Student/teacher interaction in the one-to-one piano lesson

Submitted for the degree of PhD
by
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I would like to dedicate this thesis to my father, who, though his own formal education was limited, had a bright and keen interest in many diverse subjects. He was exceedingly proud of what I was attempting to do and always encouraged me to talk to him of my work. Sadly he died before this thesis was finished.
Abstract

The subject of this thesis is student/teacher interaction in the one-to-one piano lesson. As well as analysing lesson interaction itself, this research also considers the influences and effects of this behaviour. Two longitudinal studies monitored pupil/teacher dyads over a two-year period, and found that interaction changes very little over time beyond a small increase in relaxation which was more evident through participant report than observation. Five short study dyads, involving five undergraduate students and three teachers were each recorded over a series of piano lessons. Using multiple sources of evidence, three perspectives were explored; that of the observer, the teacher and the student. Analysis focussed on five specific topics; student learning, student communication, influences on teaching, teachers' use of gesture and movement, and how teachers respond to the needs of their students. The primary conclusion drawn from these studies is that the student/teacher relationship and lesson behaviour is asymmetrical, teacher-dominated and formulaic. This style is teacher promoted, student supported and influenced by previous experiences. Lesson routine is based on improving performance skills through the study of individual pieces and involves three steps - student performance, teacher assessment and advice. Student performance is the primary medium by which they communicate their ideas and progress, and from which teachers identify the students' needs. Strengths (teaching content and imaginative methods of delivery) and weaknesses (students' passivity, frustration and teachers' lack of understanding) were evident in the lessons at the tertiary level and the teacher-dominated approach is seen as inappropriate for students at this level. It is suggested that a more student-directed lesson style would improve learning and lesson interaction, and prepare students better for a future of independent music making.
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Chapter 1

Introduction
Introduction

Instrumental lessons are a psychologically and socially important component in the lives of a sizeable element of the population. The Associated Board of the Royal Schools of Music gave its annual candidate entry for the 1995/1996 period as over half a million (Peggie 1996). Add to this the large numbers of candidates who use other boards and the many students who do not enter for examinations and the figure must be closer to a million or more. For these children and adults, instrumental lessons constitute a significant part of their lives, either because of the exciting and rewarding experiences that they come to represent or because of the stress and trauma that they can elicit. Yet little is known about a situation that takes place behind closed doors, is rarely monitored by any supervisory body and where teachers have seldom undergone any specific teacher training.

The aim of this research is to examine the actions and reactions of both student and teacher within the piano lesson. Typically, piano lessons occur weekly and last for thirty minutes or an hour and the routine consists of the student performing pieces of music to demonstrate his/her current ability and ideas, followed by the teacher suggesting ways in which the playing could be improved, whether technically or musically. Students are then often asked to attempt the piece or passage in the new way so that teachers can monitor whether their ideas have been understood and/or accepted. Teachers vary in the extent to which they encourage students to choose their own repertoire, with these choices often partly determined by external goals, such as forthcoming exams or performances.
This research investigates the factors influencing lesson behaviour, the psychological and emotional effects of these interactions, and the impact that they can have on student learning and achievement. As well as analysing observable behaviour, this study also examines the piano lesson from the differing viewpoints of both teacher and student. The final analysis presents a set of principles describing one-to-one interaction in the piano lesson and makes recommendations which are intended to improve the effectiveness and longer term benefits of lessons for students at the tertiary level.

A better understanding of this area is needed for several reasons. Previous research into instrumental playing has focused more on performance and practice than on teaching and learning. Few studies have examined the private instrumental lesson and fewer still have looked specifically at piano teaching. Three American studies (Kostka 1984, Speer 1994, and Siebernaler 1997) have analysed the piano lesson, but have taken only a behavioural viewpoint, and have given no consideration to social or cognitive aspects, or made any attempt to theorise about findings. Two British research projects have included some of these factors. Lennon's (1996) research incorporated a qualitative aspect, though it investigated teachers' aims and intentions alone, while Mackworth-Young (1990) investigated the student's perspective, focussing specifically on the emotional and psychological factors which resulted from different teaching methods. This is the first research, therefore, that has:

- sought to discover and analyse the main elements of interaction within lessons in any detail;
- approached the research with an open and investigative mind, aiming to develop theories rather than to test them;
- employed both quantitative and qualitative elements of analysis;
- included a longitudinal element;
- considered events from both observer and participant perspectives.

More knowledge is needed about a profession where methods and procedures are seldom advised or instructed and where individuals develop their own systems through the experience of being taught, through ideas borrowed from colleagues and
through trial and error and instinct. In one-to-one lessons, teachers are in a position to adapt their ideas and methods to an individual student's needs at that time. This flexibility is extremely beneficial in fostering motivation and responding to individual levels of progress. However a better understanding of the processes that are at work and the effects these might have on students, their learning and their attitudes, could empower teachers to make more informed choices.

The next chapter presents various areas of published research and discusses how this research relates to interaction in the piano lesson. As well as a discussion about available studies concerned with music teaching generally, the significance of applicable research from the domains of social psychology and educational psychology is also considered. Chapter 3 details the research methods chosen for this study, the reasons for their selection and the procedures used in their application, while information about the twelve participants who were involved in the seven case studies is presented in chapter 4.

The six chapters that follow target various specific elements within lesson interaction. Two longitudinal studies specifically monitor how interaction might change over time (chapter 5). Beyond this, however, the individual points of focus were not selected before research began. Rather, areas of particular interest were identified within the case studies, with the final choice ensuring a balance of topics. Although each subject is explored with respect to all five short studies, in each case one specific case study becomes the main focus of each discussion. Two elements concerned with teaching are examined in chapters 8 and 9. One of the teachers spoke often in interview of the huge impact of past experiences on both how and what she taught - and chapter 8 discusses the previous experiences that might affect how a teacher teaches. A characteristic of another teacher's style was his use of movement and gesturing while teaching. Chapter 9 reports both the reasons for, and the effects of, his changes of posture and position, and his often exaggerated use of gesture and expression. To balance this, students become the focus of chapters 6 and 7. Student learning is discussed in chapter 6, while chapter 7 considers how little students communicate and discusses why this might be so. However, although students do not talk much this does not mean that they do not influence the course of the lesson and chapter 10
explores how teachers' behaviour is often a response to what they see as their students' needs.

Finally, in chapter 11, a summary and conclusions about lesson interaction are presented, together with recommendations for improving interaction, particularly at the tertiary level. This is followed by an evaluation of the methodology used in the research and some suggestions for future research.
Chapter 2

Literature review
One-to-one interaction, whether on a personal, social or business level, is such a frequent event of daily life that it is easy to overlook its complexity. Nevertheless, analysing interaction, such as that which occurs between student and teacher in the piano lesson, is a rather complicated and challenging task. This review, therefore, will consider it from several different perspectives. At its most basic, the piano lesson can be described as an interpersonal interaction; a meeting between two people who exchange signals and messages through various channels of communication. The aims and goals of the event, however, mean that more particularly it can be viewed as a professional communication. Using literature from a range of disciplines, including social psychology, educational psychology and music psychology, relevant theories and research findings will be discussed in relation to piano lesson interaction.

2.1 Theories from social psychology

In considering the piano lesson at its simplest, as a meeting between two people, this review begins within the discipline of social psychology, focussing first on some of the theories about the mechanics of social interaction, and proceeding to a discussion of literature on identities and attitudes.

2.1.1 Vocal communication

Language is one of the more obvious methods by which participants communicate in a piano lesson, although Hepler's research (1986) suggests that teachers talk much more than their pupils. John Searle (1979, p 29) suggested that in general there are five
reasons why people converse: to describe something, to influence someone, to express feelings and attitudes, to make a commitment, and to accomplish something directly.

However, within this channel of communication, information is not only sent via the language itself. The style by which the words are vocalised also conveys meaning. Argyle (1975) recognised that the prosodic features of language, such as timing, pitch, intonation and loudness, could change the meanings of speech dramatically. Knapp (1978) referred to the aspects of communication that are not purely linguistic as 'paralanguage' (p 329), including such things as throat-clearing, grunts and sighs, as well as the more conventional prosodic features. A study by Scherer (1974) investigated how various paralinguistic features were understood. He found that a low pitch suggested pleasantness, boredom, or sadness, while a high pitch tended to convey activity, anger, fear, or surprise. Moderate variations in pitch communicated anger, boredom, disgust and fear, while extreme variations in pitch indicated pleasantness, activity, happiness, and surprise.

Of the many methods used for communication, language is one over which an individual is able to exert considerable control. The modification of speech to the context generally, both to the situation and to the listener, is the basis of Giles' speech accommodation theory (1984). Giles explains how people change their style of language to achieve certain goals. He recognised a further modification - speech convergence - when a higher status person shifts speech accent and style downwards towards the lower status of the other, who in turn shifts his/her style upwards. Bourhis and colleagues (1975) suggested that this increase in speech style similarity is motivated by a need for approval or liking. On the other hand, speech divergence can result from a desire to differentiate a speaker's in-group linguistically from the out-group of the person addressed (Hogg & Vaughan 1998, p 533). A framework such as this makes it possible for an observer to learn something of both how speakers perceive an occasion and what the individual aims and motivations of the participants might be.

Although much research has focussed on individual components of the communicative act, several researchers have studied discourse to learn about the relationship between the people involved. Hornstein (1985) considered conversational
differences between people who know each other well and those who are merely acquaintances and suggested that in general conversation, good friends tend to raise more topics and frequently ask more questions in reaction to the other person’s statements. Close friends are also more likely to reveal information about themselves, and Davidson and Duberman (1982) found that although women and men were equally likely to talk about topical matters such as politics, work, or films, women were more likely to talk about personal aspects of their lives. Cozby (1973) noted evidence of reciprocity in self-disclosure (if one person increases the intimacy of the disclosures, the other person is likely to respond with a similar increase in intimacy), but in longer-term relationships, strict reciprocity does not appear to be the rule (Altman 1973). Levels of exchange which involve more personal disclosures tend to increase as a relationship develops, and although any one period of interaction does not necessarily have an equal exchange of self-disclosure, these do tend to balance out over the course of many interactions. However, the piano lesson is a professional meeting with particular goals and aims, involving people who behave in a manner that they feel is appropriate for their role. It is unlikely, therefore, that disclosure from either party is either likely or encouraged.

Observing and analysing conversations can also reveal speakers’ desires concerning the control of a situation. Analysts have proposed that individual speeches can be identified as one of three types (Rogers & Farace 1975). These are a ‘one-up’ message, which attempts to gain control in an exchange, a ‘one-down’ message which indicates a giving of control to the other or an acceptance of control by the other, and a ‘one-across’ message which represents a movement towards neutralising the control in the interaction. In this way questions usually involve a transfer of control while arguments are often characterised by both parties using ‘one-up’ messages.

Through language and paralanguage, therefore, many direct and indirect, conscious and unconscious, intentional and unintentional signals are communicated during interaction. However, in any situation where participants are in physical proximity, signals are also sent simultaneously through non-vocal channels. In fact, Birdwhistell (1970) estimated that in a typical dyadic encounter the vocal components carry about one-third of the signals of communication while the non-vocal channels convey approximately two-thirds.
2.1.2 Non-vocal communication

Non-vocal communication, such as gaze and eye contact, facial expressions, postures and gestures and positioning, serves various purposes. It can replace or add meaning to words spoken, it can regulate speech, or even on occasions contradict the meaning of the words spoken. It is generally thought that when this happens, more credence is put into the non-verbal behaviours, as they are considered more difficult to control and therefore falsify (Ekman, O’Sullivan, Friesen, and Scherer 1991).

Gaze and eye contact

Although under certain circumstances eye contact can be uncomfortable and even embarrassing (such as if held for too long, or when looking at a stranger) people have a strong desire to seek out information communicated by this method. Argyle and Ingham (1972) discovered that people in dyads spend 61% of their time gazing at the other, each gaze lasting about three seconds, while mutual gaze occupies only 31% of the time and lasts for less than a second.

The amount and pattern of gazing within a dyad serves several purposes. It can provide information about aspects such as a person’s feelings – a person tending to look more at someone they like than dislike – or their competence and attentiveness (Kleine 1986). It can communicate status - lower status individuals gazing at the other person more than higher status individuals (Dovidio and Ellyson 1985), while people also use it for feedback on how their messages are being received, signs of approval or disapproval (Kendon 1967).

Gaze also serves an important function as an interaction regulator. Eye contact is usually made when attempting to initiate conversation and also helps to regulate the course of conversation once started. As people spend more time gazing when listening than speaking (Argyle 1994, p 29), the intention to stop speaking can be indicated by increasing gaze, while a desire to take over the conversation can be shown by decreasing gaze. However, if a high-status person wishes to exert control s/he may look at the other person more fixedly when speaking than listening - ‘visual dominance behaviour’ (Deaux, Dane & Wrightsman 1993, p 121).
Facial expressions

Facial expressions are often considered to be the next most important source of information to language itself. Darwin (1872) proposed that there are a small number of basic emotions associated with universally recognisable facial expressions. Ekman, Friesen & Tomkins (1971) introduced a note of caution, pointing out the difficulties involved in identifying the emotion behind an expression when part of a face can register one emotion, while another part is simultaneously suggesting another. However, they went on to support Darwin’s idea of the commonness of emotional expression, showing that members of very different cultural groups demonstrate consistency in associating certain expressions with emotions (Ekman 1972).

Although there are expressions customarily associated with various basic emotions, there are, however, cultural and situational rules attached to the appropriateness of when these can be displayed. Laughter is acceptable, for example on hearing a good joke, though not on hearing that your neighbour has fallen down the stairs, and it is acceptable to cry at a funeral, though not during a business meeting.

Postures and Gestures

Birdwhistell (1970) identified approximately sixty basic movements and described rules of combination that produce meaningful units of body communication. Ekman and Friesen (1972) distinguished between the movements and postures that accompany speech - ‘illustrators’, the gestures that replace speech - ‘emblems’, movements which involve self- or object-touching – ‘adaptors’, and signals that attempt to direct interaction – ‘regulators’.

Body language can signal the relative status between individuals, the higher status person often using a relaxed and open posture while the lower status individual adopts a more rigid and upright posture. Attraction can also be conveyed through body position with people who like each other being more likely to adopt a position directly facing the other person, to be more relaxed and to lean forward (Mehrabian 1972).

Interpersonal Distance

The closer two people are to each other the greater the number of non-vocal clues that can be detected. For this reason, interpersonal distance can be used to regulate
privacy and intimacy, with a greater interpersonal distance producing more privacy. The anthropologist Edward Hall (1966) identified four ‘zones’ of interpersonal distance: an intimate zone (about 0.5 metre), a personal zone (0.5 to 1.25 metres), a social zone (1.25 to 3.5 metres) and a public zone (3.5 to 7.5 metres) (pp 119-124). Being at an inappropriate distance from someone can be disconcerting, Argyle and Dean (1965) proposed an ‘intimacy-equilibrium theory’ which suggested that when intimacy signals are increased in one medium they are decreased in another. This might mean that when a stranger enters another’s social zone, for example, such as when travelling on a busy train, the individuals react by looking away from each other. It might also affect how students behave, when the necessity of looking at the music or demonstrating technique causes teachers to sit very near to them.

Status differences between individuals can also have an effect on interpersonal distance. People of equal status tend to take up a closer position to each other than people of unequal status (Zahn 1991). If a status differential exists, the lower-status individual will allow the higher-status individual to approach quite closely, though this will not happen in reverse. In a piano lesson, the pupil has little or no control over the distance between the teacher and him/herself, as s/he needs to sit in a precise position to play the instrument. The teacher, on the other hand, is free to move about, sit close by or at a distance. In this case, therefore, the student is seen to allow the teacher to regulate the distance between them.

When considering proximity, the effect of orientation also needs to be taken into account. Cooke (1970) identified some interesting differences in the seating arrangements chosen by individuals in various situations. A side-by-side position was considered co-operative in nature, while conversation appeared to benefit if people adopted a 90-degree angle to each other, and face-to-face orientation was found to induce competitiveness. In piano lessons, a teacher will often find it convenient to sit by the side of the pupil, at an angle of about 45 degrees to the piano. In practical terms this allows the teacher to see easily both pupil and music, while the pupil, who faces the music directly, will need to turn to look at the teacher. Cooke’s theory suggests that this position might help both co-operation and conversation. As noted earlier, although teacher and pupil are invariably within a ‘personal zone’ with regard to their
interpersonal distance, because the student is not facing the teacher, eye-contact avoidance is easier and feelings of intimacy can therefore be reduced.

Physical characteristics
Before a person learns much about another’s attitudes and thoughts, judgements are made about that person on the basis of physical appearance. At an initial meeting between a new teacher and student, a teacher’s interest may include gaining clues as to a student’s ability and attitude, while a pupil may look for information about a teacher’s warmth or understanding. It must be emphasised, however, that these first impressions, frequently made on the scantiest of information, are soon superseded and modified by information from other areas of communication (Riggio and Friedman 1986). However, initial inferences made about another are important because they can affect the expectations brought to future encounters and, therefore, the encounters themselves (Hargie, Saunders and Dickson 1994).

Selective exposure hypothesis
The discussion so far has emphasised that during interaction, participants’ senses are bombarded with signals from many sources. Absorbing and analysing all messages during interaction is impossible, so individuals choose what they consider to be important and relevant. This selection is influenced by participants’ beliefs, attitudes and aims. The ‘selective exposure hypothesis’ suggests that because dissonance is an unpleasant state of affairs, people generally avoid selecting information that is potentially dissonant. Exceptions to this occur when their attitude system is very strong and they can resist the dissonant information, or if their attitude system is very weak and they then opt for the line of least resistance and simply accept it (Hogg and Vaughan 1998, p 180). This theory has relevance to any study that focuses on observable behaviour, as it is important to remember that participants in an interaction are not able to absorb as much information about the situation as will be evident to the researcher. Post-study analysis of recorded data permits repeated examination of the event by a person uninvolved with interactive participation, and so allows a more considered reflection.
2.1.3 Sequences of interaction

Having dissected and analysed the separate channels through which various media convey messages during interaction, the next area of interest concerns the studies and theories that have focused on the sequences of communication occurring within dyads.

An early approach, which over-simplifies interaction, was the stimulus/response (S-R) model, in which interaction was seen as a chain of responses, each interactor reacting to the other’s most recent social act. Studies of S-R sequences in interaction have identified unconscious similarities in behaviour between participants - ‘response matching’. It has been noted in length of utterances (Matarazzo, 1965), interruptions and silences (Argyle and Kendon 1967), kinds of utterances (Bales 1953), words used, gestures and posture adopted (Scheflen 1965), and amount of information revealed about oneself (Taylor 1965).

Argyle recognised that stimulus-response models failed to take into account the related and purposive sequences of social responses emitted by each person (Argyle 1969, p 117). He saw people as communicating with each other to achieve certain goals, monitoring the effects of their actions and taking any corrective action thought necessary during this communication process to achieve these aims. He suggested that there was a useful analogy between social skills (like conducting conversations) and motor skills (like riding a bicycle). In each case, the person sought certain goals, made skilled moves, perceived the effects of these and took corrective action. He saw the goals of the social skill operator as including such things as conveying knowledge, obtaining information and changing attitudes, behaviour or beliefs (Argyle 1969 & 1967). Argyle’s theorising was later developed and extended by Hargie and Marshall (1986, cited in Hargie et al. 1994). The model assumes first that people act purposefully, second that they are sensitive to the effects of their actions and third that they adjust subsequent action in the light of this information.

Certain characteristics are needed to make interaction successful. First the people interacting need to ‘mesh’ or ‘synchronise’. Argyle (1967, p 51) suggested that there must be agreement on the nature of the activity, the role relations between people, the level of intimacy and style of the relationship, the timing of speech, and sequence of behaviour. Furthermore, there must be non-verbal signals of attentiveness, and
similarity in emotional tone. If two people fail to accommodate sufficiently to each other, neither will be able to elicit any of the normal desired responses of interaction from the other. This unwillingness to ‘mesh’ will lead to a breakdown in communication.

Second, when interacting, one person needs to be aware of how the other is reacting to their behaviour. G. H. Mead (1934) was the first to put forward the theory that people attempt to see an encounter from the point of view of the other person, while Argyle suggested that people interact more effectively if they ‘take the role of the other’ (1967, p 120). The ability to take the role of the other must depend to some extent on a person having some experience of the other’s position. This can be gained through second-hand experience, from literature and media, but the longer two people know each other, the better they will be able to role-play, and the more effective will be their communication.

**Expectancy confirmation sequence**

As mentioned previously, a person looks inwards and considers his/her identities, motivations, and goals, whilst also looking outwards and theorising about the other person. Through communication, these identities and beliefs take shape. An individual may well approach another with prior expectations that may not be entirely correct, but which the process of communication may confirm. The self-fulfilling prophecy describes how one person’s beliefs about another elicit behaviour from that person which confirms the initial expectations. Darley and Fazio (1980) recognised five steps in the expectancy confirmation sequence. In the first two steps the interactor has a set of beliefs about the other and behaves towards him/her on the basis of those beliefs, communicating them through both verbal and non-verbal channels. The other person translates these messages (step three) and responds (step four). If this response confirms the interactor’s original belief it is an instance of the self-fulfilling prophecy (step five).

Rosenthal and Jacobson (1968) researched instances of this effect in teaching, and discovered that teachers’ beliefs about their students could affect their students’ performances. In the study, the teachers were led to believe that a randomly selected group of pupils were in fact above average. The students themselves were unaware of
this classification. When they were retested at the end of the year, this group scored higher on an intelligence test than another group of randomly selected students who had not been described as above average to the teachers. Rosenthal and Jacobson suggested that the teachers' expectations of the students had affected their behaviour towards them, and that the students tended to react to the differential treatment in ways that confirmed the initial beliefs.

A person cannot, however, always shape the behaviour of another. Various conditions have been identified as favouring non-confirmation, which include contexts in which a perceiver's belief is highly discrepant to the target's self-conception (Swann & Ely, 1984), or when a perceiver makes his/her beliefs explicit (Hilton & Darley 1985). Nevertheless, it is important to remember that a teacher can affect a pupil's self-image and subsequent behaviour through his/her own opinions of and approach towards that pupil.

2.1.4 The self and interaction

Earlier discussion has alluded to the important influence that a person's self-concept can have on his/her behaviour. The next section will consider briefly what the self-concept involves and how it affects and is affected by interaction.

Heiss (1981) saw the self-concept as having four 'content' areas (p 57). The identity set involves positional labels that refer to social categories to which people feel they belong. A set of qualities provides descriptive adjectives such as tall, thin, or interested in music. A set of evaluations, stated in adjectives, qualifies the identities and qualities, and a set of self-confidence levels refers to the person's estimate of the extent to which s/he can master challenges and overcome obstacles. These levels will vary, however, depending on the particular task in hand.

Self-esteem refers to a person's general opinion of him/herself. This is a global estimate that is not specific to any particular activity or position. A basic assumption is that this general view of self is derived from the separate self-evaluations. Heiss (1981, p 137) suggested that although all self-evaluations affect the level of self-esteem, they do not all have the same degree of influence.
A further factor, closely linked to self-concept, is identified by the term ‘role’ used here to describe the way in which people of a particular kind are expected to act towards various categories of others. Society generally has ideas of how a good person or an intelligent person, for example, should behave when interacting with others, and in this way each aspect of the self-concept has a set of roles associated with it. Roles are not so much specific instructions for behaviour as plot lines from which a person must select which actions should be taken in each circumstance (Heiss 1981). In the piano lesson, teacher and student will have clear ideas about both their own and the other’s role in those particular circumstances, and these beliefs will have a strong influence on their behaviour.

*The presented self*

It is assumed that people attempt to try to control the impression they give of the situation and of themselves by saying and doing certain things and avoiding others so that the other person defines them as they wish. To achieve this, a person will engage in ‘impression management’. The sociologist, Goffman (1959) saw social interaction as a theatrical performance, with participants using a set of carefully chosen verbal and non-verbal behaviours to express themselves. Goffman suggested that normal social interaction is only possible if participants both stay in character themselves and help others to remain in character also.

How people choose to present themselves depends on their goals. Jones and Pittman (1982) identified five main strategies of self-presentation: ingratiation, intimidation, self-promotion, exemplification and supplication. Impression management is not to be seen, however, as a manipulative strategy, because in choosing which aspect to present, a person may well be choosing between several equally true selves (Deaux et al. 1993, p 71). Although impressions are formed in all interactions, it should be noted that not all interactions involve the management of impressions. Furthermore, behaviours, which at one time may have been used intentionally to create a particular impression, often become habitual and are then performed unconsciously. This has the danger that an initially adaptive behaviour, when performed in non-adaptive situations, might be inappropriate and as such could become a hindrance.
Social identity theory

Although discussion has focused on the individual within personal interaction, the activities of individuals are influenced also by their perception of their group identity. Tajfel and Turner (1986, see also Abrams and Hogg 1990) have investigated social categorisation in intergroup behaviour. They see society as being structured hierarchically into different social groups, which relate to each other with regard to power and status. They theorise that these social categories provide members with a social identity, a definition of who they are and a description and an evaluation of what that entails. These social identities not only provide a description of who a person is but also of what behaviour might be appropriate.

An individual also develops a 'personal identity'. As social identity is that part of the self-concept that comes from being a member of a group, so personal identity derives from various personality traits and idiosyncratic personal relationships which a person experiences with others. People have repertoires of as many social and personal identities as they have groups or close relationships with which they identify. The identities continually vary in importance, as contextual factors cause different ones to become the relevant basis for a person's self-perception and selected behaviour.

Although in one-to-one learning, students might not be so directly aware of the comparative ability and progress of other students as they would be in a classroom situation, they are still, nevertheless, conscious of the achievements of their peers. Wood (1989) identified three motivations for social comparison: evaluation, improvement and enhancement. How individuals perceive others in relation to themselves can be affected by many factors including their perception of themselves, their self-efficacy and their motivation. Social comparison can result in changing the evaluations people make about themselves and their abilities. Students at university are often aware of the standard of their peers, since they are quite likely to hear them practising or to attend concerts where they are performing. Depending on their evaluation of the other student compared to their judgements about themselves, this information may well affect their future self-concept and possibly their future behaviour. For example, if they see the other student as better than themselves, they might be motivated to practise more so that their own standard improves, or be demotivated because they lose confidence in their own abilities. If they see the other as
less able than themselves, their improved self-confidence could spur them on to attain more or alternatively leave them feeling that they do not have to work so hard.

**Attitudes**

The relevance of attitude theories lies in the generally accepted belief that attitudes affect behaviour. The previously discussed ‘expectancy confirmation sequence’ (Darley & Fazio 1980), for example, supports this idea. Several theories about attitude stress the influence of maintaining internal consistency, order and agreement between an individual’s various beliefs - Balance theory (Heider 1946, p 204), Cognitive dissonance theory (Festinger 1962, p3), and Information integration theory (Anderson 1971). The question of whether attitude can predict behaviour has interested researchers. Although early studies found that relatively low correlations resulted from questionnaire measures, later more sophisticated methods found that attitude and overt behaviour are related, though not in a simple one-to-one fashion. Ajzen & Fishbein (1980) suggested that a particular action will usually be performed if both the person’s attitude and the social norm are favourable - Theory of reasoned action. Ajzen then developed this model to take in the fact that a person’s behaviour is not always under their conscious control. The Theory of planned behaviour (Ajzen 1989) showed how people’s past experiences and knowledge about present problems could have an effect on either their behavioural intention or the behaviour itself, because it led them to make a decision about their level of ‘perceived behavioural control’ in a situation (p 250).

Five techniques have been developed to measure attitudes - Thurstone’s method of equal-appearing intervals (1928), Likert’s method of summated ratings (1932), the Guttman scalegram (described in Hogg & Vaughan 1998, p 148), Osgood’s semantic differential (Osgood, Suci & Tannenbaum 1957, p 83), and Fishbein’s expectancy-value technique (Fishbein & Ajzen 1975, p 30). These have provided methods still in use today. However, although useful data can be obtained through the various methods, better results emerge when these techniques are used alongside other methods of data collection, such as behaviour observation and interview.

Learning more about students’ and teachers’ attitudes towards each other, their lessons and their work — teaching and learning both generally and specifically — provides
some insight into one cause of, or reason behind, their actions within the lesson. Furthermore, attitudes can change over time, for whatever reason, and this influence can affect the established pattern of lesson behaviour. Attitudes can affect interaction and interaction can affect future attitudes. Any study that intends to examine the causes and effects of lesson interaction must, therefore, also take participants’ attitudes into consideration.

The aim of this section has been to produce an overview of theories from social psychology which have relevance to the one-to-one piano lesson. Although some theories seem simplistic or state the obvious, they have presented interaction in a social context which is useful for understanding the basic elements of interaction before these are examined in the particular context of the piano lesson. Next, consideration will be given to research which has seen dyadic interaction as a valuable professional skill.

2.2 Interpersonal communication in professional situations

As research findings from one area can offer the chance to view another situation from a different perspective, this review will next examine research that has studied interaction within professional situations other than music. Professions chosen for this investigation and comparison also involve a dyadic interaction in which communication skills are fundamental to the success of the professional goals.

Research into professional interaction is very limited. However, concerns about communication skills in the medical profession (doctor/patient, nurse/patient, dentist/patient, and therapist/client) have led to a good deal of recent research. There are clear differences between the two contexts. Most students take a more active part in lessons than patients do in medical consultations. Students also attend lessons more frequently and regularly than most people would hope to need to visit their doctors. Furthermore, the ultimate goals - learning a skill/returning to better health – are very different. Nevertheless there are some useful similarities. Both doctors and teachers seek information about their patients’ or students’ problems. During the interaction they both supply knowledge and advice, and they both hope their patients or students will carry out their advice. Inevitably, therefore, good communication skills, a good
rapport, and a relationship which includes encouragement, motivation and support are essential to achieve the professional goals in both situations. The next section will present an overview of some of the material concerning doctor/patient communication specifically, followed by a discussion of how communication skills are taught in both medical and musical training.

2.2.1 Research into communication skills in medicine.
The majority of doctors think they are good communicators and yet the majority of patients are dissatisfied with the outcome of consultations (McManus 1992). Recently, the medical profession has begun to take an increasing interest in the doctor/patient relationship and in communication skills specifically. This has been motivated amongst other things by a desire to improve diagnosis, to increase patient satisfaction, and to improve patient compliance with medical advice (Pendleton 1983). This review will commence with studies that have attempted to analyse the consultation process.

The interactive process – 1. Content
Over the last twenty years, several models have been proposed to categorise behaviours within the medical consultation (Heron 1975, Pendleton, Schofield, Tate and Havelock 1984, Cohen-Cole 1991 and Kurtz & Silverman 1996). Although each has put a slightly different weight onto a variety of tasks, all have emphasised the importance of certain professional aims: defining the patient’s problem; giving information to the patient; and establishing a rapport between doctor and patient, thereby creating a productive relationship. Other targets have included: being supportive, cathartic and catalytic (Heron 1975); encouraging and motivating the patient to accept the doctor’s advice (Pendleton et al. 1984, Cohen-Cole 1991); and using time and resources appropriately (Pendleton et al. 1984).

Some doctor/patient research, looking at the content of the consultation, has focussed on communication, particular targets including the type and level of language used (Skopek 1979) or problems resulting from mis-communication (Ford 1977), while Byrne and Long (1976) analysed the sequence of behaviours doctors used within a consultation. Other studies have considered the asymmetrical nature of the doctor/patient dyad. Litton-Hawes (1978) proposed various rules, such as if the doctor
asks about topic 'A' the patient may ask a question about 'A' before answering the
doctor’s question; and patients may imply new topics only after commenting on the
topic implied in the doctor’s previous turn. Bain (1976) identified various differences
in the verbal behaviour of patients and doctors, particularly in the relative quantity and
the differing objectives of the conversation. In a later study Bain (1979) analysed the
initiation of conversation within the consultation, and found that participants varied
once again in the percentage of times they opened a discussion and the subject matter
of these dialogues. Research in music psychology, discussed later, has similarly
discovered characteristics of asymmetry in teacher/student interaction.

These ‘models’ of interaction within the medical consultation have several limitations.
Although they provide an analysis of certain aspects of the consultation, often from
either the doctor’s or the patient’s viewpoint, no available medical research has
attempted to present an adequate formulation of the consultation process in terms of
social interaction. None has tried to describe the processes at work including the
reciprocal effect of subsequent behaviour or the behaviour of others on patients’
health beliefs. None has considered the many influences from outside the
consultation, which affect behaviour within the interaction; and none has attempted to
clarify the role of the consultation as a mutual social influence process, which leads to
changes in factors such as participants’ moods, knowledge and subsequent behaviour.
To overlook these many aspects is to view the situation from a rather limited
perspective.

The interactive process – 2. Style
As has been mentioned, one-to-one interaction between a professional and another is
often asymmetrical because of the roles adopted by the people involved. In the
doctor/patient interaction the doctor is usually seen as an expert who communicates
his/her knowledge to the naïve patient and as the authority figure that instructs and
directs the patient. Some parallels to this are apparent in music, where students can
look to the teacher for information, advice and instruction. Because of the roles
adopted, the professional is often seen to guide the interaction. In this position s/he
can influence the form of the meeting and adopt a self-centred or client-centred style.
Byrne and Long (1976) recognised styles of doctor behaviour, ranging from a heavily
doctor-dominated consultation, with almost no patient contribution, to a virtual
monologue by the patient with little input from the doctor. Interestingly, the style of each doctor was seen to vary little through all of his/her consultations. This suggests that the doctor controls the interaction, using the same style for all patients, and that patients who monopolise the conversation do so because of the doctor's style, not because of their own aims and personality. Byrne and Long also maintained that doctors who are centred on their own goals displayed negative behaviours towards their patients much more frequently than patient-centred doctors did.

A study by Savage and Armstrong (1990) compared the effect of an expert, directive consulting style and a sharing, patient-centred consulting style on patient satisfaction. Previous research had suggested that a more patient-centred consulting style might result in potentially higher levels of compliance and greater patient satisfaction. However, their study found that although all subjects reported high levels of satisfaction immediately after consultation, this was higher in those subjects who had received a directive style rather than a sharing style of consultation. This supports the 'expert'/doctor 'lay-person'/patient model and suggests that the patients in the study preferred an authority figure to a 'sharing' doctor who asked for patients' views. Although the traditional model of doctor-patient communication might have been criticised, therefore, some patients may prefer it. It is quite possible, that within the teaching situation, some students also may prefer to be told what to do rather than be asked their opinion. However the teacher, unlike the physician, is hoping that the student will be independent of him/her at the end of the training period and will be able to form his/her own opinions. In this way, a directive teaching style might not be suitable to achieve this eventual student independence. Kent and Dalgleish (1996), while acknowledging that most studies have found that the authoritarian approach is not conducive to compliance and satisfaction, suggest that the 'correct' approach depends on the individual patient and that problems arise when the doctor is working in one role style, while the patient would prefer that s/he acted in another.

Most of the studies mentioned have recognised the doctor as controlling the style of consultation. Teachers, similarly may have greater control than their pupils over the tone of lesson interactions. The style adopted by the teacher, as either authoritarian figure or friend, for example, will obviously affect interaction. To suggest, however, that one particular style will always achieve a certain positive result in all pupils at all
stages and ages is simplistic. The conclusions drawn by Kent and Dalgleish (1996), that the ‘correct’ approach depends on the individuals, is likely to be just as valid for the pupil/teacher relationship. Problems arise when the two participants prefer different role styles or when the teacher is insensitive to a pupil’s requirements or unable or unwilling to adapt.

However, when considering the music lesson, it must be remembered that students meet their teachers more frequently and over a longer period of time than patients usually visit their doctors. This greater length of time should allow participants to learn more about and become more sensitive to each other. Furthermore, how they perceive their own and the other’s role may change over time and as a consequence, the style of behaviour they adopt may change also.

Many studies have focussed on evaluating the achievements of the consultation. The relevance of this research for the study of the music lesson depends on similarities between the aims and goals of the two situations. The doctor’s aims during a consultation are generally acknowledged as including: encouraging the patient to give as much relevant information as possible to aid diagnosis, imparting knowledge clearly to the patient about his/her condition and recommended treatment, and encouraging patient compliance with instructions. Furthermore patient satisfaction may benefit many of these goals.

Outcomes – 1. Patient satisfaction

Locker and Dunt (1978) found that although patients usually reported being satisfied with medical care overall, when they were asked about specific elements they often showed less satisfaction. Communication of information was most often cited as unsatisfactory. DiMatteo, Prince and Taranta (1979) found that patients were more likely to return to a doctor rated high on ‘feeling’ variables. There was no correlation, however, with ratings of the doctor’s intelligence, or of the doctor’s listening and explanations with patients who had more serious problems.

Conclusions about patient satisfaction are unclear. Methods and definitions vary, making comparisons between studies difficult. It does seem reasonable to suppose though, that ‘pupil satisfaction’ might well be beneficial to both the instrumental
lesson and to the pupil/teacher relationship. However, what might lead to this state and what aspects this might benefit are hard to estimate and any attempt to generalise would be an oversimplification.

Outcomes – 2. Compliance with doctors' instructions

One of the concerns of good doctor/patient communication is 'patient compliance' with doctors' instructions. Although earlier research tended to focus on trying to identify and characterise the defaulting patient, focus has shifted in the last few years towards the communication strategies used by the doctor.

The quantity of investigation into this area suggests that 'compliance' is generally viewed as a necessary and beneficial outcome of the consultation and can be affected by the doctor/patient relationship. Several studies suggest that the personal characteristics of the physician are important; his/her warmth and friendliness (DiNocola & DiMatteo 1984), the patient's confidence in his/her technical ability (Becker, Drachman & Kirscht 1972), and interaction that includes joking and laughter (Roter 1988). Compliance has also been shown to improve when patients have a better comprehension of the doctor's instructions (Ley 1980 and Ley, Whitworth, Skilbeck, Woodward, Pinsent, Pike, Clarkson & Clark 1976), when patients ask more questions (Roter 1977) and when they are satisfied with their doctor's performance generally (Wolf, Putnam, James & Stiles 1978, Korsch & Negrete 1972, and Ley et al. 1976).

One parallel with patient compliance, seen in the piano lesson setting, might be students' willingness to follow teachers' instructions about practice. There are, however, several situational dissimilarities that need to be appreciated. Aspects such as how the patients and pupils perceive the penalties of not following instructions may affect their motivation significantly. In the medical situation, the rewards of feeling better or the fears of a reduction in health could be more significant than anything in the music situation. Furthermore, in an earlier study (Bryan 1999) investigating pupils' motivation to practice, I found that a strong influence involved the intrinsic rewards of the activity. It is unlikely, however, that intrinsic pleasure is a product of obeying a doctor's instructions, be they taking medicine or giving up smoking! There is one factor involved in achieving patient compliance though, which would seem to
have parallels within the teaching situation and that concerns ensuring that pupils understand instructions. Good communication skills must be important in both situations.

Research indicates that patients either fail to remember or misunderstand about half the information given to them by their doctors (Svarstad 1976; Ley and Spelman 1967; Boyd, Covington, Stanaszek and Coussons 1974). Ley (1980) found that forgetting was associated with the amount of information presented, the nature of the material, the patient's age, level of anxiety and level of medical knowledge. Recall could be improved, however, when patients repeated instructions given to them (Bertakis 1977), and when patients understood the instructions (Ley 1980). Ley also suggested that recall was improved by three factors; by dividing information into clear categories, by repeating the information and by giving specific rather than general advice.

It seems quite possible that the findings reviewed here might also have significance for teaching dyads. Just as instructions are more likely to be remembered and carried out if they are understood, so instructions are more likely to be understood if they are divided into clear categories and repeated. It is also possible that a student's opinion of the teacher might affect their memory for the information given, in the same way as less satisfaction with the doctor was found to correlate with low recall of instructions.

Evaluating process by considering outcome
The efficiency of methods and processes are frequently evaluated by considering their outcomes. However, there are as many problems attached to attempting to examine the quality of the consultation by considering its outcomes per se, as there are also in evaluating the music lesson by examining the progress of the student. Donabedian (1967) suggested that any particular outcome might not be appropriate for all conditions. Survival is not, for example, an appropriate judge of outcome in non life-threatening conditions. Second, some improvements may take time and other factors might be influential during that time. Third, some outcomes are hard to measure. Donabedian maintained, however, that 'outcomes, by and large, remain the ultimate validators of the effectiveness and quality of medical care' (p 169).
Several studies have evaluated instrumental teaching by measuring outcome in the form of the pupil's standard of performance. However, this is a rather limited view when teachers' and students' aims are various. A more appropriate measure might be the achievement of participants' goals, which are often more than just the achievement of a successful performance.

**Conclusion**

Even though there is a considerable quantity of research into communication skills in the medical profession, several research questions remain unanswered. Few empirical studies have attempted an evaluation of doctor-patient communication although there is a great deal written about what should and should not happen in consultations. Pendleton (1983) noted one obstruction, suggesting that before a consultation can be evaluated, the aims, needs and goals of the consultation need to be clearly stated. Pendleton also stated that a model is needed to show how input variables affect the consultation process, how doctor and patient influence each other and how the process affects consultation outcomes. This model would also have to show how immediate outcomes affect later ones, while predicting that effects weaken with time. Any evaluation of teacher-pupil communication could involve similar criteria.

Although the value of this review of research in the medical field is limited, it does offer the opportunity to see the instrumental lesson from a different perspective. Differences between the two contexts have been noted, highlighting the individual characteristics of each. However, there are also several similarities and these parallels raise certain questions. To take one example, Byrne & Long (1976) found that doctors varied their styles little between consultations, and a parallel might be to consider how far teachers vary their style between students.

The next section of this review will focus on the efforts within medical education to improve communication skills and therefore the efficiency of the general practice consultation. As methods of training might also have relevance for one-to-one teaching, several will be described here briefly.
2.2.2 Teaching and evaluating communication skills within the medical profession

McManus (1992) states that 'most doctors qualifying before 1970 had no training in communication and those qualifying since have received only a few hours' (p 131). In 1980 the General Medical Council recommended that by the time medical students graduated they should have developed the skills needed 'to communicate effectively and sensitively with patients and their relatives' (GMC 1980). Sanson-Fisher and Maguire (1980) suggested that interpersonal skills may be improved by formal teaching, and most medical schools now offer this, though courses vary in both style and quality (Whitehouse 1991).

A course designed by Pendleton, Schofield, Tate and Havelock (1984), and one used with medical students at Sheffield University, (evaluated by Usherwood, 1993) are typical. Each declares itself student-centred in its approach and employs recordings of consultations to promote discussion. Campbell (1982) produced figures to suggest that video-recording consultations in the surgery is acceptable to the majority of patients, and that the subsequent consultations are largely unaltered by the presence of the video camera. Similarly, a survey by Davis, Jenkins, Smail, Stott, Verby, and Wallace (1980) showed that although the majority of medical students initially had feelings of apprehension, once they had experienced the camera and had recognised its value for constructive feedback, they willingly agreed to repeat the exercise.

This evidence confirms that the realisation of consultation aims is only achieved through effective communication. However, the discussions of communication skills reported here tend to focus on just one participant in the dyad, the doctor, as the interest is in training the professional, though interaction itself is affected, of course, by the communication skills of both parties. The next section will compare how these factors are taught to students in English music colleges and to instrumental teachers seeking further qualifications.

2.2.3 Teaching communication skills in the training of instrumental teachers

Until recently, instrumental teaching diplomas were only obtainable through music colleges. These were either internally taught diplomas awarded to students of the college after several years study, or external examinations awarded to applicants, not
at the college, who attained the required standard. In the mid-1990's three courses were designed specifically for instrumental teachers who wished to improve their teaching and gain a recognised qualification. The Associated Board of the Royal Schools of Music introduced a certificate of teaching (CT ABRSM), and the University of Reading's School of Education in collaboration with the Incorporated Society of Musicians developed the masters and the post-graduate diploma courses in Music Teaching in Private Practice (Mtpp). The next section focuses on how communication skills are taught and/or examined in each.

External teaching diplomas

The LRAM (Licentiate of The Royal Academy of Music) and the ARCM (The Associate of the Royal College of Music), are just two of the many external diplomas which have been available from music colleges. During the last few years several of these have been discontinued and new ones planned as awarding bodies have re-evaluated their qualifications as part of work with Qualifications and Curriculum Authority regarding the establishment of a National Qualifications Framework and general Quality Assurance.

In the case of these external diplomas, colleges are required by regulatory bodies to keep the process of examining independent from the training of teachers. The value they give to communication skills is only apparent, therefore, by considering if and how this area is assessed. The majority of examining bodies put emphasis on a candidate's ability to demonstrate performance competence, awarding more than fifty percent of the marks in this area. The viva voce, which provides an opportunity to examine a candidate's teaching ability, is invariably a smaller element of the exam. Alternatively some diplomas test this aspect through case studies or video-recordings of lessons. Although syllabuses do not specifically state that communication skills or pupil/teacher relationships will be evaluated, some do use the terms 'rapport between candidate and pupils' (Associated Board's Syllabus of Diploma Examinations from 2000, p 113) or 'psychology of teaching' (London College of Music and Media's Diploma Examination Syllabus 1996-2000, p 11). Examining bodies usually recognise that factors such as personality, technique, and the ability to interact are important to successful teaching and examiners do explore these areas, albeit superficially at times, when assessing candidates.
Teaching components within music colleges' undergraduate courses.

Recently, music colleges have begun to recognise the importance of preparing students for teaching and several are now including pedagogy classes in their undergraduate courses. Trinity College of Music has brought communication skills and consideration of relationships into their courses, and at the Royal Northern College of Music, a compulsory two-year piano pedagogy course is incorporated within the keyboard department's undergraduate course, each lecture examining teacher/pupil relationships, along with the communication and inter-personal skills relevant to successful teaching.

The new professional qualifications

In 1995 the Associated Board of the Royal Schools of Music, launched its certificate in teaching (CT ABRSM), a part-time professional development course designed as a teaching certificate for singing and instrumental teachers. Course components, which incorporate aspects concerned with improving students' understanding about pupil/teacher relationships and interaction, include the student's self-evaluation of his/her teaching, the mentors' observation of student teaching and a self-video appraisal of a teaching project. As in current communication skill training within medicine, this course also utilises the method of replaying recordings of sample lessons to a group of students with the aim of stimulating constructive criticism.

The MA and Diploma courses in Music Teaching in Private Practice are also designed for professional instrumental and vocal teachers. In comparison with the CT ABRSM, they require a higher academic, and less practical, input. Analysis of pupil/teacher interaction is a key part of the Mtpp approach to reflective teaching, and is present both in the taught materials and in the case studies which form part of the final assessment.

Currently the great majority of instrumental teachers, though 'qualified' as far as the profession is concerned, have received no training in communication skills. Quite simply, they have not been taught how to teach. The new courses, aimed at people already in the profession, offer the chance for teachers to gain more understanding about lesson interaction and as a result improve the methods by which they teach.
Although earlier diplomas emphasised and evaluated performance ability and knowledge of repertoire and technique, the new courses also recognise the importance of good communication and interactive skills. All examining bodies appreciate, though, that these skills cannot be prescribed specifically, and in the courses these skills are generally 'taught' by increasing awareness through group discussions of observed lessons.

In one respect, the fact that courses which offer instruction focussed on improving communication skills in teaching are currently available, and that music college courses incorporate this element in their diploma and degree courses, suggests that this area is now being recognised as important in teaching. However, while the profession as a whole does not insist that teachers have a thorough training in teaching skills as well as their subject area, only teachers who take the initiative to improve their skills will apply for the training.

2.3 Research in music teaching

Having viewed pupil/teacher interaction as an interpersonal social meeting, and as a professional skill, this last section will concentrate on particular aspects that are affected by its being both a teaching situation and one that involves music. First, research studies which have attempted to measure typical behaviours within the piano lesson specifically will be reviewed, followed by those that have investigated elements affecting and being affected by the instructional situation, whether in classrooms or choral or band rehearsals.

2.3.1 Piano lesson interaction

There are only a few studies that have examined private instrumental lessons and fewer still that have looked specifically at piano teaching. Two of the studies which will be reviewed, Mackworth-Young (1990) and Lennon (1996), consider interaction within British piano lessons, focussing specifically on teaching style. Discussion will begin, though, with three descriptive studies, Kostka (1984), Speer (1994) and Siebneraler (1997), that have observed and quantitatively analysed pupil and teacher behaviour within piano lessons. Two points need emphasis, however: these are studies of American piano teaching, which may or may not replicate teaching
traditions within other countries, and behaviour catalogued in each study is selected to answer the particular research question(s) posed. Each describes interaction from one particular standpoint, and results from different studies are not necessarily directly comparable.

Kostka (1984) investigated reinforcement, time use, student attentiveness and interruptions within the private piano lesson, by coding lesson behaviour at ten-second intervals. Results showed that lesson time was largely divided between student performance (56.57%) and teacher talk (42.24%). Analysis also revealed that students in all ages were on task for 85% of observed lesson time. Kostka reported teacher approvals and disapprovals to be nearly equal during piano lessons, with more reinforcing being given for musical achievement than for social behaviour. 'Teacher interruptions' were most frequently followed by teacher disapproval of performance, less often by teacher instruction and least often by an approval. Effects of interruptions on student attentiveness were reported, however, as negligible. Student age was found to be a significant factor in observed differences, with elementary students receiving the highest rates and ratios of approvals, secondary students spending more lesson time performing, and adults being most on-task during lessons.

Although this breakdown of behaviour is useful, Kostka's discussion is based on certain assumptions gained from study results into class teaching and rehearsal which may not be as relevant to one-to-one piano lessons. She accepts a recommendation that states that approvals need to be more frequent than disapprovals, (presumably 'disapprovals' in piano teaching refer to corrections and suggestions for improving performance). This is a rather limited and generalised view. For example it does not take into consideration the possibility that pupils adjust to different styles of teaching and value approvals/disapprovals in the light of their teacher's style. Kostka also advocates that teachers spend more time in 'direct modelling' of a correct performance (p 120). She suggests that this will reduce teaching time. Her focus on efficiency of time may mean she is not considering efficacy of teaching as her recommendations suggest that verbal explanation and teacher demonstration have equal worth and are equally appropriate.
Speer (1994) investigated the verbal behaviour of piano teachers, coding behaviour in the components of sequential patterning: teacher presentation, student response, and teacher reinforcement. Supporting Kostka's findings (1984), Speer noted that students' participation in the lesson, while substantial, was mainly in performance and that teacher talk was by far the principal method of teacher presentation, with demonstration being employed less than 20% of the time. The study also revealed that students perceived as 'better' by teachers received significantly fewer directive comments than 'average' students did. On average only 6% of a piano lesson was spent in verbal reinforcements, of which 63% was approving in nature although over half of that was non-specific.

In the light of his findings, Speer recommends that private piano teachers should spend more time in 'verbal teacher reinforcement' (p 24), and particularly in specific approvals. He bases this advice on the efficacy of this behaviour as suggested by other research and its observed lack of use in his research. He does not, however, point to any findings in his own research that show that using more specific approvals might improve piano teaching. Both of these studies which analyse pupil/teacher behaviour, therefore, base any concluding suggestions and recommendations solely on the 'good teaching methods' suggested by others.

Siebernaler (1997), in contrast to the two studies just mentioned, set out to identify the characteristics of effective piano teaching by analysing teacher-student interaction in the piano lesson. The sequence and duration of predefined teacher and student behaviours were categorised from segments of lesson recordings. Siebernaler also evaluated 'between task' musical progress (p 9), by measuring the relationship between each task and the preceding associated task(s) and rating students' performance quality. Using the evaluations supplied by 'expert piano pedagogues' (p 10), Siebernaler identified characteristics of effective and ineffective teaching by correlation analysis. Results suggested that relatively active teachers were judged more effective than inactive teachers, they provided more modelling and gave more feedback to students. Student performance episodes were generally shorter among the more active teachers, and students of the more active teachers tended to perform more successfully. The study also showed a faster pace of interaction to be associated with more effective teaching.
Siebernaler's strongly quantitative approach is based on observation only, teachers and pupils being given no opportunity to comment on the effect lesson interactions had on them. The weakness of this study lies in the fact that the 'effective/ineffective' rating, by which differences in behaviour are assumed to relate, is based predominantly on a judgement made by the pedagogues. The criteria by which these judges evaluate the teachers, however, are not explained and the experts themselves lack agreement. Any study evaluating 'effective teaching' needs to state the standards and measures by which conclusions are made.

These studies have provided a clear picture of the measures of selected aspects of piano lesson behaviour. Although all three studies have monitored similar categorisations of behaviour - teacher talk and student performance - and each has coded feedback as approving or disapproving, subcategories within these codes have further defined behaviours differently. In their report of lesson content, and in common with much of the research to be reviewed later in this section, all three studies have analysed the piano lesson from a purely behavioural viewpoint. No consideration has been given to psychological or cognitive concerns. The reasons for, or consequences of, the behaviours have not been investigated and no attempt has been made to theorise about findings. Contrasting in all these respects are two British research projects which are similarly recent and have also focused on the piano lesson; Lennon's (1996) investigation of teacher thinking and Mackworth-Young's (1990) evaluation of pupil-centred learning.

To achieve a thorough understanding of teachers' aims and intentions, Lennon (1996) explored recordings made of piano lessons with the teachers involved. She emphasised that this was vital as the focus of teaching is often implicit rather than explicit. Previous process-product research had defined teaching in terms of visible behaviours but Lennon argued that teaching involved both thinking and action, knowing and doing.

Swanwick's spiral model of musical development (1988, p 76) was used to provide an interpretative framework for the study, and the subject matter of the piano lessons was described in terms of Swanwick's dimensions of musical criticism: materials,
expressive character, form and value. As the teachers discussed the videos of their lessons, Lennon realised that teachers may sometimes appear to be working at one level but in fact be aiming towards a different level. She concluded from her investigation that the private teacher was aware of individual student needs and characteristics, and that teachers’ perceptions of students in terms of ability, cognitive style, personality, background, stage of development, response, age and attitude was a major influence on their teaching approach.

Whereas Lennon’s interest was in how teacher cognition affected teaching behaviour, Mackworth-Young (1990) focused on emotional and psychological factors which resulted from different teaching methods. Four students were observed under three different styles (teacher-directed, pupil-directed and pupil-centred) to test the hypothesis that a pupil-centred approach to piano teaching and learning would result in increased enjoyment of the lesson, increased interest, positive attitudes, motivation and progress and a better teacher-pupil relationship. Mackworth-Young measured reactions using a modification of the Flanders Interaction Analysis Categories, while further data were obtained from observations of video recordings, pupil questionnaires, interviews and practice sheets, and teacher and parent reports.

The pupil-centred lessons, which included elements of both pupil-directed and teacher-directed styles, were the most successful for three of the four pupils. The pupil-directed element enabled pupils to choose what and how they studied. This, Mackworth-Young suggested, was largely responsible for increasing interest, positive attitudes and motivation, although it could also lead to feelings of abandonment, helplessness and self-consciousness which the teacher would be able to ease by adopting a teacher-directed style. The teacher-directed style, alone, however, might cause a teacher to be out of touch with pupils’ feelings.

Although Mackworth-Young draws some thoughtful conclusions from her research, it must be remembered that this was a very small study. Only four pupils were observed, and one of these did not support Mackworth-Young’s theory and show the positive gains in enjoyment and attitude expected from the pupil-centred style of teaching. This suggests that factors such as pupils’ ages and/or personalities might be important. Each participant experienced the teacher-directed and the pupil-directed
style for only two lessons each, the second only being recorded. (In comparison, the pupil-centred lessons were taught for four lessons, though there is no explanation why this was so). Two lessons is very few for a pupil to become adjusted to a different style of teaching and over a longer period initial reactions and behaviour might have changed. The 'helplessness and self-consciousness', for example, which are cited as reactions to pupil-directed lessons, are not unexpected initial reactions for a pupil suddenly experiencing a significant change in lesson interaction and participant role.

These five studies have specifically examined piano lessons and piano teaching. In the next section, studies from the wider context of music education generally will be reviewed, to consider further factors such as teacher effectiveness, modelling skills, feedback and sequencing.

2.3.2 Aspects of teaching

Effective teaching

The process-output link has fuelled many research projects, presumably because it is thought that analysis of procedure and evaluation of outcome might lead to improvements in efficiency. Discussing teacher effectiveness is, however, difficult when definitions of success vary among both teachers and researchers. Examples range from performance quality and student learning gains, to motivation and enthusiasm for music and 'liking' the teacher. Evaluations of teacher success have come from teachers' superiors, teachers' own perceptions, and from students, and have therefore invariably been subjective. It is hardly surprising that results often lack consensus.

Although there is extensive research that assesses class teaching efficacy, research that evaluates private instrumental instruction is very limited. Froehlich (1992) suggested that this was due in part to the fact that the one-to-one teacher, unlike the classroom teacher, would have direct feedback about his/her success. This could come in two ways: directly from the pupil (an immediacy possible in the one-to-one but less possible in a group setting) or simply from the length of time students remained with the teacher, and/or the increase or decrease in students asking for lessons.
One study which does attempt to explore the effectiveness of instrumental teaching at a tertiary level was conducted by Persson (1994) who observed the teaching of one clarinet teacher. Persson's aim was to evaluate how successful a performance teacher with no formal teacher training might be and what particular aspects of 'common-sense teaching' might be effective. Mrs G's style and method is discussed in some detail in the report. She is described as 'efficient' and 'thorough' (p 235) and it is reported that her students are 'bound to learn a lot regardless of their level of skill' (p 235). And she is criticised for fitting the student into her strategy rather than adapting her methods to the individual, and for not encouraging her students to make their own artistic decisions and to be more independent.

The study, though very thorough in its analysis of Mrs G's teaching, has two limitations. First, Persson's choice of words used to report the teaching lacks objectivity at times and suggests that he has already made a decision about her effectiveness: 'students are overwhelmed by Mrs G's intense charisma and never-ending flow' (p 226). Secondly, although Persson, at one point, measures Mrs G's success by comparing her aims with what is actually achieved, it is not clear otherwise what criteria are being used to evaluate her teaching. As this research sets out specifically to measure the success or otherwise of a style of teaching, it would seem important to establish the standards and conditions by which the teaching were being judged.

Other research, which investigates the efficacy aspect, has focused on specific factors or qualities within the teacher, some researchers recognising that the personal relationship between teacher and student in a one-to-one context can be an influence on student learning. Research that has studied teachers' personality variables and perceived characteristics will be considered next.

Sloboda and Howe (1991) interviewed pupils about various aspects of instrumental learning including how they perceived current and previous teachers. Their descriptions were categorised first into positive and negative ratings of 'warmth'. From this Sloboda and Howe concluded that it seemed essential for progress that pupils liked their teachers. The second dimension isolated was a 'stretching' aspect: they reported a slight tendency for the last teachers to be less stretching than the first,
and concluded that some pupils abandoned teachers perceived as being too strict, although they recognised 'teacher/pupil fit' as being more important than a fixed teacher quality.

Davidson, Moore, Sloboda and Howe (1998), in a later study into the factors that influence students' musical ability, continued to investigate key teacher characteristics. With regard to teachers' personal dimensions such as warmth and friendliness, their results supported the findings of the earlier study. However, their results on task-oriented professional dimensions contradicted the earlier study's conclusions, suggesting that more successful learners rated current teachers higher on the 'pushiness' dimension than did other learners. Csikszentmihalyi and McCormack's research (1986) supports this later study, finding that teenagers admired teachers for their professional qualities, such as presenting challenges and demonstrating personal talents and commitment, over personal qualities. The suggestion from each of the studies, though, is that teacher characteristics need to be matched to the changing requirements of the learner.

In a study by Schmidt (1989a), individual differences in personality were assessed in an attempt to explain variations in private instrumental teaching behaviour. College level music instructors were observed for behaviours, such as approvals, disapprovals, rate of reinforcement, task-related talk, teacher modelling, teacher performance and pace. These were examined as a function of four personality variables: extroversion/introversion, sensation/intuition, thinking/feeling, and judgement/perception. He found that extravert and intuitive teachers gave more approvals and reinforcements, and that intuitive teachers provided more models of performance and taught with more pace. Although this study does not itself aim to evaluate teaching, Schmidt suggests that his findings may help to clarify and refine any theories that are concerned with teacher effectiveness. He also proposes that his results could enable teachers to recognise behaviour traits as a function of personality. This, he suggests, could lead to greater flexibility in teaching and increased sensitivity to differing teaching styles.

Dolloff (1999) designed a study that aimed to uncover trainee teachers' feelings about, and increase their awareness of teaching characteristics. The study investigated how trainee music teachers' experiences of teachers they had known affected their future
professional identities. She emphasised that traditional music education courses do not consider the wealth of personal practical knowledge that shapes the future teacher. Dolloff attempted to uncover trainee music teachers’ opinions, feelings and thoughts by asking them to write stories, draw pictures and create metaphors. She concluded that these methods, each involving a different catalyst, stimulate a different perspective on teachers and teaching. However, Dolloff recognised that the study was only a ‘beginning exploration of identities’ (p 207) and aimed to follow the teachers through the first few years of their teaching, proposing that as teachers learnt more about themselves as teachers, this would have a positive impact on their teaching.

Several studies have examined the opinions of various groups as to what constitutes a good music teacher. In a study by Abeles (1975), teachers identified five categories that they thought students would consider important when evaluating them. These were rapport, communication, technique, musical knowledge, musical understanding and performing ability. Albergo (1991) investigated teachers’ views on the most desirable qualities for a piano teacher. The qualities that they most often agreed on included patience, knowledge of music, humour, knowledge of teaching techniques, and enthusiasm. Finally, Abeles, Goffi and Levasseur (1992) researched the critical teacher components of effective one-to-one instrumental teaching by exploring the opinion of both music students and non-music students. ‘Rapport’ appeared in the lists of both groups, as did also ‘patience’ and ‘confidence’. Music majors also listed musical knowledge and instructional skill, while the non-music majors recognised the importance of communication, pedagogical skill, organisation and flexibility.

Various other studies have surveyed opinions as to the personal, professional, and musical characteristics of successful class teachers, choral and band conductors. However, the different circumstances may mean that these ideal characteristics may differ slightly from those that lead to effectiveness in one-to-one situations. Several researchers have noted the importance of the right sort of personality – warm (Brand 1984), being adept at human relationships (Goodstein 1984) and having an interest in students (Brand 1984), while being enthusiastic and having the ability to motivate students has also been highlighted (Brand 1984, Bergee 1992). Sparks (1984) and Bergee (1992) pointed to the value of monitoring students carefully and accurately, and Bergee (1992) and Taylor (1980) emphasised the importance of adapting the
teaching style to suit the individual. Further effective aspects of style noted are: a clear and brisk teaching style that balances praise and criticism (Brand 1984 and Sparks 1984), and giving precise, understandable explanations and directions (Sparks 1984 and Bergee 1992), while Farmilo (1981) noted the importance of having a creative teaching style.

Feedback

Another area which has been widely studied in education, and which has relevance to the individual instrumental lesson, is the topic of teacher feedback. This subject embraces teacher responses such as non-specific praise, constructive corrective information, and disapproval. An important aspect of the research for this review relates to how feedback affects a student's self-esteem, attributions about success or failure, and attitudes towards a teacher, and discussion will begin with a study that examined the function of teacher praise in the classroom.

Brophy's (1981) analysis of teacher praise revealed that it could have several distinct functions in addition to the reinforcement of student conduct or academic performance. These included: praise as a spontaneous expression of surprise or admiration, as a balance for criticism, as positive guidance, as an ice breaker or peace-offering, as a transitional ritual and as a consolation prize. Brophy suggested that student response to praise can vary from highly positive through to highly negative and that infrequent specific and credible praise seems more likely to be encouraging and reinforcing than frequent but trivial or inappropriate praise. The report recommends that teachers need to assess how individual students respond to praise, how they use it to make attributions about their abilities and how they link effort with outcome.

Other research into the effect of praise in group music teaching suggests that student attentiveness is better under highly approving teachers than under highly disapproving ones (Forsythe 1975, Kuhn 1975). Murray (1975) found attitudes to be more positive toward choral rehearsals where reinforcements were approving and Madsen and Yarborough (1985) supported using specific or descriptive praise as reinforcement.
Duke and Henninger (1998) however, suggested that subjects’ attitudes and learning efficiency was less affected by the different verbalisations and more by the positive feelings produced by their achievements. The study attempted to compare the effect on students and students’ performances of two feedback conditions: one that used negative statements and one that employed corrective feedback. In the experiment, fifty students were individually taught a simple recorder tune, in one of the two conditions. The results showed no difference in either performance quality or in the length of time students took to learn the piece. Duke and Henninger suggested that close attention to the precise language used to communicate feedback may be unjustified and that the effects of feedback statements should be considered only in relation to their function in the instructional interactions in which they reside.

It is perhaps simplistic to attempt to generalise about the effect of positive feedback on students. Schmidt’s (1989a) investigation of the effect of teacher personality variables has been discussed earlier. In a second paper (1989b) Schmidt discusses his findings in relation to teacher feedback on student personality variables. His results suggested that the different ways in which students perceive and respond to teacher feedback might be related to the student’s personality type. He advocated that an awareness of the effect certain teacher attributes had on certain personalities could make greater flexibility in teaching possible, and that this in turn could lead to greater student achievement. In a further study, Schmidt (1995) found that secondary school choral students’ perceptions of teacher feedback behaviours did not differ significantly according to their internal/external attributions or grade level.

‘Feedback’ is a component in a breakdown of teaching called ‘sequential patterning’, mentioned earlier in connection with Speer’s study (1994). This consists of three targets; the presentation of a task, followed by student response and teacher reinforcement. Several studies support the effectiveness of this style of teaching. Early research revealed that children improved intonation significantly when given instruction and reinforcement as opposed to no instruction and non-contingent reinforcement (Madsen & Madsen, 1972). Price (1983) found ensemble conductors to be more effective in producing good performances, student attentiveness and positive student attitudes when using a sequential pattern of instruction.
Yarborough and Price (1987) analysed rehearsals to determine the time spent in 'direct instruction' or 'sequencing'. The results showed that presentation of musical information occurred at a very low rate, with an almost equal amount of time being spent on giving directions. Almost half of the rehearsal time was devoted to performance, and disapproval feedback was used excessively. The research revealed, therefore, that the music teachers monitored were not using the recommended sequential pattern of teaching which previous results of research suggested was beneficial.

These studies show that it is impossible to generalise about the effects of different styles of approval, disapproval, constructive criticism, correction or praise. Individual students and situations need to be considered. The task could be easier, however, for one-to-one teachers who should be close enough, both in terms of geography and relationship, to monitor the effect of their behaviour and adjust it as they feel appropriate assuming that the students are willing to reveal their reactions during the lessons.

*The value of demonstration in teaching*

The value of a teacher's willingness and ability to demonstrate musical or musically-related behaviours to pupils has interested several researchers. The Suzuki method of instrumental teaching stresses that what a child hears is crucial to his or her musical development (Suzuki 1969), and Bandura too (1971) has made powerful statements about the value of teachers as models. The interest here in teachers' use of demonstration lies in the effect it might have on factors such as pupil/teacher interaction, the pupil's attitude to the task, his/her ability, learning and the teacher's ability.

Rosenthal (1984) studied the relative effectiveness of four conditions of teaching. Three tapes were prepared: demonstration with verbal explanation, demonstration only and verbal explanation only. The fourth condition involved practice only. Forty-four woodwind and brass students were each assigned to one of the conditions. The subjects in the first three conditions were given tapes to listen to and then allowed three minutes to practice the piece. The practice condition was given ten minutes to practice only. Their performances were then recorded. Significant differences were
found among groups in the performance of notes, rhythms, dynamics and tempo though not in phrasing or articulation. The highest scores were consistently attained by subjects in the 'demonstration' groups on all variables with scores in the 'verbal explanation only' and 'practice groups' being considerably lower than the other two groups.

However, this research has several limitations. In Rosenthal’s experiment, the teaching methods were evaluated by looking at the short-term results only and it is possible that other methods might have advantages for learning in the longer term. For example, if a teacher were attempting to put over a musical concept, the use of verbal explanation could mean that the ideas presented could be used by the student in other appropriate situations in the future. Furthermore 'demonstration only' might be less beneficial in the longer term if students mimicked a teacher’s demonstration without completely understanding what had changed in the performance. Finally, the age, stage, and ability of the student and the type of performance factor being taught could also affect the comparative advantages of each method of teaching.

Sang (1987) investigated the relationship between the instrumental music teacher’s demonstrating skills, the degree to which those skills were used and the extent to which they affected pupil performance behaviours. Nineteen teachers were asked to perform a battery of tasks which tested their performance and demonstrating skills. These were tape-recorded and evaluated. During the following year the amount of demonstration used in lessons by each teacher was calculated, and at the end of the year, the performance ability of their students was assessed. Sang concluded from his results that teachers who have stronger ‘modelling’ skills and apply those skills in teaching are more likely to produce students who perform better than teachers who do not.

Although Sang’s study judges student performance after a longer period than Rosenthal’s, the results of this study cannot be generalised across all instrumental teaching. The study only evaluates the benefits of teaching by demonstration in a group setting. It only considers the advantages for young pupils and for pupils who are in their first year of learning an instrument. It is quite possible that the appropriateness of the method might change in different circumstances.
Even though these research projects suggest that students’ progress improves when teachers ‘model’ musical interpretation or technique, in practice teacher demonstration is infrequently used. A study by Hepler (1986) showed that teacher talk accounted for more than 50% of the lesson, and teacher modelling on the taught instrument for only 7.61% of the lesson. More thorough examination of the situation is needed to clarify how demonstrating affects pupils’ motivation and imagination, and why teachers seem reluctant to employ this method of explanation and direction.

Motivation
Improving pupil motivation is often considered an important feature of effective teaching. Asmus (1994), recognised motivation as a factor in achievement and suggested that it could be controlled by the teacher:

‘The skilled teacher is able to manipulate the learning situation to encourage students to participate in the learning experience’ (p 5).

He also identified environmental and social factors, and pupils’ self-perceptions as being highly related to achievement and motivation. These can affect pupil/teacher interaction in that they can influence how a pupil approaches lessons and how s/he behaves within them.

In an earlier study (Bryan 1999) exploring children’s motivation for practising their instruments, I discovered intrinsic enjoyment to be a strong motivator. Several factors within the lesson, too, were also found to increase pupil motivation. Focussing on teacher behaviour I recommended a close, friendly relationship with the pupil, and a careful selection of material which took in tastes, ability, achievement needs, challenge and boredom levels. I also suggested that new material should be presented as potentially rewarding and enjoyable, that realistic and worthwhile goals should be encouraged, that pupils’ beliefs in their capabilities should be encouraged, and that accomplishments attained through effort should be praised and rewarded.

Teaching strategies
Continuing with the focus on the teacher, several studies have considered teacher approach. Kennell (1989, 1992), like Lennon (1996), was interested in investigating why teachers made the choices they did in teaching. He was attracted to Vygotsky’s ‘zone of proximal development’-
the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers' (Vygotsky 1978, p 86, cited in Kennell 1992 p 8).

Applying this to instrumental learning, Kennell identified the 'independent problem solving' as personal practice from which the student returns to the teacher for help and encouragement to achieve his/her 'potential development'.

Bruner and colleagues developed these ideas into 'scaffolding strategy', the term they coined to represent the teacher's interventions in joint problem-solving contexts. Wood, Bruner and Ross (1976) described six different teacher strategies: recruitment, reduction of degrees of freedom, direct maintenance, marking critical features, frustration control and demonstration. Kennell (1989) explored these concepts further in a pilot study. Analysing transcripts of lesson recordings, Kennell noted that 'marking critical features' was the strategy of choice, being used four times more often than 'demonstration' and 'reducing degrees of freedom'. The other three strategies, recruitment, direction maintenance, and reducing frustration deal more with the context of teacher-student interactions, and were less frequently used. Kennell suggested that the selection of a specific scaffolding strategy was determined by the teacher's attribution of the student's difficulties in performance. This does not allow for the influence of teacher preference on chosen method however. For example, some teachers have a greater belief in, and use of, the benefits of demonstration than others.

Pratt (1992) conducted a cross-cultural study to explore different styles of teaching. Although the focus of his study was on teachers who taught adults, his categorisation of the various styles may well have relevance to teaching generally and one-to-one instrumental teaching specifically. He interviewed 253 adults and teachers from various countries, banding their teaching styles into five broad 'conceptions'. His 'engineering' style described teaching which 'delivered content' (p 210), where knowledge was perceived as external to the learner and the teachers were seen as possessing what was needed by the learners. The 'apprenticeship' approach involved 'modelling ways of being'. In this style the teachers were the experts who passed on their wisdom and knowledge to those who were not. A third method was described as
'developmental', with the focus being on encouraging students to think and to question. ‘Nurturing’ style was also learner centred, with the teacher offering friendship, caring, emotional support and personal relationships. Finally, the ‘social reform’ approach, saw teaching as developing an ideal based on a particular set of beliefs.

Although Pratt recognised that the cultural differences between eastern and western countries influenced the degree to which the various styles were adopted, he found that all ‘conceptions’ were represented to some degree in each country’s teaching. He also discovered that teaching style was not directly related to teaching situation - that a lecturer did not necessarily adopt the ‘engineering’ conception or discussion groups the ‘nurturing’ conception, for example. He also realised that the five conceptions were not mutually exclusive and although no teacher held them all, most held two or three. Finally he suggested that it would be wrong to propose that any one style was "better" than another. It is possible that instrumental teachers in the one-to-one teaching situation could adopt any of these styles, reflecting both the teacher’s general beliefs and their feelings as to what is appropriate for the individual student at that time.

A further study which focused on the elements that affect the process of teaching, was conducted by Gustafson (1986). Her approach is unusual in that it uses psychoanalysis to explain lesson behaviour and pupil/teacher exchanges. She studied four violin lessons, investigating the hypothesis that the contents of lesson interactions are dominated by the unconscious aims of either or both members of the dyad. Gustafson uses Freud’s theory (1894) of ‘defence mechanism’ to analyse interaction in one-to-one music lessons, two examples of which are ‘projection’ and ‘turning passive into active’. ‘Projection’ refers basically to a person’s attempt to understand another’s thoughts or actions by projecting onto them personal experiences. Gustafson quotes Melanie Klein (1959) as saying that anyone whose aim is to develop young talents is only able to do so because of an ability to identify with the other. Gustafson points out, however, that the interpretation the teacher makes may not always be accurate. The second behaviour, ‘turning passive into active’ refers to the re-enactment of difficulties in dreams or waking life. In the study, it was suggested that one teacher’s behaviour was influenced by an unpleasant experience that had
happened prior to the lesson. The teacher had come straight from work, where his supervisor had criticised him and made unreasonable demands of him. The teacher characterised the supervisor as 'scapegoating' and described his own reaction as 'resentful compliance' (p 137). In the lesson his student becomes the 'scapegoat' while he plays out the role of supervisor.

The psychoanalytic interpretations were met with mixed reactions from participants, though the paper reported that all had felt the concept had 'alerted them to the possibility of latent personal agendas unfolding in the private lesson' (p 138). Whether one agrees with the theory and the analysis or not, the study identifies the interpersonal relationship between student and teacher as a powerful dynamic in determining the diagnostic and remedial content of the lesson.

**Student learning**

As mentioned earlier, most research in the area of the music lesson has focused on the teaching or at least considered matters from the teacher's perspective. Reid (2001) offers one of the few available studies to investigate the student's perspective, and just as Pratt catalogued teachers' conceptions of teaching, Reid catalogues students' conceptions of learning.

She identifies five broad levels of learning, each extending the one before by adding a greater sophistication. Initially, students focus on the technical aspects of playing an instrument (level 1 - the 'instrument category'), before beginning to add musical elements to their playing (level 2 - the 'elements category'). Gradually they begin to consider the meaning of the music (level 3 - the 'musical meaning category'), which they next learn to convey in their performances (level 4 - the 'communicating category'). Finally, their musical expression in performance becomes their own (level 5 - the 'express meaning category').

It is likely that students' age, ability and/or experience affect their learning conceptions, but in Reid's study the students interviewed were all at tertiary level, being first to fourth year undergraduate students at a music school in Australia, so this aspect was not considered. In her conclusion Reid suggests that teaching strategies and techniques may well need to be adapted and changed for different students, so that
students who are limited to the lower level conception of learning could be encouraged to think at a higher level. Her unwritten understanding is that the complete performer must have reached level 5.

2.4 Summary and Discussion

The published literature reviewed here provides a patchy and rather limited assessment of both student and teacher behaviour within piano lessons. Some studies have considered how teachers select their method of instruction, while others have discussed effective teaching styles and considered the effects of these styles on pupils and pupil learning. Nevertheless, research projects in the area of instrumental lesson are rather limited in number. Many rely mainly on the observation of behaviours alone, restricting themselves to descriptive reports rather than attempting to theorise. Most focus on teaching or the teacher and as a consequence there are many questions that remain unanswered and various areas that need further exploration.

Although several studies investigating lesson 'input', have examined factors which may affect how the teacher approaches the lesson (Lennon 1996, Gustafson 1986), no research has really considered the variables which may influence students' attitudes to the lesson. It is likely that aspects involved may include their current abilities such as technical and musical skills, musical knowledge and experience, artistic and creative abilities, learning skills (such as self-discipline, concentration, intelligence,) and social and communication skills. Psychological factors too might influence lesson behaviour, including attitudes towards the teacher, beliefs and feelings about themselves, lesson aims and goals, motivation and interest. Furthermore, at a social level, their beliefs about what behaviour is appropriate for the situation might also affect lesson interaction. It is therefore important to understand more clearly what problems might be involved and how these can affect pupils and their progress.

The influence the student has on the process itself has frequently been overlooked. Many projects examine teaching method but few acknowledge the effect the student might have on the teaching. Furthermore, several researchers, in examining the content of instrumental lessons, have treated the two participants as entirely separate. Their behaviour has been measured without consideration of sequence or how one
action affects another. Interaction is intrinsically dynamic, and a fuller investigation is needed into both how students affect teaching and how the interactive process operates.

Theories from social psychology tell us of the influence of participants' aims and goals on any interaction, yet few studies have included these elements in their analysis. A student's choice of goals will affect his/her motivation, attitude and approach. Furthermore, evaluation of teacher effectiveness can only be truly relevant if those teachers' specific aims for the lesson or teaching in general are taken into consideration.

Although many studies have considered the effect of various aspects of the process, the 'output' assessed is often limited. Factors evaluated include: student liking (Sloboda & Howe 1991), musical ability (Davidson et al. 1998), musical success (Sang 1987), student receptivity and rapport (Bergee 1992), positive student attitudes and student attentiveness (Price 1983), and motivation (Bryan 1999). A fuller investigation is needed into all the areas that instrumental learning might affect. It must not be forgotten too, that lesson interaction will also affect the teacher, changing his/her knowledge and beliefs about the student, the self, and music, and affecting his/her experience of teaching, of communication skills, and of musical knowledge. Although this may be a consequence rather than a goal of interaction it nevertheless has an effect on future interaction and teaching.

Several studies have referred to the importance of pupil/teacher 'rapport' in effective teaching, (Abeles 1975, Abeles, Goffi & Levasseur 1992, Bergee 1992). Reber (1995) describes rapport as a comfortable, relaxed, unconstrained, mutually accepting interaction between persons. A better understanding is needed, however, of what might affect the development of rapport, why and how it benefits teaching and how teachers might attempt to improve rapport and pupil/teacher relationship.

The teacher is a valuable influence on student learning. Not merely because of the knowledge that s/he can pass on but also because of the effect s/he can have on factors such as student self-perception, inspiration and motivation. The psychological factors in this area need to be recognised if teacher effectiveness is to be understood. Any
attempt to investigate these aspects must use research methods that examine participants' thoughts and feelings as well as their observable behaviour if these questions are to be fully answered. Research also needs to appreciate the individuality of the student and recognise the student variable when considering teacher effect. This study aims to redress some of the previous imbalances, to provide answers to questions formerly unasked and to fill in some of the omissions alluded to in this section.
Chapter 3

Research Methods
Research Methods

The design of the methodology was steered by five specific aims. The first was that theories should be *developed* rather than *tested*. Published research focussing on the one-to-one piano lesson is limited and therefore it was necessary to maintain a broad perspective before any ideas and arguments were developed. To achieve this, methods were selected to cover the subject as widely as possible, to consider the event from several viewpoints, and to involve data from various sources. The second objective was to explore more than just what was observable, and attempt also to discover the participants' perspectives. In this way the data would uncover more than just *what* went on, and include *why* things happened and *what effect* these events had on the individuals involved. The third target was that the research design should be flexible, particularly as the project aimed to investigate first, and develop theories second. The method selected had to allow for potentially interesting topics to be pursued as they appeared. The fourth aim was to gain as true a picture of events as possible and, therefore, it was important that the piano lessons should be observed in a natural setting. In fact, during the course of data collection slight amendments were made to achieve this more effectively. Lastly, qualitative data would comprise a significant part of the information collected, as it was felt that the sensitivity and flexibility which these methods offer better suited the aims of the research, though quantitative methods would also be used for analysis where appropriate.
To satisfy these criteria several case studies were planned each involving the observation of a series of consecutive lessons in some depth. To add breadth to the research, two longitudinal studies were added to monitor changing behaviours and relationships over a two-year period.

Multiple sources of evidence were employed in both short and long studies enabling triangulation, described by Robson (1993) as ‘a method of finding out where something is by getting a ‘fix’ on it from two or more places’ (p 290). Although Cohen and Manion (2000) define this as the use of two or more methods of data collection, Denzin (1988) suggested that this could also be achieved by using multiple informants, investigators or theories. This research uses triangulation first by employing both qualitative and quantitative sources of evidence to study specific matters, and second by exploring multiple perspectives — observer, teacher and student.

Using triangulation in the study of human behaviour offers several benefits. Primarily it provides the opportunity to test one source of information against other sources. Where different methods of data collection produce substantially the same results they will cross-validate each other. However, if there is a difference in results, this in itself could lead to further exploration and a greater understanding of the matter under scrutiny. For example, chapter 5 investigates why qualitative and quantitative data produced differing results on the matter of whether pupils speak more in lessons over time. Cohen and Manion (2000) also suggest that the use of triangulation overcomes the problem of ‘method-boundedness’ (p 234), where researchers select methods merely because of their familiarity or through a possibly misguided belief in their inherent superiority.

In the next section the various different methods of data collection involved will be described, beginning with the short studies.

3.1 The short studies

The short studies were designed to investigate interaction between student and teacher over a series of five or six weekly lessons. The target was to investigate the factors
which both affect and are affected by lesson interaction, focussing on the learning of a pre-selected piece of music.

Five individual cases in total were studied, data collection being in two parts. Part one consisted of video recordings of a series of five or six one-hour piano lessons between a student and his/her piano teacher, together with disklavier recordings of pre- and post-lesson performances, by the student, of the music selected for the study. The second part of the study, which followed the series of lessons, involved audio-recorded interviews with the pupil and with the teacher, using a method loosely based on ‘Interpersonal Process Recall’ (see Kagan 1980).

3.1.1 The ‘study’ piece of music

So that music could be central to the project, the learning of one particular piece of music was monitored during each study. This music was introduced during the first recorded lesson and taught over the series of lessons. Other music was, of course, also worked on during lessons.

Although initially the aim was to select a single piece of music to be used by every dyad, with the advantage that various aspects of teaching and learning could be compared between studies, this was rejected in favour of leaving the choice to each individual teacher. There were two main reasons for this. Firstly, teachers select music carefully with each particular student’s needs in mind. Aims might be to satisfy the requirements of a forthcoming recital, broaden a student’s repertoire, strengthen a weakness or provide music that the teacher feels the student will enjoy. It would not be possible, therefore, to provide one piece that would be appropriate for each of the students in the study. Secondly, as the matter of repertoire selection was to be investigated it was important that the research should not interfere with this. The pieces of music chosen by the teachers were:

- Study 1 – Bartók - ‘Bulgarian Dance No. 2’ from Mikrokosmos Vol. 6.
- Study 2 – Prokofiev - Gavotta Op 32, No. 3.
- Study 3 – Debussy - Ondine.
- Study 4 – Chopin - Nocturne in E major Op 62, No. 2.
3.1.2 Pilot study - recording methods

Researchers studying the one-to-one piano lesson have used various methods to observe the event. Persson (1994) and Kostka (1984) both used direct observation. Persson sat in on the clarinet lessons he was monitoring and made notes, while Kostka employed trained observers to fill in coded observation forms. Kostka also audio-recorded her lessons, though this was primarily for subsequent reliability analyses.

There are several limitations with this method of data collection. First, as in Kostka's study, the pre-selection of behaviours to be monitored limits the amount and kind of data collected. Secondly, as in Persson's study, observer note-taking is both a subjective and limited record of behaviour from the event. Furthermore, it allows no opportunity for subsequent scrutiny at leisure.

In contrast, recording the event either on audio-tape (as used by Speer, 1994), or on video-tape (as used by Siebernaler, 1997, and by Hepler, 1986) provides considerably more data than direct observation. As the aim of this study was to explore rather than to test theories, recording the lesson on tape was chosen as the preferred method as it permitted the selection and use of appropriate analytical approaches at a later stage.

To determine the most effective method of recording lesson behaviour, an investigation was made both into the comparative advantages and disadvantages of audio and video recordings, and of their effect on participants. Several studies have considered the effects of being observed for research purposes. Campbell (1982) explored its effect on patients in medical consultations. He asked one hundred and fifty patients how they had reacted to their consultation being video-recorded. Five percent said that the filming made them feel uneasy, though only 2% thought that there were things that they would have told the doctor if they had not been filmed. As few as 1% believed that they behaved differently because they were being filmed and only 3% thought the doctor behaved differently. Samph (1976), however, researching the effects of being observed on teacher behaviour in the class-room, reported significant differences in almost all analysed behaviours between observed and unobserved conditions. He did conclude, though, that direct observation was still probably one of the most realistic procedures for noting and analysing what occurs,
though he recommended that if this method of data collection was used, observer effects should be taken into consideration and efforts made to minimise them.

The participants of the pilot study were a female piano teacher and her eighteen-year-old female student who was preparing for her grade 8 piano examination. One of their lessons was video recorded. Then, to assess the comparative usefulness and clarity of events between audio only and visual plus audio data, the recording was first listened to only, and on the second playing the video was watched as well.

Video appeared to have two key advantages over audio. First, it offered a record of non-verbal interpersonal communication such as facial expression, body movements and positions, which were considered important for the study. Second, as the recordings were also to be used in the interviews following the series of lessons as a memory prompt and stimulus for discussion, the video was able to provide more information and therefore proved more useful than audio alone.

Pilot-study participants did note one disadvantage. They felt that the video camera, being rather large and somewhat intrusive, was initially inhibiting to normal behaviour, particularly when compared to an audio-recorder. However, although participants in the pilot study admitted that they had been self-conscious at the start of the recording, they also reported that the presence of the camera was forgotten as the lesson progressed. It was assumed from this, therefore, that if the camera were a regular addition to lessons, its effect would diminish as time passed. Nevertheless, the pilot study revealed the need to select as unobtrusive a position for the camera as was feasible, while still capturing as much of lesson behaviour as possible.

3.1.3 Lesson recordings

Initially it was decided that all studies should be recorded in a studio with a disklavier piano to enable a computer recording of everything that had been played on the piano during the lesson. The series of lessons constituting study 1 took place in this studio. However, during the interview following the lesson recordings, teacher 1 spoke of the restricted space in the studio and the effect this had had on his teaching. As one aim of the research design was to maintain as natural a setting as possible, all the subsequent lessons were recorded on video alone and took place in the teacher’s usual
teaching room. Although this meant the loss of disklavier data for the lesson itself, capturing a truer picture of events was considered more important.

The camera was set up at the opposite end of the piano to the teacher, and about two metres from the student (see diagram 1). The video frame included student, teacher, piano keyboard and music. The camera was not, therefore, in the student’s direct sight line though it was at times in the teacher’s. Although the position meant that participants’ expressions were sometimes lost when they turned away from the camera, the alternative possibility of using two cameras was rejected because it was felt that it would increase any feelings of self-consciousness and thereby affect normal lesson behaviour.

Diagram 1 – Camera position

3.1.4 The recording of pre- and post-lesson performances

As well as observing the teaching of the selected piece of music in lessons, progress in this piece was also monitored by pre- and post-lesson performances recorded on audiotape and disklavier to provide concrete evidence of how performances changed over time. A disklavier is a Yamaha piano that performs like a conventional piano, but which records performance data onto computer via a MIDI interface. The data comprise the pitch, intensity, onset time and duration of every note struck plus the actions of the pedals.

3.1.5 Pilot study - Interview procedure

The aim of the first part of the study was to concentrate on observable behaviour alone. However to gain a deeper understanding of what had been observed, and to access social, psychological and cognitive factors, the second part of the study sought
the participants' view-points on the event. This could have been achieved by using any one of a range of methods from self-administered questionnaires to fully or semi-structured interviews (see Robson 1993, pp. 229-231). The semi-structured approach was selected because it permits flexibility:

Face-to-face interviews offer the possibility of modifying one's line of enquiry, following up interesting responses and investigating underlying motives. (Robson 1993, p 229).

To draw participants' attention back to the recorded lessons, the interview procedure also made use of a method referred to as ‘Interpersonal Process Recall’ (IPR). This is a training method used to develop interpersonal skills and self-awareness and is commonly used to train nurses and counsellors. It draws on aspects such as a person’s experiences, feelings and thought processes and was developed by Norman Kagan (see Kagan 1980). Participants watch a video of themselves in an interaction, and are encouraged to stop the recording to comment on remembered thoughts, feelings or reactions. This method, therefore, produces comments on two levels; remembered subjective reactions from the interaction, and more objective comments about the interaction. In a similar way, Lennon (1996) replayed video-tapes of lessons to the teachers involved in her study, her aim being to aid discussion about the focus of their teaching, which she felt was often implicit rather than explicit.

Four to six weeks after the recording of the lesson for the pilot study, separate IPR interviews were conducted with the teacher and the student. The aim of these was to test several concerns. First, the interview would show how well participants were able to recall thoughts and feelings several weeks after the event. It would also provide an opportunity to find the best way to use the video excerpts during the interview, and to conduct the whole procedure. The study showed that participants were reluctant to stop the video and discuss remembered feelings and thought processes and so it was decided to adopt more of an interview style, with the interviewer selecting video excerpts and probing for information. When this method was adopted in the pilot study, participants became more comfortable about speaking out about other relevant matters.
3.1.6 The IPR interviews

Short study participants were interviewed on two separate occasions, each interview lasting one to two hours. Consideration was given to the method of data collection for these interviews and the decision was made to use audio-tape since, compared to note-taking, this method captured the most data, while allowing the researcher to concentrate fully on interviewing. The interviews took place either in the participant’s home or in an appropriately quiet room at the university. An initial idea was to record interviews during the week following each lesson, as this might possibly have improved the chances of catching participant’s thoughts and feelings before they were forgotten. However, because watching a recording might have had an effect on the interaction within subsequent lessons, this part of the research was delayed until lesson recordings for each study were completed.

The interviews were semi-structured, and began with general questions about how subjects saw their roles, their feelings about the teacher/student relationship, their impressions of the other person and various aspects connected with the teaching and learning of the music. After this, discussion took place around the video-recordings of the lessons. Encouraging participants to discuss remembered thoughts and feelings from the interaction revealed the purpose and particular effect of words and actions, a process stimulated by the video excerpts.

As lessons had been one hour long it was necessary to select excerpts to watch from each recording in order to keep the interviews a manageable length. This was not an easy task as something that might appear significant to an observer might in fact be inconsequential and vice versa. The approach adopted was therefore primarily to select the periods of each lesson during which the study music was discussed. Aspects of interactive behaviour observed during the teaching of this music were often typical of the teaching at other times. Other excerpts were selected because they showed times when interaction appeared not to flow, or highlighted a particular feature of participant’s behaviour, or showed a situation that appeared significant. Inevitably intuition, instinct and experience also played a part in the selection process. In any event, the interview style was relaxed enough to allow participants to talk freely about remembered feelings and to let the video run on if the participant wished.
3.1.7 Analysis of short study data

The data collected from each short study consisted of video-recordings of a series of five or six one-hour lessons, audio and disklavier-recordings of pre- and post-lesson performances of the selected piece of music, and audio-recordings of individual interviews with the teacher and the student. Analysis was consistent with the approaches of grounded theory.

*Video-tapes of lessons*

From the video-tapes of the lessons, transcriptions were made of participants' verbal and non-verbal behaviour and emergent themes were identified. Instances of interactive behaviour, which warranted further investigation, were also noted and these matters were then discussed with participants in the second part of the study. Ultimately, the video recordings were used to analyse, in detail, the particular aspects of interactive behaviour relevant to the specific points of focus selected at a later stage of the investigation.

*Pre- and post-recordings of performances*

The disklavier recordings provided quantifiable evidence of changes to pitch, intensity, duration and inter-onset time for each note played. With the triangulated approach afforded by the collection of both quantitative and qualitative information about the performance, analysis could consider the developing accuracy of notes and rhythm; tempo; and increasing evidence of dynamics and interpretational variations in timing such as accelerandos, rallentandos and pauses that affect musicality. However, how the piece developed was not in itself the ultimate focus of interest. Rather, these data provided supporting evidence relating to matters arising from video-recordings and interviews – namely, the lesson interactions themselves. These data files, therefore, were only analysed when further information was required relating to a selected topic of interaction, as in chapter 6 where the disklavier data provided evidence about the effect of lesson interaction on student learning.

*Interviews*

A complete literal transcription was made of each interview. These were analysed to identify and code emerging topics, the processes of interaction being the central focus. Charmaz (1995) notes the multiple layers of meaning sought by this method – stated
explanations of a person's action, unstated assumptions about it, intentions for engaging in it, its effects on others and consequences for further individual action and interpersonal relations (p 35). The data collection and initial analysis from each case-study was completed before the next study was begun, and the grounded theory approach meant that aspects identified in the coding of one study could be used as an additional focus for interview questions in the next.

Charmaz has noted that the grounded theory method of analysis is particularly useful for topics such as motivation, personal experience, emotions, identity, attraction, prejudice and interpersonal co-operation and conflict (1995, p. 29), themes that were expected to arise in this study. More particularly, this method best suited an investigative study because it allowed the data collection and analysis phases of the research to run simultaneously and analytic codes and categories to develop from the data rather than from any preconceived hypotheses.

3.2 The Long Studies
Since the short studies investigated pupil/teacher dyads at various stages of a relationship and over quite brief periods of time, two longitudinal studies were also set up to examine how lesson behaviour, attitudes and relationships change over a longer period of time. The pupil/teacher partnerships selected were monitored over two years. Data, which identified interactive behaviour changes, were collected from four sources: interviews including Kelly repertory tests with pupils and teachers; pupils' weekly diaries; audio recordings of roughly one lesson per month; and termly pupil and teacher attitude ratings grids (see table 1).

3.2.1 Kelly's Role construct repertory grid tests
The object of the long study was to explore all areas of interaction which might show change over the two year period. Together with any variations in observable behaviour, the investigation would also regularly check aspects such as participants' opinions and attitudes about each other, using grids and questionnaires. To monitor this successfully it was felt important first to identify the dimensions by which each participant perceived other people and then to use these aspects particularly to check for any changes. To achieve this participants were asked to complete a Kelly repertory
Table 1

Long Study data collection timetable

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* Diary from P2 for the fifth term was lost in the post.
grid test as this produces information about how individuals make sense of their world - what 'personal constructs' they use to forecast events and rehearse situations before their actual occurrence.

Kelly believed that people anticipate their experiences by developing a system of constructions and attempting to impose them upon events with which they are confronted. A person's constructions, however, are individual and represent the particular way in which that individual measures incidents. These are anticipated by noting replications. However, the same act of construction that notes similarities between situations, also serves to differentiate them from others. A construct is fundamentally an integrating and differentiating operation whereby at least two events are regarded as similar to one another and, at the same time, different from at least one other (Kelly 1955). Each person has access to a limited number of bi-polar 'constructs' by which s/he evaluates various aspects such as people, events, objects or ideas.

Since Kelly's first grid formulation, a number of grid techniques have been developed and various ways of analysis have been used to target different areas of information (see Cohen & Manion, 2000). As the purpose of administering the test with participants in this research was to learn how they interpreted and predicted the behaviour of people around them, the 'standard' form of the repertory grid was used as it enables the researcher to elicit constructs from the subjects. (Some forms of the test provide constructs and then investigate aspects to do with their use).

3.2.2 Pilot study – Administration of Kelly repertory tests
Before using the Kelly repertory test various concerns needed to be addressed.

- How easy would it be for a child or adolescent to produce bi-polar constructs using this method?
- Which would be the best elements to prompt useful constructs?
- What data might arise from test analysis?
- Would it be possible to use the supplied bi-polar constructs for a rating grid as planned for the long studies?
To answer these questions and to practise administrating the test, a pilot study was set up using the Kelly repertory test with two teachers and two students - a girl aged fourteen and a boy aged eleven.

The administering of the repertory test involved giving nine numbered cards to the subject and asking him/her to write privately, on the reverse of the appropriate card, the name of a person, known reasonably well, who fitted the description suggested by the researcher. Kelly referred to these prompts as ‘elements’ and Cohen & Manion (2000) describe ‘elements’ as ‘the stimulus objects that a person evaluates in terms of the constructs she employs’ (p 338). To keep the pupils’ thoughts focused on adults and to a certain extent teachers, the ‘elements’ suggested to the pupil were:

1. Mother
2. Father
3. A favourite teacher
4. A teacher you do not like
5. An adult with whom you feel uncomfortable
6. An adult you get on well with
7. An instrumental teacher who no longer teaches you
8. Any adult who annoys you
9. A current instrumental teacher

Similarly, to ensure that the constructs obtained from the teachers related specifically to the dimensions they used when they evaluated pupils, their prompts were:

1. One of your most successful pupils
2. One of your least successful pupils
3. A pupil you enjoy teaching
4. A pupil whose lessons you do not enjoy
5. Any pupil aged 13-15 years
6. Any pupil aged 16-18 years
7. A pupil about to leave you
8. A pupil who has disappointed you
9. A pupil who has made unexpected progress.

In any event, elements were chosen to provide a cross-section of people known well to the participants in the chosen area - adults or pupils. These elements were used in both the pilot study and the long studies.

Results were monitored on a grid (see figure 1). First the elements (not the named person, which was only known to the subject), were written across the top of the form, each next to its respective number. Then the cards were laid out, numbers uppermost, and the subject was instructed to turn over a given group of three cards. On the first
### Figure 1

**Repertory test grid**

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occasion these were numbers 1, 2 & 3. (See figure 1 where the cards turned over each time are marked ‘O’). The participant was then asked to identify some way in which two of the people named were alike yet different from the third. The boxes on the grid which relate to the two people identified as ‘alike’ were then ticked and the initial construct provided was written in the column on the left marked ‘two alike’, on the first row. To complete each bi-polar construct the subject was then asked to supply a description of the third person of the group, the one identified as different. The word or phrase supplied was then written in the column on the right marked ‘unlike’ on the first row. Finally the participant was asked to identify any of the other people named on the cards who could be described by the original construct. Further ticks were then added in the appropriate boxes on the first line to identify these. (See figure 2 for a completed grid). This procedure happened twelve times in all, each time with a different configuration of names, each named character being ultimately considered in four different groups. This resulted in twelve bi-polar constructs which revealed the main aspects by which the subject measured others.

A completed test sheet can also be used to ascertain further information, such as how the subject might link constructs or view elements (people) similarly, which personal features s/he views positively and which negatively, and which characteristics s/he might look for in a good relationship. However, the initial purpose for the test was to identify participants’ individual constructs, and thereby to provide characteristics that could be monitored over the period with the use of rating grids.

In the pilot study, the fourteen-year old girl found it comparatively easy to supply constructs initially but found it increasingly difficult by the fifth group of names. After this point constructs offered became similar to those already given. The eleven-year-old boy needed more help in forming his constructs right from the start. For example he linked two people in one group together because they were both teachers by contrast with the third who was not. To prompt his thinking and to lead to a construct that reflected his own views, he was asked questions such as, ‘Did the fact that they were teachers mean that they had any characteristics in common which were different from the third person?’ The teachers used in the pilot study also admitted that the task was not easy, though both completed it successfully. To test the consistency of a person’s constructs and therefore Kelly’s theory, the test was
## Figure 2

### Repertory test grid for P1

<table>
<thead>
<tr>
<th>Elements</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>Father</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>A-favourite-teacher</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>A teacher you don't like</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>An adult who gets on well with you</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>An adult who is usually uncomfortable</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>An adult who is usually friendly</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>A contemptuous adult</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
</tr>
</tbody>
</table>

### Two alike - tick

- **friendly and easy to approach**: O O O
- **not particularly sociable**: O O O
- **quite serious**: O O O
- **highly strong**: O O O
- **likes to pry into personal things**: O O O
- **wacky sense of humour**: O O O
- **emotionally unstable**: O O O
- **have a good sense of humour**: O O O
- **relaxed, easy to talk to**: O O O
- **workaholics**: O O O
- **private people - keep themselves to themselves**: O O O
- **more able to keep things in perspective**: O O O

### Unlike

- **tense**: O O O
- **friendly**: O O O
- **a bit of a clown**: O O O
- **relaxed**: O O O
- **interested rather than nosey**: O O O
- **serious**: O O O
- **impersonal**: O O O
- **no sense of human**: O O O
- **tense**: O O O
- **less serious attitude to work**: O O O
- **more willing to talk about themselves**: O O O
- **anxious**: O O O
administered a second time with one of the teachers a week later using different elements and consequently different names. This produced a list of constructs very similar to the first occasion. It was assumed, therefore that, when long study participants were tested, the bi-polar constructs produced would indicate the gauges they would use to measure each other in the study. Furthermore it was felt that by using these constructs as a basis for statements on the rating grids, participants would be asked to rate characteristics that were relevant to them specifically, as they were aspects of which they would be aware. Ultimately the pilot study showed that children are not too young to recognise differences in adults who they know reasonably well. However it also revealed that tests need to be administered in a way in which children can, if needed, be sensitively helped towards verbal expressions of their ideas.

3.2.3 Interviews

Individual meetings were arranged with each of the four long study participants before pupils and teachers met for their first lesson. The role construct repertory grid tests were administered before the interview, to avoid aspects discussed during the interview prejudicing the test by influencing subjects' conceptualising. The purpose of the interviews was to gather information about factors which might affect the development of the teacher/pupil relationship, and to provide a base line from which changes in attitudes and relationships could be monitored. The interview was audio-recorded with the participants' permission. As in the short studies, the semi-structured style of interview was selected, as it allowed the participants to talk freely when relevant, and gave the interviewer the opportunity to pursue any interesting areas as they arose.

Pupils were initially questioned about background and experience, instruments played and for how long, and how previous teachers had differed. They were also asked how they felt about changing to a new teacher, what their expectations and hopes for the teacher/pupil relationship were, and how they would describe the characteristics of their ideal teacher. Teacher interviews questioned aspects about their backgrounds and experiences initially, before enquiring into their views on teaching. Next they were asked for their opinions about the pupil/teacher relationship, the extent to which they felt a good rapport was important, any problems they had experienced in previous
relationships with students, and how these situations might affect their teaching. Lastly, they were asked whether they were able to select their own pupils and if they knew anything about their prospective students for the new term.

Further semi-structured interviews were conducted at the end of the first and second years. These focussed on aspects of change, together with any particular facets arising from pupils' diaries, lesson recordings or completed grid charts.

3.2.4 Pupils' weekly diaries

Pupils were asked to write two or three comments in a diary, immediately after one piano lesson each week. The aim was to gain information about changing thoughts, feelings and reactions to the lesson, either with regard to themselves and their performance, the teacher and/or the music under study. Various styles of diary were considered from a precise questionnaire form to a blank page. Eventually it was decided to take a middle path and ask for comments in three specific areas: their teacher, themselves and the music under study (see figure 3). The diaries, sent to the two pupils at the beginning of each term, included a page explaining what they were required to do. This covered assurance that their comments would be treated confidentially, together with a few examples of possible remarks. Ultimately they were asked to write very briefly about anything that 'stuck in their mind' from the lesson they had just had, either about themselves, their teacher or the task in hand.

3.2.5 Audio-recordings of lessons

In total, audio-recordings were made of fourteen (study 2) and fifteen (study 1) lessons, at roughly one monthly intervals (see table 1). There were several reasons why audio rather than video-recordings were chosen. First, as long study data was to come from several sources, there was not the same reliance on detailed lesson recording data as there had been in the short studies. Second, because the dyads in the long study were being observed over an extended period of time, the aim was to keep disturbances to a minimum and an audio-recorder is less obtrusive. Furthermore, the simplicity of the audio-recorder meant that teachers could be given the machine and asked to record one lesson a month at their convenience. These recordings were analysed to identify changing trends in behaviour, and any interesting aspects noted were discussed with participants in the midpoint and final interviews.
Figure 3

Pupil’s Diary Page

Date ........................................

Was this lesson recorded? Please tick:  Yes [ ]  No [ ]

About yourself

About your teacher

About your music or the task in hand
3.2.6 Rating grids

As a means of monitoring changing attitudes over the study period, individual rating grids were designed for each participant using the constructs and ideas from the initial interviews. The grids contained statements about attitudes to the other person, the lessons and the relationship and participants were asked to mark the appropriate column to indicate how much s/he agreed or disagreed with statements. Figure 4 shows part of one teacher’s rating grid. Statements that showed considerable change in ratings over the period were explored further during interviews. Statements reappeared on successive grids to measure changing opinions, although to avoid possible test bias, the order of statements was changed and some statements were presented in their negative versions. Participants were also offered open questions such as: ‘Do you think your views of this pupil have changed since last term?’ and ‘Can you account for anything specific that has influenced this change in opinion?’.

Figure 4:
Excerpt from one teacher’s rating grid.

<table>
<thead>
<tr>
<th>How I would currently describe this pupil</th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>She takes note of my suggestions</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>She lacks enthusiasm about her playing</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>She is hardworking</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>I find her totally committed to improving her playing</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>She has a good sense of humour.</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>She is not ambitious</td>
<td></td>
<td></td>
</tr>
<tr>
<td>She is realistic about her career possibilities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I find her broad-minded in her opinions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>She is rather inhibited in her playing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>She seems able to laugh at her mistakes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>She chats easily with me about various things</td>
<td></td>
<td></td>
</tr>
<tr>
<td>She is confident about introducing subjects during lessons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>She seems able to think for herself</td>
<td></td>
<td></td>
</tr>
<tr>
<td>She has a lively personality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>She appears to be keen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>She is alert</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In the first term, rating grids were sent to participants at the half term and the end of term as it was thought that attitudes might change faster during this period. Further rating grids were sent out only at the end of each term. In total seven rating grids were completed over the two-year period by each of the four participants (see table 1).

3.2.7 Data from the long studies
The data from each long study ultimately consisted of fourteen/fifteen audio tapes of lessons; fifty to sixty pages from pupils' weekly diaries; seven rating grids from each of the four participants; interviews at each of the beginning, middle and end of the study, and Kelly's Role Construct Repertory tests with each of the four participants. The emphasis in the longitudinal studies was on change and the design of the methodology was aimed, therefore, at monitoring subjects' changing opinions and attitudes towards the lessons, themselves and the other person over the two-year period.

3.2.8 Analysis of long study data
Using grounded theory, the various types of data from the long study were analysed as they were collected. This enabled information gained to be pursued further in future interviews, or to a certain extent in future rating grids.

Kelly repertory grid tests
First, constructs from the Kelly repertory tests were adapted into statements for use in rating grids. Secondary analysis then explored various features. The test was able to show how participants' constructs were linked. For example, P2 saw all 'talkative' people as 'nice', though some 'non-talkative' people were also 'nice', and all 'nice' adults were also 'friendly'. For this person, 'formal' linked with 'serious', unkind', and adults she felt 'less relaxed with'. The test also indicated how participants might view certain constructs — P2's bi-polar construct to 'formal' was 'funny'. Furthermore, analysis was able to reveal participants' main preoccupations, for example, P2 was concerned with how adults treated her — nice/friendly; how she felt in their company — relaxed/close; and how she saw them — talkative/funny.
Interviews
Complete literal transcriptions were made of the initial interviews. From these transcriptions emergent themes were identified and coded, and from these further statements were formed for the rating grids. Successive interviews were also transcribed and these were coded for factors specifically to do with change.

Pupil diaries
Diaries were read as they arrived at the end of each term. Themes arising from pupils' entries were coded and any comments needing further investigation were noted for future interview questions.

Lesson recordings
Audio-recordings were analysed in two ways. First, an inventory was made of the main events of each lesson, both to give an over-all picture and monitor for change, and also to aid information recovery at a later date if needed. Second, the quantity of time spent in the four main lesson behaviours - student talk, student playing, teacher talk, teacher playing - was measured by recording the dominant activity in each five-second period.

Rating grids
Results from each rating grid were recorded on a ‘summary’ grid, to identify any aspects that showed change. These were then discussed at the final interview.

The long studies, therefore, employed multiple sources of data collection, thereby enabling triangulation. Analysis was both quantitative and qualitative and, based on grounded theory, continued while information was being accumulated. This process enabled various relevant elements, which appeared during this initial examination, to be investigated further. Additional analysis of the data took place at the completion of the research period, when particular topics were selected for individual study.

3.3 Practitioner-research and subjectivity
As a piano teacher myself, my approach to the study was that of practitioner-researcher, a position which has been discussed by various authors (see Winter 1989,
I was aware that my own experiences provided considerable advantages to the research. In particular it offered an immediacy of understanding and a sensitivity to aspects of interaction within the one-to-one piano lesson not available to a researcher outside the profession. In Robson's words, the insider has an intimate knowledge of the context of the study, not only as it is at present, but in a historical or developmental perspective (1993, pp 297-8). Wellington (1996, p.15) notes that this prior knowledge and experience can lead to improved understanding of the situation and people involved, and better personal relationships. He also suggests that practitioner insight may help with the design, ethics and reporting of the research. Robson, similarly, notes that the insider has 'street credibility' as someone who understands what the job entails (Robson 1993, p 298). I felt that the teachers in the study saw me as a fellow teacher and were able to discuss matters knowing that I had an understanding of the situation. In addition, the students viewed me as a fellow university student, which encouraged a more relaxed interviewer-interviewee relationship and helped them to talk freely about their feelings and views.

However, while enjoying the advantages of the situation, I tried to remain conscious of potential disadvantages of practitioner-research, namely that my analysis of behaviour might be influenced by my own experiences. Wellington lists preconceptions, prejudices and not being as 'open-minded' as an 'outsider' researcher (1996, p 15). Kennell (1992) warns about approaching a subject through existing understanding of the situation:

The problem with experiential knowledge is that our familiarity with applied lessons may obscure important features of the lesson. In the same way that the colour of the water may be invisible to the swimming fish, highly automated cognitive strategies involved with the solving of complex musical problems might be invisible to the observer of applied lessons’ (p 7)

I limited these potential problems in several ways. I did not use my own students or colleagues as participants, and I chose to investigate students with an age-range and level of playing that distinguished them from the students that I normally teach. Winter (1989) warns that experienced practitioners, who approach their research with a 'vast and complex array of concepts, theoretical models, provisional explanations, typical scenarios, [and] anticipation of likely outcomes' (p 34), must be careful to
adopt a deliberate research approach, rather than an intuitive practitioner's approach to the subject. This was maintained by planning a methodology which was both accessible and rigorous, and by using regular consultation with my supervisors during the data analysis as a way of validating my own emerging interpretations.

For both practitioner-researchers and outside-researchers, subjectivity in qualitative research is inevitable to some degree. However, efforts were made to limit researcher bias as far as possible. For example, when collecting data from the event itself, some studies such as those by Speer (1994) and Kostka (1984) have used a highly coded system. This appears to be less subjective. However, this is a false objectivity as the selection of specific behaviours to code is in itself a subjective decision, and arguably results in data that is even more emphatically a function of the researcher's own preoccupations. By contrast, the method of recording each lesson on tape used here, ensured that all data remained in the picture at this initial stage.

In the questionnaires used to monitor changing attitudes in the long studies, every effort was made to use participants' own words and ideas, and when other questions were posed they were kept as open as possible. The principal method adopted in this research to gauge participants' views and feelings, however, was the semi-structured style of interview. This permitted teachers and students to talk relatively freely about matters important to them. Furthermore, the use of 'Interpersonal Process Recall' during the short-study interviews allowed participants to voice their reactions directly to events watched on the video-recordings with the need for only minimal prompting by the interviewer. Cohen and Manion (2000) warn about bias in interviews, which might result from the characteristics of the interviewer, the characteristics of the respondent, and the substantive content of the questions. They see these as including:

- The attitudes and opinions of the interviewer; a tendency for the interviewer to see the respondent in her own image; a tendency for the interviewer to seek answers that support her preconceived notions; misperceptions on the part of the interviewer of what the respondent is saying; and misunderstandings on the part of the respondent of what is being asked (2000, p 282)

I was aware, therefore, of the potential hazards of practitioner-research and the inevitable element of subjectivity in qualitative research, and made every effort to keep these aspects to a minimum. However, my experience as a piano teacher also
equipped me with a good understanding of the situation, which not only gave me a sensitivity to particular aspects of interaction within the one-to-one piano lesson, helped method design choice and led to greater ethical awareness, but aided my dealings with participants.

3.4 Ethical concerns

Ethical considerations were respected throughout this study. Participants were told of the objectives of the investigation, and the aspects of the research in which they would be involved, before data collection began. In the case of the two school children, written consent was sought from their parents and permission and approval was also obtained from the Director of Music and the Headmistress of the school involved. Participants were also advised that they were free to withdraw from the research at any time. Every attempt was made to respect participants’ privacy, and participants were told that questions in the interviews and questionnaires need not be answered if they would prefer not to.

Participants were promised that the information provided by them would be treated as confidential and would not be discussed with anyone other than the supervisors overseeing the research. They were also assured that all video and audio-tapes would be kept secure and would be destroyed at the conclusion of the research. Anonymity was safeguarded in the written report by using codes for participants and by not naming the school and university involved in the study. Beyond these basic concerns every endeavour was made to minimise possible inconvenience to the participants, and to ensure that the research was not detrimental to any aspect of the lessons observed, or future lesson behaviour and student/teacher relationships.
Chapter 4

Introducing the participants
The aim of this chapter is to introduce the individual participants, before specific elements of their interaction with each other are discussed in later chapters. Five teachers and seven students were observed in total, and they varied considerably in regard to age, experience, background and personality. In providing information about each person, note will also be made of how each participant was viewed by the other in the dyad.

4.1 The short study dyads

Three teachers and five students took part in the five short studies, two of the teachers being observed twice with different students. Each teacher/pupil dyad constituted a separate case study (see table 1). The teachers were university piano tutors, two female and one male, and the five students, three male and two female, were first and second year undergraduate music students at the university. The standard of each student's piano playing was about grade 8, and their ages ranged between eighteen and thirty at the time of the recordings. The period of time that each student had been with their current teacher varied between one lesson and a year.

Although the broad objectives of the research were to understand more about one-to-one interaction in piano lessons generally, one aim was to consider lessons at the tertiary level particularly. This is an important period in learning: students are being
treated socially as adults, while musically they are fast approaching a time when their music-making will be independent of any teacher input. Few studies have considered this stage, or investigated whether student/teacher interaction does or should differ at this level. University students were chosen for this study although music college students or even advanced students in private tuition might equally have been observed.

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Gender</th>
<th>Age</th>
<th>Student</th>
<th>Gender</th>
<th>Age</th>
<th>Number of lessons with this teacher prior to the start of the study.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dyad 1</td>
<td>T1</td>
<td>Male</td>
<td>29 yrs</td>
<td>S1</td>
<td>Male</td>
<td>19 yrs 1 lesson</td>
</tr>
<tr>
<td>Dyad 2</td>
<td>T2</td>
<td>Female</td>
<td>59 yrs</td>
<td>S2</td>
<td>Female</td>
<td>18 yrs 13 lessons</td>
</tr>
<tr>
<td>Dyad 3</td>
<td>T3</td>
<td>Female</td>
<td>46 yrs</td>
<td>S3</td>
<td>Male</td>
<td>20 yrs 19 lessons</td>
</tr>
<tr>
<td>Dyad 4</td>
<td>T1</td>
<td>Male</td>
<td>29 yrs</td>
<td>S4</td>
<td>Female</td>
<td>30 yrs 7 lessons</td>
</tr>
<tr>
<td>Dyad 5</td>
<td>T2</td>
<td>Female</td>
<td>59 yrs</td>
<td>S5</td>
<td>Male</td>
<td>20 yrs 13 lessons</td>
</tr>
</tbody>
</table>

To enable direct comparison between dyads involving the same teacher, studies 1 and 4 will be considered together as will studies 2 and 5.

4.1.1 The participants of study 1 & 4

Student 1 (S1)

S1 was nineteen at the time of the recording. He was a first-year male undergraduate who had spent the previous year at another university. He was a new student to T1, having had just one lesson with him before the study began. He was quite confident and talked freely in lessons, introducing new subjects and on occasions disagreeing with his teacher’s opinion. T1 described him as ‘disorganised’, because he would arrive with a large quantity of music, rather than just the two or three pieces that were needed, and always omitted to bring the notebook T1 asked for each lesson. T1 also saw him as ‘impatient’, a characteristic of which S1 was aware. Although T1 repeatedly asked his student not to play the piano while he was talking, S1 could not resist ‘doodling’, as he described it.
'Sometimes it's just idle messing about. I'll just play a few jazz chords, sort of thing and sometimes... I've already got what he's saying and he's carrying on talking' (S1 Interview).

Student 4 (S4)

S4 was a first-year female undergraduate. At thirty she was the oldest student participant in the research. She was Taiwanese and before becoming a student had lived in Hong Kong, working as an air stewardess. This experience had equipped her with a social ease and although she spoke quietly, she was confident and chatted happily to T1 at the start of each lesson about her life and worries. T1 described her as 'a fantastic person... a lovely warm person'. S4 was not as technically advanced as the other student participants or the other undergraduate students whom T1 taught. Her limitations troubled her, first, because she put in a considerable amount of time practising but was continually frustrated because she did not achieve the hoped for results, and second because she was concerned in case her teacher thought she had not worked. In interview she spoke about her reactions after a lesson in which her pieces did not go well. T1 had asked her how much practice she had done. S4, however, understood this to imply that he thought that she had not worked and her mood and confidence plummeted:

'Your whole week, all the effort you put in, you get zero credit, just like that. And that's the time I question myself, my ability and everything' (S4 Interview).

In fact T1 described her as 'very hard-working', a 'very pleasant person to teach', and 'very very attentive... [she] wants to hang on every word' (T1 Interview). When asked if he had noticed any cultural characteristics which may have affected her behaviour as a student, he emphasised that he reacted to her 'as a person full stop', adding 'so far she hasn't shot herself if she's a bar out!' (T1 Interview). Nevertheless she, more than the other students monitored, spoke of being concerned about producing well rehearsed performances in her lesson.

'You're feeling bad and guilty that you couldn't present a good work in front of him. I think that's the part I found bad about this. It's just like, the teacher being so patient, helping you and, so I expect myself, you just have to present a good work because you just don't want to let teacher down. I think, just that, you don't want to let him down because they've been so kind to you' (S4 Interview).
Teacher 1 (TI)

Teacher 1 (TI), male, was 29 years old at the start of data collection. He was the only teacher who had studied at a university rather than a music college. He regularly gave recitals of modern music and saw himself as both a teacher and performer. S1 described him as ‘enthusiastic’, ‘larger than life’, ‘eccentric’ and ‘certainly not boring’. And in a similar vein, S4 saw him as, ‘very expressive’, ‘big’, ‘funny’, ‘very lively’ and ‘very extravert’. Because T1 was so energetic in his teaching he was chosen as the central focus in chapter 9, where the use of gesture and movement in teaching was explored.

As the youngest and least experienced teacher of the three, T1 was conscious that the students were relatively near to him in age, ten years between him and S1 while he was actually a year younger than S4 (see table 1). T1 recognised certain benefits to being closer in age to his students. With S1, he felt he was able to interact in ‘more of a matey-type sense’ rather than a ‘distant teacher’ (T1 Interview), and he noted that he shared similar interests - contemporary cinema and jazz. Furthermore, he felt that his own relatively recent student years equipped him with a sympathetic understanding of student life. S1 agreed that T1’s being closer to his peer group meant that they ‘related better’. Although S4 did not comment specifically on their similar age, she did remark that they had become ‘like friends’. One of T1’s aims was to come across as ‘someone who’s friendly’. He liked his students to feel that they could talk about non-musical as well as musical things:

‘I’m careful to ask him how he’s doing in life, ask him about the little details in his life’ (T1 Interview-study 1).

In fact, of the three teachers, T1 spent the longest time at the beginning of lessons allowing and encouraging his students to chat socially. Both students and teachers recognised that this ‘put a context of friendliness at the very beginning of the lesson’ (T1 Interview) and helped the student to relax.

However, while T1 was keen to come across as friendly and ‘matey’, he was also anxious that the relationship should be suitable for learning.

‘You want them to have respect, and you also want someone to think that you are a good pianist. You want someone to think that you are able to do the job right. So there’s going to be that sense of awe’ (T1 Interview).
T2 and T3, possibly because of their greater experience and a larger student/teacher age difference, did not comment and were presumably not concerned about such aspects. In fact the level of respect which all students showed their teachers seemed very similar across all dyads.

Initially, T1 had some concerns about whether S1 was going to accept the work that was to be done, but this soon passed and their relationship worked well. T1 was very happy with S1's progress during the recorded period. However T1 had some reservations about his suitability as S4's piano teacher. Although he interacted well with her on a social level, he was worried that his occasional loss of patience and frustration at her limitations might be unhelpful. S4 was yet to take her grade 8 and T1 felt that at times his aims were too ambitious for her capabilities. S4 had no complaints about her teacher, though, describing T1 as 'very patient... the best teacher that I've had' (S4 Interview).

4.1.2 The participants of study 2 & 5

Student 2 (S2)

At the time of the recording student 2, a female, was 18 years of age and the youngest participant of the research. She suggested that she was quite unlike the typical student stereotype.

'They're out clubbing every night. Well that is not me at all' (S2 Interview).

T2 described S2 as 'quite an old-fashioned girl', 'narrow-minded', self-contained' and 'self-conscious'. She also recognised that S2 could be 'a bit uptight', and hated making mistakes. S2, herself, told the story in interview:

'When I was little I used to bite my hands if I made a mistake to stop the finger from doing it again' (S2 Interview).

T2, however, saw her as 'a nice person' and appreciated her industry. Because she had interesting views on how a student should behave in the lesson, S2 was chosen as the central focus of the investigation of student communication reported in chapter 7.

Student 5 (S5)

Like student 2, student 5 was in his first year. He had spent a gap year working and was twenty years old at the time of the recording.
'[He’s] very confident, he’s been around, he’s worked in the working world, he’s met a lot of people, he’s obviously used to communicating with people' (T2 Interview).

Although T2 described him as 'sincere', 'honest' and 'very, very nice', she also recognised that he could be 'immature' and 'laddish'. Compared to S2, T2 felt that S5 lacked focus and discipline, a characteristic he was aware of:

'With work, I get it done, but I’m in no great hurry to stress myself out to do it' (S5 Interview).

Chapter 10 examines how T2 reacted to what she saw as S5’s needs, including his reluctance to work.

Teacher 2 (T2)
Teacher 2, was female and was S2’s third and S5’s fourth piano teacher. She was the oldest of the group with the most years experience of teaching. She had studied at the Royal Academy of Music and although she had been involved in performing in the past, she had always seen herself primarily as a teacher.

She was business-like and organised, presenting a brisk though sympathetic approach in the recorded lessons. Both students found her friendly, appreciated her sense of humour and felt at ease with her.

'I get to know people easily. I love meeting people. I love talking to them. I’m very interested in my students as people' (T2 Interview).

However, although her students did not identify the trait, T2 admitted that she could also, at times, be ‘dogmatic’ and make up her mind rather too quickly, (T2 Interview).

4.1.3 The participants of study 3
Student 3 (S3)
Student 3 was twenty and a second year male undergraduate at the time of the recording. T3 noted that he was patient and polite, but that he was also quiet and shy:

‘He speaks in a way that doesn’t know whether somebody is going to be listening to him or not, almost to himself’ (T3 Interview).

In fact he was the quietest of the three students studied, a trait of which he was well aware:

‘I think I’m inclined to hide in my shell a bit. It takes me a while to come out. [I’m] quite shy, quite thoughtful, quite phlegmatic’ (S3 Interview).
Teacher 3 (T3)

T3 was in her forties and had taught for many years. In contrast to T2 though, T3 saw herself as a performer first and teacher second. She had been born in Zimbabwe, coming to England at the age of 17 to study at the Royal College of Music. Various events and experiences had made a strong impression on her and these are explored in some depth in chapter 8, where discussion considers the influences which affect how a teacher teaches.

T3 was S3’s fourth teacher. He saw her as a ‘brilliant pianist’, and an intelligent and knowledgeable teacher. S3 also described her as ‘extravert’ and T3 worried that, as her student was so quiet and shy, she might be too strong a personality for him. However S3 described his teacher as relaxed and friendly:

‘She’s very human I think. She talks about her family from time to time’ (S3 Interview).

T3 seemed to try hard to eliminate any student/teacher barriers. As well as being willing to talk about her personal life, she sat close to her student and was not inhibited about touching him if she wanted to show how his posture could be improved. Because of this T3 came across as the warmest and most uninhibited of the three teachers.

4.2 The long study dyads

The aim of the long study was to trace the changes in two pupil/teacher relationships over a two-year period beginning with the first lesson when the teacher and pupil met for the first time. However, finding pupils who are about to begin with new teachers is quite difficult. As specialist music schools have a regular intake of new pupils at all stages, two piano teachers and two pupils from a British music school were asked to participate in the study. The pupils were new to the school (and therefore to the teachers) at the start of the study in September 2000. Each of them had been taught, however, by several previous instrumental teachers, which gave pupils the experience to make comparisons. It was assumed that pupils’ attitudes to their piano lessons might be affected by whether piano was their first or second instrument, and that this in turn could have an effect on their behaviour in the lesson and the development of
the pupil/teacher relationship. For this reason one first and one second study pianist were chosen for the research.

Two questions need to be addressed concerning the choice of long study students. First, why were younger pupils chosen for this part of the research, while the main focus of the study was on students at the tertiary level? Students at university tend to be more volatile than those at school. They change teachers more often, are more likely to give up, and can be generally less reliable. School children are more institutionally fixed and are therefore a safer choice for a longitudinal study. Furthermore, the idea behind the long study was to add depth to the research. Using pupils who differed in both age and ability offered the opportunity to compare interaction styles at different stages.

Second, would music school children be representative of the average pupil? In selecting pupils for the study from a music school it was recognised that their attitude towards lessons and teachers might vary from that of the average pupil. The teachers too might approach high achieving pupils differently and the particular environment could mean that certain influences would be emphasised whilst others were absent. The aim of these two studies, however, was to analyse the changes within these two particular relationships, while being aware of the idiosyncratic nature of any pupil/teacher partnership.

4.2.1 The participants of long study 1

Pupil 1 (P1)

The first study pianist, a girl, was fifteen years old and entering the sixth form as a 'day pupil' when the study began. She came from a musical family and was already a very competent pianist playing, amongst other substantial works, Grieg's piano concerto at the time of the first recorded lesson. P1 was at a stage in her life when she needed to make a decision about her future plans, specifically whether to apply for music college or university. As this involved determining how important the piano was to her and how confident she felt about her abilities in this competitive field, this possibly meant that there was a greater focus on the piano lesson for her than for pupil 2.
LT1 described P1 as 'keen', 'alert', 'very enthusiastic', 'hardworking' and 'intelligent'. P1 recognised that teachers in general saw her as a good student:

'I'm quite a conscientious person and I always make sure that I do everything they want me to do and I'm always polite to them' (P1 Initial Interview).

P1 was very confident. She talked easily, had a lively personality and sense of humour, and in her teacher's words was 'a sociable, easy and level headed character' (LT1 Mid-Interview).

**Long study teacher 1 (LT1)**

LT1 was P1's fourth teacher. He was male and had been teaching for about twenty-five years. At the time of the recordings he was teaching about a dozen pupils who were all fairly advanced, ranging in ability from grade 7 to performing diploma.

P1 described her teacher as 'a really nice person', and said that she 'got on with him fine', however she did talk of two facets of his character which could sometimes annoy her. He was quite a serious person and at times she found his sense of humour 'weird' (P1). Although she did not clarify exactly why it was 'strange', humour was important to her, and the effect this might have had on their working relationship is discussed in chapter 5 where an investigation into how interaction in the two long study dyads might have changed over time is discussed. The second aspect concerned LT1's manner of talking. P1 recognised that he was 'very laid back in lessons' and that he did not have 'any sense of urgency for getting things done'. This frustrated her because she felt that time in lessons was sometimes wasted:

'It's the way he talks. It's just very thoughtful. And he never wants to say anything that's going to sound slightly wrong. So he does take quite a lot of thinking time' (P1 Mid-Interview).

**4.2.2 The participants of long study 2**

**Pupil 2 (P2)**

The second study pianist, also a girl, was eleven years old at the start of the study. She had been learning the piano for just a year and a half and was about grade three in standard. Her first instrument was the flute. At the beginning of the study she was leaving home to be a boarder at the school for the first time. LT2 described P2 as having 'a quiet composure and contained self-confidence' when she first met her. An element of this can be seen in the way in which P2 coped with any initial
homesickness. While her dorm companions ‘cried every single night (P2 Mid-Interview), P2 had a more mature solution:

‘If I ever felt lonely I’d just go down and practice’ (P2 Mid-Interview).

In fact P2 described herself as ‘adventurous’.

However, she was a quiet girl and did not find boarding school life easy.

‘There’s lots of people around all the time. I feel like I want to be on my own sometimes’ (P2 Mid-Interview).

At their first meeting, LT2 identified in P2 ‘a slight guardedness in manner’ and P2, in interview, described herself as introspective and reserved:

‘I’m a quiet person, so I don’t say much’ (P2 Final-Interview).

LT2 felt, though, that she was ‘confident enough to speak out when appropriate’.

Long study teacher 2 (LT2)

LT2, P2’s fourth piano teacher, was female. She thought of herself predominantly as a teacher and had taught for twenty-nine years. She currently had between seventy and eighty pupils, ranging from beginner to diploma level, aged from six to sixty-six. If LT1’s manner was characterised by his cautious speaking then LT2’s style was the complete opposite. She talked at great speed and at great length, a characteristic of which P2 was very aware. In fact, on one of the rating grids, given a continuum of 1-5, P2 had rated ‘my teacher is talkative’ - ‘7’!

On the surface LT2’s manner was brusque, efficient and business like:

‘I don’t intend to be unapproachable. I do intend to be in control and I intend that to be perceived’ (LT2 Interview).

Her teacher at college had been a Russian, and she was aware that the manner and style of her own teaching had similarities to the way she had been taught:

‘Mostly the authoritarian thing, master/servant, which I’m afraid I’ve inherited. I make no bones about it. I will say to people, “It’s master/servant. You do what I say and we’ll be fine”’ (LT2 Mid-Interview).

However, in the recorded lessons she appeared to be more accommodating than her words suggested and P2 described her teacher as ‘easy-going’, ‘cheerful in lessons’ and ‘enthusiastic’ (P2 Grids).

‘She’s really, really nice compared to my last teacher. He was horrible’. (P2 Mid-Interview).
4.3 Summary

This chapter has very briefly introduced the participants of the five short and two long dyads. Teacher 1, young and energetic who taught the impatient, jazz doodling S1, in study 1, and the charming, technically challenged S4 in study 4. Teacher 2, experienced and business-like who taught the industrious, rather old-fashioned S2 in study 2, and the easygoing but work-shy S5 in study 5. Teacher 3 the performer, warm and friendly who taught the shy and thoughtful S3 in study 3. In the long studies the dyads comprised the slow and carefully spoken LT1 with the talented, hardworking and level-headed P1, and the verbose, gentle authoritarian LT2 with the quiet, composed and self-contained P2. How these personalities interacted in their specific pairs will be explored in chapters 5-10.
Chapter 5

Changes in lesson interaction over time
"I've relaxed and she's relaxed...
I've relaxed because she's relaxed"

When pupil and teacher meet for the first time much of their attention will focus on judging various aspects about the other while being conscious of the impression they themselves might be making. Pupils speak of feeling nervous at the beginning and of being keen to make a good impression. They talk about being concerned about how their teacher might react, anxious about what might be expected of them and unsure as to what behaviour might be acceptable. A teacher's behaviour in early lessons can also be specific to the beginning of a new association. S/he might be eager to put the new pupil at ease, anxious to assess his/her ability, personality and attitude, and keen to set out future plans, goals and expectations. But how long do these initial strategies last, and what might influence any modifications? How far do pupil/teacher relationships develop and what might limit the changes made?

Chapters 6 – 10 consider specific elements of pupil/teacher interaction by observing five existing dyads during a limited time frame. The purpose of this chapter is to investigate the effect of time on pupil/teacher interaction. The two longitudinal studies monitored a selection of lessons and the attitudes of the participants of two dyads over a two-year period. Details of the individuals have been laid out in chapter 4, but it is important to repeat here that the lessons took place in a music school, at which both pupils were new students; and at the initial interview pupils had not yet
met their new teachers. To avoid confusion with the abbreviations used in later chapters for short study participants, individuals here will be referred to as long study teachers 1 & 2 (LT1 & LT2), and pupils 1 & 2 (P1 & P2). The data consist of audio recordings of lessons, pupil diaries, pupil and teacher interviews and grid/questionnaires. (See chapter 3, table 1, for the 2-year timetable of data collection).

Investigation into the effect of time on interaction revealed three characteristics. Some elements underwent a gradual continuous development through the two years, others fluctuated on virtually a lesson-by-lesson basis, and a few showed little or no variation at all. The next section will begin by considering first the developments that were generally continuous over the period, investigating what might have caused these changes and the effect this had on lesson interaction.

5.1 Aspects which show continuous development over time

Although concrete evidence confirming specific shifts in interaction is very limited, a number of frequently repeated comments from all four participants suggest that certain aspects did change gradually over time. Some of these changes concerned how participants felt about themselves: pupils in particular spoke about changes in confidence and self-esteem. How participants perceived the other also altered with time, and as individuals their behaviour changed so the pupil/teacher relationship and lesson interaction was affected.

5.1.1 Subjective perspectives on change

Evidence suggests that pupils changed more than their teachers did. This is not surprising considering that the pupils, aged eleven and sixteen at the start of the study, were still developing as individuals. As they changed as 'people' they would change too as 'pupils'. As early as the first grids, pupils reported changes in how they felt about themselves and their piano lessons. P1 described feeling 'much more comfortable' with her teacher (P1 Grid 1), and P2 said she was 'more confident' and 'not as nervous' (P2 Grid 2). This gradual shift was also regularly referred to in pupils' diaries:

'I am feeling so much more comfortable around him now. I can easily talk about my worries etc for the performance on Monday' (P1 Diary Term 1).
and in their interviews:

'I don't feel nervous anymore. I can just, 'oh I've got a lesson in two hours' (P2 Final-Interview).

Teachers, too, noted changes in their students. LT2 remarked that P2's original 'slight guardedness' had relaxed, that she had 'slightly more self-confidence' and was 'slightly more ready to smile' (LT2 Final-Interview).

Pupils suggested that this shift was the result of gaining greater information about, and experience of, their teacher, 'just getting to know him more' (P1 Grid 1). This included coming to understand more clearly what their teacher expected of them, which was important to the two girls who were both anxious to be approved of by their teachers. At the end of the first year they both remarked that they now knew 'what they could get away with':

'As long as I've basically done what he asked in the previous lesson, he's happy' (P1 Grid 4).

With experience, pupils were also better able to gauge how their teachers might react to various circumstances. This was particularly relevant to P2 who spoke of being shouted at by a previous piano teacher and who was anxious that LT2 might act similarly:

'At the beginning I didn't know if I asked, how she would react to it. If she'd like have a go at me or not take any notice or anything, but now I know that if I do ask her something, then she'll reply back to it and consider what I've just said' (P2 Final-Interview).

How their teacher used praise was another aspect to learn about. Neither teacher was particularly abundant in their praise, something which, at the beginning, could leave P2 'quite upset'. With experience both pupils recognised that this did not mean they were 'playing very badly' (P2 Final-Interview), and they were able to recognise the value of the praise when it was given.

'He was so pleased he gave me a merit mark! Practically unheard of for him!' (P1 Diary Term 4).

Over time, pupils also began to recognise their teachers' changing moods, seeing them as just that rather than as a reaction to anything the pupil may or may not have done.
'Sometimes I walk in and she’s really chatty and she’s really nice, then other times I walk in and she goes ‘Hi’ and she just gets straight down [to the lesson]' (P2 Mid-Interview).

Pupils’ comments in grids and interviews showed that this familiarisation gradually changed the way they perceived their teachers:

‘At first I thought she was just all talk but I found her really nice’ (P2 Grid 3).

By grid 5, P2 remarked that she now thought of LT2 ‘as a person instead of a piano teacher’. Although pupils often thought their teachers had changed, it was often the pupils’ reactions rather than teachers’ behaviour which had altered. For example, P2 felt that LT2 was ‘more gentle now’ at the end of the two year period (‘She doesn’t speak so loudly’ P2 Final Interview), but analysis of the audio-recordings showed that LT2 actually spoke in a more ‘deliberately kind’ manner in the first lesson, while in all others her voice remained similar in volume and style. The change was in how the pupil heard the teacher, rather than in how the teacher spoke.

As well as self-assurance increasing as pupils gathered information about their teachers, outside factors, too, could influence pupils’ confidence levels. P2 reported that changing her first-study instrument teacher had made a huge difference in how she now saw herself.

‘It’s made me feel better... not having bad things said about me all the time’ (P2 Grid 6).

LT2 felt that P2’s increase in confidence had resulted from her having had time to settle into a new school.

‘I think there’s a big difference between being a humble first year and being more in the dizzying heights of a second year. One feels a little more equipped to be at ease’ (LT2 Final-Interview).

Even P1, as a sixth former, talked of the effect settling into the school had on her self-confidence. By the end of her second year, she described herself as ‘more established’ and ‘happier’ and recognised that this had given her ‘more confidence, musically and just generally’ (P1 Final-Interview).

Teachers’ behaviour showed some adjustments too. P1 thought that her teacher might have felt ‘freer to laugh’ (P1 Final-Interview). Later recordings have certainly caught some occasions when there was laughter in the lesson from both parties.
‘I think he is less ponderous, slightly less ponderous, slightly less guarded about what he says... I just found him a bit sort of stiff and starchy, if I can say that. Now he’s more relaxed’ (P1 Final-Interview).

Similarly, P2 noted a slight change in her teacher’s behaviour over time. In rating grids she described LT2 as having become ‘more friendly’.

‘The friendlier she is the more confidence I have and the better I play’ (P2 Grid 5).

And in the final interview she described LT2 as more ‘easy going’. However, once again, this might also be the result of P2’s changing perception of her teacher as she gained more information about her.

As pupils and teachers changed so did their relationship:

‘I think it’s become more flexible in the sense of being more relaxed. In the beginning we were really quite formal’ (LT2 Mid-Interview).

However, both parties pointed to the other person as the one who made the adjustment possible. P2 suggested:

‘I’ve relaxed because she’s relaxed’ (P2 Mid-Interview).

While, teachers felt that it was the pupils who were allowing them to change:

‘As she has begun visibly, very slightly to relax, and we’re actually talking about five degrees here, mine will, because I relax to suit her. It’s very mirrorish you know, if she relaxes I relax, if she’s formal, I’m formal’ (LT2 Final-Interview).

This contradiction may result from the fact that the process of change happens in very small steps. Each slight change on one side is recognised and adapted to by the other, which then triggers a further reaction in the first person and so on. In this way pupil and teacher are both leader and follower. Although all four participants from their very first grids had noted changes, in retrospect P1 observed developments differently:

‘I think it was quite a slow process at first. It’s only now, looking back over the two years that I notice the change, whereas even after a year I don’t think I would have noticed particularly’ (P1 Final-Interview).

The long study is useful, therefore, but the stability of the dyadic relationship means that the short studies can be taken as representative of the dyad they study.
5.1.2 Objective investigation of change

To investigate participants' reports of increased confidence and relaxation, concrete evidence of changes in behaviour was sought. Pupil talk was examined on the audio recordings, first because it was assumed that greater confidence and increased relaxation would lead to a reduction in pupils' inhibitions and an increase in their participation in the lesson, and second to verify the pupils' repeated claims that they talked more.

Lesson behaviour was categorised into four main activities, pupil talk, pupil playing, teacher talk and teacher playing. These were then measured by calculating the main activity involved in each five-second period of every lesson (see figures 1 & 2).

Asked in the final interview whether she felt she now talked more, P1 replied:

‘Generally more, I think, in different ways. Partly in not being afraid to give my own opinions on musical things and also on general chatty things, I’m more able to sort of talk’ (P1 Final-Interview).

However, the graph at figure 3 with a calculated linear regression line shows that, over the two years, overall talk time was more or less flat, but if anything decreased very slightly over the thirteen lessons.

Figure 3

Percentage of time P1 spent talking during thirteen of the recorded lessons with a calculated linear regression line

Calculated by recording the dominant behaviour in each 5-second period
Figure 1

Division of activities in thirteen of the recorded lessons of long study 1

Calculated by recording the dominant behaviour of each 5-second period.

No figures are available for the third and seventh recorded lessons.
In lesson 3, LT1 stopped the tape while the pupil performed the Grieg piano concerto. Lesson 7 tape arrived blank.
Figure 2

Division of activities in the fourteen recorded lessons of long study 2

Calculated by recording the dominant behaviour of each 5-second period.
The graph at figure 3 shows though that P1 did talk considerably more in lesson 14. In this lesson, P1 presented a new piece to her teacher. In her diary she commented that she had worked ‘really hard’ at it, but was afraid that her performance did not indicate this. She added, ‘I was a bit annoyed it didn’t go better’ (P1 Diary Term 6). In this lesson P1 offered several of her own opinions about the piece (see figure 6). P1 possibly felt that by talking about her thoughts and ideas about the music she was able to show her teacher that she had spent a lot of time on the piece even though this might not be evident from her performance.

Figure 4 indicates P2’s talk time (shown here with LT2’s talk time, to put it in perspective). As the graph indicates, P2 spoke very seldom. However, P2 talked slightly more than it appears at figure 4. P2’s comments were often very brief. With the method of measurement used, where only the dominant behaviour of every 5-second period was recorded, this meant that many of her episodes of speech were too short to register. However, the graph shows accurately that, in common with P1, there was no steady increase in P2’s talk time across the recorded lessons, even though in the final interview P2 said - ‘I speak more than I did at the beginning’. In fact both pupils spoke more in their first lesson than they did in all but one of the other recorded lessons. This was prompted by the many questions teachers asked as they tried to gain information about their new pupils.

**Figure 4**

*Percentage of time P2 spent talking during recorded lessons*

Calculated by recording the dominant behaviour in each 5-second period.
There are a number of possible explanations for this mismatch between the quantitative measurements and the pupils’ impressions. First, their memories could have been faulty. Second, the pupils’ reported increase in talking might not have related to quantity as much as quality. Further analysis attempted to explore such aspects. P2, after one year, talked about being more able to ask her teacher what she meant, and to ‘speak out more about what I think - my opinions and things’, (P2 Mid-Interview). To investigate this, long study 2’s audio-tapes were searched for examples of ‘unprompted’ talking, such as asking questions or offering unsolicited information, as this type of conversation requires more confidence than merely answering the teacher’s questions. However, the graph at figure 5 shows that still no consistent pattern emerged to support P2’s suggestion that she talked more as time went on.

This analysis, however, weights all questions equally, and does not consider the content of the questions. It is possible, for example, that P2 needed more courage to ask her teacher if she could take a grade 3 piano exam, than to ask if she should use her second finger to play a particular note. P2’s remarks about the fourth recorded lesson offer some support to this idea. P2 wrote in her diary that she had ‘talked more’ during this lesson. In fact, she had only spoken unprompted on four occasions, and talked for just 2% of the lesson. However, she had asked her teacher:

‘Can I get “The Snowman, Walking in the air”? ’ (P2 Lesson 4).

Compared to other questions, asking this could conceivably have required greater confidence, and the significance of the event might have left her with the impression that she had talked more during that lesson.

**Figure 5**
The number of unprompted remarks made by P2 during each recorded lesson
As P1, from her very first lesson showed no reticence about asking questions and offering information, long study 1’s recordings were searched for evidence of statements in which P1 gave non-requested opinions, or challenged or disagreed with her teacher. It was thought that these might indicate an increase in confidence or greater ‘ease’ between pupil and teacher. As early as grids 2 & 3, P1 had commented that she was ‘slightly more willing to give [her] opinions’ and by the final interview she talked about being ‘more willing to challenge things [LT1] says’ (P1 Final-Interview). But, as figure 6 indicates, no pattern appeared to suggest a quantitative increase in this qualitative aspect. However, it must be remembered that factors other than confidence-levels alone would have affected whether P1 gave an opinion or challenged LT1’s, not least whether her opinions did differ from LT1’s during those particular lessons.

Figure 6
The number of own opinions and challenging or disagreeing remarks made by P1 per recorded lesson

![Bar chart showing the number of own opinions and challenging or disagreeing remarks made by P1 per recorded lesson](chart)

(Lessons 1 & 2 are not included in the graph as the audio-recordings, although of sufficient quality to measure when P1 was talking, were not clear enough to distinguish all words. Lesson 7 did not record successfully).

Many qualitative differences are difficult to measure quantitatively. LT1, who thought that P1 talked a ‘bit more, not much’ suggested that if there was a change it was perhaps ‘the way that speaking is conducted’ (LT1 Final-Interview). Early and
late tapes were compared in both studies for differences in pupils' style of speech, such as volume, pitch, speed, and whether they interrupted or overlapped their teachers’ words. Once again, it was still difficult to pinpoint any clear change between early and late recordings. What did emerge was that there were often considerable differences within individual lessons. Not surprisingly pupils would speak quietly and tentatively when they were unsure about their subject and more positively when they were confident about what they were saying.

A third reason why it is difficult to find concrete evidence to support the pupils’ impressions of increased talking, is that not all lessons were recorded and those which were, might not have been typical. This explanation has particular relevance to long study 2. P2 wrote often in her diaries and her grids that lessons were ‘more formal’ when recorded.

‘When lessons are being recorded she’s all serious and business-like’ (P2 Final-Interview).

P2 remarked that LT2 was a ‘bit more chatty’ when the tape was not running, and that ‘then I feel that I can actually talk to her’ (P2 Mid-Interview). It is quite possible, therefore, that P2’s behaviour differed in the more relaxed atmosphere of the non-recorded lessons. Analysis of the recorded lessons in which P2 offers more unprompted statements and questions suggests that the formality or informality of the lesson had a definite influence on P2’s willingness to speak.

During two of the lessons in which P2 had offered the most unsolicited statements, lesson 9 & 12 (see figure 5), LT2 had talked briefly at the beginning of the lesson about non-work related matters. In the ninth recorded lesson, LT2 discussed her cat’s very expensive operation and in the twelfth she asked about P2’s weekend with a friend and their visit to see a film. In her diary entry after lesson 9 P2 described LT2 as being in a ‘good mood’ and ‘very talkative’. Although P2’s remarks in the lessons concerned the music rather than following on from either conversation, it is likely that her teacher’s discussion of private rather than work matters had introduced an element of informality into the lessons to which P2 had responded. If P2 made more unsolicited remarks in the slightly less formal recorded lessons, it is possible that she talked even more in the informal, unrecorded lessons.
A fourth explanation of this apparent contradiction in data is that pupils' changes were mainly internal and had little effect on their behaviour. It is possible that pupils did not in fact talk more, but because they felt more able to talk, they therefore felt that they did talk more. Pupils' use of the word 'can' lends some support to this idea.

'I am much more confident in lessons and can speak out. I feel friendlier now and can talk about anything with her because I know her better' (P2 Grid 5).

Overall, evidence suggests that pupils' feelings about talking did change during the two years. However, attempts here to quantify these changes reveal less about gradual modifications over time and more about the unpredictable and fluctuating influences that affected actions and memories on a moment by moment basis.

5.2 Fluctuating changes in interaction

Investigation into participants' shifting attitudes and behaviour revealed two factors. Pupils' feelings and opinions fluctuated more than their teachers' did. And teachers were generally unaware of pupils' often considerable swings of emotion.

In their diaries pupils showed that their feelings about themselves, their playing, their teacher and the lesson changed often. Events outside the lesson could affect how pupils felt as they approached the lesson. They might feel unprepared:

'I was fed up because I hadn't done any practice this week because of my flute exam, so everything went wrong' (P2 Diary Term 2).

Too tired to concentrate, or unwell:

'I was feeling terrible today – have been ill for ages and he complained (not unsympathetically) that my playing lacked vitality and energy. Oh well... what can you do!' (P1 Diary Term 5).

Self-concepts fluctuated frequently too. For P1 in particular, the period of the study coincided with a time of decision making about her future: whether to aim to be a performing musician and go to music college or apply to university to study English. This concern tended to heighten her reactions:

'I go through phases of having major doubts about wanting to become a musician. At the moment I'm not so sure' (P1 Grid 4).

Both pupils also spoke about competition and exam successes and failures having an effect on their confidence.
‘A couple of knock backs on the pianistic side, e.g. BBC and Concerto Competition, have slightly knocked my confidence as a pianist. I even began to reconsider the violin (!), but there will always be things like this which I must put down to experience etc’ (P1 Grid 4).

While the music under study too, could spark emotional reactions that had the potential to affect learning and lessons:

‘We had a long talk today about concertos and he finally said I can learn the “Rach Pag”! I can’t wait – I have already rushed out to buy the music!’ (P1 Diary Term 1).

Events inside the lesson could also affect pupils’ feelings. How they played in the lesson was hugely important to them and their reactions were often considerable - either disappointment:

‘I came away from my lesson feeling frustrated because I had not played as well I could have’ (P2 Diary Term 3).

or pride:

‘If I have a really good lesson or something, I come out feeling great about myself which lasts for about a day’ (P1 Final-Interview).

Pupils reacted strongly too, to their teachers’ remarks. These could encourage and motivate:

‘She said that my pieces were brilliant... She made me feel really good about my playing!’ (P2 Diary Term 3).

or disappoint and frustrate:

‘I am really annoyed with him today. I am feeling completely overwhelmed with work from all sides, and I asked him if I could drop out of an internal lunchtime concert tomorrow, but he got annoyed. I thought he would be sympathetic, but he said (not in so many words) not to be pathetic and just to get on with it. I never drop out of things so I am not happy!’ (P1 Diary Term 5).

In contrast, teachers’ data revealed no fluctuating attitudes or feelings about the pupil, their lessons or themselves. However, before we conclude that teachers’ attitudes never fluctuated, the imbalance in data needs to be considered. Unlike the pupils, LT1 & LT2 were not asked to write diaries following P1 & P2’s lessons. One reason for this was that the pressure of frequent grid/questionnaires and recordings already provided enough extra demands on the teachers’ busy schedules. Furthermore, it was thought that the teachers would be less conscious of their personal feelings as their focus during the lesson would primarily be on the pupils and their progress. The
absence of diary data from the teachers could, nonetheless have meant that they had less opportunity to reveal their day-to-day feelings. However, neither the grid/questionnaires which the teachers did complete each term, nor their interviews, in which they were asked direct questions on the subject, supplied data to indicate that they were aware of changing personal feelings about themselves or their pupils’ lessons, or that their opinion of their pupils varied to any great extent.

It seems likely, therefore, that P1 & P2’s attitudes did vary more than those of their teachers. There are several reasons why this might have been so. The piano lesson was more of ‘an event’ for the pupil than the teacher. Pupils had only two one-to-one instrumental lessons each week, while LT2, for example, taught between seventy and eighty students, and both teachers had been in the profession for at least twenty years.

‘I’m teaching all day, every day and you can’t think of each oncoming lesson as, oh good this is, it’s just they happen. They come in and they have a lesson... It’s strange how feelings are suspended, everything’s neutral. It’s not, oh dear this, or heck that or damn it. But it’s not, oh wonderful, it’s just nothing... So do I enjoy the lesson? It’s my job’ (LT2 Final-Interview).

Furthermore the pupils had a considerable amount invested in the lesson. They saw it as a time when they would be helped to progress and were disappointed on occasions when they felt this had not happened. It was also an opportunity to present their work for scrutiny, and they could be anxious about playing well, both to satisfy themselves and their teachers.

The fact that pupils had a clearer memory of lesson events also demonstrated that the lesson was a more special occasion for them. LT2 talked in interview of her great disappointment that her pupil had not discussed the change of her first study teacher with her. However, P2 recounted a conversation they had had concerning just this change in some detail:

‘Last term I talked about when I was changing flute teachers, because that went quite bad. She was really sympathetic, but then, kind of cheering me up, because she made a joke about it saying why don’t I take up first study piano instead, and not buy a new flute but a grand piano, a something Yamaha’ (P2 Final-Interview).

P2’s detailed account suggests that her memory of the occasion was better than LT2’s and that it was so because her piano lesson was more of a distinct event to her.
With extensive evidence of pupils' considerable swings of emotion it is surprising to find from the data that teachers were generally unaware of their pupils' shifting views and reactions. For example, while P1 commented:

'Sometimes if I'm feeling a bit grotty or tired or something, I might sort of glaze over a bit when he's talking' (P1 Final-Interview).

LT1 described P1's concentration levels as 'very consistent'. And although LT1 felt that P1's feelings about playing had stayed the same, she had written:

'As ever, my feelings are constantly changing' (P1 Grid 5).

Furthermore, P1 was slightly amused by a profile LT1 had written about her in which he commented that it was 'rare that [he found] a student with such even temperament and constant dedication' (P1 Final-Interview).

The main cause of this lack of understanding was the pupils' reticence about sharing such information with their teachers. Although they expressed these feelings in the diaries, they felt it inappropriate to talk about them in the lesson.

'I wouldn't try and project that on to him, my emotions on to him' (P1 Final-Interview).

In fact pupils volunteered little private information. P2 admitted that LT2 didn't know much about her because,

'I just don't tell her! ...I'd feel embarrassed just bringing up the subject' (P2 Final-Interview).

She said, however, that she would talk about herself if asked, but the recorded lessons indicate that the teachers enquired very little about their pupils' attitudes and reactions.

5.3 Constants

This chapter has so far suggested that pupils' feelings developed and shifted and all participants felt that their relationships had become slightly easier. Yet alongside this evidence of change and development various aspects of the lessons and interaction remained surprisingly constant.

Lessons retained similar routines and format. Study 1 lessons began with a brief greeting, after which P1 would perform one of her pieces, and LT1 would follow with a critique and suggestions. While LT1's aim was to increase repertoire and improve
performance, LT2's goal was rather wider, and she included a considerable amount of general musical information in her lessons. However the basic content of study 2 lessons (sight-reading, scales, and discussions about harmony and form) remained the same in every lesson. The style of teaching, the methods used to put over ideas, even many of the areas focussed on changed little throughout the two years.

Furthermore, although there were variations from lesson to lesson, a comparison of the activities of the two dyads (see figures 1 & 2) highlights certain consistencies in the balance of activities within each partnership. In both studies teacher talk and pupil play far exceeded pupil talk and teacher play. In long study 2, LT2 talk considerably and constantly outweighed pupil play, while in long study 1, the percentage of time spent in pupil play and teacher talk remained more similar.

Although relationships were noted as becoming slightly more relaxed the balance between pupil and teacher remained the same. Pupils saw the lesson as a time to gain information from their teachers. This meant that generally they sat and listened, followed teachers’ instructions and awaited teachers’ views and opinions. Teachers stayed in control, partly because they chose to and partly because pupils either deliberately, or unwittingly, encouraged them to do so.

The style of interaction adopted within a dyad is influenced considerably by the two personalities involved - and the people involved in the dyad, although they might relax a little in time, remain fundamentally the same personalities. They may develop, or reveal more about themselves, but their basic character remains constant. Often their beliefs and standards change little too. Across all of his rating grids, LT1 described P1 consistently as 'keen', 'hardworking', 'intelligent', 'having a sense of humour', 'able to laugh at her mistakes,' and 'able to listen to new ideas'. It is not surprising, therefore, that there is a consistency in how pupil and teacher relate.

'We have a kind of easiness between us, that's partly me who tries to establish that at the beginning, and I think that's a part of her that accepts that kind of way of working. So that's been quite successful from the word go, and I don't think that's changed particularly' (LT1 Final-Interview).
5.4 What barriers inhibit further changes in interaction?

Both teachers identified aspects about their pupils which, they felt, had limited the extent to which interaction within their dyad had been able to develop. LT1 thought that P1 had changed less than other students might have, simply because she had started from a different point, having shown unusual confidence from the outset.

'I don't think she is typical. She hasn't presented the problems that other students have' (LT1 Mid-Interview).

Both teachers spoke of wanting their pupils to contribute more. P1 mentioned that LT1 had written on a report card that he wanted her to 'argue more and challenge his ideas more'. However she explained:

'It's just not in my nature, I just don't do it, I never have to any teachers' (P1 Mid-Interview).

LT2 saw her pupil as 'wary' and 'guarded' and felt that this had limited the development of their relationship:

'I think I am reconciled to the fact that [P2] is a reserved person... and she's not going to change very much. But it sometimes seems just a little bit too neutral. And I don't mind going three-quarters of the way, but if somebody is not responsive it can make the lesson a little formal' (LT2 Final-Interview).

However, pupil personality alone cannot be cited as the sole reason why change was limited, particularly as both pupils spoke of having had closer relationships with previous teachers:

'I always felt really relaxed with her because she was very laid back and just generally friendly and a lovely person' (P1 Initial-Interview).

While teachers spoke of wanting more input from their students, they kept a certain control on the actual style of interaction themselves. LT2 had quite strong views about the appropriate balance between formality and informality:

'I do not generally let young ones call me [by my first name]. I usually say “Mrs [name] to you”, with a smile because I don’t want them to think I’m being stuffy. I am being, but I don’t want them to think I’m being. It’s just one thing I don’t approve of. And as far as the actual lesson, I wouldn’t slop in, in jeans and trainers. I don’t think it creates the right atmosphere for learning to take place if things are too relaxed and too informal' (LT2 Initial-Interview).

The pupil/teacher mix is a further relevant factor in how well a relationship might develop. Although this is far too involved a subject to attempt a breakdown here,
evidence suggests that within the dyads there were some points of friction. Pupil interviews, repertory grid tests and grid/questionnaires provide considerable information about pupils' personal preferences as well as their reactions to their teachers. Differences between the two pictures can offer one explanation as to why, although both pupils 'liked' their current teachers, neither pupil saw them as their favourite. To show how the pupil/teacher match can affect interaction this discussion will highlight an example from long study 1.

All participants completed a 'Kelly repertory grid test' at their initial interview (see chapter 3 for Kelly's theories and administration of the test). An analysis of the personal constructs revealed in the tests, and how they saw these relating to the individuals used in the grid should therefore indicate characteristics that were important to them. P1 valued a sense of humour in others. Three of her bi-polar constructs related to this aspect, 'quite serious/bit of a clown', 'wacky sense of humour/serious', and 'has a good sense of humour/no sense of humour'. (See P1's completed grid - chapter 3, figure 2). In the test, her favoured people, 'mother', 'father', 'favourite teacher' and 'an adult you get on well with' were recognised as having one, while the less popular categories 'an adult who annoys you' and 'a teacher you don't like' were not. In fact the 'adult you get on well with' was also attributed with a 'wacky sense of humour'.

The rating grids, completed each term were analysed to discover how P1 perceived LT1, with regard to his sense of humour, as this appeared to be important to her. The grids were individual in that they were composed of statements formed from each participant's repertory test result and initial interview. To complete the grids, subjects were asked to rate statements on a five point, agree-disagree basis. P1 marked the statement 'my teacher has a good sense of humour', 'don't know' for grids 1, 3, & 5, and 'quite disagree' for all other grids. At the end of the first term, P1 commented: 

'LT1's sense of humour is strange. He is very serious and if I make a light-hearted joke-y comment, he often takes it the wrong way' (P1 Grid 2).

After one year, she still reported feeling awkward and uneasy at times with what she described as her teacher's 'weird sense of humour'. This bothered her less by the end of the second year, though she was unsure whether it was his humour that had changed or her reaction to it.
The grids also show other possible areas of discontent, disappointment or friction. In her initial interview, before she had met LT1, P1 spoke of preferring a teacher ‘...who’s really enthusiastic and who can sort of make me enthusiastic’ (P1 Initial-Interview).

However, the statement ‘I find him enthusiastic’ though generally given a rather lukewarm ‘4 — quite agree’, on the final grid received a ‘3 — don’t know’ and the statement ‘I find him inspirational!’ was disagreed with each time. These few examples of P1’s perception of LT1 are selected here only because the characteristics appear to have been important to her, and because they suggest a further reason why their pupil/teacher relationship had some limitations. These aspects did not seem to make the partnership inoperable. P1 recognised and appreciated many positive qualities about LT1 as a teacher and generally rated the statement ‘we have a good rapport’—‘quite agree’. Nonetheless such reactions have the capacity to limit the development of a relationship.

A fourth reason why interaction develops so little over time may be the constraining effect of the participants’ conventional and stereotyped assumptions. The participants in the dyad assume roles both for themselves and for the other person, and these direct and restrict how the relationship develops. LT2 was anxious to encourage respect from her pupils, which in itself influenced the relationship. Although she liked the pupil/teacher relationship to be ‘basically friendly’ she also added, ‘as long as I’m in charge’ (LT2 Initial-Interview).

What then is a good pupil/teacher relationship and how necessary or beneficial is it? P1 recognised the importance of ‘feeling comfortable’ with the teacher, adding that it was needed:

‘[so that you] feel you want to work and feel you can talk to them about sort of things related to your development as a musician’ (P1 Initial-Interview).

LT2 also appreciated the benefits to learning of a good relationship, which she described as:

‘An instant readiness to work together. An understanding of what is required and wanted on both sides. An understanding of the aim and ... just a supportive atmosphere’ (LT2 Initial-Interview).
However, although LT1 thought a ‘good relationship’ was ‘critical’, LT2 felt that if the work was going well it was not her business ‘to try to create a rapport’ (LT2 Initial-Interview).

‘It doesn’t mean one can’t do the job without it, but it’s nice if you have it’ (LT2 Final-Interview).

5.5 Summary and conclusions

The methodology used in this research has made use of both qualitative and quantitative data. This has been important, as it has revealed contradictory data, suggesting that either method taken alone would not have given an accurate picture of events. While the qualitative data would have revealed considerable change over time, at least from the pupils’ perspective, the quantitative view would have suggested that apart from lesson-to-lesson fluctuations, interaction showed no consistent development across the two years.

The two investigations considered together, however, have indicated that pupil/teacher interaction, in the studies monitored, did change to a limited extent over time, in that it became ‘easier’ and ‘more relaxed’. Most change was noted by the pupils, who reported a considerable difference between how they felt at the beginning and the end of the two-year period. The pupils also spoke of their fluctuating attitudes to aspects such as the lesson, their teacher, the work and their ability, which had the potential to affect lesson interaction. However, it appears that the internal shifts in feeling, of which pupils spoke, had little impact on their external behaviour. Although teachers also recognised that a small development had been made over time, these changes were very difficult to identify and confirm in quantitative terms.

The two dyads varied in many respects: their ages, personalities, aims, experience, and teaching style. (Chapter 4 discusses the participants in detail). Because of this, the two relationships began differently. For example, P1 & LT1 adopted a more friendly, mature style from the beginning than P2 & LT2 did. Yet remarkably, neither interaction changed substantially from their initial start point, beyond a slight increase in easiness. Various factors, such as personalities, beliefs and habits inevitably limit any extensive development in the relationship. Of course, all partnerships will have their own distinctiveness and will begin from a different point of formality/
informality, but the conclusion to be drawn from this admittedly very small scale study is that in a successful dyad (one that continues and does not break down), while the familiarity gained over a period of time will lead to a certain relaxation between persons, behaviour patterns do not change substantially.

Finally, would the two observed dyads have changed further given more time? LT1 & P1's partnership was ending as the study finished. P1 spoke of 'a natural sense of "coming to an end" of the relationship, in advance of something else starting' (LT1 Final-Interview). LT2 expected to be teaching P2 for a further five years if she remained at the school. Over this time LT2 anticipated that, at best, there might be a further reduction in formality, but in most respects, it seemed, little substantial change was expected. From this teacher's perspective, the teacher/pupil relationship was substantially a stable — even fixed — pattern of behaviour.
Chapter 6

Student learning
Student learning

"... it will stop being notes on the page being played by hands and it will become a piece of music in my mind"

Instrumental teaching and learning is more than simple cause and effect: not all that is taught is learnt and what a student learns about playing does not only come from what is taught within the lesson. Although various studies have investigated instrumental teaching (see Mackworth-Young 1990, Lennon 1996, Kostka 1984, Speer1994 and Siebernaler 1997) few if any have examined instrumental learning other than when advances in performance have been measured in an attempt to compare methods of instruction (see Rosenthal 1984). None have investigated learning from the student's viewpoint.

This study noted certain features about the students and lessons being observed. First, the students spent a relatively short time in piano lessons compared to the time they spent in personal practice between lessons. And second, the students had reached quite an advanced level and, it might be argued, could therefore already 'play the piano'. Accepting these, this chapter will address the following questions:

*What effect does the lesson have on student learning?*

*What aspects of performance did students learn or hope to learn from their lessons at the tertiary stage?*

*What effect might these students and their learning have had on their teachers and on lesson interaction?*
While information about the subject of ‘teaching’ is readily available to the observer because it is both visible and audible, student ‘learning’ is far less accessible. Reber (1995) suggests that ‘learning’ is really ‘a hypothetical event recognisable solely through measurable changes in performance’ (p 412). To understand more about the influence the lesson might have on student learning at this stage this investigation will consider “measurable changes in performance” by examining quantitative data from disklavier recordings of weekly performances by student 1 in study 1. First however, to provide a more general context for this, qualitative data from students’ and teachers’ interviews will explore students’ thoughts, feelings and reactions to the process of learning.

6.1 Learning
6.1.1 ‘Taught’ is not necessarily ‘learnt’

The purpose of this investigation is to explore the student’s viewpoint. In doing so, this discussion will not assume that what is taught is necessarily learnt. The path between the teacher’s presentation of a suggestion and the appearance of any change in the student or his/her performance contains several obstacles.

First, the concept being presented has to be understood by the student. The students observed spoke of having had few problems once they were used to their teacher’s style. S2 thought that T2 had never explained in a way that she had not understood. However, the recording of study 1 took place when student and teacher had only been in partnership for one week and S1 spoke of some initial problems following T1’s thoughts. He complained about him being ‘a bit vague... I’m sure it’s clear to him but sometimes it’s not quite so clear to me’ (S1 Interview). Fortunately this problem began to disappear over time:

‘It’s taken me a while to get used to the way he teaches because it’s so different. But I think I’m slowly getting used to it’ (S1 Interview).

Students also found it easier to understand a practical aspect if they had already experienced it:

‘Once you know what something feels like you know how to make it happen again’ (S3 Interview).

Learning could take place on different levels, and a student might understand the concept being presented without immediately understanding how he could transfer
that into performance. Teachers often presented ideas and suggestions in general terms initially, becoming more detailed over following weeks if they thought their students needed more information.

Students felt that some teaching methods helped understanding more than others. S2 found her teacher’s verbal explanations and analogies useful:

‘I like the way she gives you things... like when in the Brahms, the passage at the bottom of the page, she said “oh it’s like the waves in the sea”... I find them a good starting point. I mean, in the end I actually thought of it as breathing rather than the waves because that’s how it helped me but it got me thinking in those lines’ (S2 Interview).

S2 did admit, however, that she would actually have preferred her teacher to use demonstrations more, which she felt were ‘often quicker, easier to understand and easier to remember’ (S2 Interview). In contrast, S1 thought the use of demonstration had limitations:

‘It kind of didn’t go through my brain but straight through my fingers... But then I would almost certainly just go out and forget it’ (S1 Interview).

T3 used demonstration with verbal explanation frequently and S3 saw the advantages of this combined method; he could see the movements, hear the sound, while the teacher focussed his attention on particular aspects of both. However, S3 remembered that there had been times when he had not understood fully and consequently had been unable to reproduce what his teacher had suggested:

‘I think sometimes it’s not clear how she’s producing the sound she’s making or how I can actually carry out what she wants me to do. So she’ll say, you do this bit by this certain movement of the arm, and I can see what she’s doing but I’m not always sure how she does it. So in that sense it’s a bit vague sometimes, although it doesn’t happen all the time’ (S3 Interview).

The method of teaching which leads to efficient learning varies, of course, from student to student and changes according to the topic of the lesson.

After the teacher’s suggestion had been understood it would also need to be accepted by the student as a viable way to change performance. S2 was quite anxious to point out, both in interview and to her teacher, that she was an independent thinker:

‘Sometimes I think, that’s interesting I’ll go and try it. Sometimes I take an instant dislike to the idea. But normally I’ll try it just so that if she asks me the next week I can say ‘yes I tried it both ways but I like my way the best’ (S2 Interview).
However, in learning Prokofiev’s *Gavotta* Op 32 No.3, only one of T2’s suggestions appeared to be rejected in performance, when S2 decided not to ‘ease into’ the recapitulation at bar 48 (see chapter 7, figure 2).

Points made during the lesson would need to be remembered so that they could be rehearsed during the week. S2 spoke about forgetting to correct a note which T2 pointed out to her repeatedly in lessons:

‘Judging by the number of times I had to be told the same thing, teaching definitely doesn’t lead to instant learning, even over absolute ‘rights and wrongs’ (S2 Interview).

But generally students found that their teachers taught in ways that aided memory retention. S1 found T1’s enthusiastic use of gestures helped:

‘Sometimes I just can’t help laughing! It makes me remember it at least’ (S1 Interview).

S3 found that the sounds his teacher’s demonstrations produced were clearer during the week than the visual memory of his teacher’s movements. Both S2 and S3 commented that reminders such as single words, lines or arrows written on the score would also help to jog their memory. S2 added that her memory was helped by the ‘repetition of key points and explaining things in different ways’ during the lesson (S2 Interview).

Finally, students needed to find the motivation and the ability to transfer the understood, accepted, and remembered, theoretical knowledge into practice. Problems at any of these stages would mean that the teaching point would not be ‘learnt’ sufficiently to appear as a change in performance.

6.1.2 Learning what/learning how

Student 2 commented that she felt there were ‘two different sorts of learning’:

‘In the lesson it is mostly thinking about musical meaning and how to express it. In practice sessions, you can experiment with interpretations and, of course, it’s during practice that the technical aspects, notes and fingering, are actually learnt, although they may be discussed in the lesson’ (S2 Interview).

She was referring to the fact that during the lesson students learn ‘declarative’ or factual knowledge about various aspects of playing the piano. They learn *what* needs to be done. Later, with practice, students develop ‘procedural’ knowledge as they
gain the abilities needed to perform the music successfully. This applies in particular to the motor skill element of instrumental performance. S1 spoke about his frustration at not having learnt 'how' to play the piece, though he understood 'what' he was aiming at:

'I understood exactly what he meant...and why he was saying it but I just could not do it...the technique wasn't there. It was too soon to start doing it. I was so self-conscious about what I was playing, what notes I was hitting that I just could not think of anything else without it falling apart' (S1 Interview).

Research has shown that skill development does not proceed at a regular or consistent rate, but that practice results in both quantitative and qualitative changes in performance (Annett 1994). Early studies with trainee Morse telegraphists show that during the first three to four months of practice, the number of correctly transcribed signals rose steadily after which a plateau was reached lasting for about two months. A further rise in learning followed this, resulting from a change in method, in that the telegraphists had reached a stage where they were able to transcribe whole words rather than single letters, thereby saving time. This process came to be known as 'grouping' (p 65). Newell and Rosenbloom (1981) referred to this learning principle as 'chunking' and recognised that it could affect both motor and mental skills. In learning to play an instrument, 'chunking' can be seen in the way that muscle movements become grouped into muscle synergies over time, which therefore require only one command. 'Chunking' can also be seen in the way students mentally absorb musical information from the score, so that, for example, chords come to be read as complete units rather than individual notes.

Playing a musical instrument requires more than motor skill alone, with the interpretation of a piece also making cognitive demands. Fitts and Posner (1967) suggested three acquisition stages for cognitive skills. These lead from the initial assessment of the task (the 'early or cognitive stage'); to identifying strategies for fast information retrieval (the 'intermediate and associative stage'); till finally responses are accessed automatically (the 'late or autonomous stage'). These stages are supported by the five students' descriptions of their experiences in this study.

Students began by assessing the task and selecting which information needed to be attended to.
‘Sometimes he bangs on a bit and I think “I can do this, I just can’t do it right now”. I know what he means and I think if I can go away and practise it, I’ll be fine’ (S1 Interview).

Errors were common at this stage and reflected inadequate understanding and/or ability. Students spoke of how they began to learn a new piece; they liked to ‘bash through it hands together, see what happens and get an overview that way’ (S2 Interview). Then they worked on the basics so that they had the notes and appropriate rhythms under their fingers before they worried too much about interpretation:

‘I don’t think you can interpret something before you know how to play it’ (S3 Interview).

With practice, the ‘intermediate and associative stage’ was reached. During this stage students tried to find methods to improve perception and retrieval of the required information.

‘I think I knew what I should be doing but it wasn’t quite programmed in yet. A bit more repetition of just playing it through and performing it through to myself... would have helped... I think I had all the ideas and just not the skill quite yet’ (S2 Interview).

By this stage errors had begun to reduce and the speed of performance increase.

Students felt that there was never a specific point in the learning when they began to introduce expression. In their experience they found that musical and interpretative aspects ‘came naturally’ (S1 Interview), and just needed ‘refining and expanding later’ (S2 Interview). S1 felt that if he tried to put in even the expressive features indicated in the score too soon, then they would not be as effective, they would not have grown out of his developing knowledge of the music:

‘it becomes a technical forte rather than an emotional forte’ (S1 Interview).

Finally at the ‘late or autonomous stage’ students relied less on cognitive control as they accessed correct responses automatically. S1 described this stage as a sudden change after much practice:

‘It’s just suddenly, sometimes when I’m learning a piece, it’ll take me ages to actually understand what the composer was banging on about and what he was getting at and suddenly it will just click. And it will stop being notes on the page being played by hands and it will become a piece of music in my mind’ (S1 Interview).
Performances would now be virtually error free and the speed of performance would continue to increase.

Mastering the skills needed to play the piano or play a particular piece of music takes time therefore and students make most advances in ability between lessons, during their practice sessions. However even though proficiency might not advance specifically during lessons, a teacher’s input nevertheless has a considerable influence on learning.

6.1.3 What students learnt during their lessons

Students gain ideas and understanding about performance from various sources. S4 listed listening to other musicians’ performances, CDs, radio and concerts, as well as ‘reading historical background about the piece’. S3 referred to information collected over time:

'I think in the back of my mind, I know what I’m aiming for because I’ve heard people playing Mozart and from what previous teachers have taught me as well, I’ve got that sort of store of information already' (S3 Interview).

S3 spoke of factors that could not be taught:

'The sort of innate, individual interpretation we each have, conditioned by whatever factors; previous listening, knowledge of performance practice, own sensibility, a varying quality of personality’ (S3 Interview).

Students were asked what they felt they had learnt from piano lessons at university and the information provided was compared with what teachers had actually taught. (See Chapter 10, figure 1 for focus of teaching points). First it was noted that all students felt that they were capable of learning the basics themselves, given time:

'The notes if I just sit down I can learn the notes... Rhythms I don't have too many problems with if I concentrate' (S5 Interview).

However, analysis of the teaching of the five pieces selected for the study showed that attention to the basics written in the score (pitch, rhythm and dynamics) amounted to a total of 31% of the points raised by all the teachers. Yet students barely acknowledged learning about these aspects in interview. This may have been because students had not found these corrections significant enough to be remembered or talked about, they may have felt that they had not ‘learnt’ anything when the teachers
corrected these aspects. Indeed it is quite probable that many of these targets would have been understood and corrected by the student him/herself over time.

Students felt they had learnt most about aspects concerned with communicating musical meaning in performance:

'I think interpretation is one that I have to work hardest at. ...Style and interpretation' (S5 Interview).

S4 felt that she wanted 'to be able to create the sounds of inner hearing and to have better interpretation of music' (S4 Interview). And when S3 considered how his performance of Debussy's Ondine had developed he felt that he had learnt much from his teacher about the composer's style:

'If she [T3] had no influence at all, I wouldn't have been sort of altering the colour of different passages so much. I might have worked out the rhythms myself in the end. The thing is, it wouldn't have been as musical or as a Debussy sort of performance should have been' (S3 Interview).

Similarly S2 felt her teacher had helped with the interpretation of Prokofiev's Gavotta:

'I'd developed a lot of my ideas in like the first week, 'cause I worked out all the fingering, which automatically affects the phrasing... But she [T2] helped with like the background, the dance sort of idea and went into more detail on expression and what to bring out' (S2 Interview).

In fact, only 22% of the teaching points raised by the five teachers had been about matters of interpretation directly, although expression and meaning was inevitably implied or influenced in their discussions about other factors such as articulation (19%) and tempo (6%). (See Chapter 10, figure 1, 'Focus of teaching points made during the teaching of each study piece'.)

Together with learning how to communicate musical meaning, students of T1 and T3 in particular, spoke of having learnt ways to improve their technique.

'...new technical solutions to problems as they arise, new types of fingerings, new ways of achieving different types of sound, ways of getting as much in contact with the hammers themselves as possible' (S3 Interview).

And although S2 felt that her lessons had generally focussed more on musical skills and broadening her repertoire she admitted that technique was an area which needed to improve at this stage.
Reid (2001), in one of the few available studies into student learning, considers how the information a student needs changes as s/he develops. The students Reid interviewed were also at a tertiary level, being first to fourth year undergraduate students at a music school in Australia. Reid identifies five broad conceptions of learning, each level being an extension of the one before, with each one adding a greater sophistication. At level 1, the ‘instrument category’, students are seen concentrating on the technical aspects of learning to play an instrument by copying their teachers. Even though Reid categorises learning about the technical side of playing an instrument as the first learning level, it is not surprising that the students here, at a post-grade 8 stage, still felt that they needed to learn about technique. The pieces they were now playing made increasing demands on their facility, and the sound possibilities being demonstrated to them required greater subtleties in skill. In fact elements of all of Reid’s levels were still apparent in the students’ learning.

Reid’s level 2, the ‘elements category’ is as level 1 but students now also show an interest in adding musical elements to their playing. In the ‘musical meaning category’, level 3, the students’ focus has shifted to the meaning found within the music and they learn by reflecting and adapting the advice given by their teacher. By level 4, the ‘communicating category’, students are learning to convey an element of musical meaning in their performance, which by level 5, the ‘express meaning category’, has become their own personal expression.

The students’ reports about having learnt much about the communication of musical meaning at this stage corroborates Reid’s suggestion that this arises at the more sophisticated levels. Although elements of learning at level 3 and 4 were apparent in students’ playing and in their words, there is also evidence in students’ comments that suggest that some at least had reached Reid’s level 5, the ‘express meaning category’ where students’ interpretation in performance had become personal and individual. S1 spoke about having problems communicating his ideas:

‘I’ve always had a lot of trouble with, not my ideas about how, I hope that just pretty much, that comes from me, but in actually getting my ideas out and into the music’ (S1 Interview).

Although all aspects of performance, including corrections to pitch and rhythm, were taught in lessons, therefore, it was only aspects of technique and interpretation which
students spoke about having 'learnt'. Students did, however, recognise that teachers also promoted learning in less direct ways.

6.1.4 Promoting learning

Students noted that rather than supplying black and white facts and direct instructions, teachers at times provided 'just a trigger to stimulate thought' (S2 Interview), which the student would then consider, develop and rehearse during practice.

'I think sometimes in lessons he is of very little use other than he gets the idea in my head and he makes me start thinking about something, but in the actual lesson it will sound the same or worse than how it did at the start of the lesson but it certainly made me think' (S1 Interview).

Interestingly, both teachers 1 & 2 used the word 'catalyst' to describe their teaching at this level.

'I mean so often it's been the case when you do look at a piece, that they haven't really practised properly because they just didn't understand it. And then you can open their eyes to something in it and they'll go away and practise it fine. They just need that little trigger, that little catalyst to get them working on it' (T1 Interview).

Teachers were also able to offer their students a different perspective on the music, the instrument or the performance. S1 recognised that there was a limit to the amount he would be able to develop a piece on his own, whereas his teacher's discussion of the piece in the lesson would present him with 'a whole new set of problems to work on, a whole new set of opportunities' (S1 Interview). S4 felt that T1 taught in a very different way to her previous teachers and had encouraged her to look at the instrument from a new perspective. S2 considered how her performance of Prokofiev's Gavotta had developed over the learning period and recognised that her teacher's ideas had changed the way she would have played it:

'I think it would probably have been more menacing and faster. I'd envisaged it as being like elves dancing and something mystical about it and it didn't have that element at all in the end so...... That would have been different' (S2 Interview).

Teachers could also affect the way students learned by encouraging them to take a bigger responsibility for their own learning. T1 wanted his student to question things:

'I'm trying to give him the impression of 'Mmm how about, we do this', you know, 'How about, hmm that's interesting' so I'm giving him the impression
that I’m looking at it and thinking ‘Mmm’ there’s possibilities, that it’s OK to think of different ways of doing things’ (T1 Interview).

While T2 described her aim as being to make her students ‘stand on their own feet’ and herself ‘redundant’ (T2 Interview), S2 commented that being encouraged to be more independent had increased her confidence and motivation in practice.

Learning to play an instrument, of course, entails many hours of practice, and what happens during lesson interaction can inspire and motivate students to continue the learning process through this stage. S1 felt his teacher was ‘good at confidence boosting’ (S1 Interview), and S2 recognised that her teacher’s positive comments increased her confidence when performing:

‘A positive attitude, plenty of encouragement and enthusiasm definitely inspires you to learn’ (S2 Interview).

S3 found his teacher inspiring:

‘because if she plays a passage and I think, ‘yes, that’s brilliant, I want to play it like that’, then she’s inspired me’ (S3 Interview).

While S4 recognised that:

‘Even when the piece is so bad, just one or two points you do good, he [will] definitely praise you and he will give you the credit for that... I think it’s very good encouragement’ (S4 Interview).

The teacher/student relationship and the atmosphere in the lesson can also affect learning. Students felt that when they ‘got on’ with their teacher they were more inclined to listen to what s/he said and to respect his/her ideas:

‘He’s like the sort of person who might end up being my friend if just in everyday normal life. So I think that helps. He’s sort of like, more of my peer group, and I think I engage with that a lot more’ (S1 Interview).

While S4 felt that ‘an atmosphere of jokes, fun during the lesson’ made learning easier.

Teachers too, recognised the importance of the student/teacher relationship on learning. T1 saw it as ‘a personality thing. You know, if you don’t get on with your teacher then it’s hard work’ (T1 Interview). T2 spoke of wanting her students to feel, when they entered her room, that ‘here’s somebody that they can relax with and they can play their best with’ (T2 Interview). In fact S2 described T2’s lessons as a ‘good learning environment’ (S2 Interview).
There is no doubt that the lesson played a valuable part in the learning process for these students. It provided an opportunity for them to play in front of another person, to test out ideas and to gain different insights. The teacher was also a source of inspiration and motivation as well as information, suggestions and advice. But just as lesson interaction had an effect on student learning, student learning also affected the teacher.

6.1.5 How student learning affects teacher and interaction

Student learning can affect teachers in two respects. First, it can influence their teaching. If a teacher feels that the student is not grasping what is being suggested then s/he might respond by providing more information or by presenting the idea a different way. (See chapter 10 for a discussion on how teachers respond to what they see as their students' needs). When teachers recognise that their students have understood what is being suggested they will feel able to move on to another matter. However as students spoke infrequently (see chapter 7, figure 2) teachers tended to rely on students' playing to monitor progress.

'I probably repeat things and then the proof is in the pudding usually isn't it?' (T1 Interview).

However, T1 realised that students might find it difficult to change their performance during the lesson and therefore, just because a student did not incorporate the new idea in performance immediately did not mean that s/he did not understand the concept.

Second, student learning also has the capacity to affect the teacher him/herself. Hallam (1998) points out that a student's successful learning can increase the teacher's self-esteem and self-efficacy (p 114). Although teachers did not admit directly that their self-esteem had been affected, they did talk of enjoying seeing their students progress.

'I find that pupils who come and who are sort of at this level [gestures low] and when they leave they are there [gestures a big advance] are much more interesting pupils than pupils who start off there [gestures high] and when they leave they're there [gestures a fraction higher]. It's the gap that's interesting isn't it?' (T3 Interview).

Teachers’ enjoyment obviously stemmed from this progress which signified to them that they had had an effect on student learning and that their teaching had, therefore,
been successful. All three teachers also spoke of enjoying teaching students who threw their own ideas and opinions into the lesson. This indicated that the students were beginning to think independently, which the teachers encouraged at this stage. It provided feedback about student learning, which would have helped their teaching, and it enlivened debate and interaction.

Furthermore, T1 suggested that a student's progress could also alter the way a teacher felt about his student:

'Yes I mean he's obviously practised at times and taken on board things that I've said and fair credit to him really. So I suppose that's made me warm to him... [S1] is able to talk about ideas and also able to play and get on with it as well, so that's great. So I enjoy the lessons' (T1 Interview).

However, students who had difficulty performing a piece well or who were not progressing as expected could also have an effect on their teachers. Frustration was evident in T1's movements during study 4 when S4 had problems playing at the tempo he suggested. And T2 spoke of the irritation she felt when, listening to S5's performance, she realised that he had not practised adequately.

Although student learning, as the goal within and beyond the lesson, is itself an 'end product' of the interaction, it also exerts an influence on the interaction itself, affecting aspects such as what and how factors are taught, and also how the participants feel about themselves.

6.2 A specific example of learning

The previous section has provided a qualitative overview of various general elements of learning. In this section the focus will become very specific. Disklavier recordings were made of students' performances of their study pieces preceding and following each lesson. Quantitative data from a selection of S1's pre- and post-lesson performances will be used here to monitor his attempts to incorporate a particular interpretative feature into his performance of a piece by Bartók, during a six-week period. The piece, number 2 of Six Dances in Bulgarian Rhythm from Bartók's Mikrokosmos, Vol 6, has a number of distinguishing features. It is in the less usual time of 7/8, a continuous quaver movement flows through every bar except bar 55 (which begins with a crotchet), and for much of the music the quaver beats alternate
between the hands. Rhythm, therefore, is an important characteristic of this piece and the regular quaver movement provides the opportunity to analyse the tempo flow quite precisely.

Although the data analysed is quantitative, the approach used here is non-statistical, as it examines the performances from a single individual without literal repetition. The pieces of music teachers selected for their students to learn differed between dyads as did the teaching points raised. It was not possible therefore to make any direct comparisons concerning how students' performances changed over time. The possible limitations of this method will be evaluated in chapter 11.

Two questions will steer discussion of these data; 'In what ways did the performances change over time?' and 'How do these changes relate to the teacher's advice?' It must be remembered, however, that disklavier data reflect the resulting performances only. It is not possible to learn from these data what the pianist's intentions might have been. Thoroughly rehearsed performances may produce some consistency in timing and dynamics, but performances at the learning stage must inevitably be a combination of specific aims and uncontrolled variations.

This investigation will focus on a matter of interpretation about which T1 spoke frequently, and particularly in regard to the performance of the Bartók. The feature involved the subtle lengthening of certain notes. T1 drew his student's attention to the concept in the first recorded lesson:

'Everything is going kind of straight forward, bang, bang, bang. Moving right on. Don't be afraid to have a fraction comma every now and then. Just articulate the beginning of new phrases or new moments or notes that seem to you important. Just give it that little bit of space' (T1 Lesson 1).

In fact all three teachers spoke to their students about this aspect. S2 commented that her teacher often suggested that she should 'give the music some space'.

'I suppose it's like saying relax in a way, rather than being too anxious about it. Let the music sort of speak for itself' (S2 Interview).

There are several possible reasons why this aspect of performance was often discussed at this stage. Students spoke about previous teachers being more concerned with the basics:
'With my first two teachers it was like just keep it in time, and the second teacher would be like, you want some rubato here and put it up just here and I’d be like..... ‘how?’ So I’d tend not to do it. I definitely do it a lot more like during [lessons with] my last teacher and [T2]' (S5 Interview).

Teachers felt that students had not yet appreciated the performance benefits of ‘allowing the music to breathe’ in this way:

‘I think they just haven’t perhaps, got to the stage of thinking about it. Perhaps it’s something they don’t think about when they’re in their school situation’ (T2 Interview).

Reid’s (2001) levels of musical learning suggest that this aspect becomes important at levels 4 & 5 when students begin to try to communicate musical meaning in their performance.

‘I was trying to push him in the way of thinking about space and articulation and just holding back a little bit so it doesn’t sound like a kind of ‘on the edge of your seat’, crazy, roller-coaster ride’ (T1 Interview).

T1 recognised that compared to pianists, singers and other instrumentalists had more options open to them for adding expression in performance.

‘You have to find ways of getting that emphasis without being able to kind of bring a note in, fade a note in or anything like that. So you have to do it through timing’ (T1 Interview).

To investigate this aspect of the student’s performance, on which the teacher placed considerable emphasis, five specific points have been identified in the second of the Six Dances in Bulgarian Rhythm from Bartók’s Mikrokosmos, where T1 explicitly described timing targets. They are:

- Bar 8, 1st beat, the right hand B flat.
- Bar 13, 1st beat, the right hand G
- Bar 16, 1st beat, the left hand G
- Bar 54, 2nd beat, the right hand A flat
- Bar 55, 1st beat, the right hand C.

Three excerpts, which include these five points in the music, have been selected for detailed analysis: bars 1-8, 11-18 and 51-57. Timing graphs were made of each set of bars from useable performances. (Several performances had to be rejected because the student stumbled or stopped at the point of focus). The graphs detail the inter-onset-intervals (IOI) for each quaver beat and therefore clearly identify when the student is holding a note longer than the established tempo.
6.2.1 Bars 1-8

The first focus of attention is the B flat beginning bar 8 (see figure 1). T1 discussed the matter of 'having commas occasionally' in the music generally during lesson 1 and his instructions became more specific during lesson 2:

'Now that B flat [right-hand bar 8]. Maybe to let that settle. You need to give it a bit more time afterwards. Don’t rush on afterwards. Yes and before’ (T1 Lesson 2).

Although at the performance following lesson 2 (see figure 2), neither the B flat nor the note before is held for any greater duration, in the performance preceding lesson 3 there is evidence of the note before being held fractionally longer and the B flat considerably longer (see table 1). This suggests that the student had at least understood and accepted T1’s advice in lesson 2, and after a week’s practice had begun to incorporate it into his performance.

Even though S1 asked, during lesson 3, whether there should be a pause before as well as after the B flat, T1 suggesting:

‘I think I’d do another one before that’ (T1 Lesson 3), there is still little lengthening of the IOI before the B flat in the performance before lesson 4. T1 emphasised again, in lesson 4, that the note before the B flat should be ‘just a bit more placed’, and by the final performance after lesson 5, both notes had been lengthened. Figure 2 shows that although the note before the B flat is not
Figure 2

Graph showing tempo flow of bars 1-8 in four performances:
post-lesson 2, pre-lesson 3, pre-lesson 4 and post-lesson 5

Bar 8
B flat
appreciably lengthened until the post-lesson 5 performance, the duration of the B flat itself is increased steadily over the performances. (See also table 1)

<table>
<thead>
<tr>
<th>Performances</th>
<th>IOI, E-B flat</th>
<th>IOI, B flat-F</th>
<th>Average quaver duration bars 1-7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance following lesson 2</td>
<td>0.151</td>
<td>0.148</td>
<td>0.140</td>
</tr>
<tr>
<td>Performance preceding lesson 3</td>
<td>0.162</td>
<td>0.209</td>
<td>0.133</td>
</tr>
<tr>
<td>Performance preceding lesson 4</td>
<td>0.156</td>
<td>0.227</td>
<td>0.132</td>
</tr>
<tr>
<td>Performance following lesson 5</td>
<td>0.197</td>
<td>0.232</td>
<td>0.134</td>
</tr>
</tbody>
</table>

Figure 2 also suggests that there was little consistency in quaver duration across performances in the preceding seven bars. The quaver movement at bars 4-7 is mainly an alternating pattern between the hands, but this shows no obvious configuration between performances. The opening three bars of the piece are identical on the score but no pattern emerges when comparing these bars either between performances or between bars within each separate performance. With a distinct rhythmic character in 7/8, the first beat of each bar might reasonably be lengthened to emphasise the start of each new rhythmic group. Yet, in these performances the first beat of the bar is sometimes one of the longer notes and on other occasions one of the shortest. Similarly it is not uncommon for a student to slightly alter the length of the seventh note of each bar, either by lengthening it in an attempt to stretch the bar to the more familiar eight beats, or by shortening it to exaggerate the syncopated feel of the irregular time signature. However, as with the first beat, the last beat of the bar is on occasions both one of the shorter and one of the longer notes in the bar. This might reflect a lack of some control over the technical side of the performance. This is supported by S1's own, somewhat frustrated, remarks:

'I don't think I'm up to that piece. I cannot get my hands round it. Technically I just can't do it. And if I do get the notes right I can't think about anything else' (S1 Interview).
6.2.2 Bars 11-18

This excerpt covers two targets, the right hand G at the beginning of bar 13 and the left hand G at the beginning of bar 16. (See figure 3). Both introduce new musical ideas.

Figure 3
The second of Six Dances in Bulgarian Rhythm from Bartók's Mikrokosmos, Vol 6
Bars 11-18

At bar 13, the right hand has to move its position down quickly and in lesson 2, T1 talks of the difficulty of hitting the note accurately:

'And again that G.... it's hard.... Really you know, it's easy to miss that G. And when things are hard, what I try to do is just over do it, over give it time, give it a real sense of focus on that note, because I know then I'm going to get it' (T1 Lesson 2).

T1 does not specifically mention 'giving time' at bar 13 in any later lesson, which might suggest that he felt S1 was achieving reasonable success. Figure 4 and table 2 show that the IOI before the new phrase, was increased by a small amount in all but the last performance, while the IOI between the first two notes of the new phrase became increasingly lengthened in each performance until the performance preceding lesson 4, where the note is held for almost double its value. In the final performance the IOI is reduced a little from the very long note of the week before. It is possible
Figure 4

Graph showing tempo flow of bars 11-18 in four performances
Post-lesson 2, pre-lesson 3, pre-lesson 4 and post-lesson 5
that S1 had felt that the length he had given to the note the previous week was longer than was musically acceptable. However, it could also indicate that S1 was not yet in control at that point in that performance.

<table>
<thead>
<tr>
<th>Performances</th>
<th>IOI, F-G</th>
<th>IOI, G-C/D</th>
<th>Average quaver duration bars 11-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance following lesson 2</td>
<td>0.150</td>
<td>0.174</td>
<td>0.131</td>
</tr>
<tr>
<td>Performance preceding lesson 3</td>
<td>0.174</td>
<td>0.186</td>
<td>0.126</td>
</tr>
<tr>
<td>Performance preceding lesson 4</td>
<td>0.167</td>
<td>0.243</td>
<td>0.131</td>
</tr>
<tr>
<td>Performance following lesson 5</td>
<td>0.081</td>
<td>0.209</td>
<td>0.122</td>
</tr>
</tbody>
</table>

The second target in this passage is the beginning of bar 16 where there is a sudden change of dynamic. The teacher talks about this as early as lesson 1:

'Where the dynamics are quite immediate changes, take your time over these things. It gives it room to breathe then as a piece. Very important timing, especially in classical and this sort of music because it's percussive' (T1 Lesson 1).

And during the second lesson T1 once again suggested:

'maybe start that a fraction later to get the sense of the dynamic' (T1 Lesson 2).

It had not at this point been suggested that the first note of the new phrase at bar 16 should be lengthened, as was recommended at bar 13. The advice, here, is only to increase the space before the left hand G.

Table 3 details the IOI across four performances, between the phrases at bar 15/16. All performances except the one preceding lesson 3 indicate a subtle lengthening of the suggested note in relation to the mean IOI over the rest of the passage.

Figure 4 reveals a few more points about the comparative performances. First, an examination of the first two bars, shows an increasing difference between the lengths of the quavers. This suggests that the student had 'got into the rhythm more' as he became more familiar with the piece. Other emerging patterns are less obvious. The
seventh beat of this excerpt, the final one of bar 11 of the score, is lengthened in every performance. This might have resulted from the way S1 had heard these two bars in his imagination, or might have been caused by a minor hesitation while positioning the hand for the following black note, the left-hand B flat, bar 12. Interestingly in all the recordings presented here, except the performance before lesson 3, this note is lengthened fractionally more than the beat at the end of bar 12, the one the student has been instructed to lengthen. However, there is no consistent pattern between quaver lengths of the first two bars, in that performances following lesson 2 and preceding lesson 4 begin short-long-short-long, and those preceding lesson 3 and following lesson 5 begin long-short-long-short. It is possible however, that controlling this differential when the quavers are played alternately between hands may be difficult. T1 also suggested in lesson 5 that the 'left hand needs to be more even' from bar 16. At this point each hand plays short scale passages comprising four or five notes. The performance before lesson 3 is the most uneven while the final performance begins very evenly with some variation in the second bar of this passage (bar 17).

<p>| Table 3 |
|------------------|------------------|
| <strong>Comparing the inter-onset-intervals between bars 15 &amp; 16, across four performances.</strong> |</p>
<table>
<thead>
<tr>
<th>Performances</th>
<th>IOI, F/C-G</th>
<th>Average quaver duration bars 11-14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance following lesson 2</td>
<td>0.162</td>
<td>0.138</td>
</tr>
<tr>
<td>Performance preceding lesson 3</td>
<td>0.081</td>
<td>0.129</td>
</tr>
<tr>
<td>Performance preceding lesson 4</td>
<td>0.174</td>
<td>0.135</td>
</tr>
<tr>
<td>Performance following lesson 5</td>
<td>0.162</td>
<td>0.131</td>
</tr>
</tbody>
</table>

6.2.3 Bars 51-57
Finally in the concluding bars of the piece T1 directed S1's attention to two phrase beginnings. Bar 54 where the music indicates a phrase end on the first beat, the right-hand C, and a new phrase on the second beat, the right-hand A flat, and secondly at the beginning of bar 55 (see figure 5). Although T1 had instructed that emphasis could be brought to the beginnings of the phrases at bars 8, 13 and 16 by putting space before and after the first note of the new phrase, the instruction here is only to delay the start of the new phrases at 54, and 55.
The performance following lesson 2 (see figure 6) shows that the student began playing the passage with little communicated acknowledgement of the division between the phrases at bar 54. In fact, during the previous bars, three notes had been held longer than the note ending the phrase. However, T1, though he had spoken about the concept generally, had not at this point spoken specifically about lengthening notes with regard to this phrase, and did not discuss or demonstrate bar 54 until the third lesson, when he pointed out:

'A flat starts a new phrase and there's a rit' (T1 Lesson 3).

One week later, at the performance preceding lesson 4, the C ending the phrase at bar 54 is lengthened considerably, and three of the six notes following the A flat are also lengthened indicating an attempt at the suggested 'rit'.

T1 talked about the matter again during lesson 4:

'[a] comma before right hand A flat [bar 54]' (T1 Lesson 4).

Interestingly, S1 was less successful at holding the note before the start of the new phrase in the post-lesson performance than in the pre-lesson performance on the same day (see table 4). Various explanations could be offered for this but it possibly reflects
Figure 6

Graph showing tempo flow of bars 51-57 in four performances:
Post-lesson 2, pre-lesson 4, post-lesson 4 and post-lesson 5

Quaver duration (secs)
both reduced concentration at the end of a lesson caused through tiredness and/or a
general insecurity in the interpretation of the piece at this stage of learning.

<table>
<thead>
<tr>
<th>Performances</th>
<th>IOI, C-A flat</th>
<th>Average quaver duration bars 51-53</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance following lesson 2</td>
<td>0.150</td>
<td>0.129</td>
</tr>
<tr>
<td>Performance preceding lesson 4</td>
<td>0.162</td>
<td>0.131</td>
</tr>
<tr>
<td>Performance following lesson 4</td>
<td>0.140</td>
<td>0.132</td>
</tr>
<tr>
<td>Performance following lesson 5</td>
<td>0.174</td>
<td>0.123</td>
</tr>
</tbody>
</table>

S1 is reminded again in lesson 5:

'C is the end of the thing [the phrase]' (T1 Lesson 5).

At the final performance, the interval before the start of the phrase is increased more
than in previous performances.

Bar 55 also begins a new phrase. Although T1 gave no specific instructions about this
until lesson 5, when the suggestion was to delay the onset of the first note C, in the
recording after lesson 2, the student had already begun to lengthen this note (see
figure 6 & table 5). However, the note which begins the phrase at bar 55 is held for
more than double the average quaver duration in the preceding bars. Reference to the
music at figure 5 shows that this note is written as a crotchet. However, S1 provides
seven notes or chords in this bar, the second being a quaver, not written in the music,
whose pitch varied between performances. It can be assumed, therefore, that S1 had
read the initial note as a quaver.

Although at each playing, the target quaver is held for a longer duration than the
previous average, only the performance following lesson 4 matches the length given
to the note in the performance following lesson 2, while in the final performance the
IOI is, in fact, increased the least. Although T1 does not, on this occasion, suggest that
the first note of the new phrase is lengthened, S1 does increase this quite substantially
in the performances following lessons 2, 4 & 5. When T1 has highlighted other
phrase beginnings his instructions have often been to make the first note of the new
phrase longer as well as delaying it. Therefore, it is possible that the student was
‘articulating’ the start of this new phrase by making this IOI, rather than the interval between the phrases, longer.

Table 5
Comparing the inter-onset-intervals, before the C bar 55, across four performances.

<table>
<thead>
<tr>
<th>Performances</th>
<th>IOI, B-C</th>
<th>IOI, C-*</th>
<th>Average quaver duration bars 51-53</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance following lesson 2</td>
<td>0.197</td>
<td>0.267</td>
<td>0.129</td>
</tr>
<tr>
<td>Performances preceding lesson 4</td>
<td>0.174</td>
<td>0.173</td>
<td>0.131</td>
</tr>
<tr>
<td>Performance following lesson 4</td>
<td>0.198</td>
<td>0.209</td>
<td>0.132</td>
</tr>
<tr>
<td>Performance following lesson 5</td>
<td>0.163</td>
<td>0.255</td>
<td>0.123</td>
</tr>
</tbody>
</table>

* The student inserted a note at this point (not always of the same pitch), thereby continuing the quaver movement. This note was not written in the music.

Before summarising the findings concerning the specific use of timing variations at the two phrase points targeted, some context is needed on more general factors noted about the performances. In this respect, perhaps the most important question to answer is whether the performances appeared secure and controlled. It has been mentioned earlier that not all the disklavier data from recordings were useable. This was often due to inopportune halts in performance. Although in later recordings the student sustained more continuous presentations, stopping and restarting was a feature of many earlier playings.

Insecurity is also indicated by the presence of various inaccuracies. Crushed notes appeared quite frequently at different points, and some notes were consistently misread. The left-hand chord repeated across bars 51-54, for example, although correct at the first recording, was misplayed at every successive one. The extra note, inserted at bar 55, continued to the final performance. Examination of the whole rhythmic pattern, across the phrases targeted, shows limited evidence of consistency between performances. Moreover, the fact that some notes were held for as much as double the written time raises the question of whether this was entirely intentional. These two factors further point to possible lack of control within performances. Finally in considering the security of the performances the student must have the final word:
‘I just couldn’t do anything. Because it was so difficult it was taking all my time just to get the notes in the right place and I didn’t have any thought processes left to think about how I was playing the notes’ (S1 Interview).

Interestingly, within these variations, the average quaver speed across bars of the same performance and between performances remained remarkably stable. Only the tempo of the first performance differed, with an average quaver speed almost double that of later performances (IOI = 0.053secs).

Although there is evidence of lack of control in performances, there is also consistent evidence to show more time being allowed between phrases and at the first beat of the new phrase. A comparison of the IOI’s at the five target points reveal that S1 was most successful at lengthening the notes which began a new phrase rather than lengthening the interval before a new phrase. The intervals lengthened the least were before G at bar 13 and before A flat at bar 54. Ironically at both these points the music necessitated a difficult hand move and taking time would have helped a successful jump. The intervals increased the most appeared on the first notes of new phrases (i.e. G at bar 13, C at bar 55 [not instructed], and B flat at bar 8). The notes at these points generally lay more under the hand, and this possibly permitted S1 time to think about and control the use of timing variations.

The duration of notes can change in performance, however, for several reasons; through the inaccurate reading of note values, or because of some technical difficulty of finding or getting to following note(s). Nevertheless, the consistency with which these features appear in successive recordings would suggest that they were intentional. Furthermore, because this matter had been a key aspect of T1’s instructions, it can be assumed that they were a result of it. Accepting this, it could be said, therefore, that S1 had understood and accepted the concept of pausing around phrase beginnings, remembered and rehearsed this aspect, and had had significant success in incorporating it into his performances, even though much of the playing of the Bartók in the recordings had not been totally under control.

6.3 Summary and Conclusion
The students observed in this thesis concentrated on learning how to play particular pieces of music to the best of their ability and anything they learnt about playing more
generally happened through this. At this stage, students were often studying long and challenging music that was in the learning process for several months. This chapter has noted that the students' words support the stages of learning suggested by Fitts & Posner (1967), in that they initially learnt what the task involved, then began to develop strategies to enable quicker, more efficient, more correct performances and finally needed less cognitive control as correct response become automatic and performance virtually error free.

This chapter has revealed one interesting aspect concerning the learning process that involved a conflict of views between teacher and student. Both T1 and T3 taught aspects of the music's interpretation and style from the first lesson and therefore, before their students had fully mastered the basics. All the students, on the other hand, preferred to feel confident about finding the notes before elements of expression were introduced. S1, in particular, admitted in interview that he was annoyed that his teacher pushed him to interpret so early in the learning, though he did not voice his feelings to his teacher. This matter raises several questions. Would the teacher better aid the learning process by being sensitive to and following the student's preferred order of learning? Is the learning theory proposed by T1, in that the character of a piece needs to be decided upon first so that it is not shaped by what the pianist can or cannot do, so important that it should be encouraged whatever a student prefers? Or would guiding a student to approach learning a different way be beneficial in itself? The answers to these questions will depend on the student. S4, T1's second student studied, was also frustrated by her inability to play the music fluently during the first few weeks. She spoke of wishing that she could be left alone to master the piece for longer before she had to present it to her teacher for his input. S3, although also preferring to learn the basics first, accepted his teacher's early discussion about interpretation with no complaint. To some degree, it will depend on the music too. S1 only talked of his frustrations in connection with the Bartók, which he had found particularly challenging technically.

T1 noted that he monitored whether students had understood by waiting for their performance to change. As he himself agreed, this was not necessarily a foolproof method, as the student might well understand the concept, the declarative knowledge, without, at that time, having mastered the procedure. This inadequate feedback could
lead to one of two problems; teachers could move on to another subject before their student had grasped the current one, or they could continue explaining unaware that the student had already understood the topic at least in principle. A student's understanding was seldom investigated by the teacher to any degree and on the occasions students were asked if they had understood, they always acknowledged that they had done whether they had or not. (See chapter 7 for further discussion on student communication). The teaching/learning situation would be improved if students were more ready to talk about whether they had understood a concept, challenge and discuss points of view and voice problems they might have about learning.

The purpose of this investigation has been to ascertain the influence the lesson had on this learning process. This is a particularly relevant question considering that, at the tertiary level, students already have the knowledge and experience to learn a piece of music to a reasonable standard without teacher intervention. This chapter discovered that lessons, appearing as they do at intermittent intervals along the learning path, can be viewed as providing signposts for the direction of future learning. The teachers studied provided specific information, suggestions and advice relating to the music under study, although students felt that they were also able to use information directed at one piece more generally.

'The way that the notes just sort of trickle and the sort of feeling in the fingers, that gives that effect. That's something that's stuck and something I've used as well outside of the Debussy' (S3 Interview).

Furthermore, teachers were able to stimulate student thinking and inspire and motivate them to continue to learn.

Although teachers covered basic aspects such as correct pitch and rhythm and use of pedal, students only spoke of targets relating to musical interpretation and technique. At this stage, students suggested that they needed to learn how to improve the communication of their own musical ideas, increase their knowledge about the style and character of different composers, and wished to improve their technique. Students spoke of the notable effect their teachers' ideas had had on the finished performance. There was no doubt, therefore, that even at this more advanced level, and even though students spent considerably more time learning how to perform their music during
private practice, the lesson still played a very valuable and significant role in student learning.
Chapter 7

Student communication
"I think that most of what you’ve got to say in a piano lesson comes in how you play" 

Compared to the lecture room, classroom and group teaching situation, the one-to-one lesson offers the opportunity for teaching to be tailor-made to suit each individual student. For this to be possible the teacher depends on the student for feedback on matters such as understanding and acceptance of instructions and suggestions, and information about musical progress, problems, opinions and ideas. However, teachers often complain that students are reluctant to communicate a great deal and previous research has suggested that students talk little in lessons (Kostka 1984, Speer 1994).

In this chapter data will be presented to show that the verbal communication of the students studied was indeed limited both in quantity and content. Influences that may have affected student communication will be proposed. However, students did reveal information about themselves, their feelings, attitudes and ideas, and this chapter will also analyse and discuss students’ non-verbal communication. Ultimately the aim of this investigation will be to answer the question:

*Do students communicate enough about matters that might benefit learning, teaching and lesson interaction?*

Study 2 will form the central focus for this investigation. Teacher 2 talked of how important it was for students to communicate in their lessons but felt that at the time
of the recording her student had not found the confidence to contribute a great deal and S2 had very definite views about how a student 'should' behave in lessons. To add depth and perspective to the findings, the words and actions of the other four students will also be examined.

7.1 Verbal communication

7.1.1 Quantity

The most obvious way in which students communicate is through their words, but students actually say very little. Hepler (1986) recognised this when investigating how levels of teacher field dependence/field independence affected lesson interactive behaviour.

'Student behaviour was highly dominated by performance within the instrumental media. Very little variety of student behaviour was observed' (piii).

Lesson activities, in study 2, were divided into four categories (student talking; student playing; teacher talking; teacher playing) (see figure 1). Results showed that during the recorded lessons, S2 spent between four and ten times longer playing than talking.

Figure 1:
Percentage of time spent in main lesson activities in study 2
(Calculated by recording the dominant behaviour of each 5-second period)

A comparison was also made of the activity patterns of lesson 3 for all five studies (figure 2). The third lesson was selected so that any possible initial 'awareness of the camera', which might have affected behaviour, would have passed. Results revealed
that, apart from T3's frequent use of piano demonstration, lesson behaviour showed a similar distribution between dyads.

Figure 2:
Comparison of participant activity during lesson 3 of all five studies.
(Calculated by recording the dominant behaviour of each 5-second period).

There are considerable similarities between the findings of this study and those of Kostka (1984) and Speer (1994), although slight variations in methods of measurement and categorisation need to be noted. First, Kostka registered all activities appearing within each ten-second interval, while Speer and this study selected the predominant activity for each time period. Second, Speer categorised teacher activity into 'teacher presentation' and 'teacher reinforcement' while Kostka and this study divided teacher activities into 'speaking' and 'playing'. Third, the studies by Kostka and Speer observed the piano teaching of American students of various ages, experience and abilities, while this study has focused on the piano lessons of British students at the tertiary level.

In all three studies teacher talk and student play were the predominant activities. In Kostka's study students played more than teachers talked (56%-42%), while in Speer's study 'teacher presentation' exceeded pupil play when students were younger (47%-38%), less experienced (44%-38%) and less able (44%-41%). However this reversed for older more experienced, more able students (Speer 1994, p 21). Speer suggests that this difference was caused because teachers felt they needed to give more directions to the 'average' student 'in order to establish practice habits and develop kinesthetic response' (p 23). However, although all five students in this study
were older, experienced and able, teacher talk exceeded student play both across the lessons of study 2 (52%-35%), and across lesson 3 of all studies (45%-39%). As teachers controlled when students played as well as when they spoke these differences can only be explained as a result of teacher style, beliefs and personality.

Student talk was a minimal activity in all studies. The mean percentage for student talk in Kostka’s study (12%) is slightly higher than the findings of this and of Speer’s study. This comparatively larger figure, though, could simply be a result of Kostka’s different measuring method. Findings in this study however, are very similar to Speer’s findings. Speer found that younger, less experienced, less able students spoke marginally more (6%) than the older more experienced, more able students (5%) (p 21) while this study found that student talk across the lessons of study 2 measured 6% and across lesson 3 of all studies 7%.

Of the five students, S3 spoke the least (0.8% of total lesson time). S3 commented in interview that he felt his role was to listen to what his teacher said, ‘just take on board what she is saying’ (S3 Interview). He did suggest, however, that if he ‘felt strongly enough about something that was important enough to argue about’, then he thought that he would, although there was no evidence of him doing this in the recorded lessons. Analysis showed that when S3 did speak in the lesson it was invariably prompted by a question from T3.

S1 and S4, who were the most talkative of the five, still only spoke for about 12% of the total lesson, with students playing three times more and teachers speaking four times more. S1 felt that his teacher would hear him out if he had something to say but admitted that he’d ‘never spoken out really... I don’t tend to do a huge amount of talking in lessons’ (S1 Interview). S5 spoke for only 8% of the lesson, even though he described himself as ‘pretty outgoing’, the sort of person who would ‘chat to anyone’ (S5 Interview). His teacher (T2) also saw him as ‘communicative’, though her comments hint at the fact that although teachers wanted their students to speak more, it needed to be on subjects which would benefit learning.

‘He will open up, in fact I have quite a job to stop him talking sometimes. He’ll launch into great spiels about what he’s been doing and so on, and it’s quite dangerous to ask him you know’ (T2 Interview).
7.1.2 Style and Content

When students did speak they often lacked confidence. S2 appeared self-conscious and tentative about proposing her ideas, and found it hard to express herself in words:

‘I always find like the ‘rit’, after the ‘poco animato’, seems to come on you really suddenly and you’ve got like a [pause] I always felt it there, because otherwise if you ‘animato’ till there and then you’ve got like four notes to get [pause] I don’t know, just to [pause] I don’t know’ (S2 Lesson 1).

T2 described her as having a tendency ‘to waffle a bit’, but always felt that she understood what S2 meant. Similarly, T3 saw limitations in S3’s ability to converse, saying in interview that she felt he spoke as though he was unsure whether anyone would be listening.

Student talk can be coded into four basic categories. They asked questions, usually relating to either organisational or interpretational aspects, ‘Is that a loud section?’ (S1 Lesson 2). They replied to their teacher’s questions,

T3 -‘Where do you want to actually start coming out tonally?’
S3 -‘Maybe start about here, but start properly around here’ (Lesson 1).

They offered unsolicited information, ‘No I was going to say, I think I’ve got into the habit of keeping my hands, my wrists above the keys,’ (S1 Lesson 1). S2’s verbal exchange was marked by her need to explain. This might have been to emphasise that she was aware she had not mastered some problem yet:

‘there are some notes, like these that I just keep forgetting to hold on’ (S2 Lesson 2).

or clarifying why she was playing a passage a certain way:

‘I’m scared of slowing it up too much because I don’t want it to get all stodgy kind of thing’ (S2 Lesson 1).

It is clear from the frequent occurrences of these unsolicited remarks and explanations that S2 wanted her teacher to have an understanding of her thinking to some degree, but that she was still rather guarded about how much of herself she revealed.

Finally, students agreed frequently, ‘yes’, ‘Ok’ or ‘Oh right’, presumably to indicate attentiveness, acceptance and understanding. However the words did not necessarily mean that students did agree. S2 was reluctant to disagree with her teacher, possibly because she did not want to appear confrontational. Rather, if she did not wish to act on one of T2’s interpretational ideas, she preferred to disagree musically by not
amending her performance in the way suggested. T2 realised that often students’ agreements came almost too quickly. She said that she preferred a student who would argue with her, ‘but they seldom do’ (T2 Interview). S4 simply accepted that her teacher knew best:

‘sometimes I just follow the thing he says because I think he’s my teacher. I think he’s expert, he knows better how the phrase can become out [sic]...I don’t have a lot experience and his word does count so usually I will accept’ (S4 Interview).

Students could also be reluctant to tell their teachers when they did not understand. When T2 suggested that bars 8-11 of the Prokofiev Gavotta (see figure 3) was ‘almost in three/two’, S2 quickly agreed at the time, but admitted later in interview:

‘I didn’t really understand. I did look but I was a bit confused and I didn’t want to sound silly..... I didn’t think it affected the way I played it enough to bother asking’ (S2 Interview).

However, students’ verbal communications only offered limited information about basic aspects. Teachers, on the other hand, spoke of wishing students would communicate higher level thinking, offering their opinions about aspects of interpretation and introducing subjects that might lead to debate, argument or discussion:

‘I’d like him to speak a bit more at times. He goes straight to the piano too often for my liking really. I’d like to know what he’s thinking more. I think, sometimes to go straight to the piano can be an easy option and you don’t think through something. But I find that with most pupils’ (T1 Interview-study 1).

Figure 3
Prokofiev Gavotta, bars 8-11
T2 wanted her students to ‘take more responsibility’, to ‘offer something themselves’ and ‘to come out with their own ideas’. In interview T2 described a particularly good student she had had:

‘I mean he was an absolute joy to teach because I got such response from him. It was like a game of tennis, you know, back and forth. It wasn’t just him sitting waiting to be told how to do it’ (T2 Interview).

7.1.3 Influences affecting student talk

An examination of participants’ interview comments revealed that both teacher and student could have an influence on the quantity and quality of students’ verbal communication. Student personality was naturally an important factor. S2 was quiet, T2 described her as ‘an old-fashioned girl’, and it is possible that she preferred a non-confrontational ‘listen and absorb’ mode that accepted teacher opinions and views without question. Other students also seemed reluctant to change their behaviour from patterns adopted when they were younger, less experienced and less knowledgeable:

‘I think I’ve got into going into lessons as an empty vessel. I think it is a habit’ (S1 Interview).

Fixed ideas about what constitutes appropriate behaviour in particular situations can also influence behaviour. S2 saw the teacher/student relationship as having certain boundaries and talked in interview of ‘how you should be with teachers’. The fact that T2 was considerably older also affected how S2 related to her:

‘I think I’ve always got a tendency to look up to adults in a way, according to age in a way, partly because I was always brought up to call people Mrs so-and-so and Mr so-and-so’ (S2 Interview).

Although T2 preferred students to call her by her first name, S2 admitted that this was difficult for her:

‘I’m not used to calling adults by their first name...I avoid at all costs having to say anything’ (S2 Interview).

S2’s strong feelings would have caused her to be aware of and aim to control how she appeared to her teacher. ‘Impression management’ has been described as ‘the conscious or unconscious attempt to control images that are projected in real or imagined social interactions’ (Schenkler, 1980, p 6). Although this could, on occasions, be a kind of deception, for most people it is merely a case of choosing
which side of oneself to present. In interview S2 spoke of three concerns which suggested that impression management affected much of her behaviour: trying to get to criticisms before her teacher did, wanting her teacher to appreciate how much work she'd done, and tending to agree so that she did not look as if she was always disagreeing.

'I'd like her to think I'm efficient and I'm a nice person, so that I'd be someone that she'd want to teach. You know, someone who's easy to get on with' (S2 Interview).

Symbolic interaction theory (see Blumer 1969) emphasises that people have particular purposes or goals in mind when they interact and that they behave in ways they believe will lead to the achievement of those goals. S2's comment indicates that she selected her behaviour believing that it would achieve her purpose of being seen by her teacher as 'a nice person' and one whom she would want to teach. However, this fixed idea about the appropriate behaviour for piano lessons, and her conception of her role as student, restricted both how she behaved and how she conversed.

Lack of confidence in their knowledge and experience of the subject area could also restrict students' willingness to discuss, debate and argue.

'I always feel, she's had years more experience than me so... it's like... I don't want to sound daft' (S2 Interview).

T2 spoke about needing to encourage S2 to discuss matters more in the future. 'You know draw her out more and more'. Although she did not clarify exactly how she proposed to do this, one way would be to increase the opportunities for S2 to express her opinions, encouraging this through questioning her. Hargie et al. (1994, p 97) lists various functions of questions, many of which were observed being used in the studies. They include: to obtain information; to arouse interest and curiosity concerning a topic, 'What do you think?' (T1 Lesson 1 Study 1); to diagnose specific difficulties a student may have; to express an interest in the student, 'Are you doing essays or something at the moment?' (T1 Lesson 4 Study 1); to ascertain the attitudes, feelings and opinions of the student, 'Where do you want to actually start coming out tonally?' (T3 Lesson 1); to encourage maximum participation by the student, 'Have you got any thoughts about it?' (T1 Lesson 1 – study 1); to assess the extent of the student's knowledge; and to encourage critical thought and evaluation. 'It got a bit soft there. Are you happy about that?' (T2 lesson 1).
To investigate T2's use of questions, the sentences of lesson 2, study 2 were analysed. Those which fell into the categories of either: 'closed questions' (those which had a correct answer or could be answered by a short response); or 'open questions' (those which could be answered in a number of ways, often allowing the student to express opinions, attitudes, thoughts and feelings), were recorded. Rhetorical and leading questions were omitted as it was felt they did not encourage student thought and debate. Out of a total of nearly three hundred teacher sentences in lesson 2, T2 asked only 2 closed (e.g. 'Have you had a chance to warm up?') and 7 open questions (e.g. 'How have you been getting on with the Prokofiev?'). This was because T2's teaching style focussed on making comments about the performance, providing information and directions and giving advice. The effect on S2, not surprisingly, was that she usually responded with no more than a polite agreement ('yes', or 'ok'), uninvited information being offered on only a few occasions.

A comparison of the teachers use of questioning in lesson 2 of studies 1, 2 & 3, cataloguing questions as open or closed, revealed that T2 asked considerably fewer questions than the other teachers (see Table 1).

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<th>Table 1</th>
<th>A comparison of teacher questioning habits across lesson 2 of studies 1-3.</th>
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<td>T2 – Study 2</td>
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<td>T3 – Study 3</td>
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However research into teacher talk in the classroom has shown questioning to be more frequent than was seen in any of the piano lessons. Corey's (1940) early study found that, on average, classroom teachers asked questions every 72 seconds, Resnick's (1972) later study of infant school teachers found that 36% of all their remarks were questions, while the teachers in Dillon's (1982) research, asked an average of two questions per minute. It is important to note, however, that the situations are different, particularly in that some of the information for which questions are asked in the classroom is available in the piano lesson through listening to student performance. Although it has been suggested here that teachers might use questioning to encourage students to contribute more to lesson conversation, it can achieve almost the opposite
result. A significant aspect of questioning is that 'the respondent in many instances experiences stress when being asked questions' (Hargie et al. 1994, p 96). This is particularly the case in education when it is assumed that the questioner frequently already knows the answer. The students studied spoke of feeling that when their teachers asked a question a specific answer was being looked for. It was a problem that teachers were aware of:

'Perhaps he wasn't sure if he was saying the 'right' thing. Whereas I don't really care if they say the right thing or the wrong thing as long as they say something' (T1 Interview – study 1).

T3, on one occasion, emphasised to S3:

'I just want ideas. I don't care if they're good or bad ideas. I just want an idea' (T3 Lesson 1).

T2’s apparent reluctance to ask S2 questions may have been caused by her awareness of her student’s underlying nervousness and self-consciousness, her experience of S2’s difficulty in expressing herself or sharing her thoughts and ideas, and her realisation that it did not encourage her to 'volunteer more'.

The teacher’s approach and personality, or at least how this was viewed by the student, could also influence student behaviour. S1 described himself as being ‘slightly in awe’ of T1 (S1 Interview), and T2 felt that S2 was still ‘a little bit in awe of her’ (T2 Interview). However, teachers were aware that their behaviour might not always encourage student participation. T1 recognised that sometimes he could be 'loud or larger than life' (T1 Interview – study 1), and T3 admitted:

'I sometimes think I'm a bit overbearing for him... bit too dominant for him' (T3 Interview).

In the observed lessons, T3 appeared the most patient of the teachers, allowing her student considerable time to think about his answers and was very encouraging in her acceptance of any reply he made. However it is clear that despite this, S3’s behaviour had been shaped by one or two uncomfortable previous disagreements:

'I think I should listen to what [T3] says. In the past I’ve only disagreed one or two times about minor things but I’ve found that she hasn’t really liked it when I’ve said ‘oh I don’t think I want to do it like this’. It’s been dynamics and things, not anything major... she just said ‘well I think you should you know’ (S3 Interview).
T2 saw herself as having a tendency to be dogmatic, which on occasions appeared to overpower S2's confidence. In lesson 4, T2 thought the Gavotta should be played in a slower tempo. T2 asked S2 what picture she had in her mind when she played the piece:

T2-'Who do you think is dancing this? What sort of person or people or age group?'
S2-'I don’t know. I don’t really think about it like that. I think of it like'
T2-['interrupting] I think it would help if you did.’
S2-'No it’s more like, it's more like loads of little elves dancing about'
T2-‘How sweet! Well could we make it into people and just get this elegance?’ (Lesson 4).

S2 commented in interview that sometimes it made her ‘feel a little bit silly’ that she had not thought of the ‘right’ answer and admitted that she had found T2’s remark ‘quite patronising at the time’. It is possible that T2 was hoping to spark debate but unfortunately, in situations like this, S2 generally backed down and remained reluctant to express herself verbally.

Pratt (1992, p 210) categorised teaching styles into five broad bands. He described a style that delivered information only as ‘engineering’. In his ‘apprenticeship’ approach teachers ‘modelled ways of being’. They were the expert practitioners who handed down wisdom and knowledge to those who were not. The emphasis in the ‘developmental’ style, was on promoting particular forms of inquiry and thought about the content. ‘Nurturing’ conception was also learner centred, with importance being given to friendship, caring, emotional support and personal relationships. Finally, the ‘social reform’ approach, saw teaching as developing an ideal based on a particular set of beliefs. The method used by all three teachers could be best described as an ‘apprenticeship’ approach, in which the teacher is the expert practitioner who hands down wisdom and knowledge to the student who is not. T2 described her preferred lesson style as one which equated more to Pratt’s ‘developmental’ category. However, there is very little evidence that either participant was promoting this in this dyad.

Although there is little evidence to suggest that T2 invited student input through questioning or attempted to build her student’s confidence about discussing aspects of performance by considering or accepting her ideas, T2 did try to establish a suitable
atmosphere and relationship to promote communication. She was very encouraging about S2's performance efforts, and praised her frequently. T2 was also aware that her student was very serious and so attempted to lighten the atmosphere and encourage her not to take herself so seriously.

'I think with the communication between us, the fact [is] that I try to keep it relaxed. I mean it does get a bit intensive at times. I think one-to-one sessions can do and you've got at the end of the day to send them away with plenty they feel they want to get on with. You can't just sit there saying 'oh that was lovely' and telling them jokes and so there has to be this intensive learning process within the lesson, but to loosen it off with a few jokes, a bit of chat, and just hope that some of that will spin off onto her' (T2 Interview).

Although various contributing factors have been suggested here to explain S2's small verbal contribution to the interaction, S2 suggested in interview that although she found T2,

'quite talkative herself ... I never felt, however, that I couldn't say something' (S2 Interview).

S2's belief, in fact, was that there was no need for students to talk more, 'as responses to many questions asked by teachers can and should be musical' (S2 Interview).

'Too much talking from students could waste actual playing time and perhaps prevent the teacher from making valuable comments. Students need to talk only enough to show they feel at ease with their teacher and to ask and answer music-related questions' (S2 Interview).

Various factors, therefore, can affect student speaking, including participants' personalities, habits and opportunities. Furthermore, many students may not necessarily find it easy to talk about the subjects teachers desire, requiring as they do quite sophisticated verbal skills. However, one factor that appeared to have had a considerable influence on student behaviour was students' beliefs in what did or did not constitute appropriate lesson behaviour. Students, when interviewed, seemed unaware of two important factors; that they spoke as little as they did, and that more student input was not only acceptable but desirable. S2, on realising these two aspects planned to change her behaviour in the future:

'I think I'll try and speak more what I'm thinking... I think I'll try and make it more balanced, so that it is more of a discussion rather than just going along with everything' (S2 Interview).

She saw this change benefiting learning, in that more of her own ideas would then be contained in the final performance.
7.2 Non-verbal communication

Data presented so far have emphasised that students' verbal communication is limited. However, students do reveal much about themselves in lessons, as was indicated by the detailed way in which teachers spoke about topics such as their students' personalities and their musical problems. This next section will investigate the areas of information which students communicated about, and the non-verbal methods by which such messages were conveyed.

7.2.1 Musical ideas and difficulties

The most important non-verbal communication channel in the instrumental lessons was student performance, teachers organising their lessons so that it formed a large component. The average time spent in student playing amounted to 35% across lesson 3 of all five studies, and 39% of the five lessons of study 2 (see figures 1 & 2). Teachers found that by this method they were able to gain a considerable amount of information about many important concerns, including students' performance difficulties, level of understanding, acceptance/rejection of teacher suggestions, current ability and ideas on interpretation.

T2's aim during the lessons studied was to improve S2's performance of several pieces for an imminent recital. She therefore concentrated closely on her performance. S2's playing communicated information about her current ability, and led T2 to target matters in the performance of *Gavotta* such as: dynamics (lessons 1, 2, 3, 4, & 5), use of pedal (lesson 1 & 4), tempo (lesson 2 & 4), articulation (lesson 2 & 3), accents (lesson 2), control of speed (lesson 2, 4 & 5) rhythms (lesson 3 & 5), smudged notes (lesson 3), fingering (lesson 3), clarity (lesson 4 & 5), style (lesson 1 & 2 & 4), and slurs (lesson 3 & 5).

'Your left hand occasionally slurs in sympathy with your right hand where it shouldn't' (T2 Lesson 2).

Students often used their performance to put forward interpretational ideas in preference to discussing them verbally.

'I think that most of what you've got to say in a piano lesson comes in how you play it. I mean, if I've not played it there can't be anything for me to say either' (S2 Interview).
It is possible that they found demonstrating their musical ideas a more simple and direct method than verbal description. On one occasion S2 used performance to show that she disagreed with her teacher’s idea rather than discussing her view verbally. At bar 48, T2 suggested during both lesson 4 & 5 that S2 might ‘ease into’ the recapitulation of the first subject. (See figure 4). S2 disagreed with this idea but was reluctant to discuss it, preferring instead to declare her choice musically:

‘I thought she’d gather that, if I just kept doing it my way’ (S2 Interview).

However, information concerning students’ understanding and acceptance of ideas, obtained through the performance alone is limited. If a particular interpretational feature, suggested in the lesson, was not incorporated into the performance the following week, it would be impossible for the teacher to learn, merely through listening to the student’s performance, whether this was through lack of ability, lapse of memory or dissent. Similarly if a student was playing a passage incorrectly, the performance alone would not always clarify whether this was through misunderstanding or lack of ability.

‘He would understand where some of [my problems] are but not all of them’ (S1 Interview).

S1 wondered whether his teacher appreciated that he was finding the piece of Bartók he was studying very challenging:

‘I’m not sure if he did understand that I was very annoyed with myself because I could not play it at all... I can’t decide whether it was because he was pushing me and getting me to do it and everything like that, or if it was because he didn’t know how I felt’ (S1 Interview).
7.2.2 Revealing the person

Students communicate much about themselves, often unintentionally, through non-verbal methods, and understanding the person is important to teachers in the one-to-one lesson where there are opportunities to individualise both method and content in an attempt to maximise the learning potential. Prosodic aspects such as tone of voice, speed and volume, eye contact and gaze, facial expression and posture and gesture will all reveal useful facets of the student's personality, mood, feelings and reactions.

S2 spoke generally with a tense tone, a slightly raised pitch and quick speed. Scherer (1974) investigating how various paralinguistic features were understood, found that a high pitched voice tended to convey activity, anger, fear or surprise. T2 identified the tone of S2's voice as showing 'some self-consciousness' (T2 Interview). S2 laughed a great deal throughout all recorded lessons and while watching the videos she remarked; 'I think I giggle too much. It's very annoying after a while.' This habit communicated to her teacher that she was nervous and/or embarrassed. On occasions S2 would laugh as she made a suggestion. For a student who had strong feelings about not appearing rude this possibly served to soften the tone and make her sound less confrontational.

During one-to-one interaction, participants will generally look at each other frequently. It is a way of observing visual signals about the other, such as the gazer's feelings, relative status, credibility and attentiveness and it allows the communicator to estimate how his/her messages are being received (Argyle 1967). The duration of S2's gazings were brief. During just one minute of general discussion about a piece of music in lesson 1, when S2 turned her head towards her teacher as many as seventeen times, the duration of any individual gaze seldom lasted longer than a second. During the first thirty minutes of lesson 3, S2 spent only a total of 55 seconds (3% of the time) looking at her teacher. This is radically less than participants of the dyads researched by Argyle and Ingham (1972) who spent 61% of their time gazing at the other with each gaze lasting about three seconds.

However, several characteristics specific to the piano lesson affect gaze patterning. First, gazing is restricted by the frequent need to focus on the score being discussed.
'When she talks I don’t look at her that much because I’m looking at what she’s saying about the music' (S5 Interview).

Furthermore, throughout most of the lesson, students sit directly facing the piano, which necessitates a turn of up to ninety-degrees to look at a teacher who sits to the side of the student, as T2 and T3 were, and as T1 was in study 1.

'Sometimes she goes on to a more general thing and I’ll look at her more... sometimes I’ll sit differently, I’ll actually turn myself on the seat' (S5 Interview).

Therefore although gazing is easy for the teacher who is often facing both piano and student, it requires deliberate action for the student to face the teacher. S2 agreed that she had to make a specific effort to look directly at her teacher and remarked:

'... then you have to turn away again and it could look rude so I just don’t look in the first place' (S2 Interview).

Student and teacher, for the convenience of seeing the score and keyboard, often sit closer to each other than they might choose in other circumstances, given the nature of their relationship. Using Hall’s terminology (1966, pp 119-124) this was the participants’ ‘personal zone’. Students could find that this closeness made eye contact more difficult. (See chapter 2 referring to Argyle & Dean 1965 - ‘intimacy-equilibrium theory’).

'I think I sometimes find it hard to keep [T3’s] gaze. I think she’s more intense than my previous teacher was.... I make myself do it though. I don’t think it’s instinctive. It’s instinctive to look straight away really... I think it would look rude if I didn’t [look at her]. It would [look rude] if I just looked straight ahead all the time' (S3 Interview).

Finally, eye contact is restricted in the piano lesson because much of the lesson is spent in student performance when the student will of necessity be looking at either the music or his/her hands.

Abele (1986) suggested that in general people look more as they listen than as they speak. However, little difference could be found in S2’s gaze patterning. Measurements taken during the first thirty minutes of lesson 3 found that S2 looked at T2 for 29 seconds in total while she was listening and 26 seconds while she spoke. The gazes while she listened were significantly more frequent but briefer than when she spoke, generally less than half a second. Neither did S2’s gazing appear to be related to turn taking (looking at the listener at the close of speaking to signal the
other’s turn to speak). It is possible that normal social interactive behaviour was affected because S2 was not relaxed in the lesson.

Considering the intensity of mutual gazing it is not surprising that S2 spent less time looking at her teacher when her teacher was looking at her. S2 appeared to be shy of eye contact and dropped her eyes away most times when her teacher turned and caught her gaze. T2 appreciated that these movements showed S2’s self-consciousness and suggested that it revealed that she was ‘not used to dealing with adults on equal terms’ (T2 Interview). Looking towards her teacher was not natural or automatic for S2, her awkwardness being reflected in the frequent turnings, the absence of normal patterns of interaction and the brevity of gaze duration. S2 was conscious of this and while watching the video-recordings of the lessons she remarked:

‘You probably notice in these that I don’t often look at her. I look at the music or the piano, round about’ (S2 Interview).

Because of the infrequency and brevity of S2’s gazing, it is unlikely that she communicated much through her looks specifically, though her gaze patterning undoubtedly communicated to T2 personal feelings and characteristics such as her awkwardness.

S2 communicated various matters by her expressions, although often unaware of them. She did admit, however, to pulling faces if she made a mistake so that her teacher would realise that she knew that it was an error. T2 recognised that S2 hated making mistakes. Even if she did not stop playing, her face would register that she was annoyed and dissatisfied. In lesson 5, however, when her recital was in the past, S2’s reaction changed and signalled that she was more relaxed. A mistake in that lesson resulted in a surprised expression and a self-conscious smile.

S2 felt that her expressions communicated her feelings about whether passages were difficult, whether or not she liked a piece, or whether she was pleased with her performance. She also felt that her teacher could probably tell from her face when she didn’t know answers to questions and when she was relaxed or stressed. T2 was aware of and reacted to many of S2’s changes of expression. For example, when S2
sat back and adopted an expression after her performance of a Brahms piece, T2 asked: ‘What is that face for?’ (T2 Lesson 3).

S2’s posture appeared to communicate both attentiveness and tension. Her basic non-playing position was generally quite upright, her back becoming slightly less straight as the lesson continued and she appeared to relax more. Her hands, though sometimes left to rest on the keyboard edge, were most often in her lap, either one on the other, or clasped. When she turned to face T2 she moved her head from the neck only, keeping her shoulders very still and her upper arms held close into her body. Some tension was also visible when she played, when she had a tendency to hold her wrists high and the left-hand fifth finger crooked.

Mehrabian (1972) recognised that the adoption of a certain position could indicate how individuals viewed their relative status within a dyad. The higher status participant would tend to be more relaxed and have an open posture with legs positioned asymmetrically, while the lower status participant would tend to adopt a stiffer, more upright and closed posture with their arms close to the body and their feet together. On this basis, S2’s posture reaffirms earlier suggestions about her feelings of the relative status within the dyad.

People use body movements to accompany language and sometimes independently of language. Ekman and Friesen (1972) categorised four body movements: emblems, illustrators, regulators and adaptors. Although emblems (actions that go in the place of a word or words) were not used by S2, ‘illustrators’ (movements which accompany and usually augment speech) were.

‘I need to work out where the.... where the longer phrases are, [makes the shape of arc to denote phrase mark with arm]’ (S2 Lesson 1).

Several of her speech accompanying movements did not clarify what she was saying so much as signal how she was feeling. These movements included waving her hands in a flustered fashion when putting forward an idea; and clasping her hands together and either lifting them in to her or pushing them palms away, with shoulders raised and her head on one side. When S2 was more animated she placed them palms together in a ‘prayer’ position, under her chin. In lesson 2, S2 adopted this position while putting forward an idea of her own. It emphasised her tentative approach:
'I don't know. I think maybe I've seen it differently. Thought of it differently' (S2 Lesson 2).

S2 adopted a startled response, lifting her hands above the keys and freezing, to communicate her feelings about T2's interruption of her playing.

'I think once you've been broken off for making one mistake, even then when you carry on you are more likely to make more, because you are paranoid you think 'oh I'm going to be stopped any minute now' and you can't get into the music' (S2 Interview).

T2 reacted by apologising for this in lesson 3 and when it occurred again in the same lesson, mimicked her movement and laughed.

'Sorry, I don't mean to keep making you jump' (T2 Lesson 3).

However, although T2 registered how S2 felt about being interrupted, she continued to teach in this way. Therefore, although S2's protest was noted within the interaction, it did not affect T2's lesson behaviour and future interaction.

'Adaptors' have been described as 'movements first learned as part of an effort to satisfy self needs.... or to manage and cope with emotions' (Ekman et al 1972, p 361). They are never used deliberately to send information, but as they can be triggered by some situational discomfort or anxiety, they can in this way signal the owner's feelings. S2 displayed several 'adaptors'; pushing her glasses up, always with her left hand; and adjusting her hair by flicking it behind her back, smoothing the top or pushing stray strands behind her ears. In lesson 2, S2 touched her glasses 29 times during the one hour lesson, her hair 21 times and pushed her sleeves up 11 times. Although there was a possibility that some of these actions served a practical function, they could also have been the result of a nervous habit or have been performed as a form of reassurance. Touching hair and glasses often followed each other in a continuous movement and frequently preceded playing. When these actions were not a preparation for performance they suggested self-consciousness. There was a distinct difference between the level of tension in lessons 4 and 5. Lesson 4 was the last lesson before the yearly recital and S2 admitted to feeling terrified. During this lesson she adjusted her glasses 24 times and her hair 34 times. In contrast, during the lesson which followed the recital, S2 touched her glasses 17 times and her hair 11 times. Although not deliberately intended to do so, it is very likely that S2's feelings of nervousness and awkwardness were conveyed to T2 by these actions.
S2 generally swayed to the music as she performed, an action that T2 attempted to discourage as she felt that it went against the movement of the music. However, T2 would have been able to note when S2 was having difficulties with a passage because at those times her movement would diminish or disappear for the duration of the problem bars.

At the end of a performance, S2 often showed her feelings about her playing by her reactions. In lesson 3, when she finished playing one piece she moved back in her seat, put both hands up to her face, almost hiding behind her hands momentarily and pulled some hair across her face. Her movements suggested that she was feeling embarrassed and wanted to hide. In fact, S2's postures and gestures predominantly communicated how she felt, suggesting variously self-consciousness, coyness, awkwardness and lack of confidence.

It has been noted previously that performance can reveal facets such as a student's ability and ideas. Performance can offer information about the student's general feelings and emotional state:

'Your playing sounded a wee bit tense today. Have you been very, very busy or rushing about?' (T2 Lesson 3).

Or it can reveal how students feel about the music under study:

'I think he listens to my playing very closely and he can tell if I like pieces usually as well' (S1 Interview).

Students' non-verbal communication has the potential, therefore, to reveal aspects about their personality and how they feel both generally or about the work in particular. Although teachers' reactions to these factors may be on a subconscious level, evidence from study 2 confirms that T2 was affected by non-verbal communication from S2. She remarked about her student's frowns on making a mistake in her performance, commented on her tension and apologised when she interrupted her. There were also instances of interactional synchrony when T2 unconsciously mirrored her student's posture or movement. This is generally understood to be a specific sign that the imitator is in sympathy with the other. During lesson 1, T2 followed S2's movements on at least three occasions, when she
pulled her jumper sleeves up, when she clasped and raised her hands and when she denoted a phrase shape by an arm movement. At the end of lesson 3, T2 mirrored S2's clasped hands in her lap and even copied a little bounce off the seat. In general, therefore, T2 identified her student's problems, clarified misunderstanding and reassured her when necessary:

'She was certainly helpful and listened to my concerns and fears regarding recitals' (S2 Interview).

7.3 Summary and Discussion

This chapter has supported previous research in its findings that students' verbal communication in lessons is minimal. Several reasons for this have been suggested. Students had fixed ideas about what behaviour was appropriate for a piano lesson, which had often changed little since their early lessons when younger, less experienced and less knowledgeable. Students were also anxious to be liked and not to appear rude or ignorant, and they felt that actions such as interrupting or disagreeing might not achieve this.

Teachers spoke about wanting their students to talk more. However, apart from promoting a relaxed atmosphere, they did little to positively encourage their students to communicate by direct methods such as asking them for their opinions. All the lessons observed were asymmetrical and teacher dominated. Though it was the personalities, goals and aims of both participants which influenced this style. In study 2, T2 presented herself as a strong, at times dogmatic person. She was experienced, knowledgeable, confident, organised and efficient. In contrast, in the lesson, S2 was quiet, self-conscious, awkward and easily embarrassed. T2 adopted a style of lesson interaction where the teacher talk amounted to half the lesson, questions were seldom asked and some of her student's few verbalised ideas rejected. However, if T2 controlled the lesson S2 allowed and almost invited her to do so by her behaviour.

Some of the students studied were surprised to realise, when watching the videos of their lessons, that their verbal input was quite so small or that their teachers would have preferred them to argue and discuss more. S2, in particular, felt that it was unnecessary for her to talk when she could put forward all her ideas in her playing. However, she might also have felt that this was a safer method as it would not so
obviously lead to discussion, argument or disagreement, which she had limited confidence in. There is no doubt that although students’ verbal communication was limited both in quantity and quality, they did provide a considerable amount of information about matters such as their performance problems, their feelings, reactions, and ideas, through their playing, their movements and expressions.

So do students communicate enough about matters that might benefit learning, teaching and lesson interaction? On one level, it would be possible to teach and learn an instrument with no verbal communication between participants, merely by using gesture, demonstration and student performance. T3 had had such an experience:

'I taught some Italian students, who didn’t speak a word of English and I don’t speak a word of Italian, in the courses we did in Italy and it was very interesting.... how much they’d understood' (T3 Interview).

However, the proposition here is that greater verbal interaction about certain matters would lead to various benefits and few drawbacks. It could offer teachers improved feedback on their teaching. It could encourage and develop student thinking and increase students’ confidence in decision making. It could lead to a less asymmetrical dyad where students could feel that their input was needed and valued. And finally, as was suggested by T2, it could make interaction more interesting and enjoyable for its participants.
Chapter 8

Influences on teaching
'It was such a feeling of pleasure to hear such beautiful sound
and yet at the same time panic because I knew that it was a long process
just to get that basic sound quality'

Few instrumental teachers have received specific instruction on how to teach, as T2 commented: ‘we had to find out for ourselves’. Only since the mid-1990s have courses been designed to advise instrumental teachers on ‘method’, traditional qualifications focussing rather on candidates’ abilities to demonstrate performance competence and their knowledge of repertoire and instrumental technique. What therefore, might influence the development of the method used by the many ‘untrained’, though very successful teachers?

The teachers observed in the short studies had come from different backgrounds; one had been brought up in Africa, two in Britain. Their training had varied; two had studied the piano at music colleges, one at university. Their current experience and involvement in playing differed; two saw themselves as performers foremost and teachers second, one now saw the emphasis the other way round. Many other facets differed too, including their preference for and consequent knowledge of different composers and styles, and their ages and teaching experience. (See chapter 4 for a full discussion of the participants). These influences and many more will have helped to mould beliefs and attitudes which have a big effect on the content and style of their current teaching.
However, it is impossible to predict how an event might affect an individual, or generalise or theorise about influences. Therefore this chapter will focus mainly on an example of how various experiences played a part in the development of one teacher's method. T3's teaching style differed from that of the other two teachers in two main respects; the manner in which she put over her ideas, which included extensive use of piano demonstration, and the emphasis that she placed on the importance of good piano technique. To explore why this might have been, study 3, in which T3 taught S3 was chosen as a particular focus for the investigation which sought to answer the question: What influences might a teacher's previous personal experiences have on the content and method of his/her teaching? However, before T3's teaching is analysed, the next section will discuss some general aspects about possible influences.

8.1 The influences

8.1.1 Teaching as taught

It is not surprising that teachers are influenced by their own experiences as students. Mills and Smith's (2003) study into effective instrumental teaching found that as many as 94% of the teachers asked felt that they had been influenced, either positively or negatively, by the teaching they themselves had received. And in this study T1, T2 and T3 were also able to pinpoint specific aspects that they had borrowed from their own teachers. However, elements were adopted only if teachers had found them useful for their learning or playing when students themselves.

Aspects borrowed could concern the organisation of what was taught. T2 spoke of her second teacher ticking off scales on a chart for pupils she was entering for exams:

'I always think of her when I make my scale charts, and I think yes, I know who taught me that!' (T2 Interview).

Or they might influence the style of teaching. T2 appreciated her college professor's way of defusing her seriousness in lessons:

'I can remember embarking on one tricky little study and he said 'Come on old dear, and as many right notes as possible!' It was this wonderful way he had of just breaking the ice and stopping you getting all intense about things. I tend to sort of echo that a bit' (T2 Interview).

Recognising a similar seriousness in her own student's approach in lesson 3 of study 2, T2 suggested 'Don't mind wrong notes' as S2 prepared to play.
T1 had been taught by T3 for a ten-month period eight years before, and was aware of adopting one of T3’s teaching ideas. When T3 explained something to T1 she would become frustrated if he merely said that he understood her point without showing her that he could perform it and T1 said that T3’s words ‘I want you to actually do it’ came back to him when he taught his own students.

What teachers learnt in their lessons could also influence the content of what they taught. T2 recognised two particular aspects of performance, learnt from her college professor, which she now passed on to her students. He had introduced her to the possibilities of using different tone colours in her playing. In lesson 4, of study 2, while teaching S2 Prokofiev’s *Gavotta*, T2 suggested that her student put the ‘una corda’ pedal down at one point ‘just to get a change of colour’. Second, he had instructed her to appreciate the scope of a phrase and think big.

‘I’m sure I’ve said it to [S2], “imagine you’re a great big bloke playing this!”’

(T2 Interview).

Teachers could also be influenced how not to teach by their experiences. T3 spoke of a teacher who was very detailed about interpretation, which she described as being like ‘putting on makeup’ and ‘as dry as dust’.

‘Every single note had a little hairpin on it or a little link, so expressively you were told exactly where to inflect. I found it nit-picking and I also found it very irritating that my singing soul was being stopped. I think that if you teach more from the inside you encourage them to sing and then they find that their singing soul is there’ (T3 Interview).

And T2 felt that she taught ‘how to tackle problems’, because this had been lacking in the instruction that she had received.

This study therefore, supports Mills & Smith who dispute the myth that teachers teach simply as they were taught:

‘Teachers appear to analyse the strengths and weaknesses of their various teachers and create their own teaching method that also draws heavily on other influences’ (Mills & Smith 2003, p 22).

Although teachers had often been the students of several teachers themselves, opportunities for seeing others teach were often limited. Surprisingly, the largest
'other influence' to which teachers in Mills and Smith's study pointed was 'other teachers' (36%). However only T2, in this study, spoke of this influence:

'I remember watching Paul Tortelier doing a master class and it was such fun apart from anything else and he could put over exactly what he wanted by using a kind of parallel from the natural world or from art or whatever. It just seems to work so well' (T2 Interview).

8.1.2 Teaching from experience

Instrumental teachers teach a skill that they themselves have spent many years mastering, the path to which has often involved considerable personal questioning, experimentation and research. It is not surprising therefore, that much of teaching content is influenced by teachers' own playing. Munby and Russell (1995), when talking about teachers' "authority of experience", indicated that "experience cannot be taught, it must be had" (p 175). T1, T2 and T3 spoke often about passing on what they had discovered, and in Mills & Smith's study, 'own music making' was the second highest area of other influence (32%).

T1 talked of three features in his own playing which he passed onto his students. First he recommended that the character of a piece should be decided before the detail was worked on (see chapter 10). Second, T1 enjoyed playing modern music and he felt that his experience of playing Morton Feldman's compositions, which are often extremely quiet, helped him understand what it was to play a note just enough so that it projected. Third, T1 saw one of his strengths as a performer as being his ability to bring out the atmosphere of a piece. In lesson 2, T1 suggests:

'Let's get used to playing it with the rhythm and the energy that it needs and then you can always improve the notes' (T1 Lesson 2).

Similarly, T2's own problems provided her with a solution for S2 when she was unable to maintain a steady tempo:

'I'm very much aware of it, because I used to do it... and I use the metronome and I recommend to them they used the metronome' (T2 Interview).

Ensuring that a teacher continued to experience aspects of learning and playing was of paramount importance to T3:

'If I'm not practising very much I feel guilty going in teaching, because I feel how can I bring something to these pupils if I haven't done my own research? If I'm not full of imagination, full of ideas for myself, how can I give them
ideas? How can I just repeat things that I know are true... if I haven’t tried and tested them? I like it all to be original from me. I can’t just convey a fact’ (T3 Interview).

She remarked that to her the phrase ‘Those who can’t – teach’ was totally inappropriate, and rather ‘scary’. Teachers who were basically performers who taught had much more to offer their students, she felt, than people who were teachers only. ‘Research’, she emphasised, was particularly important when teaching at a higher level.

‘You’ve got to be telling them something original and preferably not something that they would read in books... otherwise you’re boring... You stop understanding their problems because you’re not putting any problems in your own way’ (T3 Interview).

8.1.3 Experiences outside education

Beyond these two basic influences, various other experiences could give teachers ideas. T3 described how the effect of hearing her first live concert showed her the value of demonstration in teaching.

‘I was brought up in Africa, I’d never heard a real live professional orchestra. I went into the Albert Hall, and I remember it was just like... my mouth dropped open and I couldn’t believe it because I’d heard records, but I couldn’t believe that such a thing existed’ (T3 Interview).

From this she decided that appreciating that ‘something else does exist is one of the first things of learning’. The influence of concerts was highlighted by 10% of Mills & Smith’s teachers.

Books had also affected the way teachers taught. In Mills & Smith’s study 10% recognised the contribution of books, and T2 and T3 both talked about books they had read. These might relate to musical aspects. T2 referred to books about composers and T3 spoke of the influence of The Inner Game of Music (Green & Gallwey 1987). Books about other subjects too - T3 had also read about tennis skills - could stimulate ideas about piano teaching. However, beyond these more obvious influences almost anything might spark an idea. Areas of influence are unpredictable and very individual. As we will see in the next section, when T3’s teaching of technique will be analysed and possible influences explored, even watching a film about chimpanzees has the potential to inspire.
8.2 Specific influences on T3’s teaching of technique

8.2.1 Content

How the body is used in playing was very important to T3. She had talked to S3 about technique since his first lesson with her, as she had, she admitted, with all her students. Although all three teachers spoke about instrumental technique in their teaching, T3 raised considerably more points while teaching Debussy’s *Ondine* than T1 or T2 did teaching their study pieces. (See figure 1 below; and chapter 10, figure 1). Although both the student and the piece of music will have an effect on what is taught, as will be discussed in chapter 10, the notable difference shown here, and comments made, suggest that a teacher’s beliefs and values also have an influence on what is selected for discussion.

![Figure 1](image)

**The emphasis given by the three teachers to technique while teaching the study pieces**

T3’s teaching on technique involved three inter-linked principles. The first of these emphasised that a good sound was of paramount importance in playing:

‘I realised that all these fast notes and things were nothing to just getting basically a good sound and almost everything comes out of a good sound... when you’re really open and clear and you’ve got clarity, what is inside you is really coming out’ (T3 Interview).

In much of her teaching she directed her student’s attention to the variations and particular qualities of sound required at different times. In her teaching of *Ondine* she suggested:

‘With Debussy, I think it’s so important to have complete and utter clarity, because he’s so light, everything has to sound and everything has to sparkle’ (T3 lesson 1).
However, T3's fundamental target was to improve S3's whole basic sound. She recognised that for S3 this was a weak area because of his inability to 'really get into the key' (T3 Interview).

Examination of the event that changed T3's attitude to performance and consequently her teaching, highlights the unpredictability and individuality of any influence. T3 had spent her early years in Zimbabwe, coming to England at the age of seventeen to study piano at one of the London music colleges. Living in Africa had meant that opportunities to have close contact with professional musicians were very restricted. On her first day at the college her new piano teacher had walked into the room where the new students were standing around self-consciously, and jokingly had played the first four chords of 'God Save the Queen'.

'I remember the sound, the sheer sound of those four chords. And it was such a feeling of pleasure to hear such beautiful sound and yet at the same time panic because I knew that it was a long process just to get that basic sound quality' (T3 Interview).

This event had not been presented specifically as an example of playing or teaching and it quite probably had not similarly affected other students present. Yet from this brief aural experience T3 decided that playing fast was of less importance than achieving a good sound, and began to work towards achieving such a sound in her own playing. Mills and Smith (2003 p 22) noted the value of a 'peak experience' such as this on teaching. They found that, although the strengths their teachers noted about the teaching they had received did not match up with the hallmarks of good teaching they listed, 'peak experiences' often did.

The second principle of T3's teaching was that a state of balance and freedom from any unnecessary tension was essential to achieve the required good sound. In this respect her advice was similar to that of the teachers who applied the teaching of Matthias Alexander (1869-1955) to piano playing. (See Ben-Or 1978; 1988; Taylor 1979; Grindea 1999).

T3 had, herself, recently undertaken two years of fortnightly lessons in Alexander Technique. Alexander, born in the mid-19th century, had developed voice problems as an actor in Australia. The detailed analysis he made of how he used his body, together
with the discovery of the benefits of better use, led him to develop and teach his theories (see Barlow 1990, Stevens 1987).

'I just think that Alexander Technique is just, it's a sort of thing for the future because it's very much mind body co-ordination, it's very much a twilight-zone' (T3 Interview).

T3 also acknowledged that, although her college teacher had not specifically learnt Alexander Technique himself, his approach to playing was very similar, and had had a strong early influence on her.

There are many similarities between T3's teaching and the Alexander Technique. Barlow defined the Alexander Principle simply as "use affects functioning" (Barlow 1990, p 17). Using the body wrongly, such as tensing muscles unnecessarily, will affect how efficient it is at its chosen task. T3 recommended that no more effort than was absolutely necessary should be used when playing.

'The keys almost do it for you as they push you back as you play' (T3 Lesson 3).

In Ondine bar 8 (see figure 2) she recommended that her student's movement while playing should be as effortless as:

'running your hands through water. Just trailing your hand and let the water slip off it' (T3 lesson 5).

**Figure 2**

**Bar 8**

Although all three teachers spoke about relaxed arms and wrists at times, T3's advice involved the whole body. She was the only one who spoke about students' sitting position.

'Just sit in the middle and don't wobble. Keep your balance, yes...and you can move your arm and you don't actually have to contract your stomach in moving your arm' (T3 Lesson 1).
T3’s advice about position was not dogmatic however, but rather reflected Alexander Technique principles.

‘I think it’s quite dangerous to be changing people’s posture. You’ve just got to make them aware of balance and things’ (Interview T3).

However, although T3’s advice had strong similarities to Alexander principles, she taught as one passing on her experiences as a student of the technique rather than as one of its teachers. For example, although she believed that the balance of the whole body was important, during the six hours of video-recorded lessons she only referred to her student’s sitting position on three occasions and did not correct technical problems by talking about the position of S3’s back first. In lesson 2, when T3 recognised some improvement after asking her student to play with a book balanced on his head, she admitted that perhaps she should have drawn his attention to his basic posture before talking about his arms. In contrast, Grindea (1999), a teacher of both piano and Alexander Technique, recommends that the student should find a state of balance both standing and sitting before beginning to play (p 19).

The third principle of T3’s teaching was that ‘self-awareness’ was at the root of good body use:

‘Attention on your body is a very, very, very important part of technique’ (T3 lesson 4).

And T3 was the only teacher who, on occasions, improvised exercises away from the piano with the aim of helping her student to become more aware of and more able to release tension.

In lesson 1, she introduced an exercise that required the teacher and student to face each other with eyes closed and hands touching. They then took it in turns to move their hands in the air while the other’s hands, still touching, followed their movements. And in lesson 4, she asked her student to focus on various parts of his body, such as the little toe on his left foot and his right elbow.

‘There’s a different sensation in that finger when you actually put awareness on it and you focus on it’ (T3 lesson 4).

T3 acknowledged the influence of her own Alexander Technique lessons in the use of these exercises. The teaching of Alexander can also be seen in T3’s recommendation...
that S3 should focus on the 'means' rather than the end. Talking to him about an ascending scale passage, she instructed:

'Don't end-gain. Don't feel you have to get up there sooner than you can. Enjoy getting up there' (T3 Lesson 6).

Many of T3's remarks also revealed how her own awareness and enjoyment of the physical act of playing had influenced her recommendations to S3. During lesson 2 T3 spoke to S3 about a book of exercises by Josef Gat and demonstrated a circle action that, she said, encouraged freedom from the elbow.

'When I do that actually, I feel that I don't feel quite loose just here, and I'm sure if I could do a perfectly loose circle, I'd have much more freedom when I was playing' (T3 lesson 2).

She suggested that S3 should 'enjoy the feeling of [the] fingertips resting on the keys' (T3 lesson), 'the stretch' and 'encompassing large areas' (T3 Lesson 1).

'I can feel the shape of that next chord under my hand and I like the shape. I enjoy that shape' (T3 Lesson 2).

T3 acknowledged that she had received little instruction about technique before arriving at college:

'My [earlier] teacher even used to say, 'everyone works out his or her own salvation technically and you don't interfere too much' (T3 Interview).

Her theory that quality of sound was of fundamental importance in performance, that this could only be achieved by releasing tension made possible when the body was in a state of balance, and that being aware of body use was necessary to achieve this, was developed from her time at college. Her professor there had inadvertently provided a 'peak experience' that had re-focused her beliefs, and his teaching and her work there had influenced the development of her ideas. This had continued through her life and was affected considerably by the more recent Alexander lessons.

8.2.2 Teaching method

T3's teaching style was individualised by three characteristics: her enthusiastic use of piano demonstration, of analogy, and her 'hands on' approach. In this section, the influences which led her to develop these teaching methods, will be considered.

*Demonstrating on the piano*

T3 used piano demonstration considerably more than the other two teachers studied
(see figure 3 below, and chapter 7, figure 2). In fact there were very few times during T3’s instruction when demonstration was not involved in the communication of her ideas, many times being used specifically to highlight an aspect of technique.

Figure 3

Teachers’ use of piano demonstration in lesson 3 of each of the five studies.

In contrast, T1 said that if a student asked him to play a piece he would refuse:

‘The joy of it for me, is the freedom that I have and I don’t want them to copy, I want them to get used to exploring things’ (T1 Interview).

He did, however, admit that at times it was useful to see someone’s hands playing the piano, ‘just because you see their sense of relaxation’.

Although T2 admitted that ‘a ten-second demonstration [was] worth about ten sentences of prattle’ (T2 Interview) she used it the least of the teachers. Her reasons, however, were not idealistic like T1’s but appeared to be related more to not wanting to appear incompetent.

‘Partly because my fingers are a bit stiff, especially if it’s a bit cold in the teaching room! Very, very occasionally if it’s a piece that I know very well I will play them some of it...If they’re being all hemmed in about something, I’ll sit down and hack it a bit and I’ll say; “Ok, that was messy but that’s the feeling I want you to get”’ (T2 Interview).

T3 demonstrated from as little as the movement needed to strike a single note to as much as the performance of a page of the music. Although on a few occasions T3 asked her student to stand while she sat on the stool to play, most of her
demonstrations were performed either on the higher notes of the keyboard or at the written pitch which involved leaning across directly in front of her student. S3 admitted that though he had found this 'slightly surprising' at the beginning he had become used to it. The recordings show him leaning back slightly as his teacher stretches across him. His movement appears to be simply to allow his teacher space, and to be the result of consideration rather than embarrassment.

In common with most teachers, T3 used words alongside demonstration and S3 felt that demonstration without explanation was not as good as the two together. Although on occasions the demonstration clarified a point made verbally, much of the time it preceded words. By playing the passage first, she appeared more able to find the words to describe the feeling she was experiencing.

'It's sort of [T3 plays bar 3 of Ondine], it's a water nymph isn't it' (T3 Lesson 1).

At other times, T3 used demonstration in place of words.

'And then it goes [demonstrates bar 7] because they're finishing upwards now. And then again [demonstrates bar 8] a feeling of sort of [demonstrates bars 8-9 twice] and it disappears again [demonstrates bars 9-10]' (T3 lesson 1).

In these respects, T3’s use of demonstration served similar purposes to T1’s use of gesture (see chapter 9).

As a means of communicating ideas, the use of demonstration offers several advantages. Where words appeal primarily to the intellect, demonstration can add a visual and aural experience to the instruction. Playing can give examples of factors such as the shape of the hand, movement of the arm and the weight and energy being used. Thirdly, it offers the chance to hear the sound.

'I think that sort of impact, to realise that something else does exist is one of the first things of learning' (T3 Interview).

T3 believed that the use of demonstration avoided an over-analytical approach.

'There's a lot more you can do, if you leave yourself alone, and imitation stops you interfering and you find you can do things in spite of yourself' (T3 Interview).

She thought that the right action in piano playing, the right technique, would lead to the desired result, and that imitation was the best way to achieve this, and was 'very underestimated' (T3 Interview).
T3 recognised that her teacher at Music College had been a strong influence on her frequent use of demonstration.

'He used demonstration ad nauseum. And he wasn’t very good with his words either, and he couldn’t tell you anything without trying it himself. So his whole teaching method, which I think I must be modelling mine on, [pause] you tend to go where your teacher goes don’t you... And he did praise imitation' (T3 Interview).

However, she did not adopt this method merely because her teacher had used it, but because she had found it useful to her as a student. Her initial 'awakening' as to the possibilities of a good technique was experienced through a demonstration, and therefore it is not surprising that she valued this method for clarifying points.

T3 also saw demonstration as an efficient teaching method because 'it skips out intellectualism' (T3 Interview). She had read about a method of teaching tennis where the coach instructed the student not to analyse the movements he was making but merely to watch and copy. Furthermore, on a television programme, she had noted chimpanzees using a similar method to learn how to crack nuts.

'What I found so fascinating was that the little chimps just imitated the action with no result. And I think that’s a very important part of learning, that you don’t think of the results all the time, immediately, that you get the right action and eventually with the right action, you will get the result. But better to get the right action with the wrong result first than to go for the result immediately in the wrong kind of way' (T3 Interview).

She said that when she tried this in her teaching it nearly always had an immediate effect. In lesson 3, T3 asked S3 to play bar 54-55 of Ondine (see figure 4), but to watch her hands playing the same passage.

'So don’t pay attention to your hand, pay attention to my hand and do that. So 1, 2, 3. [Both play bars 54-55, the first of each slurred couplet]. Again. [They repeat]. Most times you absorb, you look at what’s being done and you take a picture image of what’s being done, the attention goes away from your hand and you change the way you do it by watching and that’s what I want you to do’ (T3 Lesson 3).

T3 had also gained inspiration from watching her son’s tennis lessons, during which his coach insisted that a player’s body language should be right first:

'You walk up confidently to the base line, you prepare yourself in the right way as if you know what you’re doing. Your ready position is so important, because as soon as you get into the right position then your mental side is much more alert, you know’ (T3 Interview).
Figure 4
Bars 54-60

Her own experience as a student, her teacher’s methods, tennis coaching and even the learning habits of chimpanzees had all paid a part in encouraging her to rely heavily on piano demonstration as a method for clarifying teaching points. However, her personal enjoyment of playing also had a great influence on her teaching. Movement and the basic physical sensation of playing had always held a particular pleasure for her. She described why, as a little girl, she had wanted to play the piano.

‘Just because the key went down like that! I just loved the whole thing of depressing a key’ (T3 Interview).

At times she appeared to find the keyboard hard to resist. Indeed, she admitted that playing was a very necessary part of her life:

‘If I don’t [play], I start to feel a bit... I lose my equilibrium’ (T3 Interview).

Using analogy

All three teachers used analogies frequently to express themselves. T2 felt that her inspiration had come from watching master classes:

‘I’ve noticed in some of the best master classes I’ve seen on television or live, the broad base that these great musicians give to their students. How willing they are to talk about the music and bring it alive and to also make analogies with art with nature’ (T2 Interview).

T1’s attempt to use analogy had been influenced by his previous teachers.

‘I think I’ve got terrible analogies, I think [T3] was a wonderful analogy person... My piano teacher before her also came out with lovely images, much
more creative than me. I always end up just thinking about a drum. It's pathetic!' (T1 Interview).

Analogy is used frequently to clarify verbally expressed ideas in all situations. A source analogue, something which can be perceived as visual, tactile or aural, is presented to define the target analogue, an unfamiliar situation or concept. Both source and target will have 'a systematic set of correspondences', based on similarities that relate the two (Holyoak & Thagard 1995, p 2). Within the musical world in particular, conductors, performers and teachers have been found to use analogy frequently to explain their ideas (see Maine 2002). S3 felt that they helped to get the message across faster.

T3 used analogy in the teaching of technique to target three main areas; posture (e.g. she compared sitting in a balanced fashion as 'just like a tree'); movement (e.g. she described the action used in playing a chromatic scale to looking 'just like a lovely bow arm') and sound ('the sound in your ear is almost like a bell').

Although the analogy sources selected appealed to the three senses, visual, aural and tactile, either individually or in multiples, those appealing to the visual sense were few. One example appeared in lesson 5, when, in attempting to improve her student's hand staccato, she compared the movement to a crocodile's jaws opening. In some instances a visual scene was presented to encourage a tactile reaction, in lesson 1 she spoke about the arm being filled with air with taps on the end of the fingers, or an aural reaction: 'It's definition isn't it? It's like a defined drawing' (T3 Lesson 1).

Not surprisingly, T3 used aural sources to clarify requirements of sound. In lesson 5 she compared the sound produced by a hand staccato to that of a drummer. Some analogies, though, appealed to both aural and tactile senses; T3 compared the striking of a note to getting 'the best sound out of a glass vibrating' (T3 Lesson 5). And some analogies could appeal to all three senses. For example, it would be hard to hear the phrase: 'You find that your fingers are just like a stick going through railings' (T3 Lesson 1) without visualising the railings, hearing the sound of the stick and feeling the vibration of the action.
Maine (2002) found that the teachers and conductors she studied used a large number of visual metaphors and presumed that 'visual perception takes precedence over all others, including aural' (p 38). In contrast, however, although the visual was attached to many of T3's analogies, the predominant focus of her sources was tactile. It might be used to define a feeling, such as playing with levity:

'That feeling when you push against a wall and you come away from the wall and your arm just goes up and you get that floating feeling' (T3 Lesson 5).

... or playing the fast notes of bar 8 in Ondine (see figure 2) as 'like running your hands through water on a boat'. One explanation for this could be that the physical element of playing appealed to T3, she spoke often of enjoying the feeling of playing and it is possible that she was more aware of the tactile world. It might also have been because she was anxious to encourage her student to be self-aware of how he was using his body, and this naturally centred on how things felt.

T3's non-musical analogies considerably outnumbered her musical ones, which related only to singers' breathing and string players' bowing action. Perhaps using imagery further away from the target throws the point of comparison into greater relief because of its separateness, or the non-musical analogies chosen were thought to be more familiar than any appropriate musical ones. S3 felt that analogies worked best for him if he could relate to the movement they were describing, and that perhaps the non-musical analogies were more effective.

Although there are benefits in analogies being chosen by a sensitive teacher to suit the individual (Hallam 1998, p 126), T3 appeared to choose an analogy which had meaning for her, rather than choosing a subject specifically from her male student's world. However most sources selected were successful in clarifying to him the movement or sound required.

T3 did not talk of her use of analogy as having been affected by any particular mentor. However, as teachers and musicians frequently grasp at analogy to better explain their ideas, this source cannot be ruled out. Her past experiences would, however, have influenced the subjects she chose for her analogies. Whatever outside influence may or may not have affected her fondness for the use of analogy, T3's beliefs and personality would also have encouraged their use. She had difficulty in finding words
to describe feelings, she had a very lively imagination and she had a belief that the senses were of great importance:

'I love that element of the senses being very, very important. I think sensory learning is not pushed enough, and I think that whole experience of learning from the outside in, from the body inwards, is so important' (T3 Interview).

A 'hands on' approach

Teachers are at times cautious about touching their students in case their actions are misconstrued or make the student feel awkward. This concern did not, however, appear to inhibit T3. She sat very close to her student, looking into his face often and S3 commented that he found it hard to keep her gaze. She was not reticent about touching her student or guiding his movements. Exercises that involved a high level of contact have already been mentioned. These were accepted and adjusted to by S3.

'For a split second I probably thought I could feel awkward here, but I'm not going to let it' (S3 Interview).

At times T3 would attempt to relax S3's shoulders by resting her hands on them, check the state of his wrist by lifting it and guide his arm in the movements necessary for hand staccato.

'I'm never really aware of it when I'm doing it. I just think, oh they need more balance in the arm. You find sometimes if you just hold somebody's arm there, the whole balance of the arm changes' (T3 Interview).

T3 admitted that her experience as an Alexander Technique student had affected her style of teaching. As a student she would have experienced her Alexander teacher putting his/her hands lightly on her shoulders or neck to bring awareness to that area and encourage the release of tension.

8.3 Summary and conclusion

This chapter has shown that teaching content and styles can be influenced by ideas from many sources. However, the advice teachers passed on to their students, and the manner in which they did this, were not selected merely because they were the accepted or 'correct way' of playing or of teaching, but because they seemed to work for them. People (teachers, colleagues, tennis coaches), events (master classes, Alexander Technique lessons, television programmes) as well as books, had been triggers which had sparked an initial interest. It was the teacher's personal experience
in either experimenting with these ideas or conducting their own research that had been the biggest influence on the content and style of the lessons observed.

8.3.1 Practical recommendations

In her teaching of technique T3 recommended that her students should 'imitate' her movements and become more 'aware' of their own. However, taking a broader view, these two words also describe how these three teachers 'self-trained' themselves for piano teaching. T3 referred to imitation as the best way of learning and all three spoke about how they imitated certain characteristics of their teacher's style. Unfortunately instrumental teachers have few opportunities to observe others teaching. Instrumental lessons are generally conducted behind closed doors, teaching practices are often run in isolation, and rarely does any supervisory body monitor lessons. Teachers do not have the benefit, therefore, of receiving objective feedback about their own teaching or of increasing their teaching repertoire by watching the lessons of others. Any onus for improving this situation in the private sector lies with individual teachers.

As the second key word for teacher training, 'awareness' is important in two areas. First, the teacher needs to be conscious of aspects of his/her on-going learning, which may be of value to a student, such as the way to overcome a problem, or the interpretation of a phrase. Second, the teacher should be sensitive to how his/her teaching is affecting the student. The benefits of 'awareness' while teaching were highlighted by comments made by T3 in interview.

'I thought the camera was actually very helpful in lots of ways, because I think with teaching, you can teach year in year out and not really think about what you're doing, always thinking about what the pupil's doing. And I think that sometimes, in front of a camera, then the emphasis becomes more on how you're teaching. Sometimes I think you can feel, you come to a brick wall with a pupil and you think, "what can I do with this pupil?", and if you just take the emphasis off the pupil and put it on the teacher, that will help — "How am I doing this?"' (T3 Interview).

Instrumental teaching courses are available today, which aim to advise on method rather than concentrating on instrumental knowledge alone (see chapter 2). These courses provide the opportunity for imitation and encourage self-awareness in that they allow students to observe others and be observed. Discussion groups then permit
students to assess and debate the success of both their own teaching and that of others as seen in those individual circumstances.

The three teachers discussed here, however, should be described as 'self-training' rather than 'self-trained'. Evidence showed that T3’s teaching was being influenced by events from her student days to the present. While the teachers continued to observe master classes, consider qualities within the teaching of other subjects, read books, watch television, pursue their own playing and ‘research’, their ideas will continue to grow, their repertoire increase and their teaching style develop. Attending training courses is an intensive way of gaining ideas and influences about teaching, but if a teacher is open to his/her surroundings, stimulus is available from many sources, and interaction within the lesson can be affected by many and various influences without.
Chapter 9

Use of positioning, posture, movement and gesture in teaching
The use of positioning, posture, movement and gesture in teaching

"I inevitably camp it up a bit"

Psychologists (see Argyle 1994) have suggested that non-verbal signals, such as gestures, posture and movements, provide a significant amount of communication. Analysis here will investigate how this relates to the piano lesson, where in the close proximity of the one-to-one, teachers' actions can have a big impact on students and interaction. It will consider to what extent a teacher's actions might be deliberate and will explore the possible aims behind teachers' use of various movements.

Positioning and gesture in the piano lesson is affected by several idiosyncrasies of the situation. First, students usually remain seated at the piano for most of the lesson facing the music. Chapter 7 has discussed what effect this might have on student communication, this chapter will consider if this also affects teacher behaviour. Second, teachers generally like to be able to see both the score and how their students play. This will further influence teacher positioning. Third, because of the subject of the communication in a piano lesson, teachers often demonstrate matters of technique and/or signal the beat. Teaching a musical instrument, therefore, might well encourage frequent use of gestures.
The specific investigation in this chapter will concentrate on how the use of gestures, postures, movements and positioning facilitates teaching and learning in the one-to-one piano lessons. Teacher 1 moved, gestured and posed more enthusiastically than the other two teachers. To enable further exploration of his style, study 4, in which T1 taught student 4 was selected as the particular focus for discussion in which two questions will be debated:

*What caused T1 to use movement so extensively in his teaching? and What was the effect of his actions on lesson interaction?*

Analysis revealed that teachers' actions were aimed at, and had an influence on two areas of interaction: a student's ability to learn and the teachers' ability to teach. Discussion will begin here by examining how a teacher's movements can affect his/her student.

### 9.1 Enhancing student learning

#### 9.1.1 Gestures add information

T1 used gestures extensively in his teaching. Beattie and Aboudon (1994), although not considering teachers specifically, suggest that the average proportion of time people spend gesturing whilst speaking is 8.8%. However, T1 and T2 in the first lessons of studies 2 & 4 used significantly more physical movement while they spoke (see figure 1). ‘Gesturing’, for these calculations, was recognised as all finger, hand and arm movements except pure self-touching and object-touching movements, termed self and object adaptors by Ekman and Friesen (1969). Piano demonstration was not included. (Because of T3's very frequent use of piano demonstration in her teaching, her use of gesture was not calculated as it was felt that, with the omission of piano demonstration, it would produce an unrealistic record of her use of movement).

Differences in the three teachers' personalities and aims influenced variations in their use of gestures. T3's teaching focussed often on technique (see chapter 8) and her gestures frequently described aspects of this. T1 on occasions also advised on technique, however, while T3 performed her actions either just above or on the keys, T1 preferred his accompanying gestures to take place away from the piano. This was possibly influenced by his views about the disadvantages of piano demonstration.
Although both T1 and T2 used actions to indicate tempo, T2 raised more points about tempo, both with S2 and S5 (see figure 1, chapter 10), and therefore it is not surprising that beating time formed a larger proportion of her gestures. However, compared to the other two teachers, T1 used gestures the most frequently and enthusiastically.

**Figure 1**  
A comparison of the use of gesture by T1 and T2

![Bar chart showing comparison of gesture use by T1 and T2](chart:image)

The teachers’ range of finger, hand and arm movements had different aims and outcomes. Codings offered by Ekman and Friesen (1972) involve three categories: ‘adaptors’, self-touching and object-touching movements which are not associated with any words they accompany; ‘emblems’, which stand in the place of words; and ‘illustrators’ which relate to and generally clarify the meaning of the words (Ekman & Friesen 1972, p 357). Adaptors, though evident among teachers’ movements, do not contribute specifically to communication and did not appear to have an effect on any of the teaching situations and as a consequence are not included in this discussion. During T1’s recorded lessons, one single emblem was noted, but otherwise all of T1’s hand movements fell into the category of ‘illustrators’. This supports Kadunc’s findings (1991), which, though a study of classroom teaching skills, suggested that teachers most often utilised illustrators and least often emblems. Illustrators can also be categorised according to the way they relate to the words they accompany. Gesticulations were sometimes performed merely to emphasise a word rather than to give a clue to its meaning. Ekman and Friesen code these as ‘arbitrary’ movements, as they in no way look like or contain a clue to the meaning of the words that they accompany. Many of T2’s gestures fell into this category. ‘Iconic’ gestures, on the other hand, do represent their meaning in some way. T1 sometimes mimed the action of the piano or a hammer hitting in an effort to show the movements his student
needed to use to strike the keys. Thirdly, the term 'intrinsic' refers to movements that are the specific act that the word they accompany describes. T1 used an intrinsic gesture when he showed his student how to beat time. His words talked about conducting while his gestures gave a specific example of the act of conducting. Similarly, T3's very frequent piano demonstrations, which accompanied descriptions of technique, were also intrinsic gestures (Ekman & Friesen 1972, p 356).

The traditional theory about speech and gesture sees them as representing individual channels of communication, each of which carries different sorts of information (see Argyle 1975). However, McNeill (1979, 1985) has suggested that:

'Sentences and gestures develop internally together as psychological performances' (1985, p 350).

Many of the physical illustrations, which accompanied T1's words, appeared to be more instinctive than premeditated. It is unlikely, for example, that tapping his forehead when suggesting to his students that they should think, was the result of a specific decision. (T1 used this action with both S1 & S4). Other movements, too, appeared to be automatic reactions to thoughts. He counted through on his fingers when listing points; he shaped his hand to illustrate the 'lovely curved finger position' needed when playing Mozart; and he moved his hand up and down, palm up, when talking about 'using so much more weight in the keys'.

McNeill develops the argument that iconic gestures, those actions which present a meaning relevant to the content of the words they accompany, are critical to communication because they offer more information than is given by the words alone. He states that:

'to get the full cognitive representation that the speaker had in mind, both the sentence and the gesture must be taken in [sic] account' (1985, p 353).

Beattie and Shovelton tested this theory in a number of studies based on measuring the knowledge retained by participants after they had either listened to only, or watched and listened to the narration of cartoon stories. They found that respondents received significantly more accurate information about aspects of the story when they were able to see gestures accompanying the words, than when they heard the speech only (Beattie & Shovelton 1999a, 1999b).
Although the data from this research do not enable the precise testing of this theory, they offer two areas of investigation. First the student's reactions. S4's remarks in interview show that she did feel that T1's gestures helped her.

'I think those hand movements engaging with my piano technique is very helpful. For example, how to bend the fingers, strike the piano, finger position and movements when playing scale. The rest of them I can't remember' (S4 Interview).

Even though, at a later date, she had not been able to remember other movements which had aided her understanding, this does not mean that, perhaps on a subconscious level, they had not also been helpful at the time.

Secondly, the data can reveal whether T1 communicated information through his gestures additional to that offered through his words alone. From the many examples of T1's gesturing where actions support and reinforce his words there are several instances where the movements specifically offer more information than is given verbally. Several of these are connected with S4's technique. For example, in lesson 1 T1 talked to S4 about her tone and phrasing:

'You're being too nice about it there. [here he bends a little and stiffens his posture] You've got to still sing out. [he straightens up and sweeps his arms in a much freer action]' (T1 Lesson 1-study 4).

And in lesson 2, T1 tells S4:

'You're being a bit nervous and pressing them in by pressing them, [while saying these words T1 points right hand downward with extended stiff fingers] rather than feeling your hand sink down to the keys [he instantly changes to palm up and swings his arms down in a relaxed manner]' (T1 Lesson 2).

In both of these excerpts T1's actions don't specifically show S4 the movements referred to, but rather imply that a tension/freedom aspect is a fundamental difference between the two methods of technique.

One significant difference between the study 4 dyad and the other four was that S4 was Taiwanese, and although her command of English was good, T1 did talk noticeably more slowly and clearly to her than he had done to S1. On occasions T1
also hesitated so that he could avoid words which S4 might not understand. However, to explain T1’s enthusiastic use of gestures as simply being due to the fact that English was not S4’s first language would be unfounded and incorrect. Seventy percent of T1’s speech was accompanied by gestures in the first lesson of study 4 (with the Taiwanese student). This is not appreciably more than the 66% in the first lesson of study 1 (with the English student), suggesting that S4’s ethnicity did not affect this aspect. Nonetheless, gesturing did seem to help S4’s understanding and encouraged her to remember points made.

'It keep reminding me when I practise.... because I always remember the movement. He was saying drums should be doing like this. It just give you some of the visual feeling when you’re putting a sound like this' (S4 Interview).

All three teachers beat time to indicate tempo. T1’s conducting, as well as illustrating his verbal directions about speed, also helped to describe other aspects of the piece, such as its energy or volume. In lesson 3, T1 told S4 that he was going to conduct her:

'I want you to feel the spring’ (T1 Lesson 3).

He swept his arms up and down so that the movement at the bottom of the arc was faster and there was a slight slowing at the top, reminiscent of the movement of a bouncing ball. His action, therefore, not only gave precise indication of speed but also gave a feeling of energy and suggested the character of the music.

As well as using gestures to add extra information to his words, T1 also presented these gestures in a way that would mean that they had maximum effect. Beattie and Shovelton (2001, 2002) investigated the comparative effect of gestures presented from a ‘character’ viewpoint (the communicator assumes the character and actions of the person or object of which he is talking) and an ‘observer viewpoint’ (the actions are performed as if the speaker were the observer). They found that

‘Gestures generated from a character viewpoint, which are often pantomime-like in their execution, are significantly more communicative than those gestures generated from an observer viewpoint’ (2002, p 189).

Virtually all iconic gestures used by the three teachers were from a character viewpoint. It is quite possible that they used these because they had found through
experience that they had the most impact. When they spoke about technique they used their hands and arms to demonstrate how their student should perform:

'You're focusing in on the touch and dropping through some of the phrases a little bit too much. [He demonstrates her movement]' (T1 Lesson 1).

T1 also used this viewpoint when describing the action of the piano:

'The hammers are hitting the strings and they're going [right hand moves forward in a hitting motion] boom' (T1 Lesson 1).

Furthermore, many of T1's movements were 'pantomime-like'. On two occasions (lesson 1 and 2), T1 demonstrated T1's shoulder tension:

'Your shoulders are like this [T1 raises his shoulders to his ears, his arms hanging awkwardly away from his side and adopted a wide-eyed stiff facial expression]' (T1 Lesson 1).

Although T2 and T3 did not attempt to make their movements as humorously ridiculous as T1, their gestures were, nonetheless, often exaggerated. For example, T3 often demonstrated arm movements larger than would be used in playing to clarify her point.

All three teachers, therefore, gestured more while teaching than might have been expected in other circumstances, their iconic gestures often clarifying the words they accompanied or providing extra information. T2 used gestures most often for indicating a beat, and T3 for demonstrating technique. T1, however, used movements to add meaning to all subject areas. His gestures were the most expansive, at times involving the whole of his body and were often humorous. As well as improving understanding, these would also have aided his student's memory retention.

9.1.2 Positioning

As the teachers taught in different venues which offered varying amounts of useable floor space, the individual situations need to be described before discussion can compare teachers' movements and choice of positioning. For study 1, T1 taught S1 in a recording studio to enable everything played to be recorded on the disklavier kept there. However, this room was small and the upright piano was against a wall with a large quantity of equipment taking up most of the space in the studio. T1 and S1 were forced to remain in each other's 'personal zone' (Hall 1966, pp 119-124). T1 remarked that he found it uncomfortable as his knee was nearly touching his student's left hand.
‘I was a lot more restricted in there. I’m normally in a bigger room or have more room to walk around. I usually walk around, dance and express myself a lot more vocally and physically than I could have done in there’ (T1 Interview).

As his gestures and expressions had been expansive even within the confines of the studio, in study 4 he was given the opportunity to move more freely, so that any differences could be observed. The room selected was a spacious one, which housed a small grand piano. T3 also taught in this room, and would therefore, have had the same opportunities for movement in study 3.

In contrast, the piano in T2’s teaching room was quite a tall upright which backed onto a wall for study 2 with a windowed wall directly right of the piano. T2 remained on this side of the piano where she had little opportunity, therefore, for movement within the range of S2’s easy sight. Even when the piano was pulled out at right angles to the wall for study 5, to improve the lighting, the height of the piano and T2’s small stature meant that standing behind the piano was not a viable option.

T1 was delighted with the venue used for study 4:

‘I loved it. What a wonderful gift to have that space’ (T1 Interview).

Figure 2 shows that in the first two lessons T1 remained on his feet for roughly half the lesson, though this diminished as the study progressed. This was possibly because his initial excitement about the space, which caused him to utilise so much of it, reduced with familiarity. However, the content of his teaching, which changed from lesson to lesson would also have affected his desire to sit or stand.

**Figure 2**
Total proportion of time, during the five lessons, T1 spent sitting and standing
In contrast, teacher 2, both in studies 2 and 5, remained in her chair by the piano for the whole of each lesson. And teacher 3 only left her chair on a couple of occasions either to collect something, to enable her to adjust her student’s posture or to demonstrate while seated at the piano.

The teaching room used in study 4 measured roughly eighteen feet by fifteen, with the grand piano slightly to the end further from the door, and apart from several stacks of chairs, the area to the right of the piano keyboard consisted of quite a large open space. During the lesson, T1 specifically used his positioning within this room to enhance the teaching/learning situation. His movements across the five recorded lessons were not random but revealed a distinct pattern and routine, suggesting that, whether through conscious thought or instinct, they were chosen to achieve particular goals.

Teachers 2 & 3 turned their heads to face their students when they wished to gain their full attention. However, for this to result in eye contact students had to make a specific effort to turn too (see chapter 7 for students’ comments). In contrast, when wishing to present his views and opinions, T1 appeared to intentionally aid the learning situation, by selecting a position that would enable his student to look at him easily. In interview, T1 talked about liking ‘to engage’ with his students and this position was close enough for eye contact. The area he generally chose was in the concave section at the side of the grand piano (see figure 3).

**Figure 3**

*Teacher standing in concave section of piano (○ represents teacher)*

He wanted, at this point, to gain S4's full attention, and by standing in this position, he was as near to placing himself in front of his student as was possible given the
restrictions of the instrument. Of course this position would not have been possible for T2 in study 2 or 5 because the piano was an upright. Though T3 did have this option she chose to stay seated next to her student, turning her head fully to face him. Eye contact was consequently very close.

A second reason why T1 might have chosen to move to this position stems from his unease at being too close to his students. By moving to this position T1 was moving out of his student’s ‘personal zone’ (0.5-1.25 metres) into her ‘social zone’ (1.25-3.5 metres) (Hall 1966, pp 119-124). In a professional relationship such as this, individuals generally feel more comfortable with a greater distance between them and in consequence find eye gaze and communication easier.

If T1 wanted to make a point that would benefit from the use of gestures or movements, he moved back away from the piano into the open space, positioning himself so that his student could easily see the whole of his body (see figure 4). At this distance T1 had almost reached the ‘public zone’ (3.5-7.5 metres). On one occasion he talked about and demonstrated a point concerning pedalling from this area:

'I want her to see my foot and my gestures, if I was closer to her she’d have to look at either one or the other, my foot or my gestures' (T1 Interview).

The other teachers either were not able to, or chose not to act out their words so fully. It is probable that these less involved movements, done as they were at close range, and to the side of the student, would not have had the same clarity or impact as T1’s centre-stage performances.

**Figure 4**

*Teacher standing in open space*
9.2 Encouraging student participation

T1 recognised the importance of permitting his student the opportunity to perform and offer her views without interruption. When his student performed a piece for the first time that lesson, T1 set his chair about a metre back from the student (see figure 5). T2 and T3 also often pushed their chairs back a little at this time. T1’s student was conscious that the distance between them was chosen for a purpose:

‘I think he know I’m a nervous person and if he’s sitting just next to me he make me even more nervous. I think he doesn’t want me to feel like ‘I’m watching you’. Of course he’s very observant but at the same time I think he’s just trying to let you [feel] in charge. You’re doing your things’ (S4 Interview).

Figure 5

Teacher’s position while listening to initial performance

Both T1 and T3 remained very still as they listened to their students perform, while T2’s movements were only minimal. T1 was very aware of the effect that movement, at this time, might have on his student.

‘I’ve had some pupils, if I just uncross my leg or something, they’ll stop and say ‘What went wrong?’ you know. So I just try to be fairly still and not to give anything away’ (T1 Interview).

S4, although presumably concentrating on her performance attempt, was indeed conscious of her teacher at this point and read any movement as criticism of her playing:

‘If he loses concentration and starts looking around the surrounding area. I interpret his gesture as telling me it is a bad performance. Then I become even more nervous and worried for playing the rest of the piece’ (S4 Interview).

After this first performance, T1 often moved to a position in front of, though at a little distance from, his student (see figure 6), from which he would ask his student’s opinion about some aspect. S4 commented:
‘[He] will always give me the space. He’ll ask me when I’ve finished the piece, “what do you think?”’ (S4 Interview).

Although this ‘space’ in reality related to time, the physical space he provided would have reduced any pressure his student might have felt, and demonstrated that this was her moment to express herself uninterrupted. He was removing himself from the limelight and directing the focus on her.

**Figure 6**
Teacher allowing his student space

Unlike T2 and T3 who chose not to leave their chairs, T1 moved around the room in study 4 quite freely, and this section has shown that, consciously or not, he used various positions to positively affect his interaction with the student. He stood in front of S4 to make face-to-face engagement easier. He sat or stood some distance from his student to give her space to perform or express her views without feeling pressured. He moved closer to her to add impact to what he was saying, and selected a space some distance from his student to permit a clear view of any actions and gestures he was planning to use.

**9.3 Affecting the atmosphere**

**9.3.1 Humour**

T1’s movements, whether intentional or unintentional, had an influence on the mood and style of the interaction, having an effect on both teacher and student. T1 spoke of his attempt to keep the lessons lively. He had a sense of humour, did not mind how he looked, and admitted to being a performer by nature:

‘I inevitably camp it up a bit’ (T1 Interview).

T1 was conscious of the positive effect this could have on interaction:

‘You see I find that I just end up being a boring fart if I don’t allow myself to express…. So it ends up being a bit of a boring lesson’ (T1 Interview).
One example sees him using comedy and exaggeration for extra impact when talking about his student’s tempo in lesson 1. When talking about a phrase being played too slowly he says:

‘You were going a bit like this... Ta.ta.ta..ta..ta...ta....ta....[as he speaks he mimes a slow physical collapse]’ (T1 Lesson 1).

S4 enjoyed his actions and found him ‘very funny’, laughing at him often in lessons.

When T1 acted humorously it achieved several functions. It helped clarify a topic being discussed; it produced a bigger impact, with the consequence that the point would be more likely to be remembered; and it also lightened the atmosphere within the lesson, which because it was one-to-one had the potential otherwise of becoming rather intense.

‘He making light way. I always remember because we always have the problem with the most difficult part, but when he trying to bring out your problems, he using a very nice way. He make you laugh how awful sound you made! And that’s how I always remember because I find this teacher’s very funny. And it doesn’t [be]come personal, he just he make it very lively, I found’ (S4 Interview - literal transcript).

Although neither T2 nor T3 used funny gestures to bring humour to their lessons, both appreciated the need to lighten the atmosphere and laughed often with their students:

‘It can get awfully heavy sometimes and it’s so intensive isn’t it, one-to-one, you know, that you have to lighten every now and then’ (T2 Interview).

9.3.2 Posture suggests relative status

T1, when sat in listening mode, usually adopted a very relaxed stance, leaning back with his legs crossed, sometimes with his hands behind his head and occasionally he would even swing back on the back legs of the chair. Mehrabian’s (1972) findings, demonstrating how participants’ postures reveal how they view their relative status within a dyad, have already been mentioned in chapter 7. Mehrabian’s description of the higher status participant tending to be more relaxed and having an open posture with legs positioned asymmetrically, is a very good description of T1’s seated position. T2 and T3 also looked relaxed and sat often with their legs crossed, though they chose a more upright posture.
However, it is unlikely that S4 was over-awed by T1’s display of status as she always appeared very relaxed when talking to her teacher. In contrast to the other four students, S4 remained standing at the beginning of the lesson even after her teacher had sat down. During this time she chatted about her week, other course work and exams, and prepared for her lesson by opening her music and on occasions drinking water from a bottle. In the recorded lessons, this period varied between thirty seconds and three minutes. This rather leisurely behaviour suggests that she was relaxed within the relationship. The other four students sat at their pianos immediately, awaiting their teachers’ instructions, whereas by her actions, S4 appeared to be more in control of the situation, and not embarrassed to make her teacher wait for her. She was a mature student and her many years’ work experience had given her social confidence. She was also similar in age to her teacher.

‘At the beginning it’s more like really something like expert, and I’m like just a student. But I think the way he.... it’s because he’s so casual and he has a very good sense of humour and he does break down this borderline thing to become more like friends’ (S4 Interview).

9.3.3 Inspiring and energising

T1 threw himself into his teaching with enthusiasm and energy that was intended to inspire his student:

‘I love music and so I try to communicate that’ (T1 Interview).

He spoke often to S4 about playing more energetically, particularly when discussing her playing of a Mozart sonata. He explained his viewpoint in interview:

‘Rhythm is such a difficult issue for her. And so I did do a lot of things like beats and stuff with her. And the energy, yes, because it fitted in with the beat, which is the drive of the classical period, classical music all being so beat orientated really. I just can’t bear classical music played boringly, dull and neat. I’d much rather hear loads of wrong notes played fantastically excitingly than sort of right notes played boringly’ (T1 Interview).

Energetic beating and repeated counting complemented T1’s words. ‘Again, again’, he would instruct while pacing up and down the room. S4 felt that at least during the lesson she was able to catch his energy:

‘I get influenced by his energy..... When I play... when he doing his action, “yes, yes” I can feel it, yes I have to do like this. But when I’m doing by my own thing, I probably just doing my own way very easily’ (S4 Interview).

During lesson 4, T1 spent over four minutes focussing on two particular bars of the Mozart, in which the right hand was made up of quaver triplets. He suggested that her
playing was a ‘bit lifeless’, that she was ‘going a bit slow’, and asked her to play with ‘more energy’. His actions and movements became livelier as he spoke, the result of his enthusiasm but also possibly frustration. Although her many attempts to play the passage faster were often congratulated, no actual increase in speed was perceptible to the observer. In fact, S4’s playing began to include a few more errors, caused possibly by increased tension and anxiety to play faster. Ultimately any increase in speed was restricted by her ability. Although she talked about being able to ‘feel’ the energy being required, in the lesson she was never able to actually play faster. She may have experienced being more energised, more alert, and was made aware of how the passage should sound, but she was never able to demonstrate this with immediate musical effect.

9.4 Enhancing teaching ability

9.4.1 Aiding focus

T1’s movements were also influenced by his own personal needs as a teacher. His relaxed sitting position at the beginning of each lesson has already been discussed. However, the adoption of this position was also, at times a conscious attempt to help himself to feel more calm. On seeing himself in the recording of lesson 1, T1 remarked:

‘It looks to me like that’s probably an instance of me feeling a little bit on edge already and trying to relax myself’ (T1 Interview).

Although there were occasions when T2 appeared exasperated with S5’s lack of practice, she recovered her equilibrium quite quickly as soon as her student played a passage well. Neither she nor T3 appeared to use posture therefore to alter their mood.

T1 would also, on occasions, choose to jump up and move around simply for the purpose of getting ‘a bit of exercise’ (T1 Interview). Although he always appeared extremely energetic on the video-recordings, he spoke of needing to move at times to keep more alert. Even in the confines of the studio, during study 1, there were occasions when T1 stood up and paced behind his student. This seemed to contribute nothing towards student learning and was therefore done solely to help his own needs.
Although T1 sat still through the initial performance of each piece, he chose quite a different position when teaching his student and directing her to play short passages at other times. Often he stood by the door of the room, which was as far from her as was possible, frequently pacing slowly back and forth while gazing at the floor. T1 felt that in this position he had 'more attentiveness to listen', compared to when he was seated and might 'slouch' or 'vegetate'.

'I think it's trying to give me a wider context, a sense of space to really hear. If I'm sitting down I'm really looking at her fingers, I'm not really hearing the sound so much. If I'm standing up I'm probably trying to listen to the broader picture, what's really happening' (T1 Interview).

9.4.2 Gestures and word retrieval

McNeill's theory that gestures can provide additional information to the words they accompany, has already been discussed and supported in this study. However, a somewhat different theory, concerning the purpose of gestures in communication was suggested by Butterworth and Beattie (1978). Their early research drew attention to the many cases where gestures appeared to be redundant, adding no further information to the speech. Instead, they highlighted examples which showed that often a hand action began in advance of the words to which it referred. They noted, in particular, that this often happened when words were more difficult to access. (See Beattie & Butterworth 1979.) Their conclusion was that:

'Gestures are products of lexical preplanning processes, and seem to indicate that the speaker knows in advance the semantic specification of the words he will utter, and in some cases has to delay if he has to search for a relatively unavailable item' (Butterworth & Beattie 1978, p358).

Empirical evidence from a later study by Morrel-Samuels and Krauss (1992) supported Butterworth and Beattie's conclusion, suggesting that 'the hypothesis that gestures do facilitate speech production is at least plausible' (Morrel-Samuels & Krauss 1992, p 620). The theory was also investigated further by Butterworth and Hadar (1989), who presented several specific functional roles for iconic gestures in word retrieval (p 172). First they suggest that they may act as an 'interruption suppression signal', stopping the listener from interrupting. They also see gestures as aiding word retrieval. Recognising that word finding can be delayed by 'the slow build-up of activation in the searched-for word' they suggest that the gestures help to raise 'the overall activation in the system' causing the word to reach 'a firing level
more quickly' (p 173). They also see the use of a gesture as offering an alternative route to the searched for word. Lastly they propose that a selected word may be censored for some reason but that the gesture can still happen (p 173).

There is some evidence in study 4 to suggest that gestures do, on occasions, appear before the word or phrase which relates to them is spoken:

‘Like a genius, moments of... [pauses - raises right hand high]... euphoria, moments of ecstasy’ (T1 Lesson 3).

‘It’s got to be relaxed, I agree, but not kind of [pause] um [pause] slow or getting sluggish. ‘Sluggish’, you don’t know that word [pause] [moves arms in several downward sweeps while he thinks] kind of too lazy’ (T1 Lesson 1).

These suggest that the movements are being used either as a temporary stopgap for a delayed word and/or as a prompt for word retrieval. In some instances the words following the action do seem to describe the hand movements and thereby might feasibly have helped.

‘Of course, on a grand piano the hammers go [demonstrates upward motion with arm] 'boom', don’t they. They hit the string upwards’ (T1 Lesson 2).

However, there are also occasions when the gesture does not appear to have triggered appropriate verbal follow-up and the action becomes, instead, a substitute for an unretrieved word:

‘Instead of going [hammers imaginary nail into the wall with a good arm swing], you’re going [holding something like an imaginary screw-driver, he pushes towards the wall] like that’ (T1 Lesson 1).

Although not exactly gestures, T3 often used demonstration on the piano as either a temporary stopgap, an aid to find an appropriate word, or as a substitute for a word (see chapter 8).

Two theories about the purpose of iconic gesturing have been reported here: that it can provide more information than verbal explanation alone provides (McNeil 1985); and that it helps the speaker to find appropriate words to explain his or her thoughts (Beattie & Butterworth 1979, Butterworth & Hadar 1989 and Morrel-Samuels & Krauss 1992). Evidence from this case study suggests that both views are acceptable to explain different circumstances and does not see the two hypotheses as being mutually exclusive.
So far the search for the cause of, or reason behind, T1's enthusiastic use of movement and gesture in his teaching has highlighted the influence of his beliefs and aims regarding the piano lesson. This has implied that, even if the choice of particular gesture was more unconscious than conscious, at least the purpose of much of his use of movement was deliberate and controlled. The next section will explore the effect of elements that were more instinctive and less able to be directed; the man himself, both his personality generally and the fact that he was specifically a musician and pianist.

9.5 Teacher personality

There is no doubt that T1's actions were strongly influenced by his personality: lively, enthusiastic, expansive, expressive, excitable and unconventional. S4 recognised a considerable difference between his behaviour and that of her previous two female teachers, but appeared to enjoy his unconventionality:

"I think he's very extravert, very expressive person, very creative. He laugh and he make the classes very lively..... and when I look at him I find this teacher's very funny. I think it's just the way he points out your problems, very different" (S4 Interview).

T2 and T3, though confident and outgoing like T1, were far less extreme in their vocal and physical behaviour. T2, at times brusque and business-like, generally portrayed a positive, upbeat manner. T3 liked to get close to her students. She sat very near to S3, often stretching in front of him when she demonstrated, and also spoke in a quiet tone. She was also the only teacher who shared, with her student, personal information about herself and events that had happened to her or her family.

Although T1's liveliness and enthusiasm made him a colourful character, which obviously enhanced his teaching performance, there were times when this energy could also trigger feelings of frustration within him. This was sometimes apparent in his movements. T1 admitted that, as far as teaching S4 was concerned, he found it difficult at times to remain patient. He wondered whether his frustrations in the lessons were unhelpful for S4 and admitted in interview that he was concerned that at times he 'went too far':
‘I have felt a dreadful fascist, dictator sort of thing “yes in the beat now, now, now,” shouting and screaming. I often come out of the lesson thinking, I over-did that’ (T1 Interview).

S4, however, continually praised her teacher’s methods and never suggested that his teaching was anything other than appropriate for her needs. T1’s words reveal a thoughtful, analytic teacher, trying to mould his style to suit his student. However, they also emphasise the fact that personality and instinct can sometimes over-ride plans and intentions with regard to behaviour in interaction.

It has already been noted that all three teachers made considerably more use of gestures in their teaching than the participants of the study by Beattie and Aboudon (1994). One explanation for this is that there is something about instrumental teaching that encourages this form of communication. It is possible, for example, that talking about the subject causes musicians to react physically. The subjects being discussed could well influence the rate of arm and hand use. All teachers taught about technique and the best use of hand and arm in piano-playing. What would be more natural than to demonstrate their position and movement as a gesture? Rhythm and tempo was also an important topic in many of the lessons and discussion of this too could easily lead to movement. T3 suggested that listening musicians react differently to music compared to performing musicians:

‘They [performing musicians] actually enjoy seeing how their body works. They enjoy throwing their hands into things and doing cartwheels and the whole element. So a performing musician isn’t somebody necessarily who just wants to sit and listen to music and when they do they get a kind of panic because they usually, immediately associate it with moving as well’ (T3 Interview).

Each of the teachers was currently or had been at one time a performing musician. Pianists rely on hand and arm movements to express themselves through music, and it is quite possible that this experience could encourage this form of expression at other times.

Teachers’ behaviour will be affected considerably, therefore, by who they are and what they are. The value they put on individual goals, and the ways in which they work towards these goals, will be heavily influenced by their personality. T1 was a tall man, at times loud, energetic, extravert, unconventional and imaginative. His actions were often expansive and on occasions contained an element of the ridiculous.
He enjoyed acting and responded to the reaction of his audience. When his student laughed he would sometimes continue or repeat the action. While this study has attempted to explain his choice of position and use of gesture, an element of “the teacher just being himself” must also be acknowledged as a further, strong influence on behaviour. In other words, there is a distinction to be drawn here between the deliberate and communicative component in his behaviour, and an insuppressible expression of his personality.

9.6 Summary and conclusion

When the participants in any situation are visible to each other, interaction will be influenced by information provided by non-verbal signals. Even if hand gestures are seldom used, signals from posture, positioning and expression are unavoidable. The specific facets of any situation, however, will affect the particular use and effectiveness of movement. In education where a teacher may spend a lot of time supplying knowledge and instructions, gestures are particularly useful.

This chapter has shown that iconic gestures in particular bring support and additional information to the words which they accompany. They improve student understanding and enhance memory. In the piano lesson specifically, the particular topics discussed are greatly helped by the use of hand and arm movements. In fact all three teachers expressed considerably more through their gesture use than their words alone provided, particularly when putting over ideas about rhythm, tempo and technique. Furthermore, in the one-to-one lesson, in contrast to the lecture hall, the teachers looked for a response from their students. Often this response involved performing and at these times, teachers’ movements could be used to enliven, enthuse and energise. Beyond these idiosyncrasies of piano teaching generally, the various components of each individual dyad and lesson and their interaction with each other influence the use of gesture, posture and positioning.

Studies 1 & 4 used different venues and although T1 gestured similarly in both studies, his movements about the room were severely restricted in the small studio used for study 1. However, the larger room was not in itself a cause for movement as was evident when T3 used it to teach S3, but sat most of the lesson. Furthermore, the
piano in the room used for studies 3 & 4 was a baby grand, which provided the opportunity for T1 to adopt a position in front of his student, something he had been unable to do in study 1 where the upright piano was against a wall. Yet, once again, this position was not used by T3 when teaching in the room with the grand piano.

However, the factor which most strongly influenced the usage and usefulness of movement in the lesson was undoubtedly the teacher. To a certain extent a teacher's behaviour is affected by how s/he feels s/he needs to act to benefit the student and learning. S4 recognised that she and T1 were 'very different characters':

'I find he does not compare with me, I'm introvert' (S4 Interview).

T1 was able to offer his student an approach and attitude to learning and performance which differed from her own. S4 was quiet in her speech and her playing was often cautious and tentative. In contrast, T1's manner was often loud, free and expansive. Furthermore, S4 took learning very seriously. She practised for many hours and was frequently frustrated by what she saw as her slow rate of progress. T1 recognised this and was able to offer a lighter approach.

A teacher's aims and beliefs will also affect behaviour. This investigation has shown that T1's teaching plans and objectives influenced his considerable use of movement and gesture in his teaching. He aimed to be inspiring in his lessons and to pass on his enthusiasm for music, and he felt that it was important for him to make the information he presented interesting and understandable. He was aware of how his student might feel and used positioning and stillness to give her both physical and temporal space, to encourage her to voice her ideas both musically and verbally. He used humorous postures and expressions, both to make his teaching more memorable and to lighten the atmosphere within the teaching situation. Movement and gesture could also provide self-stimulation: T1 wanted to ensure that he was in the right frame of mind for the job and used position and posture to help him to feel relaxed, attentive and focused. There is also some evidence to suggest that his use of gestures, when used before a word, could have helped him find the appropriate word or words to explain his thoughts.

Finally the teacher's individual personality will affect how s/he uses gesture, posture, expression and positioning and in this study T1's extravert personality has been seen
to have had a considerable effect on the style of the behaviour which resulted. He had life, energy, enthusiasm, and enjoyed physical and verbal humour. He took great delight in producing extravagant movements and gestures. He enjoyed having an audience and luxuriated in his performance being appreciated, repeating a pose that had produced laughter at a previous lesson. Tl’s movements undoubtedly incorporated a deliberate component, but he would never have made such a frequent or enthusiastic use of them if he hadn’t taken particular personal pleasure from the activity. He moved and gestured a lot because he was enjoying himself!

There is no doubt that Tl’s enthusiastic use of positioning, posture, movement and gesture aided both the teaching and learning process. Should this model, therefore, be recommended for all piano teachers? Would it be effective for all teachers? Although all three teachers used movement to a certain extent, at least in regard to gesture, ‘camping it up’ was a particular talent of Tl’s, and is not necessarily a style that should or could be adopted convincingly by someone with a different personality. For Tl it helped to encourage the kind of lesson which he believed benefited learning. Other teachers, though, have different beliefs. To suggest that one style of teaching is more effective than another is over-simplistic. Teachers are effective when they are aware of their strengths, use methods which experience has shown them work, and remain sensitive to their students’ reactions during current interaction.
Chapter 10

Responding to students' needs
Responding to student needs

"You have to be a bit of a chameleon"

Previous chapters have suggested that the one-to-one instrumental lesson is teacher dominated (see chapters 7 & 9). However, teachers hint at additional influences when they talk of adapting their teaching to the individual student. Furthermore, the teachers observed arrived at lessons indicating little more in the way of pre-lesson plans than an identification of which pieces of music they wished to hear and waited until they had heard their student's performance efforts before selecting points to address. Does this mean, therefore, that students have a greater influence on the direction of a lesson than previous chapters have acknowledged?

Using study 5, in which teacher 2 taught student 5, as the central case study, with further data from the other studies providing points of support and contrast, this chapter will consider the interplay of student and teacher influences in the assessment, selection and response to student needs, addressing the following questions:

How are student's needs assessed?
What factors influence the selection and prioritising of student needs?
What aspects affect how needs are met?
What is the balance between student and teacher influence on the direction of the lesson?
10.1 Assessing student needs

Chapter 7 has already highlighted the fact that the teachers observed appeared reluctant to ask their students many questions. Even the short period of conversation, which began each of the recorded lessons, was seldom used to specifically encourage the student to discuss thoughts or problems. And any request for information about musical progress that was posed was often couched in rather general terms:

‘How’s your piano coming along?’ (T1 Lesson 1-study 1).

Instead all three teachers preferred to assess their students’ problems through performance. This, teachers felt, could provide information both about a student’s current musical ability and ideas, and also about psychological matters such as attitude and progress. Teachers did not say why they chose this method for assessing needs. However they hinted at the fact that they found it quicker and more efficient.

‘Let’s just play and see what happens’ (T1 Lesson 2-study 1).

Students recognised and accepted this lesson format:

‘I think she’s [T3] got a routine ingrained in her, which is to hear a rendition of the piece and see what’s wrong with it or what’s good about it and then work on it accordingly’ (S3 Interview).

In fact it appeared that students also supported, even encouraged it. As chapter 7 has shown, students were reluctant to talk. The opportunities for discussion teachers gave students might have been limited, but there was no evidence to suggest that students would have been stopped if they had wanted to talk about a specific need. Teachers, after all, invariably showed a genuine interest in matters of general conversation introduced by the student.

Rather than talk about their problems or needs directly, students preferred to wait for their teacher to identify them. During the whole of study 5’s five recorded lessons S5 drew his teacher’s attention directly to a need for information on only two occasions. In lesson 2, during a performance he queried the accuracy of a chord asking his teacher: ‘Is that right? It sounds very strange’, while in lesson 3 he asked whether he had played a rhythm correctly. Beyond these instances S5, in common with each of the students studied, preferred to act passively, leaving it to his teacher to identify
what information and help he needed. He performed his music when asked and left it to his teacher to tell him what was right and wrong or good and bad.

On the limited occasions that students did volunteer information about themselves and their progress it often focussed on how much practice had been done:

"It's been a bit of a disastrous week. I'd made up my mind I was going to do lots of practice, but obviously going down to London put paid to it" (S5 Lesson 2).

T1, in study 4, asked S4 on occasions how a piece was progressing or what she thought about her playing. However she invariably used this opportunity to apologise for her playing, seeing her difficulties as stemming from her own inabilities and the requirement for more practice rather than presenting her concerns as needing direct information or advice from her teacher.

There are several reasons why students might not have wanted to change this established pattern. Leaving it to the teacher to recognise problems and inaccuracies would have been the style of teaching that most students had experienced from the beginning when, as an inexperienced pupil, lack of knowledge and/or confidence might have made them feel unable to identify and discuss their difficulties. The transition to university did not appear to have given the students an increase in self-confidence or to have encouraged any change from this routine. If anything, students seemed more anxious to play well and appeared to be rather in awe of their teachers' knowledge and experience. S3 spoke about listening to recordings quite early in the learning of a piece:

"But that's only for fear of looking a fool really. Because I feel that I'm at university now, we're meant to be at the top of our learning so [pause] yes I cheat now" (S3 Interview).

Students might also simply have been attracted to the method of least responsibility. However, the fact that the students studied were willing to wait for their teachers to select their needs is a strong indication that they saw their teachers as the experts. It is possible that if they had not respected and trusted their teachers' judgement and knowledge they might have behaved differently.
Relying on performance alone to identify student needs could have limitations however. Students recognised that at times their problems might not always be clear from a performance. Student 1 felt this particularly when he played a piece by Bartók:

'I think it's difficult to tell from the actual performance how shaky it felt to play' (S1 Interview).

Teachers too, appreciated that the 'play-through' was only a guide:

'I do believe really that whether they play it badly or [pause] most people will say "I played it much better than that in the week".... but it's given me an idea on how they played it then and what points we really do need to work on' (T1 Interview).

This section has noted that students’ current needs are identified almost exclusively through performance. Teachers chose and students accepted this method in preference to verbal discussion. The next section will examine the various elements within the lesson that influence the selection and prioritising of student needs.

10.2 Identifying and prioritising needs

Students’ needs are individual, and will vary between occasions and according to the music being learnt. A teacher’s recognition of these needs is also personal, influenced by his/her own particular beliefs and preferences. This study is not designed to enable a direct comparison between different teachers’ reactions to a single student’s needs on any one occasion. However, analysis of all the data indicates that three factors - the individual student, the music being studied and the particular teacher - each had an effect on which points were raised on any one occasion.

To investigate this specifically, an analysis was made of the teaching within the five studies (see figure 1). Each teacher had selected a piece of music to study during the series of recorded lessons. T1 chose Bartók’s ‘Bulgarian Dance No. 2’ from Mikrokosmos Vol. 6 for S1, and Chopin’s Nocturne in E major Op 62 No. 2 for S4. T2 selected Prokofiev’s Gavotta Op 32 No. 3 to study with S2 and Shostakovich’s Prelude Op 34 No.14 for S5. S3 learnt Debussy’s Ondine with T3. The focus of all teaching points made during the teaching of these pieces of music were coded into eight categories:

- Pitch – Corrections of inaccurate note reading.
- Rhythm – Corrections of inaccurate rhythm reading
- Dynamics – Basic intensities such as ‘piano’ and ‘forte’ as well as gradations of tone, such as ‘crescendo’.
- Tempo – Aspects such as advice on appropriate speed or keeping tempo regular.
- Pedal – Both where and how to use it.
- Articulation - Elements such as slurs, legato, staccato and phrasing.
- Interpretation – Suggestions about style and slight deviations to written instructions.
- Technique – Advice on fingering and body use.

Figure 1 shows the percentage of points raised by teachers during the teaching of the study pieces. Data are listed so that the results for teachers involved in two different studies are placed next to each other to enable comparison. Discussion in the next section will show how analysis of the features of this figure suggests that student, teacher or the particular music under study could each have an influence on teaching.

10.2.1 The influence of student and music on selection
The individual performance needs a student presented could stem either from a problem relating to a general matter of technique or interpretation, for example, or
from a specific difficulty resulting from learning that particular piece. S1 was more advanced than S4 and, not surprisingly, had fewer problems with basic note and rhythm reading when playing the Bartók, than S4 did reading the notation of the Chopin. Although T1 still spoke about interpretation often with S4 (23% of the teaching points), the data show that he spent more time pointing out note and rhythm errors to S4 (28% of points in total) than focusing on interpretation. This was also more often than he had targeted rhythm and pitch with S1 (7% of teaching points). Similarly S5’s lack of preparation caused T2 to highlight note and rhythm errors more while teaching S5 than she had with S2. (32% in total, compared to 10%)

Although students displayed certain problems whichever piece they were learning, particular pieces of music presented their own difficulties. Figure 1 identifies differences between the percentage of points raised by T1 about articulation and dynamics with students S1 and S4. The Bartók piece was very rhythmic with precise performance directions. These involved frequent dynamic changes as well as specific articulation directions (see figure 2).

**Figure 2**
Bars 51-57
Figure 1 shows that T1 reminded S1 about dynamic features 16% of the time, compared to talking to S4 about the dynamics in the Chopin only 10% of the time. Furthermore, 30% of T1’s teaching points related to articulation while teaching the Bartók, compared to 11% while teaching the Chopin.

‘Look out for all the staccatos, the phrasings... There are quite a few legato things which you didn’t get. The tenutos, all those kinds of things and things that fall off the beat’ (T1 Lesson 1-study 1).

Further evidence indicating the influence of student and music on the selection of performance aspects appears in the data relating to study 2. Prokofiev’s *Gavotta* contained many variations in articulation between slurs and staccato notes. (See figure 3). Not surprisingly T2 often drew her student’s attention to these details. However, T2 spoke of this being also a ‘pet area’ for her:

‘I think it’s terribly important to consider the articulation and the dynamics’ (T2 Interview).

![Figure 3](image)

Prokofiev *Gavotta*, Op 32 no. 3, bars 8-11

10.2.2 Teachers’ priorities

Interview and lesson data indicate that other teachers, too, had favourite topics. T1, for example, often focused on interpretation, his references to this subject in study 1 (33%) exceeding those of the other teachers. In his teaching in study 1 he often advised his student to allow the music space and to insert commas to let the music breathe:

‘You tend to gabble it and it actually loses its effect of arriving or climax. And sometimes you just need to, just before you reach it, just [grunts], place that a bit more so that it [pause] has really sunk home’ (T1 Lesson 1-study 1).

In interview he spoke about being ‘very conscious of notation and space’.
'So every notational idiosyncrasy in any music I pick up on, I want them to listen to what they’re doing. I want them to understand that it’s not pressing buttons and doing what the notes say. Notated music is as much improvised as non-notated music, in the sense that you’ve got to listen and you’ve got to know when is a crotchet a crotchet, when is a dotted quaver rest, it’s somewhere between a quaver and a crotchet rest isn’t it?’ (T1 Interview).

Technique was a further element of piano performance which T1 recognised as important and which he discussed frequently. He spoke about using the wrist to sink into the key, making the hammer hit the string, and feeling relaxed enough to be able to ‘really lay into the piano’.

‘The most important thing for me in piano technique - piano playing - is the way that the hammer hits the string. Which I go on and on and on about incessantly and bore my pupils to death about’ (T1 Interview).

T1’s belief in the importance of a good technique is reflected in his interest in this facet of performance when assessing students’ efforts. As a consequence he was alerted to S4’s technical problems, and 24% of his points related to this in his teaching.

‘You’re still a little bit tense in your shoulders. Your shoulders are like this’ (T1 Lesson 1-study 4).

Of the three teachers, T3 raised the most points about technique. Although she only took part in one study, preventing comparison with how she might have taught other students, the percentage of points T3 made about technique (37%) was considerably higher than either teacher raised in any of the other four studies. This suggests, therefore, that her own particular bias influenced the needs she recognised in her student. Since the day she had heard the quality of sound her own teacher at college could produce, she had valued its importance in good performance.

‘Almost everything comes out of a good sound. You can play fast out of a good sound, and if you’re making good sound your muscles are working for you well. And I think also, when you’re making a good sound you’re opening up expressively’ (T3 Interview).

To achieve a good sound she recognised the importance of the right technique, which would mean that a student needed to become more aware of how s/he used his/her body. (See chapter 8 for a discussion about T3’s teaching of technique)

Like T1, T2 spoke of the importance she saw in getting her students to ‘let the music breathe’ and this was a frequent focus of discussion in study 2. However, in study 5,
T2 spent more time talking about aspects such as pitch, rhythm, dynamics, pedal and technique than interpretation. This suggests that the problems the student had with the basics influenced topic selection because it stopped her from going on to talk about matters of interpretation. However, understanding and carrying out the composer’s written instructions, was also very important to T2. In interview she listed her main performing aims as being:

‘to reproduce the music in accordance with what we think the composer was getting at, given the historical context, what the composer was writing around that time and what he or she had already written’ (T2 Interview).

More than the other teachers, T2’s teaching focused on the details of the music. In both studies 2 & 5, T2 spent more time discussing dynamics, tempo and pedal than the other two teachers. She raised many more individual points in much less time than the other teachers (see table 1), a characteristic which she recognised about her style of teaching. saying in interview that she could be ‘a bit nit-picky’.

<table>
<thead>
<tr>
<th>Table 1</th>
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<tbody>
<tr>
<td><strong>Total time study piece taught during the five recorded lessons</strong></td>
</tr>
<tr>
<td><strong>Dyad</strong></td>
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<tr>
<td>Total minutes piece Taught in five lessons</td>
</tr>
<tr>
<td>Total number of points raised</td>
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<tr>
<td>Points discussed per hour</td>
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It was evident that while listening to their students’ performances, teachers would be aware of several potential areas for discussion but were also conscious that they would need to prioritise and limit the number of points raised at any one time. T1 spoke about S4:

‘There are some things that she gets hung up about which sometimes I don’t want to bother getting hung up about, there are other more important things’ (T1 Interview).

Because the teachers controlled the final selection, a choice that reflected their different beliefs and approach, they had an influence, not only on which concerns were recognised but the order in which they were dealt with. Their belief in the benefits of, and therefore preference for, what could be called a ‘bottom up’ (i.e. teaching basic notation before interpretation), or ‘top down’ approach (i.e.
concentrating on the required character of the piece before worrying too much about note accuracy), was one factor which affected their choice.

Both T1 and T3 tended to adopt a top down method, talking about interpretation and style from the first lesson. Teacher 1 insisted that the character of the piece should be decided upon first:

'Interpretation first. That's not to say that interpretation shouldn't change once you've started learning it ... But yes because the character and the technique comes from the interpretation ... Otherwise the character is going to be shaped by what you can or cannot do' (T1 Interview).

Both talked frequently about aspects of interpretation from the outset. T1 spoke often about 'letting the music breathe' and T3, using much demonstration, talked about the character of Ondine.

'It's a water nymph isn't it? It's there one minute and gone the next. Lots of sounds... they need absolute distinction in the way you play the key, but they are left to evoke... Let it disperse and it goes away' (T3 Lesson 1).

In complete contrast to T1 & T3, teacher 2 spoke about favouring a layered approach where basics were mastered initially and interpretative features introduced later when facility and technique had advanced.

'I really like them to get at home with the notes, fingerings, accidentals and so on first. Anything else is a bonus' (T2 Interview).

Analysis of T2's teaching of the Shostakovich Prelude shows her doing this. (See table 2)

<table>
<thead>
<tr>
<th>Points raised per lesson while teaching Shostakovich's Prelude Op 34 No. 14</th>
<th>Pitch</th>
<th>Rhythm</th>
<th>Dynamics</th>
<th>Tempo</th>
<th>Pedal</th>
<th>Articulation</th>
<th>Interpretation</th>
<th>Technique</th>
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<tbody>
<tr>
<td>Lesson 1</td>
<td>4 mins</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Lesson 2</td>
<td>12 mins</td>
<td>3</td>
<td>2</td>
<td>-</td>
<td>2</td>
<td>3</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Lesson 3</td>
<td>12 mins</td>
<td>-</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>-</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Lesson 4</td>
<td>10 mins</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Lesson 5</td>
<td>26 mins</td>
<td>3</td>
<td>4</td>
<td>9</td>
<td>-</td>
<td>3</td>
<td>1</td>
<td>-</td>
</tr>
</tbody>
</table>
In lesson 1 T2 did little more than introduce the piece giving only a passing reference to the music's style as 'very Russian, intense'. She expected the student to learn the basics during the week, before too much was said about interpretation. However, by lesson 2, her student had not learnt the notes and rhythm adequately, and reflecting her priorities T2 concentrated on correct notes and rhythm, fingering (technique) and use of pedal rather than interpretation at this stage. Her advice to the student was:

'There was the odd slip up of notes here and there so watch out for those. But basically tempo to start with, then getting more familiar with it with your fingers obviously and then just making absolutely certain that your timing is immaculate' (T2 Lesson 2-study 5).

In interview she explained the thinking behind her choice of focus for this particular lesson:

'Well tempo's such a fundamental thing I think and we'd look at the notes as we went along. I wanted to choose an over-all thing first and then home in on all these chords that he couldn't play' (T2 Interview).

In lesson 3, T2 turned to the music's interpretative features a little more. She spoke about the style:

'It's portentous or it's ominous, or it's something, whatever. This sort of footsteps marching to the door which will open. The person inside the room is trembling with fright' (T2 Lesson 3-study 5).

And she suggested that her student 'took time' rather than rushing straight from one phrase to the next. Discussion about dynamics and articulation, elements which though written, had a further affect on interpretation, also appeared for the first time:

'This opening just needs a little bit more strength... slightly more delineated... outlined' (T2 Lesson 3-study 5).

However, T2's desire to follow a layered approach further appears to be affected by her student's lack of ability at a basic level. In lesson 3 she comments:

'There are one or two surprising errors of rhythm, I have to say' (T2 Lesson 3).

Eight different bars are highlighted for rhythm corrections during lessons 3, 4 & 5, and bar 24 is spoken about in all three lessons. As S5 continued to produce performances containing mistakes in accuracy of pitch, rhythm or dynamic awareness, T2 was forced to return to these aspects. Interpretation was, in fact, discussed less in lesson 5 than lesson 3, possibly because of these more pressing needs. This clearly indicates the influence of the student's needs over teacher plans:
'He needed help with all the rhythmic figures in it [the Shostakovich], which he really ought to have been able to sort out for himself, the syncopations and things. He was mostly all right about learning the notes, except that he never really got to grips until the very last moment, when panic set in... One or two of the chords, which were crawling with flats, I mean, he could have done them perfectly well if he just applied himself. But he didn't really sort of buckle down until the very last moment' (T2 Interview).

Her comments here show that she also recognised that S5's attitude and approach was handicapping his progress and that, therefore, he needed more than just information, advice and ideas, and that his needs were not only musical.

10.2.3 Assessing and helping the individual

Discussion so far has examined influences which affected the prioritising of students' musical needs. However teachers also recognised that factors such as how students felt about themselves, their attitude to the music or to work generally, affected learning and that these psychological aspects represented further relevant student needs. T3 alluded to the importance of understanding the personality behind the performance when she spoke of how individual students' dispositions could directly affect their playing:

'You bring your faults to the piano as a human being' (T3 Interview).

Students tended to look upon their teacher's role as being mainly to supply knowledge and information, however teachers tended to see their role as being much more broad-based. While speaking of encouraging students 'to explore' (T1), of suggesting 'alternatives to their interpretations' (T1), and of giving them 'as wide an experience as they are capable of getting, of the piano repertoire' (T2), teachers also wanted to have an effect on them as people. They wanted to inspire them (T1), 'to bring out whatever is there in the student' (T2), and 'to allow them to advance further than they thought they could' (T2). All three teachers wanted to give their students the confidence 'to stand on their own feet' (T2), an aim obviously related to the age and stage of these particular students.

'I like to help these pupils to realise that they can get so much out of music and that they will continue to get a lot out of music after they've left and that they will get to the point where they don't really need me they want to do their own... they want to express themselves in their own way' (T3 Interview).
Earlier discussion has noted that teachers' aims and beliefs can affect the particular musical problems they recognise in a student. To understand more fully how a teacher's individual perspective could affect his/her selection of a student's general needs, T2 was asked to take part in a Kelly Repertory Test. Kelly (1955) suggested that people use different measures to anticipate experiences, and therefore, to gauge people and events. This involves the development of a system of constructions that a person then imposes upon any occurrence with which s/he is confronted. (See also chapters 3 & 5 for discussion about Kelly's theory and administration of test). Using this test with T2 would show how she measured her students and what characteristics, therefore, were important to her. Investigation could then consider first how the constructs she used in life generally related to the characteristics she noted in S5 in particular, and second how much her particular perspective, therefore, influenced the needs she recognised.

In the test T2 was given groups of three names taken from a list of students chosen by her and known to her which included S2 and S5. For each group she was asked to identify one characteristic that two of the students had in common which was not shared by the third. In T2's final list of nine different bi-polar constructs three basic student attributes were referred to: attitude to work, innate talent and interactive skills. Significantly, five of the nine individual constructs related to attitude. These included, 'hardworking - know it all', 'industrious - lacking in focus', 'keen - lazy', 'disorganised - industrious', 'persevering - having difficulties'. As this appears to be such an important category for T2 it is not surprising that S5's basic problems in playing were recognised and attributed immediately to lack of practice. Further constructs included 'natural ability - intelligent', and 'hardworking without natural flair - hardworking with natural flair'. Put in context with the other constructs this indicates that T2 recognised a distinction between application and 'natural' ability. It also suggests that she would be disappointed with a student who had talent, which she recognised S5 as having, but who was not diligent.

Rosenberg, Nelson and Vivekanathan (1968), on the other hand, propose that people tend to use two main dimensions for evaluating other people, good/bad socially and good/bad intellectually. T2 had taught S5 for six months prior to the start of the study during which she had formed opinions about him, which would have affected her
assessment of his actions on future occasions. In interview she talked about her impressions of S5. Her comments fit into Rosenberg et al's two categories. As a person she saw him as 'a bouncy “tigger” bless him, he's very nice’. However as a student she described him rather differently: 'he can be infuriating’, ‘not industrious’, ‘I don’t think he’s got a cultural background’, ‘he’s done very little this year’. In Rosenberg’s terms, therefore, T2 saw S5 as ‘good’ socially and ‘bad’ intellectually. However, these remarks also show that she was reacting to him in two different ways, one emotionally and the other intellectually. This could also be described as adopting two different roles. When she took on the personal/social role, she saw her student as ‘a nice guy’, whereas when she embraced the teacher role, with its responsibility to promote student progress, she was forced to admit that her student did not work and could be infuriating. These basic impressions would have affected how T2 listened to S5 and would have biased her judgements. It would have affected both how she identified future needs and how she met those needs.

This section has explored how the balance of influences from three factors - the teacher, the music and the student - affected the recognition and selection of topics on which teachers focused. The next section will examine what elements controlled the choice of methods and style of teaching which teachers employed to meet students’ needs.

10.3 Meeting students’ needs

10.3.1 Teachers’ beliefs and personalities

The teaching styles used by the three teachers varied significantly, and reflected to a great extent their differing beliefs and personalities. Teacher 1 recognised himself as tending to be philosophical and intellectual in his approach:

‘Not that I am more a philosopher or an intellectual, but I probably do talk about those aspects of music more than many piano teachers would’ (T1 Interview).

By contrast, teacher 3 valued the importance of awakening the senses in teaching, while teacher 2 saw herself as using both these approaches as she tried to combine both the intellect and the senses.

‘I would sort of like to see myself as a bit of everything really, because I think, for instance, it’s very important to go into the intellectual side of things, to look at the form of a piece. To try and read between the lines of what the
composer is doing, why he has used that harmony, and to analyse. I am quite analytical, but I try to find a balance between that and the sensual and that’s why I use such a lot of imagery, because the feeling’s so important’ (T2 Interview).

Teachers’ beliefs and personalities could also affect the style of interaction they encouraged. T2 thought that the atmosphere in a lesson could have an effect on the student’s ability to perform and develop. Her manner, though business-like, was bright, and humour was used often with both students. In interview she spoke about attempting to keep the atmosphere light and ‘jolly’,

‘I just want them to have an environment where they think they can do their best’ (T2 Interview).

S5 appreciated her lightness:

‘I don’t think I would respond so well to someone who was sitting there straight faced all the time, saying this is what you must do, go do it’ (S5 Interview).

When she did need to ‘lay it on the line to a student’ she spoke of attempting to do it in a ‘quiet way’ that would try ‘to engage his/her co-operation rather than make them go out of the room thinking, rotten old cow’ (T2 Interview), because she recognised the teacher/student relationship as a partnership.

‘I want their co-operation. I want them to feel that that’s what they want to go away and do. Because we are a team as far as I’m concerned’ (T2 Interview).

Teachers’ beliefs also affected the methods they used to put over their ideas. The teachers’ attitudes to demonstration for example contrasted greatly. During the ten recorded lessons of studies 2 & 5, T2 never once moved to the piano stool for a full demonstration of the music, demonstrating generally one hand only occasionally and briefly on the top octaves of the piano. T1 moved to the piano occasionally in study 1 and slightly more often while teaching S4 who showed more problems with technique than S1 had.

‘I’ve realised that I’ve learnt a lot by looking at someone’s hands. So if I play it’s generally for them to see fingers being bent and that sort of thing and how much easier it looks’ (T1 Interview).

However, T1 spoke about trying not to use demonstration as a first resort. As has already been noted in chapter 8, T3’s use of demonstration far exceeded that of the other two teachers (see chapter 8, figure 1). T3 emphasised in interview, though, that S3 was not a good imitator. Had he been, she said she would have used demonstration
less and asked questions more, thereby encouraging the student to think for himself more.

10.3.2 Adapting to the individual
The particular problems and personalities of the individual student also had a strong influence on teachers' actions. Teachers were sensitive to each particular student’s needs and willing to adapt the lesson to accommodate them. T1 spoke about adjusting his teaching style, the music, even the books used, to the individual. T2 also recognised how her approach changed depending on the particular student. She spoke about being 'joke-y' with some students while others preferred a more serious approach. She could be chatty with some while she felt she needed to be more strict with others. However, she saw her changes in behaviour being one of accommodation rather than a total selling of her soul.

'You have to be, in a way, a bit of a chameleon but at the same time, not let go of your absolute fundamental principles. But then you adapt them to each person, to their needs... It’s a combination of teaching according to my own personality and they can sort of like you or lump you at the end of the day, and also picking a method that will suit that pupil' (T2 Interview).

S2 and S5 were very different personalities and T2 felt she could be more frank with S5:

'[S2] used to come along very often making the same mistake week after week. ... And with [S2], if I had come down heavily on her that would have been the wrong way of dealing with it. I had to deal with it in a different way, maybe firm, but just make the point but not [pause]. Now with [S5] I can say, “look I’m not putting up with that, I don’t ever want to hear that wrong note again. Right?!” Be much tougher with him, in, well not exactly a joke-y way because I wanted to get the point across, but good humoured, always good-humoured’ (T2 Interview - study 5).

T3's preference for explaining with frequent demonstration, though evident in study 3, depended to some extent on who she was teaching. Recognising that a good imitator might mimic successfully without inwardly digesting the concept, she explained that she used demonstration more when a student was not a good imitator and verbal discussion more if they were.

'You try almost to do the opposite... a good mimicker, you tend to draw back and you ask them questions and you make them think for themselves. But then somebody who hasn’t actually observed closely enough, you want them to observe more, you would use more mimicking' (T3 Interview).
10.3.3 Monitoring the effect

The teacher's adaptation to any one single student involved a continual process of updating. T2 emphasised the interactive aspect of the one-to-one lesson behaviour when she noted that the way the student responded to her actions, displayed in such things as his/her body language, then drew out the style of treatment she gave the student.

'You have to adapt your level constantly. You can't be too sort of rigid. I'm sure some people are but I just don't think it works and it's going to put them off for life' (T2 Interview-study 2).

While viewing the video-recordings of her lessons during the interview, T2 analysed the methods she had used to teach S5. She recognised that her normal beliefs about the need to 'keep the atmosphere pleasant' might not be appropriate for S5 though it worked with most students. In the video of lesson 2 she heard herself patiently drawing S5's attention to some fundamental errors:

'That's putting it mildly. I think I'm much too nice to him! I think I've got to start calling a spade a bloody shovel with [S5]! That was out of time! Play it in time!' (T2 Interview).

The other two teachers also assessed the effect of their style of teaching on each particular student. T3 spoke about thinking that she might on occasions be 'a bit over-bearing for S3, a bit too dominant for him' (T3-Interview). T1 recognised that some students might 'be threatened' by his style of teaching. However, changing behaviour was not always easy. T1 felt that he 'came on too strong' at times when teaching S4 but had found it difficult to change this natural aspect of his teaching style.

'She's such a lovely person, it makes it even worse, the fact that I feel that I'm being an awful dictator in lessons and I really hate that' (T1 Interview-study 4).

Appreciating what behaviour might benefit the individual student was, however, not necessarily easy. T2 suggested that it took her up to a year to really get to know her students as people as she only saw them once a week or less. In fact T2 felt that she was not necessarily good at understanding 'where they're coming from, about what's making them tick' (T2-Interview), though she acknowledged that it was partly the students' expectations that influenced this situation:

'With the university students, I tend to be a bit business like.... because that's what they're expecting. They'd be disappointed if I got too chatty I think' (T2 Interview-study 2).
The manner in which a teacher met his/her student's needs was also influenced by both their personalities. T2 was aware that she accepted S5's excuses for not having practised where other teachers might not.

'I know why I do it, I chicken out because if he'd said, well I haven't actually practised it, I would then have had to have been much nastier than I would have liked to be, and I tend to sort of duck out a bit. I don't want to have to go through to that following stage' (T2 Interview).

But her reluctance to become more critical and serious with S5 was influenced by how she saw him as a person. Even though she acknowledged that she found him infuriating at times, she also saw him as 'a nice guy', and because of this found it difficult to get cross with him.

To investigate more specifically how teachers' methods and styles might have changed when teaching different students, the following section focuses on two particular aspects in studies 2 & 5. One concerned T2's response to a musical need, and involved examining how she corrected S2's and S5's pitch inaccuracies, while the other explored T2's response to a more psychological need, her use of praise.

10.3.4 T2's response to note errors

T2 used different words and tone of voice when addressing the two students. Her approach to S2 was quite gentle:

'Could you just be very careful with your notes there. Do it slowly from here' (T2 Lesson 2-study 2).

and:

'It's this E flat. You still need to watch that there isn't one, because I'm going to write this in actually' (T2 Lesson 2-study 2).

When S2 performed in lesson 3 and restarted because of errors, T2 actually encouraged her not to 'mind wrong notes'.

However, there was a noticeable difference in T2's style when addressing S5. The words and tone she used when reminding him about wrong notes was much more business-like. In lesson 2 she pointed out the importance of correct notes:

'What we want to do with this is, first of all you've got to get the notes settled' (T2 Lesson 2-study 5).

In lesson 4 her words contained a hint of sarcasm, revealing her increasing frustration and impatience:
'If we could start again, we'll get to this bit eventually and we'll have a few right notes' (T2 Lesson 4-study 5).

By lesson 5, when her student again missed out a C flat from a chord in bar 21, she told him sternly that he would get it right next time 'won't you'.

While watching the video of lesson 2, in which T2 remarked quite critically that his performance of the Shostakovich still sounded as if he was sight-reading it, I drew T2's attention to the fact that her voice was sounding 'edgy'. She agreed and explained that she had felt that she was having to work harder than she should with a first year university student.

'I can see from my body language that I'm getting irritated. My head movements and things. They're a bit annoyed' (T2 Interview).

However she was doubtful whether her student would have picked up on her annoyance, remarking that he was 'just not firing on all four cylinders' (T2 Interview). During S5's interview, he was shown the same excerpt from lesson 2. His remarks in interview, however, suggested that T2's words might not have had the effect on him, she had wished.

'I don't think she's 'having a go' as such, it's more like she's saying [that] that's what it [my performance] is coming across as, which I think is my cue to sort it out for like next week' (S5 Interview).

10.3.5 T2's use of praise

All three teachers used praise in their lessons. Praise could meet a student's musical need by emphasising that a feature of the performance should be retained:

'That was ever so much better then, you took your time, you gave it more weight' (T2 Lesson 5-study 2).

And it could also meet a student's psychological need by boosting self-esteem.

'OK, well done. Good start on that' (T2 Lesson 2-study 2).

In this respect a student would influence the amount of praise they were given by either showing evidence of achievement or by indicating a need for encouragement or both.

To investigate the influence of the student on the selection of teaching style further, T2's use of praise was quantified across the teaching of the selected study pieces of
studies 2 & 5. Praise could be given in the form of one word, 'good' or a continuous group of short sentences:

‘But you did put in the detail. You put in the articulation. It was nice. So it got the precision. Yes that was good’ (T2 lesson 1-study 2).

For the purposes of calculation, one word or a group of short sentences that continuously praised were categorised as a single ‘episode of praise’.

Table 3 shows that T2 praised S2 fairly regularly, averaging at a rate of one episode every three minutes.

‘She always finds something to praise as well and I think that’s good because it means that you’ve got a boost as well as something to work at’ (S2 Interview).

<table>
<thead>
<tr>
<th>Time spent teaching piece</th>
<th>No. of 'episodes of praise'</th>
<th>Average occurrence of praise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson 1 4 mins</td>
<td>2</td>
<td>1 every 2 minutes</td>
</tr>
<tr>
<td>Lesson 2 8 mins</td>
<td>4</td>
<td>1 every 2 minutes</td>
</tr>
<tr>
<td>Lesson 3 15 mins.</td>
<td>5</td>
<td>1 every 3 minutes</td>
</tr>
<tr>
<td>Lesson 4 13 mins.</td>
<td>2</td>
<td>1 every 7 minutes</td>
</tr>
<tr>
<td>Lesson 5 29 mins.</td>
<td>13</td>
<td>1 every 2 minutes</td>
</tr>
<tr>
<td>TOTALS 69 mins.</td>
<td>26</td>
<td>1 every 3 minutes</td>
</tr>
</tbody>
</table>

However, a comparison between the two studies reveals a significant difference in the quantity of praise T2 gave to the two students (see table 4). No praise was given to S5 during lesson 1, which consisted only of T2 giving advice about the style of the piece. However, in lesson 2, the piece was focussed on for twelve minutes, during which the student performed both the complete piece and various selected passages requested by T2. As this was the lesson in which T2 had thought S5’s efforts had sounded as if he was sight-reading the piece, it is not surprising that none of his attempts received any congratulations. By lesson 3, after a better week of practice, T2 was quite enthusiastic in her praise, the praise equalling that of lesson 3 in study 2.

‘That’s a lot better actually. I think it’s improved tremendously’ (T2 Lesson 3-study 5).

After this peak, however, the rate by which T2 praised her student dropped considerably in the next two lessons. In lesson 4, T2’s comments following S5’s initial performance suggest that she was disappointed by his lack of progress:
Table 4

<table>
<thead>
<tr>
<th>Lesson</th>
<th>Time spent teaching piece</th>
<th>No. of 'episodes of praise'</th>
<th>Average occurrence of praise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson 1</td>
<td>4 mins.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Lesson 2</td>
<td>12 mins.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Lesson 3</td>
<td>12 mins.</td>
<td>5</td>
<td>1 every 3 minutes</td>
</tr>
<tr>
<td>Lesson 4</td>
<td>10 mins.</td>
<td>2</td>
<td>1 every 5 minutes</td>
</tr>
<tr>
<td>Lesson 5</td>
<td>26 mins.</td>
<td>2</td>
<td>1 every 13 minutes</td>
</tr>
<tr>
<td>TOTAL</td>
<td>64 minutes</td>
<td>9</td>
<td>1 every 7 minutes</td>
</tr>
</tbody>
</table>

Lesson 5 took place a month after lesson 4, the delay caused by a thumb injury. As he had not been able to practise during this period, it is not surprising that praise was limited at the beginning of the lesson. However, T2 talked about and S5 performed excerpts of the piece for twenty-six minutes of the lesson at the end of which S5 gave a performance. T2 was delighted with this and it gave her an opportunity to be generous in her praise:

"All the things we've talked about for the last twenty-five minutes you did. You remembered everything. I thought that was a good performance" (T2 Lesson 5-study 5).

T2 felt that a teacher 'should always praise when there's cause to praise' as students, 'even [S5]', she added, needed a sense of achievement.

"The point is with [S5], there's so much to put right and so much to criticise that if I just did nothing but that he might then go out of the room and think 'daft old cow'. So I have to give him the feeling that he has achieved. And this is why I was so outspoken in my praise of the Shostakovich' (T2 Interview-study 5).

Further analysis of this data reveals a distinct difference in the wording used by T2 when praising S5 compared to S2. On four out of nine occasions T2 tempered her praise with the use of the word 'actually', when praising S5:

'A lot of that you've got the feeling of very well actually' (T2 lesson 3-study 5).

'I thought that was a good performance actually' (T2 Lesson 5-study 5).

This is not an idiosyncrasy of T2's use of words, as it was not used when praising S2. Rather, the word suggests surprise at S5's success and shows that her expectations of
him were not high. It also indicates that she, influenced by his past behaviour, would hear S5’s performances differently from S2’s.

T2 recognised a difference in the psychological needs of S2 and S5. She perceived S5 to be ‘very confident’:

‘he’s been around he’s worked in the working world, he’s met a lot of people, he’s obviously used to communicating with people’ (T2 Interview).

She found him a ‘very likeable person’ but did not feel he had S2’s ‘focus’. As a result she thought that S5 did not need his self-confidence boosting or his morale lifting, and referred to his needs as more like ‘whip cracking’! In contrast T2 felt that S2 did not need motivating or inspiring but had, however, ‘needed constant encouragement, constant reassurance’. Consequently, S2 received more praise both because she had earned it and because she needed it. S5 was given less praise both because he deserved less and because T2 felt:

‘I’ve got to make sure he doesn’t get complacent’ (T2 Interview-study 5).

In this way, both T2’s manner of dealing with note errors and her use of praise were clearly influenced by the students’ personalities and by the standard of the work they produced.

10.4 Summary and Conclusion
The data presented in this chapter have shown the complex interplay of influences that affect teaching and lesson interaction. Teaching in a one-to-one lesson is initially a response to problems observed in the students. Teachers recognise that students’ needs vary and furthermore will change depending on the occasion or the piece being played. However, teachers are individuals too and their individuality will have a significant influence on how they respond, on how they judge, select and meet their students’ needs. The assessment of and response to student needs, therefore, will be affected by many teacher factors. These will include their knowledge and experiences; how they view their role and value the various elements of performance; the personal constructs they use to evaluate people and events, and their personality and abilities. They not only assess students’ performance problems but they also monitor the effect of their teaching and, influenced by their impressions of student reactions, they change and adapt their behaviour. The chain of influences on lesson interaction is complex. To take an excerpt from lesson 5 of study 2, first S2 is initially
proactive in that s/he presents problems while performing the Prokofiev. T2's reaction leads to her proactive behaviour when she points out that the accompaniment at bar 8:

'was coming out, perhaps a bit much and forcing the right hand perhaps a bit louder than you feel you'd like to [play it]' (T2 Lesson 5-study 2).

The tentative and gentle manner T2 uses to discuss this point reflects S2's further influence. The student responds by attempting the bars again. Once again this is monitored by T2 who, reacting to the slight improvement she can hear and also the previous knowledge of her student's psychological needs, encourages her: 'that's better'. S2, however, is reluctant to accept the praise and asks for more help by discussing that she is still having difficulty achieving what T2 is suggesting. T2 reacts by advising her to 'take the weight over into the top end of your hand'. This one, albeit brief, example reveals the proactive/reactive interplay which continues throughout the one-to-one lesson between student and teacher.

This research has shown that students' influences on lessons are quite considerable. Their problems affect the events in the lesson and their personalities affect how the teacher treats them. However, it is the teachers who assess and make judgements, select and prioritise and decide upon the appropriate action with which to meet the needs of the particular student. In this respect, students might have an initial influence on events but teachers make the ultimate choices. This, then, is a further feature of lesson interaction which shows teacher dominance. However one-to-one teaching uses different skills and makes different demands on its teachers than are required in group teaching situations, as it does on its students too, who need to be more ready to provide the feedback required. As well as knowledge and ability, teachers also need to be sensitive to the student and the situation, willing and able both to monitor the results of their actions and adapt, like the chameleon, to suit their environment. The one-to-one piano lesson provides a unique opportunity to develop the musician in the individual student, it permits lessons to be custom-made, but this, inevitably, presents the one-to-one teacher with a considerable challenge.
Chapter 11

Summary and conclusions
Summary and Conclusions

The aim of this research has been to discover and analyse the main elements of student/teacher interaction within the one-to-one piano lesson, using both observer and participant perspectives. Five specific aspects of interaction have been presented, selected to represent a balance of subjects: the elements of the interactions; the influences upon them; and their consequences. Chapters 7 & 9 analysed characteristics of the interaction; student communication (chapter 7) and teacher’s use of gesture and movement in teaching (chapter 9). In chapter 7, findings supported previous research that had found that students talk little in lessons. The causes for this were identified as students’ fixed ideas of how they should behave, their desire to be liked and not to appear rude or ignorant, and their lack of confidence in their own views. Furthermore students were often unaware both of how little they spoke, and also that their teachers might have preferred them to communicate more. However, although student speaking was minimal, considerable information about matters such as students’ performance problems and ideas, their feelings and reactions, were communicated through their playing, their movements and expressions. In chapter 9, the use of gesture and movement was shown to enhance both the teacher’s ability to teach and the student’s ability to learn, demonstrated particularly through T1’s lively and extravert character.

Chapters 8 & 10 investigated factors that had an effect on the interaction; both from outside the lesson (how previous events and experiences influenced how the teacher taught - chapter 8), and from within the lesson (how the perception of students’ needs
affected teaching – chapter 10). Chapter 8 examined the inspiration behind the content and method used by these teachers, who had received no specific training in teaching. The chapter showed that ideas could come from many and varied sources and would consequently be very individual. Ultimately teachers’ personal experience of what had worked for them, either in their teaching or playing, steered the content and style of their teaching. The analysis in chapter 10 explored how teachers adapted their teaching to the needs of the individual student, questioning whether this led to a less teacher-dominated and more equal partnership. The conclusions were that while students’ needs did direct the lesson to some degree, the lesson was ultimately teacher-directed, because it was the teacher who assessed and selected which ‘needs’ should be addressed.

Student learning, as a consequence of interaction, was examined in chapter 6. The investigation discovered that, while skill mainly developed during private practice, the lesson provided a necessary impetus for student learning. Teachers offered information, suggestions and advice while also inspiring and motivating their students and stimulating their thinking. Students particularly valued teachers’ help in matters of musical interpretation, communication and technique.

A sixth investigation considered how interaction might change over time (chapter 5). The findings suggested that pupil/teacher interaction within the lesson changed very little beyond a small increase in social ease, more evident through participant report than observation, as behaviour patterns remained remarkably constant over time.

These individual studies have led to the formation of a set of principles describing student/teacher interaction in the one-to-one piano lesson. Although separated here for clarity, in reality they overlap and interlink.

11.1 Principles of interaction within the one-to-one piano lesson

1. The student/teacher relationship and lesson behaviour is -
   - asymmetrical
   - teacher dominated
   - formulaic
unchanging over time
- teacher promoted, student supported
- influenced by previous experiences.

2. Lesson routine is -
- teacher controlled
- regular, consistent over time and between dyads
- based on improving performance skills through the study of individual pieces
- comprised of three steps: student performance, teacher assessment and advice
- set up as if skill is acquired instantly.

3. Student performance is the primary medium for -
- communicating students’ ideas, progress and needs
- demonstrating a student’s grasp of the teacher’s advice

11.1.1 Asymmetry in lesson interaction
The student/teacher relationship is asymmetrical in that student and teacher wish to be treated differently. Teachers hope to be respected and listened to. T1 also wanted his students to think that he was a good pianist and that he was able ‘to do the job right’ (T1 Interview). Students both encourage and satisfy this attitude. P1 described her relationship with LT1 as ‘pupil/teacher... somebody I can go to and ask advice’ (P1 Mid-Interview), P2 saw her relationship with LT2 as ‘master/apprentice’, while S3 explained:

‘I think I’ve always seen myself as a student and seen the teacher as the person who is going to pass on the useful knowledge to me’ (S3 Interview).

In contrast, the student in the relationship seeks to be approved of, and to please. The students frequently spoke of trying to play well for their teacher and of wanting him/her to appreciate how much work they’d done.

‘If I make a mistake I always have to say to her, “it doesn’t normally happen”’ (S2 Interview).

Although no other study appears to have considered specifically the asymmetry in participants’ aims, motives or the view of their roles within the professional dyad, several have quantified the asymmetry in activities. The results from this study have
supported the basic findings of Kostka (1984), Speer (1994) and Hepler (1986) - that during a lesson teachers mainly talk and students mainly perform. Although Kostka’s students consistently spent more time during their lessons playing than their teachers did talking, research both here and by Speer does not present a simple picture of the situation. Speer suggested that teachers spoke less and allowed their students to perform more when those students were older and more advanced. The long studies reported here offer some support for this in that the older and more advanced P1 performed more in her lessons than P2 did, and LT1 talked proportionally less than LT2. However, within long study 1 and several of the short studies, the greatest activity varied from lesson to lesson between teacher talk and student performance. Fluctuations in the balance of these two activities hint at the influence of any number of factors from the work being studied and the stage it had reached, to the mood of the participants on the day. Nevertheless, in both long and short studies here, as in Kostka (1984) and Speer (1994), student talk and teacher demonstration were always the activities least in evidence. Medical research, has noted a similar asymmetry in consultation interaction. Studies by Bain (1976) and Stiles, Putman, James and Wolf (1979) both found that doctors talked more than their patients did.

This study has identified both the student/teacher relationship and lesson behaviour as being teacher dominated. Persson (1994) described the clarinet teacher he observed as ‘generally a very dominating teacher [who] demands more or less total compliance to the suggestions and solutions she provides her student with’ (p 226). Similar behaviour was noted in doctor/patient dyads: Byrne and Long (1976), for example, reported that in the consultations they observed, approximately 75% of what took place was doctor initiated. Litton-Hawes noted that participants followed rules of interaction which suggested doctor-dominance. For example a patient would feel obliged to comment on, or ask questions about a topic introduced by the doctor before introducing a separate topic.

An asymmetrical student/teacher relationship can be advantageous in that if a teacher’s knowledge and experience are respected, s/he will be listened to, advice will be trusted and suggestions tried out. Similarly, the student who is keen to be approved of will try to ensure that pieces are prepared well and will be attentive in lessons. In the lessons observed students supported and encouraged this style of interaction.
Analysing the analogous medical situation, Savage and Armstrong (1990) also found that a doctor-centred consulting style was associated with higher levels of patient satisfaction than a sharing style.

However, this imbalance can also have negative consequences. Persson (1994) noted that the dominant behaviour adopted by the teacher he observed, allowed students only minimal opportunity to communicate in these lessons. In the same way, Korsche and Negrete (1972), investigating the medical consultation, found that patients were dissatisfied with doctors who, by maintaining tight control over the structure of the interaction, restricted the opportunities for them to raise matters that concerned them. The teachers observed in my own research are considerably less restricting and controlling, and as I have shown, a number of them said that they wanted students to talk more and tried in various ways to give their students this opportunity.

Nonetheless, this study has noted other disadvantages of the asymmetrical style of interaction. Being keen to be approved of can cause a student to be very conscious of, and cautious about, his/her behaviour in the lesson. Chapter 7 noted that S2 was so anxious not to be thought rude or arrogant that she was very reluctant to speak out about her opinions. (Ironically, T2 would have been pleased if she had have spoken out more). This attitude can also cause students to be unadventurous. S3 liked to listen to recordings of a piece he was learning, rather than risk performing it inaccurately in the lesson. S1 recognised that while having respect for his teacher would make him more receptive to ideas it might also make him 'a bit more passive':

'I think it's something to do with being slightly in awe of him that I just think, oh that's a great idea. Not necessarily because I think it is a great idea but ...because it is coming from him' (S1 Interview).

Chapter 7 has already highlighted the reluctance of students to disagree with their teachers. S1 commented that he thought it would be 'agony' to say to his teacher that he thought he was 'wrong'.

When comparing the style of interaction between the younger pupils and their teachers in the long study dyads and the older short study students and their teachers, little difference was observed. Byrne and Long (1976), who identified seven styles of doctor behaviour ranging from doctor-centred to patient centred, noted that the style a
doctor used varied little between consultations, therefore putting the onus for this inflexibility on the doctor rather than the patient. In this study, however, evidence has shown that the student can also influence the failure to break away from an unchanging style of interaction. The older students suggested that the behaviour they adopted currently was very similar to that they had used when younger, less knowledgeable and less experienced:

'I think it's because [in] my previous teacher relationships...I [would] just sit there' (S1 Interview).

However, is this style of interaction appropriate or beneficial at the tertiary stage, when piano lessons are coming to an end? Surely this is the time when students need to adopt a more independent approach, have confidence in their ideas, and develop some originality in the learning and interpreting of music. Teachers were aware of this need:

'Ultimately the aim is to make them able to stand on their own feet, to make myself redundant, particularly at a student level. I think it's terribly important to throw the ball into their court' (T2 Interview)

Unfortunately, there were few occasions in the lessons observed when such metaphorical balls were thrown or if thrown few caused any reaction in students. This research suggests, therefore that an asymmetrical, teacher-dominant relationship can stifle the development of student independence and inhibit behaviour.

11.1.2 Lesson routine
Research here has noted that lessons followed a regular routine that was consistent over time and between dyads.

'It's fairly standard really isn't it, just to play through what I'm doing and go through the worst bits' (S2 Interview).

Persson (1994) reported that the lessons of the clarinet teacher he observed 'tended to follow a very strict strategy' (p 226). The teacher-dominant style of lessons meant that it was the teachers who influenced the regularity and consistency of this routine. They felt that because of their extra knowledge and experience they were better equipped to be in control of the lesson. LT2 spoke about her lessons being

'basically friendly, as long as I'm in charge... Somebody has to be in control don't they?' (LT2 Initial Interview).
A teacher-directed lesson has certain advantages. It allows teachers the maximum opportunity to share their knowledge, ideas and advice with their students and also to direct the student's attention towards the more important aspects to be learnt. However, a lesson that is too teacher-directed can encourage passivity in students, and can result in areas of student concern being overlooked.

Previous studies (Madsen and Madsen 1972, Price 1983, Yarborough and Price 1987, and Speer 1994) have suggested that the sequential pattern of instruction – teacher presentation, student response and teacher reinforcement – is beneficial for effective teaching. The research presented in this thesis, however, has seen the pattern of lesson events rather differently. In particular, it has recognised the initial behaviour as student performance. This is important as it emphasises that it is the student’s current ability and/or problems that becomes the stimulus for teacher advice rather than the other way around. Furthermore, nothing in this research has suggested that this has in any way reduced the efficiency of the teaching. In comparing these studies, however, two matters need to be noted. First, although Speer (1994) did look specifically at the one-to-one piano lesson, the others observed 'choral and instrumental rehearsals', implying that they were evaluating a style of group teaching which may or may not benefit from a different pattern of teaching. Second, the lessons and rehearsals observed in the other studies took place in America and might, therefore, reflect a different style of teaching than that usually found in Britain.

In all the lessons observed, performance skills were taught through the music being learnt rather than through exercises. There were several positive consequences of this method. Learning to play a piece of music well can provide intrinsic rewards for students. It enables performance to be for the student's own or others' enjoyment, or in the case of the university students, means that the piece could be offered as part of their course in an end of year recital. T3 felt that the experience that students might have from learning a few pieces very well was invaluable:

'I mean you want them to be enlarging their repertoire but you assume they are doing that as university students anyway, but if they can just get an inkling of what it feels to get the real heart out of music, I think they'll continue playing far longer and probably exploring far more repertoire than if you just let them go dry' (T3 Interview).
Unfortunately the students' experience of piano repertoire appeared to be limited and S2 spoke of looking to her teacher to increase it, though there was only time in lessons to cover a very limited number of works per year. This is an example of students and teachers not communicating clearly about the aims and purpose of the lesson.

11.1.3 Skill acquisition

Although both student and teacher were aware that many hours of practice were necessary to master the technique of piano playing generally, or one piece specifically, the lesson was structured as though skill was acquired instantly. Often, after only a week of practice, students were asked to perform to their teacher. Presumably the teacher wanted the opportunity to monitor student's progress and to point out any important mis-readings or mis-understandings before they were practised into the piece. Most teachers at this time began to talk, too, about the eventual style, character and interpretation of the piece. However students were not always appreciative of this early help and advice.

First, they often found the suggested details and adjustments very difficult to add to their performance in the early stages, when their attention was preoccupied with playing the correct notes at the right speed. S1 spoke of his frustrations (see also chapter 6):

'I think at this point I just didn't want to work on it in that sense. I just wanted to get the notes in the right place' (S1 Interview).

Second, this procedure could lead to student guilt and embarrassment:

'I have to work very, very hard. That's why everything takes time, you know... and once a week for lesson doing those pieces, very perfect, it's very difficult for me and I think, with my ability I can't do that. That's why when I have lesson with these pieces I'm feeling very down, very guilty, because every time I go there I feel like gosh I'm going to make the same mistakes' (S4 Interview).

S2, who disliked making mistakes, also spoke of her embarrassment at her performances. Third, students also felt that teachers often talked about the style of the piece before they had had time to develop their own interpretation:

'I hadn't really formed my own ideas about the piece and he was already thrusting these ideas on me. So I didn't really have chance to kind of think them through properly... I like to develop things myself, more organically, rather than him telling me what to do’ (S1 Interview).
Finally, early intervention could also mean that teachers pointed to errors, many of which the student would have eventually corrected him or herself. This could waste time and undermine confidence.

The interactions observed revealed significant strengths. All three teachers were liked by their students, their lessons were enjoyable and all students felt that they learnt a lot about piano performance. The teachers had information to share with their students and they used various imaginative methods (gesture, piano demonstration, analogy and humour) to impart their knowledge and make it memorable. Together with these strengths, however, there were weaknesses, such as teachers' lack of understanding of their students, student passivity, and student frustration and embarrassment in lesson performance. The following section will suggest ways in which interaction in the piano lesson can be changed so that the negative consequences observed in the current style might be reduced, while the strengths are retained. The aim is to recommend a style of interaction appropriate for students at the tertiary stage.

11.2 Practical implications

Students should communicate more in lessons. Teachers were often unaware of their thoughts, feelings, attitudes, concerns and difficulties simply because students were unprepared to share these with their teachers. But more than this, students at this stage need to play a more active part in the lesson and take more responsibility for their learning. They need to be prepared to investigate, explore, research and experiment outside the lesson so that they have the confidence to present their opinions inside.

Students need to take a more directive role in the lesson. They should draw their teachers' attention to problem areas and present their work in performance when they feel that they are ready for their teachers' views. This may be either because they have mastered the basics and are able to take on new ideas, or because they have had time to formulate their own interpretation and are keen to hear their teachers' opinion.

'Like this Britten and Shostakovitch, because we have like two or three weeks. I really have time. I work on that by myself. And I'm feeling good in lesson. I can present something' (S4 Interview).
Mackworth-Young (1990), considering younger pupils (11-14 years) also suggested that lessons need to be more ‘pupil-centred’ and less ‘teacher-directed’. She noted the benefits as ‘increased interest, positive attitude, motivation and progress’ (p 73). The recommendation here goes one step further and suggests that a shift from a teacher-directed towards a student-directed style of interaction would be beneficial for students — certainly at the tertiary stage, and arguably earlier. Persson (1994) also recognises the need to encourage independence when teaching students at the tertiary level while Rogers (2002), interviewing music college students, showed that these ideas are also relevant in conservatories. Rogers quotes students saying that they ‘shouldn’t be spoon-fed’, and that they need to take the initiative more.

‘There has to be a balance between the college providing the right skills, the musician’s responsibility to seek out those skills, and honing the innate talent of the musician’ (Appendices p 11).

To achieve these changes in student behaviour, teachers need to adjust their own style of interaction. Initially they should clarify to the student the role they feel is appropriate and beneficial at this level, so that students do not, often in a misguided effort to please their teachers, continue to behave passively. Furthermore, they need to support this by inviting comments and opinions, asking questions, encouraging student research, and ensuring that students’ ideas are given a positive reception.

A less teacher-dominated lesson would reduce student passivity and frustration, and ensure that more of the students’ own ideas are incorporated into their musical interpretations. Students would feel that their input was needed and valued and the lesson would become more interesting and enjoyable for both parties. At the tertiary level students need a style of interaction that will prepare them for independent learning in the future. They need to leave their final lessons enthusiastic about playing and learning more music, able to continue to develop as pianists, keen to add to their repertoire, and confident in their own ideas and abilities.

11.3 Evaluation of research methods

11.3.1 Casting the data collection net wide
The design for this research has necessarily been broad and inclusive. First, because this research aimed to develop rather than investigate theories, a broad sweep of data
collection was employed so that a wide range of sources of information could be searched. Second, because previous studies have not really considered student/teacher interaction it was unclear at the outset what would be uncovered or what would need to be investigated.

The short studies
The methods selected for the short studies produced data on a large variety of relevant factors. First, the videos provided a comprehensive record of observable lesson behaviour – the words spoken, musical performances, as well as participants’ movements, gestures and expressions. Second, the interviews augmented this by supplying information on lesson interaction from the participants’ perspectives, the data covering many aspects, both with regard to general information - their background, experiences, attitude and aims - as well as their specific views, reactions and feelings relating to the observed lesson interaction. Because the interviews were semi-structured, any aspects of particular interest and relevance could be pursued further.

The third area of research, entailing the selection of a short piece of music to be studied during the period of observation, provided a focus when analysing aspects of lesson teaching and learning. Pre- and post-lesson disklavier recordings supplied quantitative data about how the performances changed from week to week. In the final analysis only one of these sets of recordings was used. The short study students had learnt and recorded different pieces, and therefore their data were not directly comparable. However, because of the broad aims of this research, the in-depth analysis of one student’s learning provided sufficient information to discuss how performances might develop over time. There are possibilities for further research into student learning using data from disklavier recordings and these are discussed in a later section.

The long studies
While the aim of the short studies was to investigate what elements were involved in one-to-one interaction in the piano lesson, long studies aimed to monitor any changes in interaction over time, whether behavioural changes within the lesson itself or alterations in participants’ feelings and attitudes towards the lesson. The lessons in
the long studies were audio-recorded only, therefore restricting the data collected to participants' words and musical performances. Concerns about the repeated invasion and probable inconvenience of the presence of a video camera in lessons over a two-year period had prompted this decision, and the small audio-recorder used was certainly less intrusive. Although this meant that no information about physical behaviour, such as pupil or teacher positioning, movements and facial expressions was collected, there was such a quantity and a variety of data collected overall that this loss was not felt to have limited the ultimate analysis, particularly in view of the broad aims of the research.

The Kelly repertory tests administered in the initial interviews showed very clearly how pupils and teachers would evaluate each other. The difference in test results, particularly between the constructs of the two teachers, indicated how individual and relevant this information was. Using the resulting data as the basis for constructing statements for the ratings grids meant that each person was being asked to assess characteristics which they would be consciously or unconsciously evaluating anyway. An error in the organisation of data collection highlighted this, when, on one occasion the teachers' rating grids were sent to the wrong teachers. Both LT1 and LT2 found the 'foreign' grid difficult to complete, as the statements seemed irrelevant to them, and they both wrote remarks to this effect on the grid before they returned it. (They were subsequently sent the correct grids!)

The diaries, written after each lesson, achieved their aim - to catch pupils' immediate reactions to their lessons. The diary data also provided the opportunity, on occasion, to link pupils' post-lesson remarks with the recording of the event, thereby allowing pupils' subjective reactions to be considered in the light of the objective data. Two further semi-structured interviews and termly rating grids which also offered the space for participants to comment freely on various related topics, meant that these methods produced a vast amount of data relating to the many areas which might have changed over the two years.

The aim of the design had been to collect objective data about the interactions themselves, subjective views about the interactions from the participants and quantifiable data about changes in the performance of music taught during the lessons.
The data produced through the various methods were very rich and provided ample opportunity to draw conclusions about the interactions observed.

11.3.2 The effect on participants of being recorded

Early investigation had considered the effect on participants of having a camera in the room recording the lesson. The pilot study suggested that although the camera could cause participants to behave slightly self-consciously initially, this would reduce over time. The short study participants were asked in their interviews whether they were aware of either their own or the other person’s usual behaviour changing as a result of the presence of the camera. The students suggested in the main that the behaviour in their lesson continued as normal.

‘I didn’t really pay much attention to it, I just carried on like it wasn’t there. I tried to forget it... it didn’t bother me. I think the lessons were pretty much as normal...I can’t really think of anything that was different because of the recording’ (S2 Interview).

S5 was the only student who spoke of the camera causing him to act differently, though he felt that this only affected him during the first week. S4 thought T1 acted a little more ‘formally’ during the first week, while T1 suggested that he might have acted a little ‘more eccentric without it there’. T2 and T3 both thought that being recorded made them more aware of their teaching. T2 spoke of perhaps being more conscious of choosing her words, and of not being too frivolous. None of the participants, however, felt that the camera affected interaction beyond the first week. This method, therefore, can be judged to have produced clear data about the lesson itself without affecting normal behaviour to any real extent.

In the long studies, only LT2’s lessons appear to have been affected by the presence of the audio-recorder. P2 described the recorded lessons as ‘more formal’ and her teacher’s behaviour as ‘less chatty’, while her teacher described her student as ‘more nervous’ when lessons were being recorded. The fact that the audio-recorder was only used intermittently was one cause of this. More frequent use would, however, have demanded too great a commitment from the participants over such an extended time period.
11.3.3 Investigating from three perspectives

While some previous studies have investigated lesson interaction using observation only, this research particularly set out to include the participants’ perspectives. In the event, the information gained from the teachers and students in their interviews supplied more than an extra dimension to the study, as on occasion it also revealed evidence of misunderstandings and contradictions. The short-study interviews used two different approaches to encourage participants to discuss matters, the direct semi-structured interview and the indirect ‘interpersonal process recall’ (showing video excerpts of the recorded lessons). Together they stimulated more discussion than either method alone could have done. The interviews allowed questions to be directed at more general factors, while watching the videos provided the opportunity to remind the participant of a particular event in a lesson.

Although the data collected were sufficiently rich for a broad investigative study such as this, a later section will consider how changes in method, permitting more detail in certain areas, would offer the opportunity to pursue subjects further.

11.3.4 Validity

There are two important questions to ask when considering the trustworthiness of research: First, is it externally valid, or generalisable? Second, is it internally valid? (Wellington 1996, p 47). However, with regard to the first question, it should be emphasised that it was not the specific intention of this research to aim for results that would be broadly generalisable. Rather, the aim was to investigate ‘individual experience’ in the piano lesson in quite a detailed manner, with the intention of exposing something that is usually hidden. The behaviours examined, therefore, were inevitably specific to the particular individuals and circumstances that were observed. For example, though all teachers communicate through gestures and movements, T1’s particular use of space in his teaching room, as discussed in chapter 9, was peculiar to him. Similarly, chapter 8 details the various events which had influenced T3’s teaching, but the only generalisable conclusion from this case-study is the rather broader observation that teachers’ personal experiences of what worked for them, either in their teaching or playing, steered the content and style of their future teaching.
One particularly specific characteristic of the research in this thesis is that it focuses on tertiary level students, and has suggested that these students need to be given more voice and independence. However, this is almost certainly inappropriate advice when considering young beginners. In this respect, therefore, care must be taken in extending recommendations beyond the educational and developmental context within which the research was carried out. On the other hand, the fact that these were all piano teachers and pupils is probably not all that significant: it seems likely that similar patterns of asymmetry between teacher and pupil would be found for violinists, flautists, saxophonists and tuba players – and that the same recommendations could therefore generalise to other instruments.

The second matter concerns internal validation, which Robson describes as 'the extent to which a study establishes that a factor or variable has actually caused the effect that is found' (Robson 1993 p 46). Although a degree of outside validation was sought through discussions with supervisors, this thesis is an interpretative piece of writing and, to a large extent, the points raised therefore rely on internal consistency. Throughout the writing, it is the participants' rather than the observer's perspective that has been emphasised. For example, the explanations presented as to why T1 moved to various parts of the room while teaching (chapter 9) were his own, and the reported effect which this might have had on his student came from her (the student's) descriptions. Furthermore, many of my conclusions have been the result of comparing the five studies – in other words based on criteria that come from broadly internal comparisons. For example, a statement such as 'S3 talked very little' is based not on a comparison with some hypothetical general population, but on an internal comparison of the five students' behaviours.

Ensuring that conclusions drawn from any study are believable and trustworthy is of the utmost importance. This study has achieved internal validation largely by relying on internal consistency - by emphasising the participants' perspectives and by drawing conclusions from cross-study comparisons. The extent to which these same conclusions would have emerged from a different set of individuals and lessons is something which this study was not designed to, and cannot, address.
11.4 Future research

11.4.1 Assessing the effect of student-directed lessons
The recommendation of this study has been that students take a more directive role in lessons at the tertiary level, and an empirical study to monitor the effect of allowing and encouraging greater student input into the lesson could test this proposal using students both at music college and university. In Mackworth-Young’s study (1990) comparing teaching approaches, pupils only experienced two lessons in the pupil-directed style. However, students need considerably longer to adapt to and respond to a change of lesson style, before reasonable conclusions can be made. Further research should consider if it is possible for teachers to encourage students to talk more, and whether any resulting changes in behaviour are qualitative as well as quantitative, and should also consider longer-term effects on matters such as students’ self-esteem and attitude to learning.

11.4.2 Investigating student learning 1
This study has focused mainly on how lesson interaction affected learning, but the analysis has also included some investigation of how a student’s performance of a piece of music develops over time. Students’ words supported Fitts and Posner (1967), who recognised three acquisition stages for cognitive skills – the early or cognitive stage (the task is assessed), the intermediate or associative stage (strategies of learning are identified) and the late or autonomous stage (responses are accessed automatically). However more information is needed as to how Fitts and Posner’s theories relate specifically to the learning of a piece of music. A follow-up study, monitoring the developing performances of several students learning the same piece of music using statistical evidence from regular disklavier recordings, would provide the opportunity to investigate performance development more thoroughly. To ensure that student learning was not influenced by teacher input the music would be self-learnt by students. Several studies have already looked at this area. Lisboa (2002) has investigated the processes of learning with young cello students, while Hallam (1995) and Chaffin, Imreh & Crawford (2002) have analysed how professional musicians learn new repertoire, focussing on the cognitive style and cognition processes involved in learning. The study suggested would use quantitative data to look particularly at how performances changed over time and between students, and would
therefore analyse the results of practice rather than monitoring the practice itself. Such an investigation could answer further questions about how students learn. At what stages are different aspects of performance mastered? Is there evidence of interpretative features being incorporated from the start or do students tend to learn notation first? And finally, how do the stages of development and learning differ between students? The knowledge gained through such a study would better equip teachers in their teaching.

11.4.3 Investigating student learning
Kelly’s role construct repertory grid test has been used in this research to reveal the dimensions by which participants gauge other people (see chapter 3). However, the test is very versatile (see Cohen & Manion 1994). It could also be used to learn more about how a student conceptualises learning and performing music. An initial study, using specific pieces that a student was learning or had learnt as ‘elements’, could test whether it was possible to elicit constructs which would lead to a better understanding of how individual students approach the learning and performing of music. If teachers were able to understand the student’s perspective on a task, they might be in a better position to facilitate learning for that student.

11.4.4 Identifying the factors that predict successful/unsuccessful student/teacher relationships
In universities and colleges new student/teacher dyads are set up every year. How are teachers selected for their students? Although thought may be given to the particular interests of students and the expertise of teachers, how much note is taken of other aspects? Choosing the right teacher for a student can be crucial to that student’s development and progress, not only because of the academic and musical information different teachers are able to provide, but also because of the psychological effect a teacher might have on a student and his/her musical development. Could a better understanding of the factors involved in a successful partnership reduce the ‘chance’ element from the selection process?

This study has touched on the effect of particular student/teacher mixes. It has noted the possible advantages of a dyad composed of individuals with very different personalities, where the teacher can offer the student an alternative attitude and
approach to learning (see chapter 9). It has also pointed to the possible disadvantages of a partnership involving first an extravert teacher and a shy student (see chapter 8) and second a teacher who emphasises a top-down approach to learning and a student who prefers to use a bottom-up method (see chapter 6). Further investigation is needed, however, to understand more clearly what factors lead to a successful student/teacher team.

First a preliminary study might identify the elements which are important to the success of a dyad. Interviewing a wide range of teachers and students about both successful and unsuccessful partnerships they have experienced should suggest a number of relevant components. These may include personality, teaching style and personal aims and beliefs. The second part of the study could then investigate these elements further by focussing on several specific partnerships. Both objective and subjective viewpoints using methods such as personality testing, the observation of dyads in action, and further interviews, would provide information that could lead to a better understanding of what makes a successful dyad.

This study has suggested that the needs of students at the tertiary level are different from those of younger or less advanced students. Many accomplished students lose interest in playing when their tuition stops. It is therefore very important that students at this time receive lessons which are going to ensure that they continue to play, to develop their ability, increase their repertoire and knowledge, and continue to gain enjoyment and fulfilment from making music. Lesson interaction which is less asymmetrical and less teacher-dominated, where students are encouraged to explore and experiment, and where students’ views are valued could encourage continued music making long after lessons finish.
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