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The Effects of Classical Guitar Ensembles on Student Self-perceptions and Acquisition of Music Skills

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Classical guitar ensembles are increasing in the United States as popular alternatives to band, choir, and orchestra. In the last 10 years, school enrollment in classical guitar ensembles has grown by as much as 400% (Streeter, 2009). With this growth arises the need to study student self-perceptions and the skills acquired in guitar ensembles. Knowing how guitar ensemble participation affects student self-perceptions and skill acquisition would clarify the benefits and weaknesses of guitar ensembles to help develop curriculum and instruction. Comparing guitar ensembles to band, choir and orchestra could offer support for the benefits of ensemble experience on the guitar.

Classical guitar ensembles are offered at many middle and high schools as fine arts electives as one of the only options for classical guitarists to participate in ensembles (Streeter, 2009). These ensembles range from class sizes of 3 to over 30 students playing nylon string guitars. Classical guitar ensembles are different from other guitar classes where students strum chords with a pick and sing songs. Classical ensemble participants play from notation and use their fingers to pluck or strum the guitar strings. The parts can be simple bass lines, accompaniment figures, or virtuosic melodies. As many as four or more parts are assigned by skill level. Similar to an orchestra, students often follow a conductor to play their parts together in time with appropriate expression and musicality. Instructors also monitor student behaviors, coordinate skills, model the parts, and set musical goals for students.

There is limited research on the benefits of school classical guitar ensembles, but there are studies on other ensemble students' self-perceptions and skill acquisitions. It is known that ensemble participation elicits the acquisition of music skills including reading unfamiliar music from sight (sight-reading) (McPherson, 1997; 2005); listening for musical qualities like shape, form, and intervals (aural skills) (May & Elliot, 1980); expressive playing (Kinney, 2004); playing without written music (playing by ear) (McPherson, 1997; 2005); creating music spontaneously (improvising) (McPherson, 1997; 2005); and playing from memory (McPherson, 1997; 2005).

Ensemble participation also has a positive influence on participant self-perceptions (Abeles, 2004; McCall, 2003; Mills, 2008; Randles, 2011). Self-perceptions can include scholastic competence, social acceptance, behavioral conduct, identity, and self-worth (Harter, 1985).

Scholastic competence refers to student perceptions of their scholastic abilities such as the belief that one is good at writing but not math. Social acceptance taps the degree to which students feel accepted by peers and have friends. Self-worth covers the extent to which students like themselves as people and are happy with the way they are.

Ensembles can have a positive influence on students' sense of identity and social acceptance (Mills, 2008). Successful experiences performing with a group can build confidence, self-esteem, friendship and community (McCall, 2003). Mills (2008) surveyed members of a community children's choir on the changes to their self-perceptions including concepts of musical, personal, and community identity, as well as perceptions of self-discipline, social skills, respect, confidence and leadership. The 12- to 14-year-old participants stated that choir offered a reliable and constant environment during a time in life full of change. Participants felt unconditional peer acceptance in choir as opposed to the harsh peer judgment at school. Mills concluded that choir enhanced student self-concept, self-esteem and self-efficacy by providing a consistent, family-like environment for students to master music and social skills.

Self-efficacy, or what students believe they are capable of, is also affected by ensemble participation (Mills, 2008). Elementary ensemble student self-efficacy can be increased by interactions with professional musicians (Abeles, 2004). Randles (2011) surveyed 1,219 students grades 4 though 12 to determine student perceptions of good musicianship, as well as the relationship between gender and self-efficacy. Girls indicated a significantly higher self-efficacy than boys. Results also showed that 44% of students chose to participate in school music programs, and student self-perceptions of being good musicians decreased with grade level. Within each grade level the top definition of a good musician was "performing/practicing on an instrument". Randles believed that including a wider selection of instruments for ensembles would help increase the participation levels of school music programs, as well as student self-efficacy. If students had more options of instruments to play, more students would take music classes. This would mean students would practice more and would therefore see themselves as good musicians.

Research indicates that students who participate in ensembles perform more expressively than students who do not. Playing in a group provides students with a model of a beautiful sound to imitate and allows for the freedom to play with spirit and enthusiasm without the fear of mistakes (McCall, 2003). Kinney (2004) compared the ability of two groups of students to perform expressively on piano. One group had high school ensemble performance experience while the other group did not. According to a panel of experts judging the groups' performances of three songs for accuracy and expression, the group with ensemble experience performed significantly more expressively than the other group. The study also indicated that school ensemble participation positively influenced the performance and perception of musical expression.

Students in ensembles also develop musical skills such as sight-reading, aural skills, playing by ear, playing from memory, and improvising. McCarthy (1969) measured groups in school band, choir, orchestra, and a control group of non-music student on their abilities to aurally perceive aesthetic elements in recorded music. He found that band and orchestra members scored higher on an aural skills test than the control group. May & Elliot (1980) studied the relationships among ensemble participation, music skills, and the number of years of private lessons on the ensemble instrument. One hundred sixty-four music students from a Midwestern school district responded to the Gaston Test of Musicality when in 4th grade and again in middle school when they were assigned to ensembles. Ensemble experience and private instruction

correlated with higher aural skills results on the Gaston test. This could be due to the increased exposure to aural skills of students who play in ensembles and take private lessons.

McPherson (1997) found that over a three-year period high school instrumentalists in band improved their abilities to sight-read, play by ear, play from memory, and to improvise. Students also develop changes in cognitive strategies for practice such as "thinking in sound" and mentally rehearsing the music prior to performance. In another longitudinal study, McPherson (2005) administered tests at the end of each school year to 3rd and 4th graders who had begun playing wind instruments in school music programs. The tests assessed students' abilities to perform rehearsed music, sight-read, play from memory, play by ear, and to improvise. Results determined that all skills improved every year. The study also suggests that teachers help ensemble students to develop a varied repertoire of tasks to learn music.

Performing in ensembles and group lessons such as Suzuki classes adds opportunities that musicians do not get from performing solo. Students get opportunities to review skills in different contexts while developing a strong foundation of skills (McCall, 2003). Group performance also teaches discipline, ensemble etiquette, musical terminology, and expectations of ensemble work. Success in group settings can motivate students because they get to perform well for others while hearing others play. Ensemble experience also provides opportunities to polish pieces, expand repertoire, develop a strong sense of rhythm, practice performing, absorb new musical ideas, and to demonstrate accomplishments. Classical guitarists can benefit from ensemble experience because much of their performance experience comes from solo repertoire and private lessons.

Method

The purpose of this study was to explore the development of self-perceptions and skill acquisition of students in classical guitar ensembles. Participants included 14 classical guitar students ages 7-15 years in a university music outreach program. All students took weekly private classical guitar lessons and guitar ensemble classes from graduate music students. Students were grouped by age and skill level into three beginner ensembles: Group A ($n=4$; 7-9 years), Group B ($n=5$; 9-11 years), and Group C ($n=5$; 10-15 years). All students had taken private lessons for between one and three years except one student who had taken more than four years. All students had taken less than three years of guitar ensemble classes. Ensemble classes were 50 minutes long and took place at a large university in the southwestern United States.

Systematic observation of 220 minutes of video data collected over a 12-week period was used to determine whether students demonstrated music skills associated with good tone and playing in time in an ensemble. Five weeks of video were recorded: two at the beginning of the 12 weeks, two in the middle of the term, and one at the end for a total of 11 videos. Two 10-minute video clips were randomly selected from each video between the time the students were tuned and seated and when the lesson ended. A total of 220 minutes of video data from 22 ten-minute clips was observed and analyzed using a checklist of specific student behaviors. Behaviors included "correct posture," "correct instrument position," "correct right hand setup," "correct right hand movement," "uses a footstool," and "quiet during instructions or performances." If a student demonstrated the skill at least once, "yes" was placed next to his or her name. If a student never demonstrated a skill, "no" was placed next to his or her name. If a skill was not visible for a student or data were not available, this was indicated with "NV" and "NA." For instance, if a music stand was blocking the view of a student's right hand then right

hand skills would be marked "NV." Students were numbered from left to right from the conductor's perspective. If something obstructed the view of a student for all skills, each skill was marked NV. NA was used if there were more students numbered on the checklist than students in the video. This observation procedure was repeated for each video clip. Tone was measured from behavioral, not auditory observations and not auditory. This was because of the subjectivity of how good tone sounds and to the variability of the video and audio quality. Five graduate music education students analyzed 10 video clips for reliability purposes. Reliability ranged from 60% to 100% agreement with a mean of 83.3%.

All students took either the Self-Perception Profile for Children (Harter, 1985) for ages 7-13 years or the Self-Perception Profile for Adolescents (Harter, 1988) for ages 14-18 years. These surveys were administered at the end of the 12-week period. Participants answered approximately 40 questions using a forced-choice four-point Likert-like scale. All students answered questions related to student perceptions of their scholastic competence, social acceptance, athletic competence, physical appearance, behavioral conduct, and global self-worth. The two adolescent students answered additional questions on job competence, romantic appeal, and close friendship. Results were compared to similar questions students answered about the importance of each subscale to determine discrepancies between their competence, importance and global self-worth scores. Ensemble instructors answered similar questions on their perceptions of their students for reliability purposes. Students also took a short multiple-choice questionnaire designed by the researcher on their musical experience, practicing behaviors and musical preferences (see Appendix 1).

Results

Two hundred and twenty minutes of video were analyzed for student skills from weeks 1, 3, 6, 9, and 12 of the 12-week period. All three groups A (n=4; 7-9 years), B (n=5; 9-11 years), and C (n=5; 12-15 years) demonstrated between 85% and 100% of skills for each video clip. The youngest ensemble Group A always demonstrated at least 98% of skills on the checklist of behavioral observations. Group B demonstrated 86% of skills the first week and 95% the last week. Group C demonstrated 99% of skills the third week, 85% the 6th week, and 97% the 9th week of the observation period (See Table 1). The skill of being quiet during instructions or performances was demonstrated 80% of the time, making it the skill demonstrated the least. Students showed correct posture for 94% of the videos. All students demonstrated correct right hand setup 100% of the time in all video clips (Table 2).

Table 1

Group Demonstration of Total Skills as Percentages By Week From the Observation Period

Group	Week 1	Week 3	Week 6	Week 9	Week 12
A (7-9 years)	100	98	NA	100	NA
B (9-11 years)	86	88	97	90	95
C (10-15 years)	NA	98	85	97	NA

Table 2

Students Ordered by Group Total Percentages of Skills Demonstrated During the Observation Period

Student & Group	Correct Posture %	Correct Instrument Position %	Correct Right Hand Setup %	Correct Right Hand Movement %	Uses a Footstool %	Quiet During Instructions of Performances %
1-A	100	100	100	100	100	100
2-A	100	100	100	100	100	100
3-A	100	100	100	100	100	100
4-A	100	100	100	67	100	100
5-B	100	100	100	100	100	80
6-B	100	100	100	100	100	88
7-B	67	83	100	67	100	75
8-B	83	83	100	60	100	17
9-B	100	100	100	100	67	67
10-C	67	67	100	100	50	100
11-C	100	100	100	100	100	100
12-C	100	100	100	100	100	100
13-C	100	100	100	100	100	66
14-C	100	100	100	100	100	33

The students completed the Self-Perception Profile for either children (Harter, 1985) or adolescents (Harter, 1988), which consisted of the following subscales: scholastic competence, social acceptance, athletic competence, physical appearance, behavioral conduct, and global self-worth. The two adolescent students completed the additional subscales of job competence, romantic appeal, and close friendship. Following the profile manual, the student self-perception subscales were rated between 1 and 4 with anything at or above 3 being considered high and anything below 2 low. Different patterns emerged for all students. In general, individual students scored higher than the published norm across all subscales. Data for individual student subscale averages are presented in Figure 1. All but two students had high averages for physical appearance. Global self-worth was high in all but one student who also had the lowest social acceptance and physical appearance. The two adolescent students had high means for job competence, romantic appeal and close friendship.
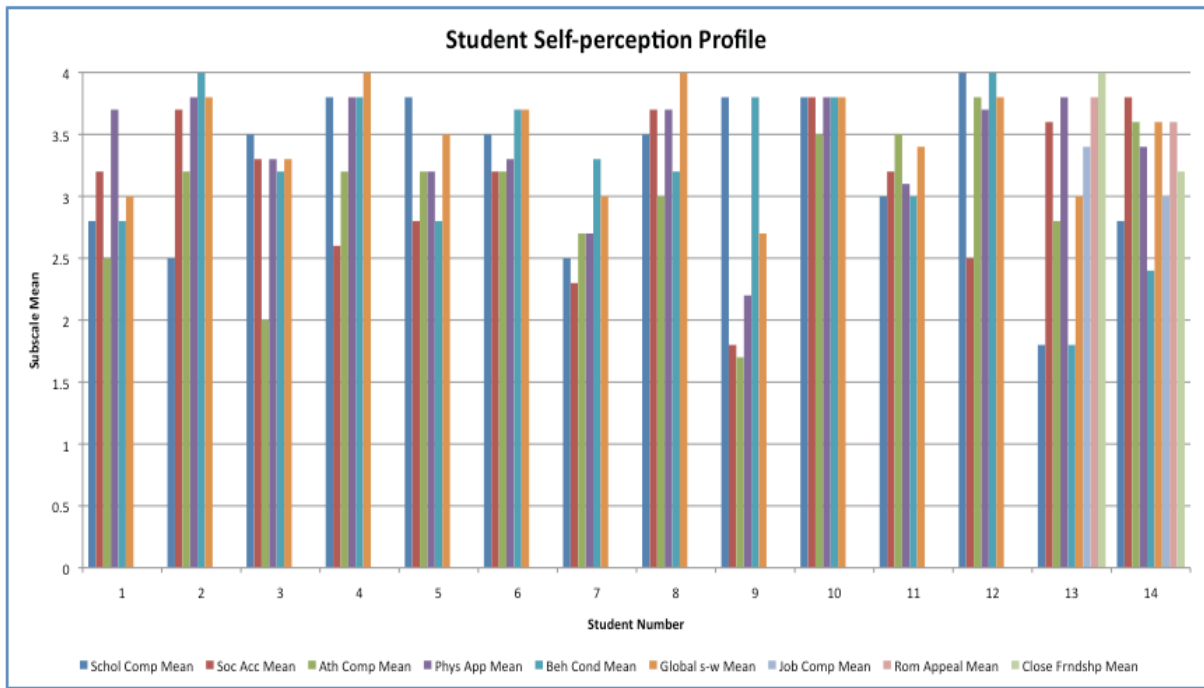
Figure 1. Self-perception subscores for individual students. Students 1-7 were in 3rd grade; students 8 & 10 were in 4th grade; student 9 was in 5th grade; student 11 was in 6th; student 12 was in 7th; student 13 was in 9th; and student 14 was in 10th grade. High scores are those at or above 3. Low scores are below 2.
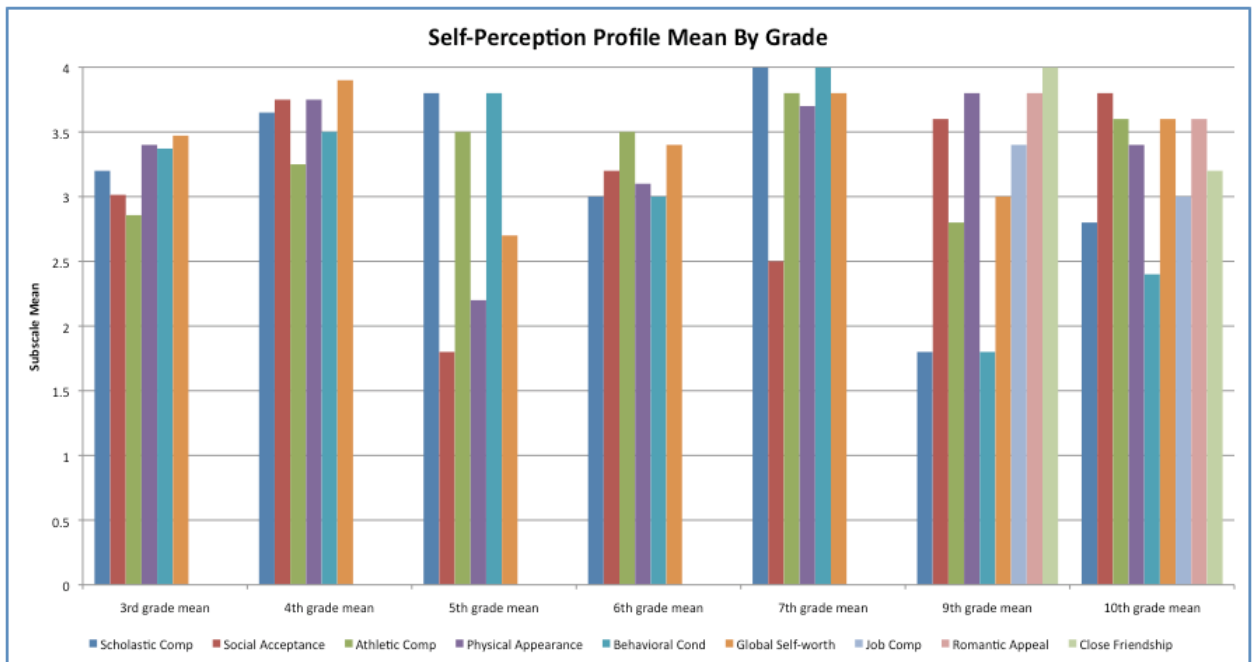

Figure 2. Self-perception profile mean by grade. Grade level numbers were: 3rd grade (n=7); 4th grade (n=2); 5th grade (n=1); 6th grade (n=1); 7th grade (n=1); 9th grade (n=1); and 10th grade (n=1).

Figure 2 represents the self-perception profile mean scores by grade. Generally all subscales were high with the exception of three that were low. Figure 3 shows the deviation between the present study's self-perception subscale means and the norms presented in the manual for Harter's Self-Perception Profile (1985 & 1988). Third, fourth, and sixth grade students had deviations at or above zero meaning the present study's sample scored higher than the norm on all subscales. Seventh grade students had all positive deviations except for social acceptance. The largest deviations (above +1.0) were for ninth grade romantic appeal and physical appearance, and seventh grade scholastic competence and behavioral conduct. The smallest deviations (below -1.0) were for fifth grade social acceptance, and ninth grade scholastic competence and behavioral conduct.
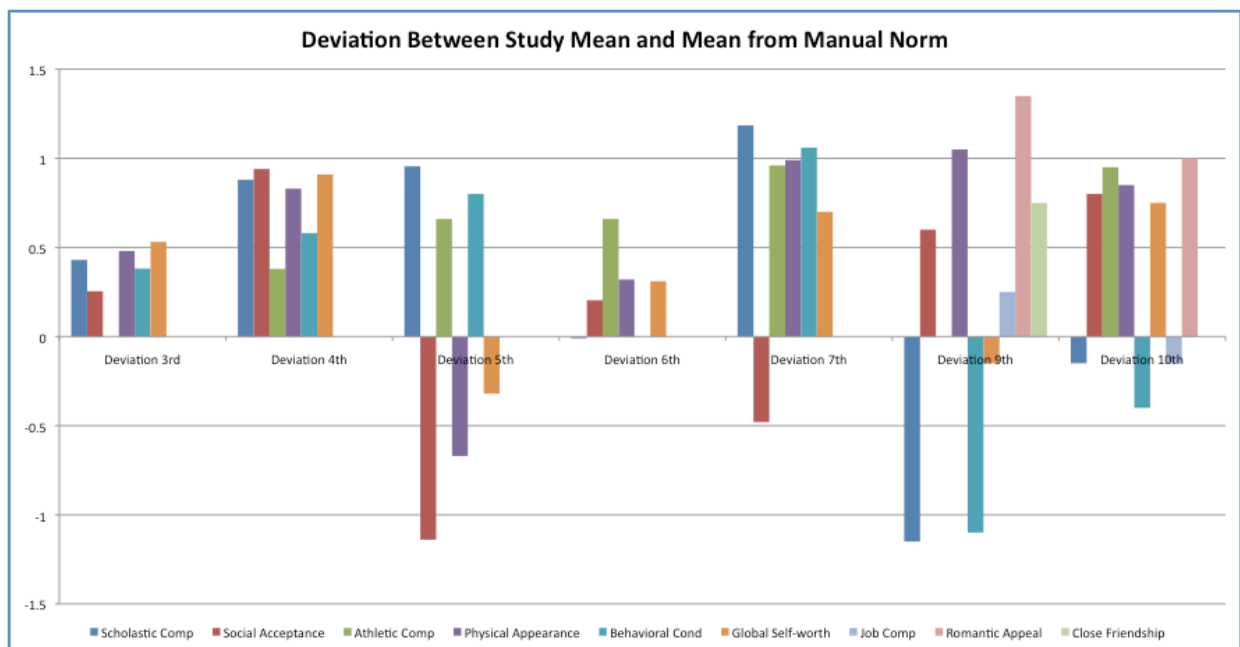

Figure 3. Deviation by grade level of the present study's subscale means and the means of the norms from Harter's Self-Perception Profiles (Harter 1985 & 1988). Positive values indicate the present study's sample scored higher than the norm presented in the profile manual.

Results of the researcher-designed multiple-choice questionnaire provided additional background information on the students (see Appendix 1 for the questions asked). The youngest students in Group A reported practicing twice a day for average sessions of 25 minutes, while Group B practiced more frequently for shorter sessions. Group C practiced as frequently as Group A but for 10 minutes longer each session. Half of the students played instruments other than classical guitar including piano, bass, drums, recorder, electric guitar and electric DJ system, and eight students had family members who play music. One student had studied classical guitar for more than four years, and had the most guitar ensemble experience with three years. All but one student practiced repertoire from their solo lesson book, while all but three practiced guitar ensemble music. Six students practiced self-composed music. Three students played in other ensembles including band, church choir, and a high school guitar ensemble.

Discussion

The results from the behavioral observations of student skills indicate the students in Group A (n=4; 7-9 years) consistently demonstrated skill mastery while the other groups (Group B: n=5, 9-11 years; Group C: n=5, 10-15 years) demonstrated skill mastery less consistently (See Table 1). This difference in consistency between groups could be due to the age and number of participants in each group, as well as the amount of instructor training and experience. The four students in Group A were between 7-9 years of age and possibly easier to manage than the five students aged 9 to 11 years in Group B. The instructor of Group A was a music education graduate student with more teacher training than the other instructors who were all performance graduate students with limited teacher training. The instructor's extra training in education principles may have resulted in more consistent expectations and directions for students to demonstrate certain skills.

Skills with which Group B had difficulty with were being quiet during instructions from the teacher or while other students performed. Group B's skills improved at the end of the observation period when the instructor set up behavioral expectations that prevented the students from talking during directions or performances. There was a noticeable change in Group B's behavior during two lessons with two different substitute teachers. One substitute was stricter about listening during directions, and curiously during that particular lesson students demonstrated more consistent skills. It is possible that the increase in student skills demonstrated for that lesson was due to clarity of the teacher's directions and expectations of students. The students demonstrated fewer skills with the other substitute, possibly due to a lack of the instructor's classroom experience and behavioral expectations. Group B could have demonstrated a higher percentage of being quiet during instructions towards the beginning of the observation period if the instructor had established rules for classroom behavior at the beginning of the semester. Group C demonstrated fewer skills during week six when one student did not have a footstool and therefore also had poor posture and instrument position.

A difference in feedback was also evident among the different instructors. The instructor for Group A gave frequent and specific feedback to individual students while the other two instructors gave infrequent general group feedback. The consistent higher success of Group A may have been due to the frequent specific feedback the instructor gave as well as how much the instructor moved around the classroom to help students and keep them on task. For the other groups, rehearsals were often structured with the students performing a piece several times followed by the instructor giving vague group feedback and then moving on to the next piece. In many instances the instructors for groups B and C gave no feedback after students completed a performance.

Guitar ensembles provide a group experience for students to practice and reinforce skills. Students may be motivated by their peers to perform at approximately the same level as other students. For instance, students in Group A may not usually demonstrate consistent skills while practicing at home or in their private lessons, but when they see other students demonstrating skills they may become more likely to imitate their skills and behaviors. Students who have good posture model good posture to other students in the ensemble. Unfortunately, students who talk or play while the instructor talks also model this bad behavior for other students to imitate. Considering that guitarists often practice alone, it is important for them to have group experiences with positive models from the instructor and the other students to imitate and learn from.

The self-perception profile is useful for getting data on various aspects of students' personalities from the student point of view. Teachers can determine much about students' personalities from interactions in the classroom but cannot tell much about how students see themselves. The subscale global self-worth is especially relevant to students in ensembles because it reveals something about the students that teachers could not otherwise know; that is, it depicts how students view themselves as a whole and the way they feel about how they are leading their lives. Global self-worth subscale gives a glimpse of whether or not an individual is happy with his or her life. A high global self-worth could be attributable to routine activities in which students participate that define and shape their perceptions such as guitar ensembles. For instance, success in a group setting playing guitar could inspire a student to value his or her life more than if he or she did not have a successful ensemble experience. Another particularly valuable subscale is social acceptance because ensemble participation can also provide meaningful social interactions for students and opportunities to feel more accepted by their ensemble peers. Routine interactions with other musicians allow students to share a common experience, make friends, and practice social skills necessary for the perception of feeling socially accepted.

Results of the self-perceptions profile suggest many relationships between the profile subscales. Scholastic competence and behavioral conduct were generally rated at approximately the same level for individual students. This could mean that students who see themselves as intelligent also see themselves as well behaved or vice versa. Only grades 9 and 10 had scholastic competence and behavioral conduct means lower than the means from the manual norm, suggesting a relationship for adolescents between playing in classical guitar ensembles and not performing or behaving well in school. This may be due to adolescents having a stereotyped image of guitarists as misbehaving and rebellious. The romantic appeal of the adolescents was higher than the manual norm. The difference was possibly related to the exposure of adolescents to pop-culture images of guitarists portrayed as attractive and romantically desirable. All grades except for fifth had physical appearance means higher than the manual norm, implying either guitar ensembles, or music in general, boost student self-perceptions of appearance, or students who already have high physical appearance are likely to join a guitar ensemble. The low physical appearance, social acceptance, and global self-worth scores for fifth grade could be due to there being only one student in that grade and likely would increase if the sample included more fifth graders. The scores for this particular student imply a self-perception as intelligent and well behaved but unaccepted by peers and unhappy with how his or her life is going.

Global self-worth refers to student perceptions about how they are leading their lives (Harter, 1985) and the global self-worth scores in this study are generally similar to the scores of the other subscales. Harter suggests global self-worth scores are related to the discrepancy between how students score on each subscale and their perceptions of the importance of each subscale (1985, 1988). This is supported by the two grades in this study with the lowest global self-worth (fifth and ninth) also having the lowest discrepancy between their subscale scores and their importance scores. All other grades had global self-worth means higher than the manual norm, indicating that a relationship may exist between playing in guitar ensembles and having a high global self-worth. Future studies could determine if there is a relationship between global self-worth and guitar ensembles by using a larger sample with a control group of similar students not in guitar ensembles.

Future research could be improved by increasing the sample, having a control group, extending the timeframe for both self-perception and behavioral changes, creating a multiple

baseline design for the behavior observations, and administering a pre- and post-test for the self-perception profile. An extended timeframe with multiple baselines and a self-perception post-test would be better able to determine changes occurring as a result of participation in guitar ensembles. A larger sample and multiple groups would help show if the relationships found in this study only occur in guitar ensembles, or if they could also appear in orchestra students, or students with no ensemble experience.

Appendix 1

Questionnaire:

1. How many times a day do you practice guitar?

a) 5 or more times,
b) 3-4 times
c) 1-2 times
d) none

2. How long do you practice guitar each time you play?

a) 45 minutes or more
b) 20-45 minutes
c) 10-20 minutes
d) less than 10 minutes

3. Do you play any other instruments? Which ones?

a) No
b) Yes _____

4. How many live concerts have you been to in the last 2 months?

a) more than 5
b) 3-4
c) 1-2
d) none

5. How much time a day do you spend listening to music?

a) more than 2 hours
b) 1-2 hours
c) 30-60 minutes
d) 0-30 minutes

6. Do you play in any other ensembles? Which ones?
a) No
b) Yes _____

7. Which of the following do you practice on guitar at home?

a) guitar ensemble music
b) solo music from a lesson book
c) music not learned in lessons
d) music you write or compose

8. Who do you practice guitar with at home?
a) no one
b) parent
c) sibling
d) friend

9. Do any other family members play music at home? Who?

a) No
b) Yes, siblings
c) Yes, parents

10. What is your favorite part of playing guitar?

a) playing with your teacher in lessons
b) playing solo in lessons
c) playing with others in ensembles
d) playing solo at home
e) playing with others at home

11. How long have you been playing guitar?
a) 1 year
b) 2 years
c) 3 years
d) 4 or more years

12. How long have you played in guitar ensembles?
a) 1 year
b) 2 years
c) 3 years
d) 4 or more years

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