky] every 2 weeks in New York . . . and so, any problems I had teaching the students, I would go and ask Mr Shumsky, and of course he had all the answers, so I'd come back loaded with ammunition.

P What else did you draw on?

John Also Galamian, his system is so straight down the road, and it's got its book and you can look up anything you want to in the book. It's straight bows and martelé, very basic clear, simple principles, so I use that . . . a combination . . . . . . If someone was really tied up I’d just go right through the things that I learnt from Galamian. (Interview, 2005)
Hans I have really just developed my own teaching from scratch, and it's involved everything. The first thing you have to see is just what the available material is . . . . not only repertoire, everything . . . how to teach them technique and all the physical aspects . . . At the very beginning I would think about what my teacher gave me. When I started teaching more, I realised she had given me all the best things. I went through everything that was available . . . . when I was young I went to the shops and bought all the studies, and all the pieces I could lay my hands on, and I played through it all. . . (Interview, 2005)

Much has been written about the master-student transference of skills that takes place in instrumental learning, where playing methods and teaching styles are perpetuated from teacher to student over generations. These players demonstrate that the influence of their teaching is a starting point, rather than an absolute model for how they teach. They take what they want from their own experiences and then use a variety of methods to develop their skills and knowledge as circumstances require. Rather than being a process of copying, it appears to be more of a gradual evolution of teaching style.

This chapter has endeavoured to shed some light on how teachers' pedagogical characteristics are influenced by their instrumental training and performance backgrounds. The outcomes of instrumental instruction cover an extraordinary range of possibilities, depending on the teachers and schools of playing that are encountered, the age at which tuition is started, and a variety of other factors. Performance opportunities are then determined by the instrumental expertise acquired and factors such as personal circumstances and chance. All these factors combine to affect the characteristics of teachers in a range of ways in terms of who they are suited to teach and their teaching preferences. The following chapter presents the results of this study with regard to aspects of both formal pedagogical training and professional development and discusses how these interact with teachers' instrumental backgrounds.
CHAPTER 5

PEDAGOGICAL TRAINING AND PROFESSIONAL DEVELOPMENT

Many factors other than instrumental training can influence the development of pedagogical skills in string teachers. Teachers who have had access to formal pedagogical training may develop skills and perspective beyond their own background as players, and a diversity of professional development activities can also contribute to the enhancement of pedagogical skills. However, they are not necessarily influences that are common to all teachers, as both formal pedagogy training and professional development activities are generally optional rather than obligatory aspects of training for string players.

This chapter begins by presenting the experiences of a number of the interview participants who have had access to formal pedagogical training. The content and instructional strategies are discussed and their views as to the effectiveness of that training are considered in conjunction with the opinions of the trainers and employers. The second part of this chapter discusses the needs of string teachers with regard to the enhancement of their pedagogical effectiveness and the methods and strategies that they prefer for professional development activities.

Formal Pedagogical Training

Formal pedagogical training can take many forms. In tertiary music teaching institutions, it can range from a full-time course of several years duration, to much shorter periods of instruction offered as elective components of performance courses. Additionally, it is possible to pursue teacher training through specific teaching approaches such as the Suzuki Method. As discussed in the review of literature, there are varied approaches taken to the design of pedagogical training in terms of the content, scope and methods of instruction used.

Not all of the teachers in this study had engaged in any form of formal pedagogy training. Table 5.1 shows the training backgrounds of questionnaire respondents and teacher interview participants. Over 50% of teachers had done some form of formal pedagogy training; however, there was a range of types and lengths of courses within this group. Some teachers
had qualified as Suzuki teachers and four had participated in both formal tertiary and Suzuki training. Approximately one third of teachers had no formal pedagogy training.

Table 5.1 Pedagogy training backgrounds of questionnaire respondents and interview teachers.

<table>
<thead>
<tr>
<th></th>
<th>Some Formal Tertiary-Level Pedagogy Training</th>
<th>Suzuki Training ¹</th>
<th>No Formal Pedagogy Training</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Questionnaire Respondents</strong></td>
<td>28</td>
<td>7</td>
<td>18</td>
</tr>
<tr>
<td><em>(N = 50)</em></td>
<td>56%</td>
<td>14%</td>
<td>36%</td>
</tr>
<tr>
<td><strong>Teacher Interview Participants</strong></td>
<td>10</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td><em>(N = 18)</em></td>
<td>56%</td>
<td>7%</td>
<td>33%</td>
</tr>
</tbody>
</table>

The data for this section of the chapter are drawn from the responses of the teachers who completed some pedagogy training, either through a tertiary music qualification or through Suzuki training. Teachers were asked to discuss their perceptions of the strengths and weaknesses of their pedagogy courses and to consider the value that they placed on the training they received in terms of its effect on their own teaching.

**Overview of Courses**

Over the last few decades many tertiary music institutions in Australia have begun to offer instrumental pedagogy as an elective subject for performance students. Several younger teachers who took part in this study undertook string pedagogy electives within their performance degree courses. During the interviews they were asked to comment on the nature and content of these courses:

Arvin  It was either one semester or two semesters, and all we really did was just go through the various materials to use . . . repertoire . . . and also discuss a few ways to teach various techniques like vibrato or spiccato. (Interview, 2005)

Mary   I sat in on another teacher doing group classes and then I also sat in on a music skills class. It was more of an observation thing . . . we had to help out. We did one demonstration lesson. (Interview, 2005)

¹ Three questionnaire respondents had formal tertiary-level pedagogy training and Suzuki training. One teacher interview participant had formal tertiary-level pedagogy training and Suzuki training.
One teacher had experienced a more comprehensive pedagogy course over a longer period of time:

Ron I did teaching techniques . . . . I did that for two or three years . . . and that involved a weekly lecture and assignments and watching lessons and discussions and everything. (Interview, 2005)

Several teachers, who completed their instrumental training in Europe, had studied string pedagogy as a mandatory part of their conservatoire performance courses:

Erna We had two pedagogy classes every week, one was a practical one and one was a theoretical one, for 3 years, and we discussed all sort of methods. (Interview, 2005)

Nina [The training] goes for a few years and we were learning how to teach not just play. It’s called methods of teaching, where it’s explained how to start teaching. (Interview, 2005)

With reference to the teaching skills checklist (see Appendix D), participants who had completed courses as an elective subject were asked to comment on the topics that had been included in their courses:

Kim We did talk through probably most of those sort of things . . . . we talked a lot about instrumental set-up and correction of technical difficulties and things . . . (Interview, 2005)

Elise Repertoire knowledge, planning of curriculum was very dominant . . . . Diagnosis of technical difficulties and correction of technical difficulties . . . remedial teaching . . . (Interview, 2005).

The first response of participants to this question was to focus on topics that were directly related to instrumental playing such as the way to hold the instruments and deal with technical issues. Some also mentioned repertoire and curriculum. When asked to comment in more depth on any topics that they felt had not been covered to any great extent, participants listed a number of aspects of training. Mary noted that issues such as instrumental set-up, repertoire, curriculum design, stylistic issues, learning styles and motivation were only considered if they “came up” in the course of classes, and little attention was given to working with beginners. She also regretted that broader and more comprehensive attention had not been given to different teaching methods such as Suzuki and Paul Rolland (Interview, 2005). Arvin also felt that the planning of teaching curriculum had been inadequately covered, and both Elise and
Arvin noted that issues such as learning styles, motivation, rapport with students, musical styles, performance injuries and performance anxiety were all topics that they had not encountered to any great extent during their courses (Interviews, 2005).

In contrast, teachers who had completed more comprehensive courses felt that they had received a more thorough grounding in teaching techniques:

P: What sort of topics did you cover?
Ron: Well everything... Teaching techniques was the basics of pedagogy... so we did... all of those things [on the checklist] and more, like... discussions of psychology and developing this and that, and you eventually grasped everything, because everything had been covered a lot, and you started to piece it all together and see it in your own mind...

To some extent, these differences in experiences could be attributed to the fact that participants had attended a number of different institutions and that the lengths of the courses had varied. Some participants had studied pedagogy for only one or two semesters and others had continued on into their postgraduate years. In the case of the teachers who expressed dissatisfaction with their courses, it appeared that these courses lacked a clear structure and comprehensive coverage of the skills and knowledge that they felt they needed. Some of these participants commented on a lack of guidance in curriculum planning, a topic that could be assumed, ideally, to be a fundamental part of any such a course. Broader educational issues such as motivation, learning styles and rapport were often either not mentioned by the participants, or were listed as having been missing from the courses. Paradoxically, these issues could be argued to be the aspects of teaching that are often the least well addressed by the influence of instrumental instruction and therefore should be an important topic to include in a pedagogy course. The content that appears to have been most consistently covered in most of the elective courses includes diagnosis and correction of technical faults and to some extent, repertoire. However, as will be discussed in a later part of this section, repertoire knowledge is a topic which many participants indicated was inadequately covered.

The more comprehensive courses provide a contrast. Most relevant topics were reported to have been touched upon. They were generally longer than many of the elective courses discussed previously, and appear to have been very thorough and systematically designed. The following discussion of specific aspects of pedagogy courses addresses the components
of these courses in more detail and compares the various approaches to course design in the light of participants’ experiences and thoughts regarding their effectiveness.

**Course Content**

**Materials, Repertoire and Curriculum**

A good knowledge of relevant repertoire and other teaching materials, and the ability to sequence this to suit the needs of individual students is generally acknowledged as an important aspect of effective teaching. This knowledge supports the logical introduction and progression of skills when teaching.

Some participants who studied in countries from the former Eastern Bloc had enjoyed very thorough training with regard to knowledge of repertoire and curriculum design:

Nina  There are books on repertoire that recommend you to start with some particular books that are good for [the children]. [This goes] all the way through. They recommend, say in year one, “you use this and this . . . and you must cover these.” You have to make sure the child can control the bow, can play [the] string without touching [the] other string, very clear intonation, cover the first position completely etc. . . . and then they tell you what’s in year two . . . . It’s very clear what you need to work on. (Interview, 2005)

In the case of Nina’s course, it is evident that a systematic and comprehensive guide has been given to the sequencing of materials and the introduction of skills for teaching right from the very beginning of instruction and through all the years of study. Nothing has been left to chance and the goals are clearly set for a young teacher in terms of what would be expected of their students.

Some teachers had undertaken courses that covered the study of repertoire and curriculum very thoroughly, but with a more flexible approach:

Hedy  We did a lot about planning teaching curriculum which was excellent . . . . we looked at a lot of repertoire . . . . I still have all that work that we did ... and analysing repertoire and looking at what’s actually required and breaking it down (Interview, 2005)

Ron  There were all the assignments . . . like . . . “Write a hypothetical progression of a student from this point to this point, with musical examples and technical examples,
and what material you would use, and what you would teach and what you would teach next" . . . We covered history of violin schools as well . . . . We had another semester with . . . things like Kodaly and Suzuki and all those other methods . . . we had to do method book investigations and comparisons. (Interview, 2005)

The responses from Hedy and Ron indicate that their courses gave them a solid grounding in the teaching repertoire and good analytical skills. They had been encouraged to consider the technical issues presented by the repertoire and to make comparisons and consider where it might be appropriate to use different material. The concept of forward planning of curriculum for students had been developed and the ability to design programmes for individual students had been encouraged. It is interesting to note that Hedy, now an established teacher, comments that she still retains the work that she did during her training. It would seem that such resources are considered to be of benefit. She commented on the advantages she felt she had derived from having had good guidance in the choice of repertoire:

Hedy Once I started, it gave me the resources to compare all those method books, and introduced me to material that I might not have stumbled upon myself as quickly. Within the course I had looked at everything that was readily available in Australia at that time and found things that weren't. I made conscious decisions from an early stage about . . . the material I was prepared to use and the material I just wasn't prepared to use . . . . The course gave me the ability to do that. I felt, early on, quite confident . . . able to justify my position on teaching to somebody else. (Interview, 2005)

Cleary the background she had received had been helpful. When she started teaching she was secure in her ability to locate and choose suitable repertoire for her students. It is also relevant to note that she felt that the training had speeded up the process of becoming effective in this aspect of teaching. She had the resources and the analytical skills from the beginning of her teaching career. As described in Chapter 4, teachers can build up their knowledge and understanding of teaching repertoire over time but young teachers are unlikely to have the financial resources to purchase a comprehensive library at the beginning of their careers. They may also be unwilling to make the financial outlay if they are not sure what to buy. Opportunities to browse through teaching music can be limited if teachers do not have easy access to well stocked music libraries or music retailers as is very often the case unless they live in a large metropolitan centre.

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One of the pedagogy trainers, who adopted a similar analytical approach when teaching her own pedagogy programme, commented on the changes she noticed in her students as they learned about repertoire and curriculum:

Rachel It was astonishing to see the difference between the first years and the third years . . . how loquacious they became. They could grab a piece of music and analyse it on the spot. (Interview, 2005)

This observation endorses the value of such training for potential string teachers. Students in the course Rachel is describing had regularly prepared demonstration lessons where they had presented written analyses of pieces, explaining the style and period of the piece, outlining "the technical difficulties in terms of what new techniques the student would have to learn to play" and actually demonstrating the practice techniques they would use (Interview, 2005).

Trainee teachers appear to have developed skills during this course that would enable them to make quick and informed decisions when choosing teaching repertoire for their students.

In contrast, some participants felt that they had not had sufficient guidance in the areas of repertoire and curriculum and expressed frustration at not having these resources to use as a starting point for their teaching. They described the knowledge they would have liked to have taken from their courses:

Arvin Curriculum planning . . . repertoire for my students . . . . how do you plan for them over the long term . . . I often wish I had on the wall a plan which, for every student, I could just follow and they would just become a concert violinist. (Interview, 2005)

Mary I would have loved to have come out of the classes with a bibliography saying "these are some really good materials to use" . . . I like to be given options of how to do things for different kids, I would love it if something was written down saying "that’s how you do this and that’s how you do that." (Interview, 2005)

The reservations being discussed here indicate that these teachers did not feel that their training enhanced their confidence in choosing repertoire for teaching to the extent that they would have wished. They do not appear to have left the course with a secure grasp of the skills for planning the systematic progress of their students or the repertoire resources that would be such an advantage at the beginning of a teaching career. In fact, the insecurities they express are similar to those expressed by some performer-teachers who had not had any
pedagogy training, as described in the second part of this chapter. The importance of good sequencing of teaching material was stressed by one pedagogy trainer:

Rachel You don't put something in front of a student . . . that you then have to unlearn . . . or that they won't understand . . . . If a student was going to have to do spiccato bowing in a piece . . . they would have done the spiccato bowing four weeks beforehand. (Interview, 2005)

She pointed out that it was essential to be able to analyse what was needed in repertoire in order for the techniques to be introduced in advance, and built up so the student was ready to play the set material when it was assigned.

One of the head string teachers commented on the advantages he notices if teachers have acquired comprehensive repertoire knowledge from a pedagogy course:

Martin The people who have had a great deal of success . . . [who have had] some sort of pedagogical training, have also a very good understanding of the repertoire that’s available, or possible, for kids of certain ages or standards. That gives them something very specific to work with . . . “we can work on these studies or these pieces” . . . others might be aware of what needs to be worked on but not necessarily know how one might go about that. (Interview, 2006)

Clearly, from the perspective of someone who is in a position to compare teachers’ skills in this field, training in repertoire and curriculum design appears to be an advantage. Martin pointed out that teachers with this training have a wide knowledge of repertoire and are able to find pieces and technical material to suit the specific needs of their students, enhancing their teaching effectiveness. Those without this training do not necessarily have this resource and cannot as readily pinpoint suitable material for specific sets of circumstances.

The findings of this study indicate that teachers value training that gives them a broad knowledge of teaching repertoire and materials. They appreciate the benefits of having been given guidance in curriculum planning and consider that this background is an advantage both at the start of their career and throughout, in terms of their teaching effectiveness. This is a view that is endorsed by their trainers and employers. Where the training has been inadequate, it always appears to be perceived as a disadvantage that needs to be overcome.
**Practice Skills**

Effective practice skills are essential if students are to make good progress (Jørgensen, 2001). It would therefore seem appropriate to include some guidance in this field in the training of string teachers. Some teachers reported having had instruction in the teaching of practice techniques in their courses:

Nina  We constantly had to remind the students how to work on the pieces. It’s very important to make sure that they know, when they go home, what they need to do. . . . You have to make it really clear, every single day, how much work they should do. (Interview, 2005)

In many cases, however, participants indicated that this was not a topic that they had encountered during their training:

Hedy  Practice skills were not really dealt with formally. (Interview, 2005)

One teacher, who didn’t feel he had been given any guidance on practice techniques in his course, commented that he had to rely on his own instrumental background for this aspect of his teaching:

Arvin  That would just come out of the way I played myself . . . practice skills. (Interview, 2005)

Hallam (1998) explains that the sort of practice techniques that are appropriate for students change over time as they progress. Younger students need more repetition and clear guidelines whereas older students need to be encouraged to reflect, analyse and take charge of their practice. Research by Pitts, Davidson and McPherson (2000) has indicated that children do not notice detail or analyse their practice as readily as adults. They stress that teachers need to give systematic explanation and demonstration of practice techniques with a variety of practice strategies appropriate for younger learners.

In the light of this research, the type of practice guidelines described by Nina seem to be appropriate for younger students. The children had to be given very clear instructions about what to do and for how long to do it, and it was stressed that these instructions had to be constantly reinforced so the children did not forget. Trainee teachers in this course were equipped to give clear and effective guidelines to their students about how to practice.
The practice techniques that would be appropriate for children are likely to be quite different from the types of strategies that teachers might use in their own practice (Hallam, 1998). For this reason, reliance on personal practice habits as a model to give to students may have limited effectiveness especially in the case of younger students who need quite different strategies. Given that research has indicated that teachers do not consistently give sufficient advice on practice techniques to their students in general (Jørgensen, 2000, 2001), this should ideally be a topic that is emphasized in any pedagogy training in order to create an awareness of its importance in future teachers. It would clearly be an advantage to have encountered this topic and how it might be applied to a range of age groups.

The Teaching of Young Students

As discussed in the previous chapter, the teaching of young students or beginners is one of the areas of teaching that many performer-teachers find difficult if they have not had any background in pedagogy training. Logically it should be an important part of any pedagogy course. One participant described the approach taken to this aspect of training in the course that she completed:

Nina  The biggest part of it... how to start beginners. They pay a lot of attention to how you train a child at the beginning. There are different aspects to it. First it's the technique and posture... then being able to perform, so there is a little bit of psychological training. You have to work with the child so what he has learnt in the lesson he would be able to play in public... (Interview, 2005)

Suzuki training also places considerable emphasis on this important part of children’s training:

Kim    [In Suzuki training] we go through ideas for setting up good left hand posture, or when teaching very little kids, how do you get them to hold the violin and bow correctly. (Interview, 2005)

Both these approaches stress the importance of establishing a secure set-up from the beginning. Teachers generally consider this extremely important to avoid time-consuming remedial work at a later stage. The degree of attention devoted to this aspect of teacher training in both these courses indicates that it was considered important and warranted guidance.
It was noticeable that many of the teachers who had undertaken some pedagogy training expressed confidence in working with young children:

P What levels and age groups do you feel most comfortable with?  
Erna I can't say that I have a preference. (Interview, 2005)

P What ages or standards are the children that you work with?  
Hedy I am quite happy to teach a three year old or a four year old . . . . I teach a lot of very little children. (Interview, 2005)

The fact that both teachers expressed no particular concerns regarding working with beginners is in contrast to the responses of many of the performer-teachers discussed in the previous chapter, who were reluctant to teach younger students. In the case of the performer-teachers, this was a period of their own background that they could not remember. However, in the case of many of the teachers who had completed pedagogy training this aspect of teaching did not appear to be a problem, an outcome that might reasonably be attributable to their pedagogy training.

Surprisingly, some of the participants indicated that the teaching of beginners was something that had not been given adequate attention in the courses they had done and they expressed concerns about various aspects of teaching this age group that they would have liked to have understood better:

Arvin Psychology of children . . . . I have about 20 five year olds . . . . child development and . . . . their physical co-ordination development, and how that can be related to string playing. (Interview, 2005)

Mary [The repertoire] was never for beginners and [child psychology], I wish I had more of that . . . . (Interview, 2005)

Often young teachers at the beginning of their careers in teaching find that they have a disproportionate number of very young students. It can take time for a studio to develop so there is a range of ages and standards. These concerns were raised by a number of teachers who had completed less extensive pedagogy courses. Paradoxically, despite pedagogy training, they appear to be ill-equipped, both in terms of understanding children of this age group and knowing what materials to use, for the level of students they are most likely to encounter when they first start teaching.
**Psychological Issues**

Research indicates that general educational issues such as child development and learning theories are not always well represented in pedagogy courses (Uszler, 1996). As shown in the previous section, an understanding of educational issues relating to young children was mentioned by a number of participants as a topic they would have liked to understand better. Similarly, a number of teachers felt that the concept of learning styles and techniques for developing motivation in students had been neglected in their courses:

Hedy  Motivation, we never really talked about . . . . Rapport with students was not really dealt with. Student learning styles was not really dealt with either. (Interview, 2005)

Arvin  The teenage years . . . . How do you get them to be inspired when they just want to be ‘cool’? (Interview, 2005)

Q 13  I suppose experience in teaching assists with knowing how to deal with an individual student's needs, but I often feel that it's hard to know how to deal with certain types of students effectively.

The ability to communicate effectively with a range of students and to motivate them so they enjoy what they are doing and make good progress is a fundamental aspect of effective teaching. It could be argued that this can be left to teachers' intuition but the responses indicate that this did not equip many of these teachers to cope with many quite familiar teaching circumstances.

The Suzuki method assists its teachers in developing techniques to promote motivation in their students:

Kim  [At the conservatoire] we . . . didn’t really talk much about motivation, although that’s something we talk about a lot in Suzuki training. We’ll have open discussion as part of the teacher training . . . the great thing about it is . . . you’ve heard it all before . . . but suddenly you will get a new idea and you can go home and try it out on your students. (Interview, 2005)

The approach described utilizes the experience of other teachers to reinforce their training in motivation techniques. Kim also commented that the group playing events in the Suzuki
programme supported teachers’ work with their students because these occasions acted as a motivation for students to keep up with their friends.

In some courses, the psychological aspects of training such as learning styles, performance anxiety and other related issues were addressed in a systematic fashion and taught as a separate subject by teachers who were experts in those fields:

Vera In music school . . . before conservatory we had to learn one year of psychology and one year of pedagogy, a general approach to it. We had to learn principles of it and then we had to do that in [the] Academy as well. . . . So we were actually taught about psychology, and different types of people, and how differently they learn. (Interview, 2005)

Nina We had a course where the psychiatrist came in and taught us how to deal with stress. We had a medical person coming in teaching us about psychology to deal with kids . . . child psychology . . . how to deal with the stress before performance. (Interview, 2005)

Hedy We . . . took one subject . . . [with] the education people . . . child development and general learning theory, Piaget and all that sort of stuff . . . (Interview, 2005)

The first two of these courses were situated in countries in the former Eastern Bloc of Europe. They were very thorough, and all students were required to do them. Only a few teachers who had trained in Australia mentioned anything as extensive as the course Hedy had undertaken. Her training was provided by the music education department of the conservatoire that she attended. The teaching of these educational subjects is really a specialized field, so it is not surprising that some courses do not incorporate them if the pedagogy trainer is a string specialist rather than someone who is trained in music education or a specialist in the field of psychology. It is notable that most of the courses where these subject were taught systematically, had lecturers other than string specialists coming in to teach them separately from the actual string pedagogy aspects of the courses.

The findings of this study are consistent with those of Uszler (1996), who found that these aspects of training are often neglected in pedagogy courses. This is probably related to organisational or financial limitations resulting from having to bring in different teachers from other departments. Some research has suggested that a connection between instrumental and music education departments could benefit the training of performers (Mills, 2006a). Given that these departments commonly exist within single institutions on Australia, some form of
collaboration, perhaps teaching these subjects in heterogeneous groups of performers as suggested by Uszler, might facilitate the inclusion of these topics in pedagogy courses.

Performance Injuries

One topic that was rarely mentioned by participants was the management of performance injuries. Hedy commented that “performance injuries were not really addressed as part of that course” (Interview, 2005). The conservatoire head of strings felt that this was a topic that ought be included in pedagogy training and that ideally, it should be taught by “experts in that field”. She observed that this issue was also often ignored by “old school” string teachers who “don’t think about injury” and who tell their students that, “if it's hurting, just practise more and that will fix it, and you can put up with it” (Sheryl, interview, 2005).

Research indicates that performance related injury amongst professional string players is very prevalent (Davies & Mangion, 2002; Fishbein, Middlestadt, Ottati, Straus, & Ellis, 1988) and it appears that players may often receive little guidance from instrumental teachers regarding this issue. Given this rate of injury it is surprising that the management of these problems is not an aspect of pedagogy courses but perhaps, as researchers suggest (Blackie, Stone, & Tiernan, 1999; Caldron et al., 1986), this is due to the reticence of players to acknowledge this sort of problem. One pedagogy trainer had addressed this aspect of training in his own course by having “an Alexander person come in, and [giving] an overview” (Fred, interview, 2006). An awareness of these aspects of teaching could be introduced by this means.

Teaching Strategies

Meske (1985) pointed out that good teacher training depends not only on appropriate content, but also on the design of suitable learning experiences that facilitate the acquisition of the skills and knowledge necessary to teach effectively. This section discusses some of the methods or strategies used to teach pedagogy courses and discusses participants’ views on their effectiveness.

Observation of Teaching

A strategy used in pedagogical training that appears to be very effective is observation of other teachers giving lessons. Many participants commented on the benefits of this method of learning:
Mary We did observe our lecturer teaching someone. I always find watching other people teach incredibly helpful, I pick up so many things . . . I found that the most helpful. (Interview, 2005)

Hedy I think seeing how others do it, watching others teach, was very useful in my very early teacher days . . . . That was fantastic at the time for a young teacher starting out. (Interview, 2005)

Observation is also an important part of the training in the Suzuki method:

P With Suzuki training you do some observation of other teachers?
Kim There’s probably 20 hours or so that we are supposed to do.
P Do you find that helpful?
Kim Yes. That’s probably the thing I learn most from. (Interview, 2005)

Most teachers considered that this was an activity that they had valued as students. It gave them the chance to see teachers approaching problems with a range of different strategies and allowed them to experience a range of teaching scenarios beyond what they had encountered themselves. As with instrumental learning, observation and modelling provides an effective way for teachers to acquire teaching skills. Much research has found this to be a useful strategy (Dickey, 1991; Rosenthal, 1984; Sang, 1987). This element of training was found to be a feature of all the pedagogy courses discussed in this study and was consistently found by teachers to be an effective type of learning experience.

**Practicum, Supervisor Feedback and Assistantships**

Practical teaching experience was a significant part of some pedagogy courses and normally incorporated some form of feedback from a supervising instructor. Several participants discussed this aspect of their courses:

Erna For two years we had a student who we were given by the [conservatoire], and our supervisor of the practical class supervised us on how we taught that child. They suggested material and from time to time they observed and suggested something. We had to demonstrate what we had achieved with them and discuss that and do a demonstration lesson. (Interview, 2005)

Nina First there is a year of theory and then they bring the kids in and you start working with the kids, and the teacher who is supervising you . . if you do something wrong they show you . . “no, no you don’t do that you do this”. That’s in the fourth and fifth year [at Uni]. Everyone gets a student. (Interview, 2005)
Both these European courses provided for significant amounts of practical experience for trainee teachers. It was an established part of the training. In both cases the institutions had programmes where young children came for lessons with the student teachers, who were in turn supervised by their instructors. This gave ample opportunity to put into practice the theoretical aspects of their training and to have the benefit of immediate feedback from a more experienced teacher as to how to make improvements. American research relating to the training in class instruction found this to be a very effective means of training instrumental teachers (Bauer & Berg, 2001; Conkling, 2003; Conway, 2002; Owen, 2004). As one of the pedagogy trainers pointed out, “the only way you are going to learn to teach is by having students.” (Rachel, interview, 2005)

A number of the courses described in this section did not include any practical component where trainee teachers could put the theoretical aspects of the course into practice. One participant pointed out the difficulty of trying to learn how to work on technical aspects of teaching without being able to apply the skills to real students:

Hedy I don’t think diagnosis of technical difficulties was really dealt with... [or] correction of technical difficulties... partly because we were learning to teach without live guinea pigs in front of us... it almost can’t happen. (Interview, 2005)

It appears that pedagogy courses that do not include this strategy amongst their methods are less effective in preparing trainee teachers for what they need to know. This is particularly so if pedagogy students do not have students of their own to work with outside the course. The logistics of organizing for young students to be available may present problems, however. It would presumably necessitate the provision of teaching facilities and the establishment of a programme such as the model designed by Phyllis Young (Witt, 1998) where community children come into a conservatoire for lessons with tertiary students, who are in turn under the guidance of more experienced teachers. One pedagogy trainer had encountered this organizational problem when trying to provide effective practical teaching experience for his students and had resorted to the use of video technology to address the issue:

P Do you get students in for them to work with?
Fred Only by video... [it’s] difficult to find time for the parents to [bring] the kids... they video themselves teaching. (Interview, 2006)
Students in this course had to provide video recordings of lessons they had taught and these were then viewed and discussed with the supervisor and fellow students in the weekly classes. Whilst this strategy did not have the benefits of instant feedback during a teaching episode, where it might be possible to try a teaching technique again at the time, it would provide a means for including this seemingly important aspect of training in courses of this nature.

Only one participant had had the opportunity to work as an assistant to a master teacher as a younger teacher. He considered there were many advantages to having done this:

Ron It allows you to get into the mind of that teacher and see what they are doing with the student in terms of progression of the student, in terms of where they are pushing and where they are holding back, what they are choosing to develop at what time . . . . It also allowed you, when the student would come back from a lesson, to judge how you had prepared them and what you noticed and what you didn’t notice. . . . I loved doing that assisting work because it was really enjoyable but you didn’t have this weight on your shoulders as a younger and inexperienced teacher of “are we on the right direction, are we playing the right things, have I chosen the right course of action here” . . . . If you have a lot of respect for the teacher you are assisting, it’s a great way [of learning]. (Interview, 2005)

Clearly this experience was viewed as a significant opportunity for a younger teacher. In a way it is an extension of the practicum experience but it appears to have had a number of advantages. Given that assistants work with the students of a more experienced teacher, they would have access to more able and advanced students than they might be likely to have on their own at this stage of their careers. Regular interaction with an experienced teacher would give detailed insights into aspects of curriculum planning and teaching strategies that they might not otherwise encounter until much later. The fact that ultimate responsibility for the teaching still rests with the master teacher seems to be viewed positively as it removes some of the anxiety from the early teaching experience. A number of teachers refer to the concern they felt about ‘getting it right’ as a less experienced teacher:

Vera It’s incredible how little you know about teaching when you start. I remember that feeling. “What am I going to do? Where do I start from?” (Interview, 2005)

One of the trainers commented that assistantships would be her preferred way to train students to teach:
Rachel Maybe some sort of apprenticeship system would be ideal where they can be teaching the students, but the children also have access to a more experienced teacher. If we were looking for ideals, that would be mine.

There are clearly benefits for all concerned in this sort of arrangement. The young students have the benefits of the expertise of a fine teacher and the reinforcement of the assistant to aid their preparation. The master teachers would have support for the routine parts of their teaching and assistants would have the opportunity to develop their teaching beyond what might be possible if they worked on their own. The number of well-respected teachers who began their careers as assistants attests to the effectiveness of this learning strategy. As described in the review of literature, this was the background of teachers such as Max Rostal, Ivan Galamian and Dorothy Delay. Whilst it may remain an opportunity that is available to only a few young teachers due to organizational issues, it seems to be a strategy that is worthy of further implementation.

The Effects of Pedagogical Training

Participants in this study were asked to assess how effective they considered their pedagogy training to have been in general and to consider how they felt about their teaching effectiveness as a result. Most responses indicated that the training was viewed as a significant advantage, although there was acknowledgment that in many ways it was just a starting point upon with they could base further experience:

Q10 Specific pedagogical training was like gold.

Nina I felt quite confident because I knew what to do. It helps a lot. You are scared at first because then it's your responsibility. (Interview, 2005)

Erna It was very, very useful. It was a starting point but it wasn't enough. I felt . . . secure in what I did and I had discovered my passion as well. (Interview, 2005)

Ron No matter how much training you have, nothing makes up for experience. You can be told everything but you haven't necessarily learned it . . . Teaching is a lifelong quest and it goes on forever. (Interview, 2005)

Clearly these teachers had found their training to be of value. It had given them a starting point for their teaching and a framework for the development that takes place through experience.
A few teachers expressed concerns that indicate their training had not really prepared them for what they wanted to be able to do. When asked if there were any overall limitations they perceived in their training, when considering their needs as teachers now, some concerns came to light:

Arvin  
It didn’t qualify me for now . . . having 40 students a week. It would have been good if it was more in depth and went for two years and went into those things [on the checklist] in detail and covered more topic areas. (Interview, 2005)

Q42  
Training so far has been very haphazard. Any training I have done has definitely improved my teaching – I just don't feel I've done enough teacher training. I feel there are many gaps in my experience.

It seems clear that some form of pedagogy training is considered to be advantageous by teachers. However, the concerns raised indicate that some courses do not appear to prepare teachers adequately for a broad range of teaching contexts. Whilst most teachers agreed that they had benefited from doing the training, there appear to be a number of areas of their teaching where they still feel a lack of confidence or effectiveness.

It appears that pedagogy training may only be as effective as the quality of the course itself. If the knowledge and skills that are needed to teach well are not addressed in the course, or the strategies used to teach these components are not effective methods for learning those skills, then the results may be less than desirable. This finding is consistent with the views of Meske (1985), who suggests that teacher training needs to have clearly defined goals in terms of what needs to be taught and a logical sequence of methods for implementing these, if it is to be effective.

Amongst the trainers and employers there was consensus about the importance of pedagogy training. They pointed out that most players do teach at some point even if they don’t expect to do so as young students:

Martin  
Even for those students who are only going to be players . . . . Nobody knows where they are going to be going . . . life changes . . . . If they haven’t had any training they’re going to have to go back to square one . . . . It’s at least as important as some of the other aspects of training we get in our academic courses . . . . In terms of
professional training that would seem to be more important in the long term. (Interview, 2006)

Rachel Whether you like it or not, or think it or not, you will end up teaching. (Interview, 2005)

Both make the important point that most players do teach at some point in their careers even if it is not what they expected that they would do. As Martin pointed out, it would be an advantage not to have to learn teaching skills from scratch if players began teaching later in their careers, as is often the case.

Concerns were raised, however, that many tertiary students do not actually undertake any pedagogy training. Rachel pointed out that her course is “only an elective and most of the performance students will take orchestra or chamber music, or both” (Interview, 2005). This problem is compounded in the view of the conservatoire head of strings, who pointed out that the students do not always imagine that teaching will become part of their careers:

Sheryl The students aren't always able to understand that that is something they are going to use – they are not always very interested to start with . . . . The majority of students don’t actually think they are ever going to teach. (Interview, 2005)

She also noted that this sort of training is not always supported by teachers at the tertiary level:

Sheryl Some teachers actively discourage their students from doing the [pedagogy] programme because they believe you learn the way your teacher . . . taught . . . . I think it threatens them . . . . They don't want their students questioning too much . . . . [They] teach [them], “Do what I say, don't question, don't think, just do it this way . . . . and if you do that, it will work” . . . . So some students of some teachers would never take the pedagogy course. (Interview, 2005)

There was general agreement amongst the trainers and employers that pedagogy training ought to be a mandatory part of tertiary music courses:

Martin I would like to see, in the tertiary courses, some very specific things to do with the way people can teach string instruments so that things on the checklist . . . are covered. Methods, approaches, understanding of child development . . . . (Interview, 2006)

Greg Every single B Mus course, any tertiary course for a performer . . . should have a pedagogy unit . . . and a decent one. (Interview, 2005)
Sheryl I’d like to see pedagogy as being compulsory. I’ve seen the value for my students who are studying pedagogy. (Interview, 2005)

There appear to be a number of barriers to the implementation of more widespread pedagogy training. The general lack of interest from the students themselves is significant. Many participants in this study mentioned this, either in reference to their own attitudes as students or more often to those of fellow students. In performance courses, young players are characteristically very focused on becoming players and may not view teaching activities as anything more than a “second best option, or a way of making some extra money until [they] get to the real [playing]” (Martin, interview, 2006). Martin pointed out that it was “important that students see teaching as an “important and valuable and enjoyable musical activity.” It could be argued that such a change in attitude might be promoted through the increased teaching satisfaction that would result from being trained to teach well.

The resistance from teachers reflects the traditional master-apprentice view of teaching discussed in previous chapters. It could derive from a desire to maintain the integrity of a particular school of playing or may possibly indicate the insecurity teachers might feel if their students were to begin to evaluate the teaching they were receiving with a new perspective. This may indeed be the case as Sheryl observed that students who study pedagogy tend to “take control of their own learning” and “start to think for themselves” (Interview, 2005). A change of culture can only really happen if pedagogy becomes an accepted part of music degrees rather than something that is just added on.

The findings of this study reveal that that pedagogy training provides many benefits for the development of teaching effectiveness. It addresses skills that are not well developed purely through the process of instrumental learning and reinforces many of the ones that are. It also provides a head start for teachers and gives a framework for the knowledge acquired through experience. It does appear that courses need to be well designed and implemented if they are to have maximum efficiency, and a wide range of possible future teaching scenarios need to be considered in this design so that teachers are equipped to adapt to the variety of teaching circumstances that may present themselves during their careers. Even where training is less than comprehensive there are still benefits, but ideally when time is a limitation in such
courses, there may be some wisdom in focusing on the aspects of pedagogy that are least well addressed purely through instrumental training.

**Professional Development**

Professional development activities can take a multitude of forms, and teachers’ preferences in this regard may vary according to their backgrounds and locations. The following section discusses the results of the study with regard to teachers’ professional development needs and preferred activities.

**Professional Development Needs**

Respondents to the teacher questionnaire were given the option of indicating any areas of pedagogical knowledge in which they felt that further training would be beneficial to their teaching, and interview respondents were also asked to discuss their views on the skills and knowledge they would seek in professional development activities. Table 5.2 shows the frequency of responses to these questions.

<table>
<thead>
<tr>
<th>Table 5.2 Professional development needs.</th>
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<td><strong>Questionnaire Respondents: N=50</strong></td>
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<tr>
<td><strong>Frequency of response</strong></td>
</tr>
<tr>
<td>-----------------------------------------</td>
</tr>
<tr>
<td>Repertoire and Curriculum</td>
</tr>
<tr>
<td>Technical Difficulties</td>
</tr>
<tr>
<td>Instrumental Instruction</td>
</tr>
<tr>
<td>Psychological Issues</td>
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<tr>
<td>Performance Injuries</td>
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<td>Beginners</td>
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<tr>
<td>Performance Anxiety</td>
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<td>Practice Techniques</td>
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The questionnaire responses to this open question were varied and a number of respondents did not complete this question at all. Due to limitations of space, respondents may have chosen only the aspects of training most important to them so the figures in this table cannot be considered to be a comprehensive itemisation of needs but rather a prioritisation of what was considered most important. Most interview participants were a little reticent to speak about any weaknesses in their own teaching in a face-to-face situation, or to discuss them in
any detail. Discussion tended to focus instead on how they had gone about learning these skills. For this reason too the interview responses in this table are far from comprehensive.

Some questionnaire respondents were unspecific about their needs. One had only just finished school and had had no pedagogy training. She commented that “most areas of my teaching would benefit from training, as I haven't had any training” (Q38). Another respondent who had completed a performance degree but whose only pedagogical input had been “a couple of Suzuki workshops” felt she had a lot to gain from a range of professional development possibilities:

Q 20 Training would give more confidence and new ideas to prevent staleness. Training would also help fill in the gaps, provide revealing insights to problems, and help arrive at greater efficiency and understanding of techniques and music concepts.

It is understandable that most aspects of pedagogy training would seem attractive when teachers have had little background in pedagogy.

Although the questionnaire results do not have great statistical significance, it was interesting to note the characteristics of those who responded to the question asking for their professional development needs. Of those who responded to this question, all but five had indicated that they were professional players who had only undertaken some pedagogical training as part of their performance degree ($n = 20$), or professional players who had no pedagogy training ($n = 10$). Amongst the respondents who had completed a dedicated pedagogy course or music education degrees ($n = 17$) responses generally indicated openness to new ideas but far fewer specific needs.

As discussed in the previous chapter, good players who do not have a background in pedagogy frequently express insecurities in the teaching of beginners and younger students. They do not clearly recall the methods used when they were students and have difficulty with relating to this young age group and knowing what materials and practice techniques to suggest. Those who have had inefficient instrumental training often want to seek out better understandings of technical issues on their instruments and well-trained players commonly acknowledge that they have trouble remembering how they learned various techniques, which makes it hard for them to teach these aspects of playing:
Mary I can’t remember how I learned to position shift . . . . you know how to do it but to actually teach it to someone so that they get a clear understanding of it is very different (Interview, 2005)

Q32 I would like to know in what order to tackle these problems, for example: bad left hand position, posture, left hand fingers lifting too high, stiff right hand position with [a] locked thumb, right hand wrist too high or too low, stiff vibrato etc.

A desire for better knowledge of repertoire and curriculum planning appears to be common to almost all string teachers unless they have had very effective training in this field in a pedagogy course, as discussed in the first section of this chapter. Several professional players commented on the problems they encountered in this aspect of teaching:

Mary I can’t remember what I did as a kid. When I started teaching I just went back to all the books that I used and went through that . . . and added a few things. (Interview, 2005)

Q32 I would love a simple suggested list of material to deal with specific bad habits which have not been attended to by previous teachers . . . . I would like some simple . . . material for each problem, for example: scales, exercise, short study, and then a short piece for the application, so the student can enjoy the results.

The psychological aspects of teaching, such as motivation, learning styles and rapport, were also mentioned quite frequently by professional players as an area of teaching in which they would like support. As discussed in the previous chapter, these skills can develop from observation of other teachers and fellow students but the diversity of backgrounds amongst players would mean that not all players would experience these opportunities to the same extent. As discussed in the first section of this chapter, formal training in these topics appears to be a rarity.

The need for assistance with the management of performance injuries and performance anxiety was mentioned by only a few respondents all of whom were professional players. Whilst it was common for performers to indicate that they learnt about these issues through the experience of their own injuries or from having to cope with performance anxiety as a player, some wanted to know more. Research indicates that this is not a topic that teachers frequently address with their students in an instrumental learning context (Kee, 1993) so it can be assumed that most players may indeed be relying on experience rather than guidance.
from their own teachers. Researchers have advocated the training of teachers in this aspect of pedagogy (Spaulding, 1988; Zaza, 1994).

Several teachers who had not been trained as professional players expressed a desire to access further instrumental training if they were to look for professional development opportunities:

Lisa What I would choose to do is revisit aspects of tuition with my own playing skills . . . (Interview, 2005)

Beth I just want to be a better player . . . . I want to be able to demonstrate at a higher level. (Interview, 2005)

Most of these teachers had sought pedagogical training and educational qualifications. These were often teachers who had found themselves teaching a string instrument due to some quirk of circumstances such as being a pianist, and the only musician in a remote location. Whilst it is possible to access relevant educational training through distance education or short courses, the regular instrumental lessons that are generally considered to be a common background for all teachers, might have been difficult to organize in these cases. In many ways, their needs are different from the professional development needs of the larger body of teachers because, to some extent at least, they need individual intervention from another more expert instrumental teacher rather than more general pedagogy workshops. Whilst this is normally possible in a metropolitan setting, it becomes more difficult in a regional one where large distances need to be travelled and appropriate teachers may not be nearby. The use of technological interventions such as video conferencing could be appropriate in cases of this kind as discussed later in the chapter.

It seems clear that teachers do perceive that there are gaps in their knowledge but, whilst there are some obvious trends, the actual needs are not the same for all teachers. Backgrounds in instrumental training, performance experience, pedagogy training and teaching context all influence teachers’ needs in professional development. The following section discusses these issues further in the context of the types of activities that are used to disseminate pedagogical skills in the area of professional development.
**Professional Development Activities**

Interview participants were asked to indicate the types of professional development activities they found useful and to discuss their views and experiences with regard to these activities. Teachers responding to the questionnaire rated their preferences for a number of activities on a scale from 1 ‘not useful’ to 5 ‘very useful’. Figure 5.1 illustrates the responses to this question in the questionnaire.

**Figure 5.1 Teachers’ preferences for professional development activities. (N = 48)**

As previously mentioned, the questionnaire results have no great statistical validity but the pattern of responses to this scaled question elucidates the results of the data from the interviews and the open questions in the questionnaire. The results from this question indicate that workshops, courses and observation activities such as masterclasses are generally considered to be effective, and another popular means of accessing information appears to be interaction with colleagues. The use of professional books and journals also seems to be valued but it is apparent that technological means of accessing professional development is
not so widely used. The following section uses the qualitative data from this study to discuss teachers’ preferences as to types of professional development activities.

Courses and Workshops

Courses and workshops can include a range of activities from short sessions on a single day to activities that are much more substantial. In general, activities such as these are designed to facilitate the learning of skills or knowledge relevant to string teaching.

One participant, who had not previously had any pedagogy training, described a course she had attended while living in England. This was a very comprehensive one-week course that she had found particularly effective for her needs:

Anne  I went to Cambridge for the ESTA course with the teachers who had been assistants to Paul Rolland, which was the most amazing week of my teaching learning, and I have been looking for one like it ever since . . . . It was very structured. Every morning we would be divided into groups, we would have a different tutor come in, they would work through the points that are in Paul Rolland’s book, *Teaching of Action in String Playing*. We would see the video that applied to that later in the day, and we worked our way systematically through the whole method over the week. . . . . we were seeing different teachers. There was one that . . . . had specialised in young children, there was [one] . . . who worked more on remedial work with students who were later high school and tertiary . . . . Different people at different levels who were applying the Rolland technique . . .

P What did you get from that course?

Anne  Ways of teaching things like spiccato bowing, and how to hold the bow, and how to move to different parts of the bow, how to structure the development of the left hand – the whole thing just looked so straightforward . . . . [I’ve been] using that vibrato exercise ever since. I’d dearly love to do a refresher course just like that. (Interview, 2005)

This appears to have been a very thorough course. A teaching method was presented in a systematic fashion and various means such as practical sessions with tutors, observation of videos and the chance to experience different perspectives from different tutors were considered to be positive features. For this teacher, the course was exactly what she required. It addressed many of the issues that had concerned her, having come from a performance background with no formal pedagogy training. She had previously reported using the “same books I used when I started” and approaching instrumental set-up “how I had discovered it for myself and how my teachers had suggested” until she did this course, which “formalised the whole thing a whole lot better” for her. (Anne, interview, 2005)
An opportunity like this can make a huge difference to teachers’ confidence in their teaching. For this teacher it appears to have addressed the areas of insecurity in teaching experienced by many performer-teachers, such as instrumental set-up, the basics of early instruction and the teaching of fundamental playing skills. These concerns are consistent with the findings of Berliner (1986) who maintained that many basic aspects of playing are automatic for skilled performers and consequently difficult for them to explain to others.

The director of a regional conservatorium suggested that he would encourage teachers to attend courses of this nature:

Greg Institutions like ours would certainly send teachers, especially new teachers along to any . . . workshop . . . . Were there to be a short course like three days or something, even annually, that string players could go to, that dealt with those things [checklist], that would be fantastic. (Interview, 2005)

This director valued such opportunities, especially because in his view pedagogy training is “missing up to a certain age – so experience is a huge thing.” He was keen for his staff to have “high-level performance experience” because “active mentoring through playing is important” but he was also aware that most older teachers had not experienced any pedagogy training and that many teachers had gaps in their knowledge of teaching skills. Such a course would address the needs of his teachers and subsequently benefit their students.

One teacher who had completed quite extensive pedagogy training commented on the limitations she found in attending workshops:

Hedy I have taken the advantage of workshops when they have come up if they have been worth going to, and they have not always been worth going to . . . . the reason that many of them are not so great is the mixed clientele . . . . because there is a vast difference in both teacher training and performer training in the attendees at such workshops, they have to pitch it down the middle line and I find the middle line is not really offering me a lot. (Interview, 2005)

It appears that courses and workshops are most effective if they address the specific needs of the attendees. Clearly the needs of teachers with more extensive pedagogical backgrounds or more teaching experience would be different from those with little such background. Similarly, differences in playing expertise and instrumental training background would make
a difference to the type of activities that would be useful. Most teachers noted that courses and workshops occurred infrequently and that they had difficulty finding the sort of training that suited their particular requirements. There appears to be a demand for more activities of this nature, but careful matching of content and teacher needs may be a key to the successful design of such activities.

**Masterclasses and Observation**

Masterclasses are a popular way to share the expertise of visiting artists with a wider population of musicians than would be possible if lessons were conducted only in an individual context. Most conservatories make such activities available from time to time. One director of strings in an Australian conservatoire commented on the popularity of such activities with her string staff:

Sheryl A lot of the teachers really enjoy it when we have masterclasses and visiting artists come in ... a lot of staff find that very, very helpful and they will go to lots of things like that. (Interview. 2005)

Several teachers, however, expressed some reservations when they discussed their views on the usefulness of masterclasses:

Hedy I think in masterclasses and such you can’t really emulate what they do. It’s such a one off experience and you don’t see the progress over the years. (Interview. 2005)

Vera Masterclasses are very good ... but I think ... you have to really know the piece which is being played ... so you can actually benefit from seeing somebody only once. (Interview, 2005)

A limitation of masterclasses appears to be that they are a once-only encounter with a visiting teacher and the student or students in question. In the case of teachers in a conservatoire, the students they are observing may already be familiar to them from being in the same institution. It is also likely that they will see them again and observe their progress for this reason. For teachers who are outsiders to the environment where the masterclass takes place, the opportunity to follow the progress of the students may not be so readily available so it would not be possible to see the outcome of any interventions suggested in the masterclass over a period of time. It appears that this reduces the relevance of this sort of activity for many teachers.
Another consideration with masterclasses may be that the observers might not be familiar with the music being played, in which case, much of the detail of the teaching points could be lost on the listener. Perhaps this is less likely to be an issue if the characteristics of students who are performing are similar to those of the teachers concerned, as would be the case for teachers at a conservatoire. In such circumstances the repertoire for that level of student would presumably be familiar. However, it may be that masterclasses, where students are of a very different level to those of the attending teachers, may involve repertoire that is not familiar.

Several teachers commented that they would prefer to see students playing in masterclasses who were still preparing their repertoire or were not the very best students. They expressed a preference for “masterclasses where the performances are still works in progress and not yet polished.” (Q10)

Another teacher expressed a desire to see his own students involved in this type of teaching activity:

Arvin I think I would gain the most if I saw another teacher teach my own students . . . if they were able to get success or something out of them that I hadn’t . . . and how they did it . . . (Interview, 2005)

It seems that masterclasses involving very able and well-prepared students do not create a particularly relevant scenario for many teachers. They may not teach the most able students in their normal teaching routine, which would make a masterclass experience with very capable students an unrealistic experience for them. Similarly, there would be advantages for the observing teacher to see another teacher working on the building stages of preparation of repertoire rather than the final polishing that happens when a work is already well prepared. This sort of activity comprises the bulk of what most teachers do in the normal course of teaching and this might have more relevance for the observers. A chance to see another teacher working with their own students would function in some ways like the experience of assistant teachers, enabling comparisons to be drawn as to what is noticeable and what needs correction in a student’s playing. It is clearly important that the choice of participating students and their level of preparation is relevant to what teachers actually do in real life.
Masterclasses provide the opportunity to glean ideas and information according to what may be interesting or relevant to the listener and as Baillot (1835/1991) wrote, it is a chance to encounter new repertoire and teaching techniques. Menuhin (Daniels, 1980) explained that this type of instruction is not a substitute for regular lessons for a student. Nor is it sure to be an ideal experience for teachers. However, as with students, it could nevertheless provide a stimulus for teachers as is indicated by the popularity of this type of activity in a conservatoire setting.

As noted earlier in this chapter, many teachers commented that observation of other teachers was an effective way to learn more about teaching:

Q 22 I learn the most when I watch excellent teachers teach. Observation of others is my best training.

Observation of other teachers forms an important part of formal teacher training programmes and appears, from the data, to be similarly viewed as an effective means of learning in a professional development context.

Books and Journals

Many teachers used books and journals to some extent but only a few indicated that they made a point of reading extensively:

P To what extent have you used books and journals?
Anne I use that [Simon Fischer Basics] as a great resource. . . . I am a member of the European String Teachers’ Association and I read that book very carefully and I find it very helpful. (Interview, 2005)

Hedy I have read a lot over the years . . . certainly as a student studying pedagogy . . . and I still subscribe to American String Teachers Journal and all that sort of stuff . . . and I read the technical pages in the Strad Magazine. (Interview, 2005)

Mary Where I teach . . . they get the AUSTA magazine and the Strad magazine so I am always looking through that to see if there’s any new publications . . . (Interview, 2005)

Other teachers expressed reservations as to the usefulness of professional journals:
Kim I glance at them . . . I’m not into them. I’ve got enough. (Interview, 2005)

Arvin I’ve read magazines . . . and I haven’t got much out of it for myself. (Interview, 2005)

As discussed in the review of literature, there is scant information as to the extent to which string teachers read the relevant pedagogical literature. Bearing in mind that a very large proportion of the pedagogical literature relates to advanced students and professional players, it may be that teachers do not find this of use if they are teaching beginners and intermediate students, as is the case for many of the participants in this study. The existence of a plethora of professional journals indicates that there must be a market for this material but the responses suggest that the content is not always relevant to teachers’ needs.

**Colleagues**

The findings of several research studies indicate that music teachers find discussions with colleagues to be one of the most effective ways of refreshing and complementing their teaching skills (Mills, 2004b; Turner, 2001; Upitis, 1999). When teachers were asked about their preferences for professional development, interaction with colleagues was one of the most frequent responses in this study:

Q2 Professional development and conversing with colleagues has without doubt been the most help to me over the years.

Elise Teacher forums . . . just to spring ideas back and forth and to share experiences . . . would be fantastic . . . (Interview, 2005)

Hedy I do find it very helpful to have another teacher around to discuss things with . . . . . . talking to a colleagues is great and there should be more of it . . . (Interview, 2005)

The results of this study are consistent with the findings of previous research which indicates the effectiveness of interaction with colleagues as a means of providing a positive stimulus for teacher development. Given that each teacher is likely to have his or her own distinctive set of experiences and background that may be of interest and benefit to others, the community of teachers would seem to be a valuable resource. The bulk of the pedagogical literature is, after all, produced by other teachers rather than by researchers, and as Kennell (1992) pointed out, the practices of instrumental teachers are strongly influenced by the passing down of wisdom from one generation to the next. It could also be argued that both good and bad ideas could be passed on by this means. Presumably teachers would apply processes of evaluation to the
teaching suggestions that they encounter from colleagues in a similar fashion to the processes they apply when choosing the models they wish to adopt from their experiences of instrumental learning, as discussed in the previous chapter.

Some teachers raised the problem that there is actually sometimes a lack of willingness to share ideas amongst colleagues:

P: What about talking to colleagues?
Anne: Just occasionally you can pick up some ideas from teacher friends but generally secrets are well hidden. It’s good when you can find somebody that’s willing to divulge their secrets. (Interview, 2005)

John: Everybody thinks they have their way and that's it. Everybody's got their little empire. (Interview, 2005)

The teachers raising these concerns were generally professional players, involved to varying extents in working with advanced students in conservatoire settings. This particular issue was not raised by any of the teachers working with younger students or in non-tertiary institutions. It seems that there could be more concern to ‘protect’ knowledge among teachers at the higher levels of teaching.

In contrast, several teachers discussed approaches that promoted interaction between teachers in conservatoires where the results had proven very positive:

Vera: If we [were] preparing for a competition . . . the teacher would say “why don’t you go and play for so and so”, and it was a completely normal thing. And for the other teacher, they would actually listen to you and give some advice. It was . . . not like, “oh dear, he wants to take my student”. . . . I really would like to see more interaction between teachers and it would be good for the students, they would feel more competition themselves. (Interview, 2005)

Klara: He [teacher] wanted to combine all teachers in [European conservatoire] . . . there was a very poisoned atmosphere . . . he sat in their classes, he talked to them . . . and he gave them the feeling of trust . . . he managed after a few years that they all sat in a room together and discussed possibilities of how to teach things . . . there was communication, and that’s when growth is possible, and it’s very important for the . . . students not to become enemies, but be curious and feel open, and not closed up and poisoned. (Interview, 2005)
The sharing of students is not always favoured amongst string teachers. In general, students only play in front of other teachers during examinations and recitals; but beyond that they work on an individual basis with the one teacher. The advantages for students of having exposure to other teachers have been discussed in the first part of this chapter. It appears to enable comparisons to be made amongst teaching approaches and to enhance the development of their own pedagogical skills. For teachers, there would presumably also be advantages in an exchange of students and related discussion with colleagues, but insecurities and concerns about losing their students may cause resistance. However, a more flexible approach allowing students to experience advice from other teachers might lessen the need for students to actually change teachers.

It seems that a culture can develop where the sharing of ideas amongst teachers is seen as threatening. Given the general desire for interaction with colleagues expressed by most teachers in this study, this outcome would presumably create an atmosphere in which it was difficult to work. It would not facilitate the sharing of ideas so valued by most teachers.

One director of a school string department had endeavoured to introduce an open culture amongst his teachers:

Martin We do a bit of exchanging of ideas, like a teacher will say “come and listen to so-and-so and see what you can suggest” . . . it gives a different perspective. That sort of collegiality is important because in school or private studio there is that aspect of isolation from colleagues . . . I keep an ongoing dialogue with them about their students and how they are going, just so that if there are any things . . . I can maybe help . . . . We’ve had [guest teacher] coming in and spending quite a few days there . . . he spent some time directly with the teachers or working with the kids . . . the teachers came along when they could and consulted with him about the things they were doing . . .

P Were people willing?
Martin Oh yeah. Everybody’s very open to that. It’s part of that collegiality . . . it makes people engage in what they are doing and have a chance to share with colleagues and find out new things. (Interview, 2006)

Clearly, with effort on the part of administrators, this sort of collegiality can be achieved and it appears to elicit a positive reaction from teachers. The challenge for those initiating such an undertaking appears to be the creation of a sense of support and trust so that the process can begin, and then the facilitation of an environment where it can flourish. For teachers at the tertiary level, this might be an effective form of professional development.
Technology and Regional Issues

The use of technology to facilitate discussion amongst string teachers, was suggested as an innovative alternative means of communication by some younger teachers:

Elise I wanted a teachers’ sort of website where you go online when you want to chat to other teachers or talk about common issues or find out about repertoire . . . . You’d have to be a member or something and you’d have to have a list of people associated with it who were highly regarded or knew what they were talking about obviously . . . (Interview, 2005)

P Do you find it helpful to talk to other teachers?
Arvin In theory, but in practice . . . there’s no-one else here really.
P What about an online chat room for teachers?
Arvin That would be really worth it, but probably if . . . there were other teachers [italics added] online, not just anyone . . . . (Interview, 2005)

One of the teachers who is also active in pedagogy training also had concerns regarding the limitations of online chat rooms and suggested the use of well designed pedagogical audio visual tools as an alternative:

Ron Mimi Zweig . . . she’s got some DVDs of just teaching basics, and it’s that sort of thing that they actually need, to see someone doing it. They need to see someone standing there saying this is how you hold the bow . . . . That sort of stuff is the most helpful for them. Chat rooms are fine but you often get people who don’t know any more answering them . . . . (Interview, 2005)

The use of the internet to communicate between teachers had attracted the interest of some of the younger teachers. In particular those in regional locations, where there are few other teachers, could benefit from this means of communication as a way of reaching a much wider forum of teachers. The problem seen by these teachers is the quality of feedback they might receive in an unregulated environment. They want to be able to respect the advice they are given. This concern is also shared by the pedagogy trainer. Given the isolation of teachers, either due to the constraints of private studio teaching or distance, which is a factor in Australia, there is considerable incentive to utilize the possibilities of internet communication.

The results of this study indicate that many of the string teachers involved have been slow to engage in the use of technology for their teaching. Many interview respondents expressed an
interest in the possibilities of using technology but had not really made a start, or were only beginning to examine the possibilities:

John  I’d like to but there’s so much setting up and stuff. (Interview, 2005)

Anne  I haven’t used a great deal of that . . . I think it does have [potential]. If I have more time . . . I see it as something I really do want to use, and I think it will be wonderful when I am doing more of that. (Interview, 2005)

Amy  I’m only really getting my feet wet online at the moment . . . (Interview, 2005)

For many of these older teachers, the prospect of learning to use new technology was a daunting task. Whilst they were interested in the possibilities it presented, it was unfamiliar and they were concerned about the time it would take to learn to use it effectively. One questionnaire respondent expressed an interest in learning more about “technology based teaching aids” and acquiring software skills (Q1). Professional development workshops focussing on music technology for teachers might provide a starting point for teachers in this category.

Access to the possibilities offered by communication technology was a problem mentioned by some teachers who lived in regional towns or rural locations. Some had little access to the internet as it was only available at the local library. Expense was also mentioned as a concern:

Mavis  We’ve got the local centre with the video conferencing available, but the cost of that . . . is expensive. (Interview, 2005)

Internet access remains limited in many areas of rural NSW and video conference teaching appeared not to have been used by the majority of the participants in this study although it has been available for at least a decade in some centres.

Many regional participants felt that they were disadvantaged because they did not have easy access to professional development activities due to their location. They felt that most of the activities took place in the cities:

Q 6  [We need] more visiting musicians to do workshops and orchestral camps in regional cities.
Q 17  [We need] cheaper inservice courses, [they are] expensive and always in the city.

Q 7  As a country based teacher I feel a definite lack of easy access to courses and to, for example, video materials. I would enroll in performance-based courses in a Music education context if they were more accessible to country teachers.

Isolation is a significant problem in regional NSW. Travel between towns can take many hours. As discussed in the previous section, even communication amongst colleagues is limited if there are few or none nearby, as can easily be the case in rural settings. Needless to say, the time and money involved in getting to activities is likely to be greater when teachers need to travel long distances to attend professional development activities. Active intervention by regional conservatoires appears to be assisting in this respect, but it would seem expedient to facilitate the use of communication technology.

Conclusion

The results of this study indicate that professional development activities are valued by teachers and that generally they would like more opportunities to engage in this type of endeavour. Beyond the constraints of time, money and accessibility the overall finding seems to be that the activities need to be relevant to the participants. Not every teacher needs the same skills and knowledge and the context in which the activities take place must be carefully designed to complement the teaching context of the participants. It appears that a one-size-fits-all approach has limited appeal or practical value. In the following chapter suggestions are made regarding the design and implementation of effective strategies for training in a number of different contexts.
CHAPTER 6

CONCLUSION AND RECOMMENDATIONS

String players draw on a wide range of different influences when they teach. Players are the product of a unique combination of training and experience and a personal interpretation of these factors. The principal aim of this study was to understand the influences that contribute to string teachers’ pedagogical skills. Many factors can play a part in this process and the practical training and performance backgrounds of teachers were considered in conjunction with more specific training such as formal pedagogical courses and professional development activities. In seeking to understand the impact of these influences, this study also endeavoured to isolate and understand the perceived needs of teachers with regard to their own teaching effectiveness. String teachers work in a variety of different contexts, and the skills and knowledge required of them can differ accordingly. The ages, aspirations and abilities of students, and the aims and objectives of teaching institutions and other stakeholders all affect the teaching attributes and behaviours that teachers may need to work effectively. The following section presents a summary of the findings of this study.

Summary of Findings

Instrumental training was found to encompass a huge range of experiences and outcomes in string players and the actual levels of expertise and performance profiles of teachers in this study varied considerably. The data suggest that good early training provides a considerable advantage in achieving a high standard of playing expertise and in gaining access to the top echelons of performers and performing opportunities. This background was found to be advantageous for such players when working later as teachers of advanced students. It was also evident from the data that less effective teaching delayed or prevented the achievement of players’ full potential and often resulted in the need for corrective or remedial teaching to address problems with their playing.

The data indicate that teachers’ playing expertise and performance experience are closely related to their ability to demonstrate effectively. It was found that performers placed considerable value on the use of demonstration in teaching whereas teachers who did not play
or perform extensively tended to focus more on the use of analytical skills in their teaching. Research confirms that skilled players use demonstration as a teaching strategy more so than teachers who are less skilled players (Dickey, 1992), and many eminent performers endorse the need for teachers to have good playing skills (Campbell, 1995; Solare, 1996). However, some research indicates that in practice, teachers demonstrate for only a very small proportion of lessons (Kotska, 1984) and other eminent pedagogues have criticized the overuse of demonstration as a teaching tool (Sand, 2000). The consensus amongst employers of string teachers in this study was that a competent degree of playing ability and some performance background was desirable so that teachers had a clear understanding of the experiences for which they were preparing their students and the long term ramifications of their teaching.

The data indicate that an understanding of repertoire and stylistic issues is enhanced through performance and that issues such as practice skills and performance anxiety are better understood by those who are, or have been, performers.

Whilst it was clear from the data that a high level of playing expertise and performance profile were important assets for teachers of advanced students, participants noted the limitations of teachers who used demonstration as their primary teaching strategy. This approach was found to be unsuitable for teaching any but those who were similarly talented, and able to learn by imitation. Students who needed a more analytical approach to teaching or lacked sufficient training to benefit easily from demonstration were found not to thrive with this form of teaching. Paradoxically, teachers who had experienced difficulties as learners or who had needed to restructure their playing were found to have the greater ability to assist students who needed an analytical approach to their learning and empathy with the struggle of re-learning technical aspects of playing.

The data indicate that teachers’ playing expertise and performance experience are significant factors in determining the student levels with which they prefer to work. In general, players of considerable expertise preferred to work with older and more advanced students and those with less playing expertise or experience of performing, felt more comfortable with younger and less advanced students. However, it was also found that performer-teachers frequently lacked the confidence to teach beginners and young students because they did not recall those experiences clearly, having begun their training when very young. In contrast, performers who had undertaken pedagogy training did not demonstrate this concern to such a degree and
were usually comfortable at all levels of teaching. Career teachers who did not play extensively and who had developed their teaching skills through pedagogical endeavours were found to be effective teachers for younger students and to favour teaching the earlier levels of teaching.

Teachers noted that a number of aspects of instrumental instruction contributed to their development as teachers. Observation of different teachers during their studies provided models that they then evaluated and synthesised when forming a personal teaching style. Where they had encountered teachers who had encouraged their own awareness and analytical thoughts as learners, this was found to be advantageous for the development of pedagogical ability.

Regarding professional development needs, the data suggest that teachers who relied solely on their instrumental backgrounds for the development of pedagogical skills exhibited some gaps in their knowledge as teachers. A familiarity with teaching repertoire and curriculum design skills, an understanding of psychological issues such as motivation and student learning styles and the ability to describe the mechanics of technical skills and set-up were often mentioned as areas in which they would have liked more expertise.

Some form of pedagogical training had been undertaken by more than half of the teachers involved in this study but there was considerable variation in the content and strategies encountered in these courses. A number of participants had completed courses that were offered as elective components of performance degrees. These courses varied in length from one or two semesters to several years. The data indicate that some of the Australian courses provided quite limited content and did not use a wide range of teaching strategies. They were also inclined to be unsystematic in their design. Other Australian courses were far more comprehensive and provided a very thorough grounding and several European courses were extremely systematic and comprehensive.

As regards the content of pedagogy courses, the data indicate that all topics were valued by teachers. However, repertoire and curriculum, the teaching of beginners, psychological issues and practice techniques were the topics that were most frequently reported as having been covered in an inadequate fashion. Two teaching strategies were reported by teachers to have
been of particular value: observation of lessons given by other teachers and practicum with supervisor feedback. Where these were a regular feature of the pedagogy training, the courses were found to be particularly effective. These findings are supported by research indicating that appropriate skills and knowledge and effective teaching strategies need to be present if teacher training is to be effective (Meske, 1985).

There was a general consensus amongst participants that having had pedagogy training was an advantage for teachers, and that it provided a starting point and basis upon which to build through experience. It was noted that this advantage was not shared by teachers who relied solely on their instrumental training as a basis for their teaching skills. Most participants felt that pedagogy training should be a compulsory part of tertiary music courses. However, the data indicate that Australian tertiary music institutions generally offer string pedagogy as an elective option and this, combined with lack of support from some teaching staff, makes it probable that many students do not receive any pedagogy training.

Professional development activities were seen by teachers as a means of addressing any gaps in their knowledge and extending their skills as teachers. As with instrumental and pedagogy training, activities that involved observation such as masterclasses or lesson observation were regarded as helpful and short courses were also considered to be beneficial, but by far the most popular means of learning was interaction with professional colleagues. The use of technology for pedagogical purposes was very limited amongst participants in this study. The principal reservation that teachers expressed was the difficulty of finding activities that were relevant to their specific needs as teachers and the general shortage of professional development opportunities.

**Broader Implications**

There are a number of broader implications that arise from the findings of this study. The quality and effectiveness of string teaching affects many stakeholders other than teachers and students themselves. There are implications for music programmes in schools and conservatoires, youth music enterprises, performing arts bodies and audiences. All are affected by the quality of string players who are available to them and these players in turn are affected by the teaching they receive.
For tertiary music institutions there are a number of implications. The finding that instrumental training and performance experience do not ensure a comprehensive background for the development of teaching effectiveness is significant for the decisions of tertiary music institutions regarding the provision of pedagogy training. If string players without such training express reservations regarding their teaching competence, either in terms of specific pedagogical skills and knowledge or the contexts in which they feel comfortable to teach, then there is a strong argument that they should receive pedagogy training as a mandatory part of their course. This would allow them to have a basis for effective teaching sooner in their careers and might encourage them to use these skills more readily. This training could also enhance students’ employment opportunities given that there is generally agreed to be a demand for trained string teachers.

The data indicate that the design of string pedagogy courses does not address the future needs of string teachers to an adequate degree in many cases. There is a clear need for a broader range of topics to be included in such courses and for music education departments and outside experts to be engaged in the process when aspects of training require specific expertise. Teaching strategies within courses need to be designed in such a way that students have adequate opportunity to see and experience the pedagogical issues that they are studying.

Observation of other students in a learning situation was found to promote awareness of the ways in which teachers and students interact. Similarly, the experience of working with different teachers contributed to the range of models that students later considered when developing their own style of teaching. Tertiary institutions could encourage some exchange of students between teachers and promote the use of masterclass teaching contexts in order to facilitate this type of learning situation.

There are a number of implications that arise from this study with regard to the provision of professional development activities for string teachers. The data indicate that there is a demand for further training amongst teachers and that this is not being met. It was also clear that the needs of teachers vary considerably depending on their backgrounds and teaching contexts. For providers of such activities this implies a need for careful research and planning.
in order to isolate the needs of different groups of teachers and to present activities that include topics that are relevant to their levels of expertise and teaching context.

The results of this study indicate that interaction between colleagues is greatly valued by teachers as a means of comparing and discussing teaching issues. It was also clear that this was a means of professional development that was often not readily available due to isolation or lack of opportunity. This type of activity could most easily be facilitated in institutions such as schools and conservatoires where teachers are congregated in one place and might constitute an effective means of professional development in such contexts creating opportunities for discussion.

**Recommendations for Future Research**

A number of areas for further research arise from this study. An examination of the career paths of graduates from Australian performance and music education degrees would reveal the extent to which they engage in instrumental teaching during their careers. This would assist in determining the need for pedagogy training as part of such courses. A study by Mills (2006b) has addressed this issue amongst violinists in a UK conservatoire but no research of this nature appears to have been done in an Australian setting. A more extensive examination of the string pedagogy courses available in Australia and the degree of satisfaction expressed by students would also give a broader understanding of the effectiveness of such courses.

Little information is available regarding the precise content and methods of pedagogy courses either in Australia or elsewhere. Research investigating a range of such courses would provide valuable data for use in the design of new courses and the revision of existing ones.

A number of issues relating to the design and provision of professional development activities warrant further research. A more extensive examination of the requirements of different groups of string teachers would give even greater clarity regarding their specific training needs and the methods that would be most suitable for the provision of such activities. This would facilitate the planning of events by professional string associations and educational bodies and the effective use of funds.
The various strategies used for pedagogical development that are discussed in this study all warrant additional individual investigation. In particular, the benefits of lesson observation, practical teaching experience with guidance from an instructor and assistantships would yield valuable information for the planning of pedagogical training.

Finally, the further investigation of potential uses of technology as a means of facilitating pedagogical development could be of great relevance. In Australia isolation is a difficulty common to many teachers either due to the individual teaching setting or due to distance factors in regional settings (Callinan, 2004).

**Conclusion**

String teaching in Australia is an area of music education where there has been little research. Various initiatives have attempted to address the training needs of teachers but in the absence of a clear understanding of the characteristics and needs of string teachers the results have been variable. It is very common for teachers to express concerns regarding aspects of their teaching effectiveness and also to express the desire to develop further as teachers. However, it is equally common for teachers to express frustration that they cannot access the information or training that they require. It is important for educational bodies to be aware of these issues and to consider the benefits of well structured and carefully focussed string pedagogy training.
REFERENCES


15 December 2004

Dr K Marsh
Sydney Conservatorium of Music
Building C41
The University of Sydney

Dear Dr Marsh

I am pleased to inform you that the Human Research Ethics Committee at its meeting on 13 December 2004 approved your protocol entitled "The relationship between instrumental and pedagogical training in string teachers and their self-perceptions of teaching effectiveness"

Details of the approval are as follows:

Ref No.: 12-2004/2/7913
Approval Period: December 2004 – December 2005
Completion Date of Project: 31 March 2006
No. of Participants: 200
Authorised Personnel: Dr K Marsh
Ms P Paige

To comply with the National Statement on Ethical Conduct in Research Involving Humans, and in line with the Human Research Ethics Committee requirements this approval is for a 12-month period. At the end of the approval period, the HREC will approve extensions for a further 12-month, subject to a satisfactory annual report. The HREC will forward to you an Annual Progress Report form, at the end of each 12-month period. Your first report will be due on 31 December 2005.

Conditions of Approval Applicable to all Projects

(1) Modifications to the protocol cannot proceed until such approval is obtained in writing. (Refer to the website www.usyd.edu.au/ethics/human under ‘Forms and Guides’ for a Modification Form).
Questionnaire Participant Information Sheet

The Relationship between Instrumental and Pedagogical Training in String Teachers and their Self-Perceptions of Teaching Effectiveness.

You are invited to participate in a study of the training and professional development of string teachers in NSW. The purpose of this study is to understand what types of instrumental and teacher training are most effective in developing teaching skills in string teachers. The information gathered during this study may contribute to an expansion of the availability and content of string teacher training/pedagogy courses at our music institutions and may assist in creating greater diversity and availability of professional development opportunities for existing string teachers.

This study is being conducted by Philippa Paige. The researcher is a violinist with the Sydney Symphony and a member of the String Staff at the Sydney Conservatorium of Music. The study will form the basis of the degree of Master of Music (Music Education) under the supervision of Dr Kathryn Marsh, Sydney Conservatorium of Music.

If you decide to participate, you are requested to complete the questionnaire and return it in the stamped addressed envelope provided by 3rd June 2005. The questionnaire should take no more that 20 minutes to complete. Participation in this study is entirely voluntary, and you are under no obligation to take part. All aspects of this study, including results, will be strictly confidential and only the researchers will have access to information on the participants. A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report. A summary of the results will be available at the end of the year and if you would like a copy, please email ppaige@ozemail.com.au and use the words “Request String Teacher Survey” in the subject line.

Your input into this study will contribute to developing a more comprehensive understanding of teacher development for string teachers.

If you have any questions about this study please contact me on (02) 9566 4562 or email ppaige@ozemail.com.au, and I will discuss it with you further. If you would like to know more at any stage, please feel free to contact Dr Kathryn Marsh at Sydney Conservatorium of Music, telephone 93511333.

Thank you for your time and interest,

Yours sincerely

Philippa Paige

Any person with concerns or complaints about the conduct of a research study can contact the Manager for Ethics Administration, University of Sydney on (02) 9351 4811.
APPENDIX B

The University of Sydney

SYDNEY CONSERVATORIUM OF MUSIC

Dear String Teacher,

The Sydney Conservatorium is currently undertaking a research project concerned with string teachers’ professional development needs. The chief researchers are Dr Kathryn Marsh and Philippa Paige.

On behalf of the researchers the AMEB (NSW) has agreed to pass on the enclosed questionnaire and covering letter to string teachers who enter students for examinations with the AMEB. However, the AMEB (NSW) is not making any recommendation to the teacher about this study, other than to encourage you to read the information before deciding whether or not you are willing to help with the research.

The AMEB (NSW) has not disclosed the name, address or any details of teachers to the researchers.

If you wish to participate in the research please complete the enclosed questionnaire and return it directly to the researchers in the enclosed self-addressed envelope.

Your sincerely,

Marion Sinclair
NSW State Manager
## Section 1.
### Your Teaching Profile.

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<tr>
<td></td>
<td>AMEB Grade 5-8 / Suzuki Books 5-8 or equivalent</td>
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<tr>
<td></td>
<td>AMEB Diplomas/ Suzuki Books 9-10 or equivalent</td>
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<td>Postgraduate</td>
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Teacher Survey cont.
## APPENDIX B

### Questionnaire:

**Section 2
Your Playing profile**

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<td>□ Undergraduate or postgraduate instrumental pedagogy course</td>
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<td>□ Suzuki teacher training</td>
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<td>□ Regular observation of master teacher/s</td>
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<td></td>
<td>□ Assistantships to a master teacher</td>
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<td></td>
<td>□ Professional development (Workshops, masterclasses, short courses etc.)</td>
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<td>How many years of tuition have you received?</td>
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<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>What best describes the level of playing that you have achieved to date? (Please tick)</td>
</tr>
<tr>
<td></td>
<td>□ AMEB Preliminary to Grade 4 / Suzuki Books 1-4 or equivalent</td>
</tr>
<tr>
<td></td>
<td>□ AMEB Grade 5-8 / Suzuki Books 5-8 or equivalent</td>
</tr>
<tr>
<td></td>
<td>□ AMEB Diplomas / Suzuki Books 9-10 or equivalent</td>
</tr>
<tr>
<td></td>
<td>□ Semi-professional</td>
</tr>
<tr>
<td></td>
<td>□ Professional</td>
</tr>
<tr>
<td></td>
<td>□ Other (Please specify)</td>
</tr>
</tbody>
</table>

Teacher Survey cont.
### Section 3

**General information about you**

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th>Office use</th>
</tr>
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<tbody>
<tr>
<td><strong>15</strong></td>
<td>What is your age bracket (please circle)</td>
<td>18-25</td>
<td>26-30</td>
<td>31-35</td>
<td>36-40</td>
<td>41-45</td>
<td>46-50</td>
<td>51+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>16</strong></td>
<td>Gender (please circle)</td>
<td>M</td>
<td>F</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>17</strong></td>
<td>What music qualifications do you hold?</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>18</strong></td>
<td>In what country/countries did you study?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 4
Your views on your teaching

19. How important has formal teacher training been for your teaching in the following areas? Please circle the number that best represents your views on a scale of 1 to 5 where 1 is ‘Not important’ and 5 is ‘Very important’.

<table>
<thead>
<tr>
<th>Area</th>
<th>Not important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rapport with students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instrumental set-up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planning of teaching curriculum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnosis of technical difficulties</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correction of technical difficulties</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repertoire knowledge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Musical styles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student learning styles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance anxiety</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance injuries</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

20. How important has professional development in teacher training been for your teaching in the following areas? Please circle the number that best represents your views on a scale of 1 to 5 where 1 is ‘Not important’ and 5 is ‘Very important’.

<table>
<thead>
<tr>
<th>Area</th>
<th>Not important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rapport with students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instrumental set-up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planning of teaching curriculum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnosis of technical difficulties</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Teacher Survey cont.
APPENDIX B

<table>
<thead>
<tr>
<th>Correction of technical difficulties</th>
<th>Not important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Repertoire knowledge</th>
<th>Not important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Musical styles</th>
<th>Not important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Student learning styles</th>
<th>Not important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Motivation</th>
<th>Not important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance anxiety</th>
<th>Not important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance injuries</th>
<th>Not important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
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21. How important has your own instrumental training been for your teaching in the following areas? Please circle the number that best represents your views on a scale of 1 to 5 where 1 is 'Not important' and 5 is 'Very important'.

<table>
<thead>
<tr>
<th>Rapport with students</th>
<th>Not important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Instrumental set-up</th>
<th>Not important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Planning of teaching curriculum</th>
<th>Not important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Practice skills</th>
<th>Not important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Diagnosis of technical difficulties</th>
<th>Not important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Correction of technical difficulties</th>
<th>Not important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Repertoire knowledge</th>
<th>Not important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Musical styles</th>
<th>Not important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Student learning styles</th>
<th>Not important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Motivation</th>
<th>Not important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance anxiety</th>
<th>Not important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance injuries</th>
<th>Not important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

Teacher Survey cont. 139
22. How important has your own performance experience been for your teaching in the following areas? Please circle the number that best represents your views on a scale of 1 to 5 where 1 is 'Not important' and 5 is 'Very important'.

<table>
<thead>
<tr>
<th>Area</th>
<th>Not important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rapport with students</td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
<tr>
<td>Instrumental set-up</td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
<tr>
<td>Planning of teaching curriculum</td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
<tr>
<td>Practice skills</td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
<tr>
<td>Diagnosis of technical difficulties</td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
<tr>
<td>Correction of technical difficulties</td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
<tr>
<td>Repertoire knowledge</td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
<tr>
<td>Musical styles</td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
<tr>
<td>Student learning styles</td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
<tr>
<td>Motivation</td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
<tr>
<td>Performance anxiety</td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
<tr>
<td>Performance injuries</td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
</tbody>
</table>

Section 5
Your views on teacher training
23. How useful do you consider the following types of professional development methods to be? Please circle the number that best represents your views on a scale of 1 to 5 where 1 is 'Not useful' and 5 is 'Very useful'.

<table>
<thead>
<tr>
<th>Method</th>
<th>Not useful</th>
<th>Very useful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short workshops on teaching issues</td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
<tr>
<td>Observation of masterclasses</td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
<tr>
<td>Teacher observation sessions (studio)</td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
<tr>
<td>Mini courses (eg One or two week Summer course)</td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
</tbody>
</table>
### APPENDIX B

<table>
<thead>
<tr>
<th>Professional books and journals</th>
<th>Not useful</th>
<th>Very useful</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>On-line services</th>
<th>Not useful</th>
<th>Very useful</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Observation of video conferences lessons</th>
<th>Not useful</th>
<th>Very useful</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Audio visual material (eg Cds, DVDs etc.)</th>
<th>Not useful</th>
<th>Very useful</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

Please indicate any areas where you feel further training would be beneficial for your own teaching.

...........................................................................................................................................................
...........................................................................................................................................................
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Are there any other comments you would like to make about the effects of training on your teaching?

...........................................................................................................................................................
...........................................................................................................................................................
...........................................................................................................................................................
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...........................................................................................................................................................

Thank you very much for completing this questionnaire. Please return the questionnaire in the stamped addressed envelope provided.

Would you be willing to participate in a follow-up interview? If so, please complete the details below.

Name:...........................................................................................................................
Contact phone numbers:.............................................................................................
Email:..........................................................................................................................
Address (optional):.....................................................................................................
............................................................................................................................................
APPENDIX C

TEACHER INTERVIEW GUIDE

1. Formal instrumental training
   What instrumental training did you receive?
   Could you describe your training?
   What tertiary music qualifications have you attained?
   What types of performance experience did you receive while studying?
   Did you participate in master classes or mentor programmes?
   How useful did you find these?
   Did you compete in music competitions?
   How useful did you find these?

2. Your playing profile
   Could you describe what performing activities you do currently or have done during your career? Please consider solo work, chamber music and orchestral playing as well as other genres.

3. Your teaching profile.
   How many years have you been teaching?
   Where do you teach?
   What age bracket of student do you teach?
   What levels of student do you or have you taught?
   How many students do you have?
   How important do you consider teaching to be in your career structure?

4. Your teacher training profile.
   What theoretical and/or practical pedagogy training did you receive as part of your formal musical education?
   What professional development courses or workshops relating to string teaching have you attended?
   What informal factors have affected your approach to teaching? (Your teachers, masterclasses, observation, assistantships, colleagues, books or journals, other)
TEACHER INTERVIEW GUIDE Cont.

5. Are you conscious of any areas in your teaching where you feel you would have liked more training?
   You might like to consider:
   - Instrumental set-up
   - Left hand technique
   - Bowing skills
   - Repertoire knowledge and sequencing
   - Stylistic issues
   - Student learning styles
   - Motivation
   - Performance injuries prevention
   - Performance anxiety
   - Other

6. What types of professional development activities do you find most effective for your needs now? Why?
   You might like to consider:
   - Workshops. What issues are of interest?
   - Master classes. What level of student is of interest?
   - Play through activities to learn repertoire
   - Observation of other teachers
   - Discussion with other teachers
   - Audiovisual material
   - On-line pedagogy facilities
   - Other

7. What changes would you like to see in the training of string teachers?

8. How valuable do you consider your performance training and experience has been for developing your teaching skills?
   You might like to consider:
   - The influence of your teachers
   - The levels or situations in which you feel comfortable to teach
   - Career planning advice for your students
   - Audition preparation
   - Other

9. What teaching competencies do you feel you have developed over the duration of your teaching and what has facilitated this development?
### APPENDIX D

**Teaching Effectiveness Checklist**

<table>
<thead>
<tr>
<th>Instrumental set-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosis of technical difficulties</td>
</tr>
<tr>
<td>Correction of technical difficulties</td>
</tr>
<tr>
<td>Planning of teaching curriculum</td>
</tr>
<tr>
<td>Repertoire knowledge</td>
</tr>
<tr>
<td>Practice skills</td>
</tr>
<tr>
<td>Musical styles</td>
</tr>
<tr>
<td>Rapport with students</td>
</tr>
<tr>
<td>Student learning styles</td>
</tr>
<tr>
<td>Motivation</td>
</tr>
<tr>
<td>Performance anxiety</td>
</tr>
<tr>
<td>Performance injuries</td>
</tr>
</tbody>
</table>
Interview Participant Information Sheet

The Relationship between Instrumental and Pedagogical Training in String Teachers and their Self-Perceptions of Teaching Effectiveness.

You are invited to participate in a study of the training and professional development of string teachers in NSW. The purpose of this study is to understand what types of instrumental and teacher training are most effective in developing teaching skills in string teachers. The information gathered during this study may contribute to an expansion of the availability and content of string pedagogy courses at our music institutions and may assist in creating greater diversity and availability of professional development opportunities for existing teachers.

This study is being conducted by Philippa Paige. The researcher is a member of the String staff at the Sydney Conservatorium of Music and a violinist with the Sydney Symphony. The study will form the basis of the degree of Master of Music (Music Education) under the supervision of Dr Kathryn Marsh, Sydney Conservatorium of Music.

If you decide to participate, you will be asked to do an interview with the researcher at a mutually convenient time. This should take about 30-60 minutes and will be recorded on audio tape for the sole purpose of accuracy when transcribing the responses. Participation in this study is entirely voluntary, and you are under no obligation to consent. All aspects of this study, including results, will be strictly confidential and only the researchers will have access to information on the participants. A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report. A summary of the results will be available and if you would like a copy please email ppaige@ozemail.com.au and use the words “Request String Teacher Survey” in the subject line.

Your input into this study will contribute to developing a more comprehensive understanding of teacher development for string teachers.

If you have any questions about this study please contact me on (02) 9566 4562 or email ppaige@ozemail.com.au and I will discuss it with you further. If you would like to know more at any stage, please feel free to contact Dr Kathryn Marsh at Sydney Conservatorium of Music, telephone 93511333.

Thank you for your time and interest,

Yours sincerely

Philippa Paige
CONSENT TO PARTICIPATE IN AN INTERVIEW.

I, ..........................................................., give consent to my participation in the research project

TITLE: The Relationship between Instrumental and Pedagogical Training in String Teachers and their Self-Perceptions of Teaching Effectiveness.

In giving my consent I acknowledge that:

1. The procedures required for the project have been explained to me, and any questions I have about the project have been answered to my satisfaction.
2. I have read the Participant Information sheet and have been given the opportunity to discuss the information and my involvement in the project with the researcher.
3. I understand that my participation is voluntary and that I can withdraw from the study at any time.
4. I understand that my involvement is strictly confidential and no information about me will be used in any way that reveals my identity.

Signed: ..............................................................

Name: ..............................................................

Date: ..............................................................

Email: ..............................................................

Witnessed by: ..............................................................

Please return this form to the researcher in the stamped addressed envelope provided.

Any person with concerns or complaints about the conduct of a research study can contact the Manager for Ethics Administration, University of Sydney, on (02) 9351 4811.

Postal Address: Building C41
The University of Sydney NSW 2006

Telephone: +61 2 9351 2222
www.usyd.edu.au/su/conmusic
<table>
<thead>
<tr>
<th>Fred</th>
<th>Rachel</th>
<th>Martin</th>
<th>Greg</th>
<th>Sheryl</th>
<th>Lisa</th>
<th>Beth</th>
<th>Mavis</th>
<th>John</th>
<th>Hans</th>
<th>Anne</th>
<th>Amy</th>
<th>Klara</th>
<th>Sophia</th>
<th>Vera</th>
<th>Erna</th>
<th>Nina</th>
<th>Hedy</th>
<th>Ron</th>
<th>Arvin</th>
<th>Kim</th>
<th>Mary</th>
<th>Elise</th>
</tr>
</thead>
<tbody>
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</table>

**APPENDIX F**

Interview Participant Matrix

<table>
<thead>
<tr>
<th>Fred</th>
<th>Rachel</th>
<th>Martin</th>
<th>Greg</th>
<th>Sheryl</th>
<th>Lisa</th>
<th>Beth</th>
<th>Mavis</th>
<th>John</th>
<th>Hans</th>
<th>Anne</th>
<th>Amy</th>
<th>Klara</th>
<th>Sophia</th>
<th>Vera</th>
<th>Erna</th>
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**APPENDIX F**

Interview Participant Matrix

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<th>Rachel</th>
<th>Martin</th>
<th>Greg</th>
<th>Sheryl</th>
<th>Lisa</th>
<th>Beth</th>
<th>Mavis</th>
<th>John</th>
<th>Hans</th>
<th>Anne</th>
<th>Amy</th>
<th>Klara</th>
<th>Sophia</th>
<th>Vera</th>
<th>Erna</th>
<th>Nina</th>
<th>Hedy</th>
<th>Ron</th>
<th>Arvin</th>
<th>Kim</th>
<th>Mary</th>
<th>Elise</th>
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