Choosing To Learn: The Effect of Observation Learning, Forced-Choice Learning, and Goal-Shaped Learning On Novice Instrumental Music Learners

Elizabeth M. Guerriero
Pennsylvania State University
bethguerriero@gmail.com

Abstract

An overview of the music practice literature suggests that while practicing is important to the continued acquisition of skill learning, the type of practice and selfperception or awareness of practice are most important to the learner’s success. Few research studies have focused on novice learners’ skill acquisition of a complex task without practice. The purpose of this experimental study was to examine maximum efficiency of skill learning without practice using Observation Learning (OL), Forced-Choice Learning (FCL), and Goal-Shaped Learning (GSL) on the performance of novice instrumental music learners.

Undergraduate non-music majors with no previous experience in string instrumental music participated in this study (N=57). All participants completed a pretest and post-test during which they were asked to perform the first phrase (first 13 notes) of the common folk song “Mary Had a Little Lamb.” During the treatment, the OL participants viewed the researcher performing the task in pairs of videos with good and poor performances. The FCL participants viewed the same pairs of videos and were asked to choose which of the videos in each pair seemed better to them. The GSL participants observed the same pairs of videos, made forced-choice decisions about which video in each pair seemed better to them, and received the expert feedback in the form of agreement or disagreement with the experts.
Participants’ pre- and post-test performances were sent to experts who provided Likert ratings in five component areas: posture, left hand technique, right hand technique, rhythmic accuracy and tonal accuracy. Statistically significant results ($p<.05$) indicated that participants in the OL and GSL groups increased their posture scores following the treatment. Interestingly, participants in the FCL group had lower post-test ratings in all five measured areas, although only the area of posture was statistically significant. An important practical finding for this study is that novice learners may be able to learn complex tasks without practice when correct information is presented and they are sufficiently engaged in the learning process. GSL may be an effective method for efficient learning and its use in music learning should be researched further. Additional research studies could explore skill learning without practice, GSL in other learning areas, or examine forced-choice and Likert Scale ratings as tools for assessment.

Keywords: goal shaped learning, skill acquisition, forced choice, violin, music learning
Perception of Musical Meter in Kindergarten Children

Kathleen M. Einarson & Laurel J. Trainor
McMaster University
einarsk@mcmaster.ca

Abstract

Meter is the regular, hierarchical pattern of beats that can be perceptually abstracted from a musical composition (e.g., Lerdahl & Jackendoff, 1982). There is evidence that newborns can abstract metrical structure (Winkler et al., 2009), and that by 12 months of age infants have become specialized at processing the metrical structures predominant in their culture (Hannon & Trehub, 2005; Soley & Hannon, 2010). Western music commonly uses simple 4/4 or 3/4 time signatures, and complex meters (e.g., 5/4, containing alternating groups of two and three beats) are challenging even for musically trained Western adults. However, adults whose native folk music uses complex meters have little difficulty perceiving and producing such meters (Hannon & Trehub, 2005). Although research has examined meter processing in infants and adults, there is little research with children. In the present study we examined kindergarten children’s sensitivity to the beat using musical excerpts with either simple or complex meters. We developed an engaging, age-appropriate test based on the Beat Alignment Task by Iverson and Patel (2008). In our video task children judge which of two puppets is a better drummer, when one drums in synchrony with the beat of a musical excerpt and the other drums either out of phase with the beat, or at an incorrect tempo. Additionally, we measure receptive vocabulary and working memory. Results indicate that musically untrained children are significantly better at detecting beat alignment errors in music with simple metric structure for both tempo errors ($p=0.013$) and phase errors ($p=0.004$). Furthermore, preliminary results suggest that overall performance on the musical task is associated with higher scores on the vocabulary and working
memory tests. This study serves as the basis for future studies examining relations between beat perception and production, and the effects of musical training on children’s ability to process metrical structure.
Attitudes of Music Teachers Toward Taiwanese Elementary School Musically Gifted and Talented Programs

Dr. Wen-Fu Li
Arizona State University
t_wenfu@yahoo.com

Abstract

The first public school’s Musically Gifted and Talented Program (MGTP) was founded in 1973 at Fu-Shin Elementary School in Taipei, Taiwan. In 2010, approximately 50 elementary schools that offered Musically Gifted and Talented Programs served 3,166 pupils from third to sixth grade. During the past three decades, debates regarding whether Taiwanese MGTPs should be continued or abolished have persisted. However, broad and in-depth research related to these programs has been very limited.

This paper reports results from a large research (Li, 2008) which investigated the nature of music teachers’ attitudes toward three aspects of Taiwanese elementary school MGTPs: identification, grouping and curriculum, and values. Specifically, the study also explores how these attitudes related to music teachers’ professional backgrounds and their positions. Subjects for this study were elementary school MGTP music teachers. Of the 20 elementary schools participating in this study in 2008, 146 music teachers completed online surveys.

Results of this study indicated that respondents strongly agreed with the following: (a) learning environment is more important than the innate giftedness of students themselves; (b) the criteria in the 2006 revision for entering elementary school MGTP are too high for second grade students; (c) parents’ attitude toward the MGTP strongly impact their children’s participation in an elementary school MGTP; (d) the goal of elementary school MGTP is not vocational training but to develop all students’ musical potential; (e) full-day isolated grouping (ability tracking) is an efficient and necessary approach to administer elementary school MGTPs.
Responding to strong requests from music educators and MGTPs’ parents associations, the government again revised the regulation related to MGTP in 2010. The title of MGTP was also revised as Musical Talent Program (MTP). These positive new policies will lead Taiwanese MTPs into a new age.