

# **Interpersonal interactions in instrumental lessons: teacher/ student verbal and non-verbal behaviours**

## **Abstract**

This study examined verbal and non-verbal teacher/student interpersonal interactions in higher education instrumental music lessons. Twenty-four lessons were videotaped and teacher/student behaviours were analysed using a researcher-designed instrument. The findings indicate predominance of student and teacher joke among the verbal behaviours with no substantial gender differences between males and females. Deceit cues were the most frequent among the non-verbal behaviours, with the males displaying more gestures of deceit than the females. Other gender differences include the female students using courting signals towards both teacher groups and the female teachers showing interest towards the male students. The presence of positive verbal and negative non-verbal behaviours highlights the mixed messages present in teaching. Implications for instrumental teaching practice include greater focus on gender differences in interpersonal interactions and visual cues to improve communication and teacher/ student relationship in the instrumental studio.

**Keywords:** instrumental teaching, interpersonal interactions, verbal and non-verbal behaviours, gender.

## **Introduction**

Applied music teaching is an intimate one-to-one teaching situation where a positive teacher/ student relationship plays a crucial part in the student's progress (Creech & Hallam, 2011, 2009; Presland, 2005), yet there has been little focus in research on the interpersonal interactions between teachers and student (Triantafyllaki, 2005; Creech

& Hallam, 2003). Biographical research to date has shown that a supportive teacher in the early stages of instrumental learning is of the highest importance (e.g., O'Neill, 1997; Davidson, Howe, & Sloboda, 1995; Sloboda & Howe, 1991). This personal relationship progresses to a more professional association during teenage years, when students tend to value their teachers' achievements and skills, such as their ability to perform, higher than the teachers' personal qualities, such as warmth and friendliness (Davidson, Howe, & Sloboda, 1995). The findings of this quite small, though high quality, study suggest that in higher education settings, where young adults are learning from instrumental experts, a personal relationship between teachers and students would become even less important. However, more recent large studies that have investigated teacher/student relationship in higher education instrumental music teaching tend to contradict this and often criticise teachers' attitudes. For example, Gaunt (2008) reported little awareness by conservatoire teachers of the impact of their power on students and lack of institutional training and supervision structures that focus on teaching/learning relationships. While many instrumental professors are flexible musicians who continue life-long scholarship (Mills, 2004), students' participation trajectories in higher education often result in restrictive learning (Burt-Perkins & Mills, 2009). To prepare students for professional life in music both the breadth and depth of approach developed in expansive ways are needed. Despite overall student satisfaction with instrumental professors in UK conservatoriums, staff unwillingness to embrace effective 21<sup>st</sup> century teaching strategies such as videotaping of student performances and peer assessment was pointed out by Presland (2005). Jorgensen (2000) highlighted the neglect by many institutions of their responsibility for the development of students as independent learners and musicians. Teachers in his study appeared to be too dominating in lessons, focusing on outcomes,

when they needed to be more specific about processes. Persson's (1996a, 1996b) investigations also documented a master-apprentice relationship between dominating teachers and dependent students in higher education music institutions in England. These studies highlight the need for a focus on establishment of positive mentoring relationships between teachers and students and effective communication in higher education studios.

While current research into teacher/student relationship in applied music teaching has employed mainly the biographical approach using questionnaires, Hallam (1998) stressed the need to know more about actual interactions between teachers and students in lessons. What type of verbal and non-verbal behaviours occur in instrumental studios that would inform us regarding the state of teacher/student relationship? An earlier study of instrumental music teaching and learning in Australian higher education (Zhukov, 2009) investigated teacher behaviours in the areas of lesson structure, content, teaching methodology and teacher/student relationship. Since only verbal teacher/student behaviours were considered in the area of relationship, the question arose whether non-verbal behaviours supported the initial findings. This paper compares data on verbal and non-verbal interpersonal interactions. The methodological approach of this study is that of systematic observation (Gumm, 1993), using researcher-designed observational instrument to analyse teacher/student interactions. Despite availability of separate coding systems for verbal and non-verbal behaviours (Bernsen & Dybkjær, 2007), the lack of multimodal tools for music teaching necessitated development of a new coding scheme aimed at capturing all phenomena under investigation.

## **Verbal behaviours**

### ***Humour***

Senior (2001) suggests that humour plays an important role in teaching through the development of camaraderie and a sense of well-being. In her study experienced teachers used humour to keep students focused in the classroom, explain concepts and nurture teacher/student relationship. A recent study of adolescents by Fovet (2009) reported that despite positive effects of humour from medical (release of endorphins) and social (release of tension and easing of communication) perspectives, in a classroom setting humour could be used to both positive and negative effect. On the positive side, humour can help students to feel more comfortable, relaxed, more likely to learn and develop rapport with the teacher. On the negative side, humour can turn into sarcasm, veiled criticism and a weapon of intimidation. Sev'er and Ungar (1997) have also cited positive aspects of humour such as anxiety and stress reduction, but highlighted gender differences in its classroom usage in higher education, with the males telling jokes more frequently and preferring gender-based jokes while the female humour was more indirect and self-deprecating. This highlights the difference in approach by male and female teachers: the males tend to use humour to entertain students and enliven their delivery, while the females are more cautious and use humour to regain control. The study warns regarding inappropriate use of gender-based humour in universities and the need for greater awareness and sensitivity of gender issues.

Much of the research on humour in teaching has focused on its use by teachers, but some studies have investigated the student viewpoint. Meeus and Mahieu (2009) reported that secondary education students use humour to resolve problematic

situations and to test boundaries in the classroom. While the teachers are often the object of student humour, the intent in general is to create a pleasant atmosphere rather than to hurt or tease the teacher. Senior (2001) suggested that adult students tend to use humour to “mask feelings of inadequacy” and “laugh in order to save face” (p. 50). This strategy was employed even by younger age students (grade 1–2) who used humour to distract teachers from criticising inadequate performance, to overcome boredom and negotiate power (Hobday-Kusch & McVittie, 2002).

The use of humour in one-to-one instrumental music instruction is still to be examined and might be unique to the setting. On the other hand, the dynamics of teacher/student relationship in the studio could possibly intensify the effects previously observed in the classroom.

### *Excuses*

When confronted with a disappointing situation children as young as seven are able to mask their feelings with positive expressions (Garrett-Peters & Fox, 2007). This suggests that young adults in higher education would be able to appear to cope with criticism from their instrumental teachers without revealing their true feelings. Some college student behaviours aimed at reducing teacher criticism include attempts to elicit sympathy when students try to convince teachers to sympathise with students’ personal problems and offer excuses (Dunleavy *et al.*, 2008). While such strategies could be useful at times, in the long-term they tend to result in loss of positive face for students. An interesting study of chronic excuse-making by faculty (Burke & Rau, 2007), suggests that such behaviours increase the likelihood of negative impressions on supervisors, particularly when associated with important work tasks. Considering

that many instrumental music teachers in higher education perceive themselves as supervisors of student learning, chronic use of excuses by the students is likely to draw similar negative reactions from the teachers!

The literature review suggests that one of the ways to measure rapport between two people was to observe the amount and qualities of humour present in the relationship. Instrumental music teaching involves a great deal of trial and error. Do students make excuses for their failures and do teachers sympathise in response? Do students express disappointment when their attempts fail? Do teachers articulate disappointment in their own playing if their demonstrations to the student are less than perfect? Do teachers and students socialise during lessons, and if so, when?

### **Non-verbal behaviours**

Non-verbal communication conveys 60–65% of the meaning in human interactions in close relationships (Guerrero and Floyd, 2006). When there exist a conflict between verbal and non-verbal behaviour, people tend to believe the non-verbal message. These contradictions occur when participants have mixed feelings about the situation and make ‘an imperfect job of lying’ (Knapp and Hall, 2002, p.13). Gender differences have been established in non-verbal behaviours: men acting in a more dominant manner, smiling and laughing less, and generally being less skilful in sending and receiving non-verbal clues; and women behaving in a more submissive manner, smiling more and using friendliness to gain power and influence (Guerrero and Floyd, 2006; Knapp and Hall, 2002). These differences are particularly evident in late teens and early adulthood when gender roles are being established.

### ***Music performance***

The research on body language in music has focused mainly on expressive movements in performance and how these help to communicate the intended emotions to the audience (Davidson, 2007; Davidson & Correia, 2002). Non-verbal communication through the use of facial expressions, eye contact and hand gestures are of special importance in conducting (Mathers, 2009), where direct body orientation and eye contact indicate interest. Also in conducting Jones (1996) found that visual impressions *had* an effect on the ratings of tone quality, intonation, rhythm, balance, blend, technique, diction, interpretation and musicianship in choral singing. In this study the tempo seemed to indicate to the audience the degree of engagement by the singer and exaggerated the positive or negative visual effect. Research has demonstrated the importance of visual cues in communicating emotions in music, but do they play a role in music teaching?

### ***Instrumental teaching***

A recent review (Kurkul, 2007) of non-verbal communication in instrumental teaching could only locate a handful of studies in this area. Levasseur (1994) reported on student perceptions of teacher eye contact, posture, smiles and laughter. Wang (2001) considered smiles, touching and voice quality and observed gender differences in teachers and students. Kurkul (2007) counted teacher eye contact, smiles, hand gestures, leaning forward, nodding and touching, and found that teacher non-verbal sensitivity rather than the use of particular body movements had a strong positive effect on students' perceptions of teacher efficacy. This suggests that teacher effectiveness relies in part on the ability to interpret students' body language and to

respond to it appropriately. Johnson (2007) recommended that teacher training should focus on non-verbal behaviour in the analysis of videotaped instrumental lessons to uncover cues that are often missed while teaching, for example tension in raised shoulders or a student looking away when frustrated. Instrumental music teacher/student relationship in higher education is often long-term (3–4 years) and intense. In that time students accumulate extensive experience of interactions with their teacher and are able to detect fine nuances in teacher behaviour (Babad, 2005). These studies suggest that understanding of visual cues does contribute to effective teaching and that students are adept at de-coding non-verbal messages.

### ***Non-music research***

In business, clinical, cognitive, developmental and social psychology non-verbal cues have long played an important role in understanding emotions (Elfenbein *et al.*, 2007). For example, facing the speaker and leaning forward have been identified as indicating interest (Caruso & Salovey, 2004). Morris (1994) has defined many gestures of body and face and their meanings, e.g., deceit (hand over mouth, chin rub, nose touching, eye or ear rub), doubt (neck or head scratching, shoulders shrug), dominance (hands on hips), restraint (hands in pockets, folded arms), evaluation (steeple hands), courtship (brushing hair), interest (titled head), and boredom (head resting on arm). Cole (1993) suggested that communication between the individuals can be improved by focusing on body language such as respecting people's personal space, using open gestures, paying attention to the other person, leaning forward, maintaining appropriate eye contact, and being relaxed. Some of the strategies for building of rapport include matching (using the same body movements), cross-over



mirroring (matching the movements with the opposite arm or leg), and leading (changing your own position and seeing if the other person follows). Building the rapport is a delicate procedure requiring subtle and discreet use of body movements. Research has identified some gender differences in that women use more visual cues and men more verbal cues when trying to detect lies (Anderson *et al.*, 1999). This greater awareness of non-verbal cues by females has been identified earlier by Mausehund, Timm and King (1995).

The review of literature has raised several questions. What types of verbal and non-verbal behaviours occur during instrumental music lessons in teacher/student interpersonal interactions? Is there a conflict between the spoken words and visual cues? Are there any gender differences in the usage?

## **Method**

The aim of this study was to examine teacher/student interpersonal interactions in instrumental lessons through verbal and non-verbal behaviours, focusing on gender differences. The study was conducted in five higher education institutions on the Australian East Coast and included 12 eminent teachers and their 24 students. The geographical spread helped to minimise the impact of a particular institutional culture. The teachers were selected on the basis of their national reputation as teachers and performers and the senior positions held by them in their respective institutions. All participants were teaching classical instrumental repertoire and chose two first year students (one male, one female) to demonstrate their typical teaching approach in one lesson with each student. To minimise bias in selection of students the teachers were asked to present contrasting lessons. The study was limited to three instrumental

groups (piano, strings and wind) in order to achieve recruitment of equal numbers of male and female master teachers: in areas of brass and percussion, for example, it was difficult to find female teachers of this calibre in the geographical locale. Vocalists were excluded from the study as voice teaching was thought to pose unique challenges different from instrumental teaching.

The lessons were taped during a three-week period in the middle of second semester of study: this was sought to be best suited to the study to observe work in progress (earlier in the year lesson content would involve basic work with the students starting new repertoire; later in the year, leading up to the end of the year performance examinations, the lessons would consist largely of interpretative work and performing). Sampling at the same time of the year across all institutions provided consistency in data collection. All lessons were supposed to be 60 minutes long, but in reality the durations varied with some teachers running over time and others cutting the lessons short. This was taken into consideration when analysing the data by calculating scores per hour (see below).

For each instrumental group there were two male and two female teachers, and four male and four female students, making the sample gender and instrument balanced. This approach allowed for an examination of broad aspects of instrumental teaching that were not instrument-specific and for gender analysis of data that is largely lacking from previous research. Ethical clearances and teacher/student consent were obtained prior to taping of the lessons and participants were debriefed afterwards.

The lessons were videotaped by unmanned camera to minimise disturbance to the usual flow of interactions. All teachers chosen for the study had significant experience of giving public Master Classes and, therefore, deemed to be comfortable being

observed. The students were encouraged to ignore the presence of the camera. The debriefing of the participants post data collection did not identify any unusual behaviour by teachers or students.

The literature review of instrumental music teaching, psychology and business suggested a number of non-verbal cues as important indicators of rapport. These include gestures of deceit, doubt, dominance, restraint, evaluation, boredom, courting and interest. Bernsen and Dybkjær (2007) suggest that when developing new coding systems the criteria for each category needs to be made perfectly explicit. The categories of both verbal and non-verbal behaviours (see Table 1 and Table 2) were refined in pilot studies, validated and tested for reliability. Incorporating categories cited in previous research into the observational instrument established its criterion validity. Further modifications were made after pilot studies that included analyses of random samples from data. The final definitions of categories were derived from comparisons of descriptions of each category by three instrumental experts (piano, string and wind) with the researcher's definitions, thus confirming content validity. Reliability of the observational instrument was established by high correlations (0.78–0.87) between the scoring by three postgraduate music education students trained in its usage and the researcher. Researcher's own reliability as a marker was determined by correlation of 0.99 between original scoring and repeated scoring half a year later.

The researcher viewed videotaped lessons in brief sections, pausing to score teacher/student behaviours in each category until the entire lessons were analysed. The total in each category was divided into the lesson time to obtain a score per minute from which a score per hour was calculated. Statistical analyses were carried out, including means, *T*-tests and ANOVAs, across teacher and student gender among the verbal and non-verbal categories (Heiman, 2011). The results for teacher/student verbal

behaviours were expressed in percentages of the total of the eight categories measured. Relationships were explored between pairs of categories such as Student Joke and Teacher Joke, Student Disappointment and Teacher Disappointment, Student Excuse and Teacher Sympathy, Teacher Social and Student Social. Both teacher and student non-verbal behaviours were examined under the same eight categories. There were no scores in any of the non-verbal behaviour categories in lessons of Teacher 2 who deliberately stayed away from the camera. To avoid skewing the results, Teacher 2 scores were not considered in the Mean calculations. The frequencies of each category were calculated per hour of lesson and results represented in percentages of the total non-verbal categories for each group.

## **Results**

### ***Verbal behaviours***

Overall the most frequent verbal behaviour was Student Joke with the mean score of 33.7, with the Teacher Joke being the second highest category ( $M = 19.3$ ) (see Table 3). The students made many excuses to justify their poor playing or lack of preparation for lessons (next highest mean of 16.7) followed by Student Disappointment ( $M = 13.9$ ). The scores in the category of Teacher Sympathy were much lower than those in the category of Student Excuses on the whole (means of 7.8 and 16.7 respectively). The means for Teacher Social and Student Social were both 3.7. The lowest mean was in the category of Teacher Disappointment ( $M = 1.2$ ).

When the data was examined in regard to teacher gender, it emerged that there were much higher scores in the category of Student Joke in the lessons of male teachers than in the lessons of female teachers (means of 37.9 and 29.5). There were more social

interactions in the lessons of female teachers than in the lessons of male teachers ( $M = 5.0$  and  $M = 2.4$  respectively).

The analysis of data according to student gender revealed that the scores in the category of Student Joke were greater in the lessons of female students than in the lessons of male students ( $M = 36.7$  and  $M = 30.7$ ). The female students expressed more disappointments than did the male students ( $M = 16.0$  and  $M = 11.8$ ). There were slightly more Teacher Jokes in the lessons of the male students than the female students ( $M = 21.0$  and  $M = 17.7$ ). The male students scored higher in the categories of Student Excuse and Teacher Sympathy than did the female students ( $M = 18.2$  and  $M = 15.2$  respectively for Student Excuse;  $M = 9.4$  and  $M = 6.3$  for Teacher Sympathy).

Interesting trends emerged when data were analysed with regard same-gender and different-gender pairing. The female students in lessons with the female teachers scored *under* the mean in the categories of Student Excuse and Teacher sympathy. The male students in lessons with the male teachers scored *above* the mean in the categories of Student Joke, Teacher Joke and Teacher Sympathy, but *under* the mean in the categories of Student Disappointment and Teacher Disappointment. In opposite gender pairing, the female students in lessons with the male teachers scored *above* the mean in the categories of Student Joke and Student Disappointment, but *under* the mean in Teacher Sympathy and Teacher/Student Social. The male students in lessons with the female teachers scored *under* the mean in the category of Student Joke and *above* the mean in the categories of Student Excuse, Teacher Sympathy, and Teacher/Student Social.

Means analyses of verbal categories indicated possible links between certain categories, for example Student Excuse and Teacher Sympathy. However, this was not substantiated by *T*-tests that showed no levels of significance between the categories. This can be explained by the small sample and high standard deviations in the scores.

### ***Non-verbal behaviours***

Among the teacher non-verbal behaviours measured in this study the highest score overall was in the category of Deceit ( $M = 57.3$ ) (see Table 4). The category of Interest was the next highest score ( $M = 12.0$ ) and the category of Doubt was the third highest score ( $M = 11.3$ ). The students (see Table 5) also scored the highest in the category of Deceit ( $M = 54.8$ ). The next highest scores were the means for the categories of Courting ( $M = 17.5$ ) and Doubt ( $M = 14.7$ ).

When the data on non-verbal behaviours was examined with regard to teacher gender considerable differences emerged between the two teacher groups. Male teachers' highest score was in the category of Deceit ( $M = 71.6$ ). They also scored higher than the female teachers in the category of Restraint ( $M = 8.7$ , and  $M = 5.4$  respectively). While the female teachers highest score was also in the category of Deceit ( $M = 40.0$ ), the result was much lower than for the male teachers. The female teachers scored higher than the male teachers in the categories of Boredom, Courting and Interest ( $M = 12.5$ , and  $M = 2.2$  for Boredom;  $M = 5.0$  and  $M = 0.1$  for Courting;  $M = 23.5$  and  $M = 2.4$  for Interest respectively).

The analysis of teacher non-verbal cues with regard to student gender revealed interesting differences. The male teachers seemed to have a similar approach to both student genders with close results in all categories. The female teachers appeared to have a different approach towards male and female students. The female teachers scored higher in Deceit and Doubt in lessons of the male students than in lessons of the female students ( $M = 51.8$  and  $M = 28.1$  for Deceit;  $M = 13.2$  and  $M = 7.4$  for Doubt respectively). In the lessons with female students the female teachers scored higher in the categories of Interest and Boredom ( $M = 36.8$  and  $M = 10.1$  for Interest;  $M = 14.1$  and  $M = 10.9$  for Boredom respectively).

In student non-verbal cues gender differences were apparent also. The female students scored higher in the categories of Courting, Interest and Doubt than the male students ( $M = 25.0$  and  $M = 10.0$  for Courting;  $M = 8.5$  and  $M = 0.3$  for Interest;  $M = 16.7$  and  $M = 12.7$  for Doubt respectively). The male students scored higher in the category of Deceit than the female students ( $M = 69.8$  and  $M = 39.8$  respectively).

When teacher gender was taken into consideration, the male students had similar results in lessons of both male and female teachers. The female students scored higher in the categories of Doubt, Courting and Interest in the lessons with the female teachers ( $M = 21.1$  and  $M = 12.4$  for Doubt;  $M = 28.2$  and  $M = 21.8$  for Courting;  $M = 14.9$  and  $M = 2.1$  for Interest respectively) and in the categories of Deceit and Dominance in the lessons with the male teachers ( $M = 48.1$  and  $M = 31.6$  for Deceit;  $M = 8.3$  and  $M = 0.5$  for Dominance respectively).

To confirm the significance of possible gender differences indicated by the means analysis, *T*-tests were administered between non-verbal categories of male/female teachers and male/female students, and ANOVAs between four gender groupings

(male teachers/male students, male teachers/female students, female teachers/female students, female teachers/male students). *T*-test corroborated higher use of deceit gestures by male teachers ( $M = 71.6$ ) than the female teachers ( $M = 40.0$ ), with  $t_{(20)} = + 3.025$ ,  $p = .007$ . For the students, greater use of deceit cues by the male students ( $M = 69.8$ ) than by the female students ( $M = 39.8$ ), with  $t_{(22)} = + 3.223$ ,  $p = .005$ , and of courting gestures by the female students ( $M = 25.0$ ) than by the male students ( $M = 10.0$ ), with  $t_{(22)} = + 2.518$ ,  $p = .02$ , was confirmed. The one-way between subjects ANOVA showed significant results in the categories of Deceit ( $F_{(3,42)} = 6.374$ ,  $p = .001$ ), Courting ( $F_{(3,42)} = 10.570$ ,  $p = .000$ ) and Interest ( $F_{(3,42)} = 4.248$ ,  $p = .010$ ). The post hoc comparisons demonstrated significant levels between opposite gender groupings in the category of Deceit with the males using more deceit signals than the females, between the female students and both teacher groups in the category of Courting with students displaying more courting gestures, and between the female teachers and the male students in the category of Interest with the teachers showing greater interest than the students.

## **Discussion**

The aim of this study was to identify the types of verbal and non-verbal behaviours by teachers and students during interpersonal interactions in instrumental music lessons, focusing on gender differences and conflict/agreement between verbal and non-verbal categories. The development of new coding system for verbal and non-verbal behaviours in this setting in itself represents a theory under development (Bernsen and Dybkær, 2007). The findings indicate that humour was a predominant strategy among verbal behaviours and gestures of deceit among the non-verbal behaviours, suggesting



conflict between verbal and non-verbal behaviours. Gender differences were significant among the non-verbal categories, supporting earlier research.

### *Verbal behaviours*

Research has highlighted positive and negative effects of humour in teaching (Fovet, 2009). In particular, students' use of humour as a face-saving strategy (Senior, 2001) and means of resolving a difficult situation (Meeus and Mahieu, 2009).

The results indicate that Student Joke was the most frequent behaviour among the variables measured in the teacher/ student verbal communication and that the Teacher Joke was the second most recurrent. The category of Student Joke had the highest overall mean and the highest mean for each teacher and student gender group. This finding supports previous research on student use of humour as a means of saving face. Students used joking to conceal their embarrassment, and their self-deprecating comments often produced smiles from the teachers and deflected criticism.

The magnitude of the results on the teachers' use of humour supports earlier research on the presence of humour in expert teaching as a way of breaking up intensity of teaching and learning and provides numerical evidence to substantiate its existence in instrumental music lessons.

Student frustration was an infrequent behaviour in a study of piano practice by Gruson (1988), occurring less than 1% among the variables measured. Do instrumental students and teachers express disappointment in their own playing in lessons, given that even young children are able to hide this emotion (Garrett-Peters & Fox, 2007)? The results show that in observed lessons students expressed their

disappointment freely, this category being the fourth most frequent behaviour. Gender differences were not significant.

In this study the teachers rarely expressed disappointment in their own playing, given the lowest overall mean among the categories measured, and 15 zero scores out of 24 lessons. The teachers participating in this study were all accomplished musicians and experienced pedagogues. The magnitude of the result reflects the teachers' confidence in their own playing, and, possibly a belief that by showing disappointment in their performance they might cause students to doubt their expertise.

Student Excuses often followed disappointing student performances in observed lessons: a typical behaviour aimed at reducing teacher criticism (Dunleavy *et al.*, 2008). This was the third most recurrent behaviour among the verbal categories. The trends were similar in the lessons of both teacher groups, suggesting a uniform occurrence.

The results show that on the whole the teachers did not match student excuses with equal quantities of sympathy, given that the results in the category of Teacher Sympathy were less than half of the scores in the category of Student Excuse. This supports findings in existing literature (Burke & Rau, 2007). The responses of Teacher Sympathy were similar between the two teacher groups and suggest a consistent approach by all teachers across the sample.

Social interactions between teachers and students have been included in earlier observational instruments (e.g., Hepler, 1986), and labelled as non-lesson related verbal behaviours. These conversations play a role in developing rapport between teachers and students that is essential to students' progress (Creech & Hallam, 2009; Presland, 2005). Social interactions between teachers and students in the observed

advanced instrumental music lessons were often brief and tended to frame the lessons. At the beginning of lessons such exchanges helped students to relax before commencing intense learning. At the end of lessons social interactions served to terminate the lesson proper and to re-establish a friendly relationship between teacher and student.

*T*-tests demonstrated no significant gender differences in verbal categories between the teachers and among the students suggesting a uniform approach among this group of participants.

### ***Non-verbal behaviours***

This study examined a number of non-verbal teacher/student behaviours identified by research into instrumental music teaching (Kurkul, 2007) and body language (Morris, 1994). It is interesting that for both teachers and students more than half of their non-verbal cues were gestures of deceit. These were followed by signs of interest and doubt for teachers, and courting and doubt for students. The results suggest that in higher education instrumental music lessons both teachers and their adult learners tend to use many unconscious deceit gestures, sometimes doubt what is being presented to them and are at times interested in the content/person. Together these findings reflect uncertainty, reservation and thoughtfulness on the part of teachers and students who are interacting to solve complex musical and technical problems in intense advanced lessons.

Gender differences indicate that the male teachers used many more deceit signals than the female teachers, and the male students more than the female students. Gender-

pairing analysis showed more deceit cues towards opposite gender rather than the same gender. This study is the first in focusing on deceit non-verbal cues in instrumental music teaching setting and, therefore, it is only possible to make comparisons to the findings from non-music research. Literature suggests that the females have greater awareness of non-verbal cues than the males (Knapp and Hall, 2002; Mausehund, Timm and King, 1995) and rely more on visual cues when detecting deceit (Anderson *et al.*, 1999). This might explain in part the findings: if the male teachers and students in this study were less aware of visual cues in general and deceit signals in particular, they were more likely to use them freely and towards the opposite gender (a similar approach to de-coding of deceit cues by the male teachers and students would likely result in comparable usage towards each other).

The female students demonstrated more gestures of courting than the male students towards both groups of teachers. This suggests that the gestures were intended to be asexual, motivated by the desire to be liked and aimed at winning general approval from the teachers. This strategy seems to be successful as the female students in this sample received more teacher praise than the male students, as reported earlier in Zhukov (2008). The findings support previous research that has highlighted females' use of friendly gestures to ingratiate themselves and influence others (Guerrero and Floyd, 2006).

The female teachers displayed more interest signals towards the male students rather than the female students. While the use of interest cues has been recommended for improving communication (Caruso & Salovey, 2004; Cole, 1993), the question remains why they were aimed at the opposite gender in particular. One explanation is that the male students made many excuses and joked less in their lessons with the female teachers (given the fact that the highest mean in the verbal behaviour category

of Student Excuses and the lowest mean in the category of Student Joke were for the male students in lessons with the female teachers), thus employing less successful rapport strategies. Considering slightly higher scores in the category of Teacher Sympathy from the female teachers towards the male students, teacher interest cues were another strategy in effort to maintain rapport in lessons. The results confirm previous findings of women seeking to gain power over others by using friendly nonverbal behaviours (Guerrero and Floyd, 2006).

### ***Agreement between verbal and non-verbal behaviours***

There appears to be a conflict between verbal and non-verbal behaviours in interpersonal interactions between instrumental music teachers and students. Verbal behaviours were dominated by positive use of humour while at the same time the non-verbal behaviours were largely negative and consisted of gestures of deceit. The contradictory messages given out by teachers and students reflect frustration and uncertainty that are often present in instrumental music teaching when solving complex musical and technical challenges and support previous research in non-music areas (Knapp and Hall, 2002). This sample of teachers did not demonstrate non-verbal sensitivity that has been highlighted as an important factor in student perceptions of teacher efficacy (Kurkul, 2007).

### ***Summary of gender differences***

There were significant gender differences in the usage of verbal and non-verbal communications: while verbal behaviours were uniform across the sample, non-verbal

behaviours showed divergence between males and females. The males relied on less successful strategies of deceit to assert their dominance, while the females demonstrated friendly gestures of courting and interest to influence others confirming the findings of previous research (Guerrero and Floyd, 2006; Knapp and Hall, 2002).

## **Conclusions**

This study identified the types of verbal and non-verbal interpersonal interactions between teachers and students in higher education instrumental music lessons. While the findings describe this particular relatively small sample of teachers and students and need to be replicated in larger studies, they extend our understanding of instrumental music teaching and provide music researchers, educators and practitioners with new evidence of the types of verbal and non-verbal interactions that occur in this very special teacher/student relationship. The gender differences in non-verbal behaviours discussed here suggest a singular approach to teaching and learning by the male teachers and students. On the other hand, the female participants have demonstrated more diverse (though by no means perfect) behaviours. The conflict between verbal and non-verbal behaviours highlights the mixed messages that are present during teaching. Future research needs to consider wide-ranging aspects of non-verbal behaviours in music teaching, in particular with regard to gender, and what effect these might have on the dynamics of teacher/student relationship. Extending this approach to include other instruments, for example brass and percussion, and to vocal teaching is important and will enhance our understanding of advanced classical music training. Implications for instrumental teaching and learning in higher education include the need to consider gender biases in interpersonal interactions and

greater focus on visual cues in applied studio to improve communication and teacher/student relationship.

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