Proceedings of the
12th International Research Symposium on Talent Education (IRSTE)

Minneapolis, MN
May 22-23, 2014
Welcome to the 12th International Research Symposium on Talent Education (IRSTE). Founded by the American Suzuki Institute (ASI) and now co-sponsored by ASI and the Suzuki Association of the Americas (SAA), the IRSTE takes place every two years before the SAA Conference begins.

Established in 1990, the goal of the IRSTE is to focus on the application of research as it relates to the Suzuki Method, music teaching, and learning. Participants have the opportunity to hear presentations of completed projects of various researchers as well as meet and talk with presenters at the poster session. It also offers studio teachers the chance to learn some of the basic methods of conducting research in their own program.

We are particularly excited at this symposium to be able to present the results of a research study sponsored by the IRSTE. This pilot study has been conducted by four amazing women who, two years ago, were sitting just where you are right now. They are an excellent example of the SAA Conference theme of the Powered By Community.

Our hope is that you’ll leave the day pondering new ideas, stimulated by new ways of thinking and revitalized in your commitment to life-long learning. Enjoy!

Pat D’Ercole, IRSTE Co-coordinator
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Karin Hendricks
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Relationships Between Group-Based Suzuki Music Instruction; Parent Beliefs, Values, and Commitment to Music; and Parent Ratings of Children’s Empathy

Kathleen M. Einarson, Karin S. Hendricks, Elizabeth M. Guerriero, Nancy Mitchell, & Patricia D’Ercole

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Empathy is a crucial characteristic of healthy interpersonal relationships, and this exploratory study is the first of a multi-phased project to examine the effects of Suzuki music participation upon empathy, well-being, and social development. Drawing upon previous findings and methodologies in social psychology, music, and neuroscience research, these studies seek to characterize relationships between the music teaching approaches founded by violin pedagogue and humanitarian Shinichi Suzuki and the development of empathetic character traits in children.

Shinichi Suzuki has been recognized for the emphasis that he placed upon character development, including fostering such traits as sensitivity to others, kindness, and compassion (Hendricks, 2011). Recent research in music and psychology has demonstrated that engaging in musical behaviour with another person has immediate positive effects on the social behaviour of infants (Cirelli, Einarson, & Trainor, 2012) and of young children (Kirschner & Tomasello, 2010). Additionally, group-based music making has been shown to impact children’s empathy and social skills (Rabinowitch, Cross, & Burnard, 2013). This research adds to prior knowledge by observing the influence of home environment and Suzuki-based music instruction upon empathic character traits such as responsiveness, emotional vicariousness, and social facilitation (Gerry, Unrau, & Trainor, 2012; Preston & De Waal, 2002; Trainor, 2012).

The research is framed by the following questions:
1. Is there a significant effect of Suzuki private and/or group instruction upon parent-reported empathic character traits of children?
2. What relationships exist between parent-reported empathy ratings of children and parent beliefs, values, and commitment in music?
3. What are parent beliefs regarding the importance of group class?

To address these questions, parents of students enrolled in a Suzuki music program in the Midwestern United States (N = 48) completed an online survey in September 2013. The survey had four parts: (a) demographic information; (b) musical beliefs, values, commitment to private lessons, and projections toward future success; (c) beliefs and values regarding Suzuki group class; and (d) parent perceptions of child’s empathic traits, as measured by the Griffith Empathy Measure (Dadds et al., 2008). The same survey was administered again in March 2014 (N = 46) after children had participated in six months of group class.

Effects of Suzuki instruction. Parent ratings of their child’s empathy from the September survey were compared to ratings of empathy from the March survey to determine if there were significant changes in children’s empathic characteristics after six months of Suzuki instruction. While data from the small sample of parents who filled out the empathy portion of the questionnaire on both surveys (n = 29) did not yield statistically significant results, we noted differing trends among those who stayed in group lessons for the duration of the study and those
who did not: The empathy mean scores for those who stayed in group lessons (n = 9) increased from $M = 2.44$ to $M = 2.67$, while those who did not stay (or did not participate at all) in group lessons (n = 20) decreased from $M = 1.71$ to $M = 1.58$ over the same time period. These contrasting trends among those who stayed in group class and those who did not warrants further investigation with a larger sample.

Relationships between parent beliefs, values, and commitment and reported empathy.

Parent perceptions of empathy traits from the September survey were compared to parent beliefs, values, and projections of future success in music from the same survey.

We found correlations at the $p < .001$ level between reported empathy and parents’ beliefs and values regarding the importance of music instruction ($r = .586$), importance of Suzuki instruction ($r = .606$), and the belief that music will help their child succeed in other areas ($r = .482$). Unsurprisingly, the highest correlation was between the importance of music instruction and Suzuki instruction ($r = .826$), but also notable were significant correlations between “music will help my child succeed in other areas” and all other items ($r = $ between .294 and .716, all $p$’s < 0.05), suggesting a strong influence of parent belief about the impact of music learning.

Group lesson participation and continuation.

On both the September and March surveys 90% of parents responded that group class was important for their child to attend. However, of 32 parents who took the survey in both September and March, only 56% reported participating in group lessons in September, while only 31% remained in group lessons in March. This decrease warrants a more in-depth investigation into the reasons why parents do or do not choose to have their child participate in group lessons.

Responses to the open-ended question “Do you believe group class is important for your child? Why or why not?” were coded, and clustered into the broad categories of Community, Skill Development, and Challenges. Within the category of community, themes of teamwork, peer mentoring/modeling, friendship, social music making, and belonging to the larger Suzuki community were evident. Skill development focused on individual technique, individual musicality, and the growth of ensemble skills. Finally, challenges related to participation in group class included scheduling issues, and disparity between the age or level of the individual student and those of the rest of the group.

Findings from this pilot study will be used to inform a larger-scale study of Suzuki programs throughout the United States and Canada. For this subsequent research, we will solicit the help of Suzuki teachers throughout North America in facilitating data collection to study relationships between parent-reported empathic traits of children, parent beliefs and values in music, and group class instruction in a variety of contexts.

This multi-phase project has important implications for pedagogical practice and for future research. The findings from this study may create awareness of particular types of musical activity and education experiences that may elicit empathic traits in young children and that can consequently be recommended to music educators who are interested in encouraging the development of empathy in their students.

Research sponsored in part by the International Research Symposium on Talent Education, University of Wisconsin Stevens Point, and Ball State University.
Children’s Sensitivity to Musical Metre: What Changes With Age and What Doesn’t?

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Meter is the regular, hierarchical pattern of beats that can be perceptually abstracted from a musical composition (e.g., Lerdahl & Jackendoff, 1982). Recent work (Einarson & Trainor, under revision) examined children’s perceptual sensitivity to musical metric structure using the complex Beat Alignment Task (cBAT). 32 musically untrained five-year-old children watched two videos, each of a puppet drumming along to a short musical excerpt, and gave the prize to the puppet that drummed better. One puppet drummed in synchrony with the beat of the musical excerpt, and the other drummed either out of phase (25% earlier or later) or out of tempo (10% faster or slower) relative to the beat. Musical excerpts had either simple or complex metric structure. Five-year-olds were better able to detect beat misalignments in simple than in complex metre music (p < .001) and they did not perform above chance levels with complex metre music. Subsequently, we investigated older children’s sensitivity to beat misalignment using the same paired-video drumming task. 24 seven-year-old children with no formal music training completed the simple and complex metre portions of the cBAT. Like younger children, seven-year-olds were better able to detect beat misalignments in simple than in complex metre music (p = .004); however, older children’s performance was significantly above chance levels for both simple and complex metre music. A 2x2x2 ANOVA comparing the two groups demonstrated significant main effects of age (p = 0.001) and of metre type (p < 0.001). We conclude that overall perceptual sensitivity to a musical beat, as measure by the cBAT, is significantly better for seven-year-old children compared to five-year-old children. However, both groups show a perceptual bias for simple metre music, suggesting that this enculturated bias persists across childhood.
Can the Suzuki Method Prevent Music Performance Anxiety?  
An Empirical Investigation into the Potential of the Suzuki Method to Prevent Music Performance Anxiety, with Quantitative and Qualitative Results

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While much has been written about overcoming Music Performance Anxiety (MPA), there is little research into practical prevention methods that can be implemented and reinforced in private instrumental lessons. The Suzuki Method of Talent Education is a unique methodology for learning an instrument and for the development of positive psychological traits. The method calls for the private teacher and the parent to create an environment conducive to learning the way a child learns his or her native language. The features of the method include beginning training in the pre-school years, frequently listening to the Suzuki repertoire, involvement of a supportive parent, a focus on ear training and memorization, delayed note reading, group learning and frequent performances. When employed by a well-trained and conscientious teacher, these components will build self-esteem and prepare children for the challenges and anxieties they will face as they age. To investigate whether the Suzuki Method is effective at preventing MPA, a questionnaire was created and distributed to adolescents and adult professional musicians. The questionnaire contained both qualitative and quantitative questions as well as the Rosenberg Self-Esteem survey and either the Kenny Music Performance Anxiety Inventory (K-MPAI) or the Music Performance Anxiety Inventory for Adolescents (MPAI-A). One hundred seventy five adult participants and 36 adolescent participants responded. Results of the adult group showed that the “strictly Suzuki-trained” group had the highest mean scores on the Rosenberg Self-Esteem survey and the lowest mean scores on the K-MPAI. The adolescent findings were similar. Other surprising findings regarding gender, the results of the “modified Suzuki group” and advice given from teachers are discussed. This research has implications for instrumental teachers and parents of young musicians as it provides evidence that Suzuki training may be effective in preventing the development of MPA.
Content Analysis: Comparison of Rolland’s *Teaching of Action in String Playing* with Selected String Method Books

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The purpose of this poster is to provide a content analysis of several popular beginning string method books for pedagogical principles of Paul Rolland. In this study, two researchers independently outlined pedagogical concepts included in Rolland’s *The Teaching of Action in String Playing*, and then together they categorized them into a final list of 180+ themes. The list was condensed down to 60 themes by four expert teachers who have extensive experience with *The Teaching of Action in String Playing*. The researchers then investigated four method books to examine how concepts were integrated into traditional string classroom pedagogy: *Essential Elements 2000, Book I* (2001), *Artistry in Strings, Book I* (2002), *The Belwin String Builder* (1961) and the Müller-Rusch *String Method for Class or Individual Instruction, Book I* (1961). The coding of the three method books included all pedagogical text in the teacher’s manuals of each method and was done independently by both researchers. The contemporary influence of Rolland was particularly evident when comparing treatment of pedagogical concepts between the older and newer methods. The strong influence of Rolland pedagogy is evident in the results of this content analysis. In addition to quantifying the influence of Rolland’s ideas, and in particular the use of his “action studies” in contemporary pedagogical texts, this study provided a coding list for future research studies. The researchers plan to use this list of codes to produce a content analysis on other popular method books to track the influence of Paul Rolland through various curricula.
## Content Analysis: Comparison of Rolland’s *Teaching of Action in String Playing* with Selected String Method Books

### Supplementary Materials

<table>
<thead>
<tr>
<th>Rolland Concept (direct quote)</th>
<th>Whole body</th>
<th>Left Hand</th>
<th>Right Hand</th>
<th>More than 1</th>
<th>other</th>
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<td>L</td>
<td>0</td>
<td>1</td>
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<td>0</td>
</tr>
</tbody>
</table>

| silent bow transfers (p. 118) | R          | 0         | 0          | 1           | 0     |
| silent bouncing with an early bow hold (p. 136) | R          | 0         | 0          | 1           | 0     |
| continuous regular movement of the bow during off the string strokes | R          | 0         | 0          | 1           | 0     |
| "the early introduction of spiccato bowing is beneficial and stimulating for the beginner." (p. 136) | R          | 0         | 0          | 1           | 0     |
| glancing the bow for sound (p. 137) "after practicing the almost silent bouncing motions in which the movement is almost perpendicular to the top of the instrument, glance the bow against the string more or less in the direction of a normal bow stroke." | R          | 0         | 0          | 1           | 0     |
| different rhythms with bouncing bows (p. 139) | R          | 0         | 0          | 1           | 0     |
| sustained strokes requires straight bowing (p. 164) | R          | 0         | 0          | 1           | 0     |
| "shadow bowing" (p. 43) | R          | 0         | 0          | 1           | 1     |
Does Music Instruction Using the Suzuki Method Improve Working Memory and Visual-Spatial Processing in Kindergarten Children?

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This randomized experimental study examined working memory capacity, visual-spatial processing, and controlled attention among kindergarten students who received musical instruction using the Suzuki Violin Method compared to students in a waiting list condition that served as a control group. The study consisted of five weeks of treatment or control condition for each group. Both groups were administered the Stanford-Binet 5 (SB-5) and the Kiddie Connors’ Continuous Performance Test Version 5 (K-CPT). The students in the treatment group received 15 total hours of Suzuki instruction while the students in the waiting list control condition did not receive any instruction. At the end of week five, the treatment and the waiting list control groups were administered a post assessment. The analyses indicated there were no significant differences between the instrumental instruction using the Suzuki Method participants and the waiting list control participants on SB-5 Verbal and Nonverbal Working Memory total score and SB-5 Verbal and Nonverbal Visual Spatial Processing total score. However, there was a significant difference in the K-CPT composite variable of attention measures (omissions, commissions, hit response time, hit response time standard error, and variability) between the treatment and waiting list control groups. Music instruction using the Suzuki Method did produce a significant increase in the combined attention measures when compared to the control group participants.
At a time when technology and globalization are leading to increased connections throughout the world – yet when domestic and international conflicts still keep so many of us separated and even in fear of one another – discussions that foster empathy, community, and shared understandings are both timely and necessary. Music is a powerful avenue for promoting collective understandings among diverse individuals because of its ability to connect individuals in ineffable yet very tangible ways. In the philosophy of string pedagogue Shinichi Suzuki, music performance is secondary to development of character; notes, rhythms, and technique are only a means to nurturing a child. Yet as time separates us from Suzuki since his death in 1998, his focus on the child is often forgotten in some interpretations of this pedagogy or among some who appreciate selective Suzuki techniques without a holistic awareness of the underlying philosophy.

This book is a synthesis of historical, philosophical, qualitative, and experimental research regarding Suzuki’s philosophy of compassion, cooperation, and character development, and offers specific ways in which this philosophy is applicable and even fundamental to the Suzuki approach of teaching of string instrument performance technique. In this book, I draw upon interviews with reputed Suzuki “teacher trainers,” Suzuki teachers who studied under the tutelage of Shinichi Suzuki, analysis of videos of Suzuki himself, and writings of other educational scholars in order to articulate a formal philosophy for Suzuki’s approach. This research demonstrates Suzuki’s belief in the spiritual nature of musical tone and the fundamental priority he placed upon character development. The book invites awareness of Suzuki’s philosophy of compassion, cooperation, and character development by providing specific ways in which this philosophy is applicable and even fundamental to the Suzuki approach of teaching of string instrument performance technique, while also applicable to musical experience more generally.
Epidemiological Evaluation of Pain and Performance Anxiety Among String Instrumentalists

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Pain and performance anxiety (PA) are common problems among string players, however, the performing arts medicine literature lacks research that explores the interactions between pain and PA within musician groups. Furthermore, little is known about the impact of these conditions on the ability to perform. Therefore, the purpose of this study was to assess and compare PA and prevalence rates and locations of pain in violinists, violists, cellists, and bassists. Knowledge of these relationships is especially deficient in the string group due to lack of epidemiologic data across instrument types. Subjects (N=115) completed an IRB-approved protocol that included a questionnaire (demographics, musical background, practice habits, musculoskeletal problems, non-musculoskeletal problems, and experiences with PA) and the collection of upper extremity anthropometric data on all subjects. Results show significant differences in both pain and PA across instrument groups. Violinists reported the highest prevalence of pain sites, followed by violists, bassists, and cellists. The left shoulder was the most-often reported pain site, followed by the neck and right shoulder. Aching was the most cited adjective descriptor selected to describe pain. Several anthropometric indices were significantly correlated with pain, notably right thumb to index finger span in both cellists and bassists. Subjects reported that musicality was the most-affected self-reported area for both pain and PA. Varying behavioral, demographic, and anthropometric factors were significantly correlated with responses to at least one of four pain and/or PA questions. Responses to pain and PA questions were significantly correlated. Results warrant consideration of biopsychosocial and pedagogical intervention strategies and further investigation into the relationships between pain and performance anxiety.
Suzuki Method Research: A Bibliography
Compiled through 2010 by Dr. Alice Ann M. O’Neill
Updated in 2012 by Dr. Karin S. Hendricks
Updated in 2014 by Dr. Nancy Mitchell and Dr. Elizabeth Guerriero


Professional Literature
Compiled by Dr. Nancy Mitchell and Dr. Elizabeth Guerriero


Suzuki Method Research:  
Summary of 2014 Bibliography

Tally of research articles, by Instrument
  12 - Violin
  6 - Piano
  3 - Cello
  3 - Viola
  2 - Guitar
  2 - Flute
  1 - Clarinet
  1 - Saxophone

Tally of research articles, by Topic:
  13 - Empirical Studies
  9 - Philosophy / Method Studies
  7 - Historical Research
  4 - Early Childhood Music Education
  3 - Public School Programs
  3 - Curriculum
  6 - Miscellaneous

Total number of research studies included in this bibliography: 74

Date span of works included: 1966 to 2013

Professional Literature:  
Summary of 2014 References

Total number of professional publications included in this reference list: 16

Date span of works included: 1961 to 2009