The Music and Reading Connection: Improving Literacy with Rapid Naming of Words and Music Notes

Abstract

This action research project focused on the strategy of rapid naming of music notes and high frequency words. This research connected instrumental music skills to reading fluency and comprehension skills for students in the Exceptional Student Education (ESE) program at an elementary Title I school.

Problem

The purpose of an instrumental music program was to engage students in music with the expectation to promote stamina, discipline, and also to increase reading skills. The challenge was to find the best strategies to achieve learning gains for students who typically perform poorly on state and district reading assessments. This study included students that exhibit poor reading skills and are in an instrumental music program. There are a limited number of studies linking the process of learning to play music to success with reading. There are even more limited studies specifically studying the effects and process of learning to read music notes with the reading skills of phonological awareness and rapid naming of high frequency words. Most studies linking music and reading have taken up to three years to complete so it was a challenge to find a strategy that was measurable in a short amount of time, within three months.

Research Question

Will rapid naming of high frequency words, a specific reading strategy, applied to learning music note names, with the reinforcements of leveled reading fluency probes and
identification of music note assessments, yield learning gains as demonstrated by a short time frame of three months, during the current academic year?

**Literature Review**

There has been an ongoing debate over the years about whether or not learning instrumental music influences reading comprehension and fluency. A study by Slater, Strait, Skoe, O’Connell, Thompson, and Kraus (2014), focused on the effects of music instruction on the literacy skills for children from a low socioeconomic status. This was a longitudinal, random study of the Harmony Project, which provided free music education to impoverished children in the gang invested neighborhoods in Los Angeles. This study included 42 bilingual elementary school children, both genders, ages 6-9; required parental support. (Slater et al., 2014). A battery of reading and IQ tests were administered. The rapid letter naming subtest results demonstrated differences between musically trained and untrained children. There was an increase identification of visual symbols and sounds for the group of musically trained children. (Slater et al, 2014).

A study by Christo and Davis (2008) focused on phonological processing and rapid naming for students with a variety of learning disabilities. Naming speed was measured with discrete and continuous methods. This study included 65 students from grades 2-5; mixed socioeconomic backgrounds; native English speakers; with a measure of cognitive ability, verbal skills above the score of 80.

Of importance, along with other tests, were the Woodcock-Johnson Word Attack (Woodcock & Johnson, 1989); Test of Auditory Analysis skills (TAAS) (Rosner, 1975) and the Digit Naming Speed (DNS) (Spring & Davis, 1988). The results of this study demonstrated that
rapid naming and phonological processing connected to literacy development. (Christo & Davis, 2008)

**Research Methodology**

Five, non-random ESE and instrumental music students were pre-assessed of their ability to identify music notes from the treble clef as well as high frequency words. Initially the students were observed with an instrumental music rubric and a reading fluency rubric.

Data was charted for the students’ pre and posttests for music note and HFW recognition. Data indicates trends in comparison from the pre and post assessments.

Learning strategies included flashcards and online learning activities. The HFW word flashcards (Fountas & Pinnell, 2010) were given for the student’s own reading level and above. Online learning activities included Vocabulary City (http://www.spellingcity.com) and Vic Firth online music note practice (http://www.vicfirth.com/education/keyboard/speednotereading.html).

Student progress was logged in a journal for most of the flashcards and online activities. Information was charted and analyzed to determine the effectiveness of rapid note and word naming and determine if any modifications were needed. Due to time constraints the students were required to learn only the 41 treble clef notes rather than the original plan of 100 bass and treble clef notes. As a result of the HFW pre-assessment, one of the students was given a list of 25 HFW as a modification fitting for the student’s academic level.

**Findings**

The data demonstrated that the students increased music note accuracy particularly through the online music note program. The students began to compete with each other to achieve a higher level: rookie, pro, or all-star. The data demonstrated gains for all the students.
In regards to the HFW, all the students were able to identify more words in comparison to the pre-assessment. The higher scores were evident for the post assessment along with the HFW scores. A mid-assessment was taken from. Data shows that 4 out of 5 students took the assessment three times. The midterm assessment scores did not necessarily increase although the post assessment did demonstrate a rising trend in comparison from the pre assessments.

Data collected from the online learning tools from the months of January to March. Spelling City (http://www.spellingcity.com) includes a variety of word games, but most of the students chose words that include “port” for grades 3-5. One of the students was instructed to stay only on the Dolch list words for grades K-2 to ensure the words were at the student’s academic level. The data shows that some students had more online time than others.

**Implications**

Learning music notes inspired the students and increased their interest in reading. Some advanced to a new reading level. This action research project was successful in showing increasing trends for both HFW and music note naming. Whether or not music note reading has a direct influence on rapid naming of words is still debatable. This research project is unique, providing groundwork to continue more detailed studies. This project would have interest for teachers in special education, music and reading. Neuro-Scientists may also have interest as cognitive thinking and rapid naming were skills used in this research.
References


