# Use of Instructional Time and Repertoire Diversity in University Applied Music Lessons 

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$\mathbf{R}$esearch on good teaching strategies suggests that "effective teachers have the ability to plan and negotiate a number of classroom goals" (Porter \& Brophy, 1988). One way to set goals and make decisions in instructional settings has been to focus on classroom activities in relationship to time use. Areas of investigations have included elementary music classes, rehearsals of performance ensembles, and private lessons. The area of investigation with the least empirically derived knowledge available to the profession is in university private instruction. The reasons for this seem steeped in tradition.

Research in elementary music settings (Forsythe, 1977; Moore, 1981; Wagner \& Strul, 1979; Wang \& Sogin, 1990) have generally found that teaching activities occupied the most time. In the articles mentioned above, this ranges from 33 percent to 56 percent of the time. Student performance was the next most frequent activity, with a range of 21 percent to 49 percent of the time. This was then followed by preparation activities or "gettingready" time, approximately 15 percent.

[^0]In addition to investigations in elementary class time use, researchers have investigated the use of class time in large-group ensemble rehearsals (Caldwell, 1980; Madsen \& Geringer, 1983; Single, 1990; Thurman, 1976; Watkins, 1987; Witt, 1986; Yarbrough \& Price, 1981). It appears that twice the amount of time was allocated to performance activities as found in elementary music classes. The approximate range for these activities follows:
performance, 43 percent to 65 percent; teaching, 19 percent to 50 percent; and getting ready, about 12 percent.
Research reports concerning private music instruction have included elementary, secondary, and adult piano lessons (Kostka, 1984), and preschool through junior high violin lessons (Palmquist \& Witt, 1985). Schmidt (1989) studied the relationship of college applied teacher/student behaviors to personality variables measured by the Meyers-Briggs Type Indicator.
The present study investigated university applied music lessons with respect to time usage as well as repertoire diversity. Specific purposes were to obtain descriptive data concerning time use and repertoire diversity in the context of the applied lesson due to instrument type (piano, voice, brass/woodwinds).

## Procedures

This study investigated 45 undergraduate applied music lessons equally divided among five universities in Kentucky. Twenty-nine
applied instructors from five of the various colleges and universities within the state were contacted and asked to participate in the study; all instructors and students consented to be observed. The schools represented were the major research institution, offering comprehensive programs in music including the doctorate; two regional universities offering both the bachelors and masters program in music; and two liberal arts colleges offering undergraduate programs in music. Within each school, nine lessons were observed: three lessons each of pianists, vocalists, and woodwind/brass instrumentalists. Each lesson was tape recorded to be analyzed ex post facto with respect to use of instructional time.

Each lesson was recorded in its entirety, and all students had previously received instrumental or vocal training at the secondary level. In addition, each student was currently enrolled in an applied (one-to-one) lesson that met once each week. Performance abilities did vary across the study, although no beginners were observed. For the purposes of this study, each observation used for analysis was 30 minutes in length. A complete 30 -minute lesson was analyzed, or 30 minutes of a one-hour lesson were analyzed by selecting 10 -minute increments at the beginning, middle and end of a onehour lesson. Since the investigators could not insure equal groups between the 30 minute lessons and hour lessons across performance media, this sampling procedure was used to control for possible differences among lesson-time durations.

All lessons were observed in either private studios or classrooms. No attempt was made to manipulate or control the environment during lesson times. The investigator either sat directly across from the subjects, as in the case of instrumentalists and vocalists, or directly behind or alongside in the case of pianists, at approximately eight to ten feet. Teachers were told that a research project was being conducted on applied music instruction in the university setting. Observa- Individual observations began when the instructor communicated that the lesson was to begin. A separate form was used to record
the various method books or repertoire used during the lesson, in addition to recording start and stop times, interruptions, and so on. This form was used by the investigators as a way of tracking information that was not clear when reviewing the audio tapes for analysis.

Observation procedures used in this study were modeled after those developed by Madsen and Madsen (1981) and have been used extensively in music education research. An observation form was developed for this study to record the various activities during the lesson. A pre-recorded tape that determined accurate ten-second intervals for both "observe" and "record" was used.

The activities which were observed during each lesson were classified and defined operationally as

Performance, student was performing; Modeling, teacher was performing; Performance and Modeling, teacher and student were playing at the same time; Teacher Talk, talking related to instruction; Student Talk,student responding to the teacher as related to the lesson; and Other, off-task behavior by either teacher or student.
Subsumed under the activities of Performance, Modeling, and Performance and Modeling, the variables of repertoire type were recorded:

Scales, any time of scale or warm-up exercise; Etudes, studies that were more musical in nature but not normally performed at a recital, and Recital Repertoire, which included literature suitable for public performance.
Each lesson was recorded on a120-minute cassette tape. The tapes were recorded on a Marantz PMD201 portable cassette recorder. The data set for each lesson included the number of seconds spent on each activity within a 30 -minute observation period. Percentages of time use for each activity were calculated by dividing the number of intervals observed by the total number of possible intervals. These percentages were averaged to yield individual percentages for each activity. Since these percentages represent 30 minutes of time either from a 30 -minute lesson or 30 minutes of a $60-$ minute lessons, it was determined to represent the data as percentages rather than as actual seconds of time.

Reliability was established through a com-
parison of the investigator's observations and a trained observer. Reliability was computed using 20 percent or nine lesson tapes chosen at random. Reliability coefficient was calculated through interval by interval agreements/agreements plus disagreements, which yielded a correlation coefficient of .86 .

## Results

Results of this study were analyzed in accordance with the problem. First, descriptive statistics were used to analyze the activities of both the teacher and the student in the lesson. Across all schools, the largest percentage of time was spent on overall performance, 51.2 percent. Broken down into the various activities, students performed alone 39.8 percent; teachers modeled 6.7 percent; and 4.7 percent of the time, teacher and student performed together. Nonperformance activities included teacher talk at 36.6 percent; student talk at 3.7 percent; and other 9.3 percent of the time. Although no significant differences were found among performance media, pianists ( 7.6 percent) were found to be slightly more approving at lessons than either vocalists ( 6.8 percent) or instrumentalists ( 5.6 percent). Table 1 gives the mean percentages and ranges for each activity. The range of activity shows the extreme variability of time usage among some individual teachers.

| Table 1. Mean Percentages and Ranges <br> of Lesson Activity Time. |  |  |
| :--- | :---: | :---: |
| Activity | M $\%$ | Range $\%$ |
| Student <br> Performance <br> Modeling | 39.8 | $1.1-77.8$ |
| Performance <br> Modeling | 6.7 | $0.0-17.8$ |
| Teacher Talk | 36.6 | $2.2-65.6$ |
| Student Talk | 3.7 | $0.0-7.8$ |
| Other | 9.3 | $0.0-22.2$ |

Comparisons were made of behaviors for both college and instrument type: pianists, vocalists, and wind instrumentalists. Analysis of Variance techniques were used to determine true differences. Significant differences did occur among two of the five colleges/universities on both student performance and teacher-talk activities, as Table 2 indicates.

The mean percentages for student performance by college are 28.9, 35.4, 49.6, 35.8, and 49.5. The mean percentages for teacher talk by college are $45.0,39.2,30.2,42.5$, and 26.0. There were no other significant differences found among colleges. No significant differences occurred between instruments except on student talk, as Table 3 indicates.

A Tukey post hoc test of means (Tukey $=$ .05 ), with a critical range of 1.87 , revealed that differences occurred between pianists, who averaged 3.9 percent student talk, and wind instrumentalists, with a mean of 1.7 percent.
The second question of interest was whether differences in time use were a function of repertoire diversity. Under the total percentage of performance activities, no significant differences were found between instrument type on the use of scales in lessons (see Table 4).

## Discussion

Activity in the applied studio was measured according to observational methods, with eight categories of time use on the form. Both student and teacher were observed in performance activity 51.2 percent of the time. The largest portion of this time was spent by the students performing or singing at the lesson (39.8 percent). The other time was spent by either the teacher modeling for the student ( 6.7 percent) or the student and teacher performing together ( 4.7 percent). Nonperformance activities were ranked with teacher talk at 36.6 percent, student talk at 3.7 percent, and other, e.g., getting ready, looking for a piece of manuscript, or idle discussion, at 9.3 percent. These findings seem consistent with the literature (Kostka, 1984; Palmquist \& Witt, 1985) both for performance and teaching. It should be noted that this study did not attempt to analyze differences between lesson duration, that is, a 60 -minute lesson versus a thirty-minute lesson. This represents a limita-
tion of the study, and future research is necessary to determine if such differences do exist.

Differences that were noted as significant in this study among colleges were probably due to the observational time period the data were collected. In the case of the two colleges that differed on student performance and teacher talk, most of the observations occurred within two weeks of the students' jury exam; it seems logical that individual student performance time would have increased while teacher talk decreased during that time period. There are no other indications that colleges differed. Additional research is necessary to determine if proximity to jury makes a difference in private-lesson activity, and to what extent, if any, this change takes place.

No differences were found among pianists, vocalists, or wind/brass instrumentalists ex-
cept in student talk. Piano instructors either tend to encourage their students to respond more, or allow them to interact verbally in the teaching/learning process more than do vocal and wind/brass instructors.
The most dynamic aspect of this study was the systematic investigation of repertoire diversity during the lesson. During all performance activities, categories of scales, etudes, and recital repertoire were observed. There were no differences among performance groups on time spent on scales at lessons, but a significant difference was observed in the use of etudes by pianists and wind/brass instrumentalists (vocalists used no etudes). Since there is both depth and breadth of recital repertoire for pianists, it seems more likely that wind and brass players would spend consider-

| Table 2. ANOVA Analysis of Behaviors by College |  |  |  |
| :--- | :--- | :--- | :--- |
| Source | df | F | p |
| Student Performance | $4 / 40$ | 3.87 | .01 |
| Modeling | $4 / 40$ | 1.13 | NS |
| Performance/Modeling | $4 / 40$ | .88 | NS |
| Teacher Talk | $4 / 40$ | 3.84 | .01 |
| Student Talk | $4 / 40$ | .73 | NS |
| Other | $4 / 40$ | 1.61 | NS |


| Table 3. ANOVA Analysis of Behaviors by Performance Medium |  |  |  |
| :--- | :--- | :--- | :--- |
| Source | df | F | p |
| Student Performance | $2 / 12$ | 1.16 | NS |
| Modeling | $2 / 12$ | .11 | NS |
| Performance/Modeling | $2 / 12$ | .86 | NS |
| Teacher Talk | $2 / 12$ | .55 | NS |
| Student Talk | $2 / 12$ | 5.02 | .01 |
| Other | $2 / 12$ | 2.28 | NS |


| Table 4. ANOVA Analysis of Repertoire Diversity by Performance Medium |  |  |  |
| :--- | :---: | :---: | :---: |
| Source | df | F | p |
| Scales | $2 / 42$ | 1.93 | NS |
| Etudes | $2 / 42$ | $\overline{18.01}$ | $\mathrm{~N}^{*}$ |
| Repertoire Diversity | $2 / 42$ | 00 |  |

* Vocalists used no etudes; therefore, no variance is recorded.
ably more time working on etude literature than pianists. Vocalists did not use etudes at their lessons, although when vocal instructors were asked if such pieces exist, almost all responded in the affirmative, but that such piecess were not chosen for use. Piano instructors spent the greatest amount of their performance time on recital repertoire, followed by vocalists and then wind/brass instrumentalists. It is interesting to note that the proportional time use of these percentages are similar to those reported by Geringer and Kostka (1984), who investigated practice-room time use. Observed performance activity of solo material practiced was 53.3 percent, while technique was only 11 percent.

In view of the wide variety of activity that occurs in lessons, perhaps further differentiation would be useful in assessing time use. It would seem helpful for teachers and students to be aware of the time used for both performance and nonperformance activities as well as the use of repertoire diversity during lessons. Perhaps a more efficient lesson time would include structured activities based on a semester-by-semester chart containing a checklist of the student's abilities and what the student is expected to accomplish in a set time frame. Continued research in this area would help identify aspects of private lessons which would most likely improve musical performances.

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