**Introduction & Purpose**

Previous research studies have pointed to connections between language development and musical development (Dege & Schwarzer, 2011; Forgeard, Schlaug, Norton, Rosam, Iyengar, et al., 2008; Moritz, Yampolsky, Papadelis, Thomson, & Wolf, 2013; Tierney & Kraus, 2013). The purpose of the present study was to discover the relationship between phonological awareness and music aptitude.

**Method**

To examine this relationship, *The Phonological Awareness Test 2* (PAT-2) (Robertson & Salter, 2007) and the *Intermediate Measure of Music Audiation* (IMMA) (Gordon, 1986) were administered to students in two second-grade classes in a rural elementary school in Pennsylvania. Prior to formal testing, a trained specialist administered an inidividual hearing screening to each participant. Speech-language specialists administered the PAT-2 individually to participants and scored the measure. The primary researcher (a music specialist) administered the IMMA to participants in groups and scored the measure.

**Data Analysis**

Student scores on the two measures were compared using t-tests to determine mean differences between groups, Pearson product-moment correlations to examine existing relationships, and linear regressions to establish the predicative potential of IMMA scores for PAT-2 scores.

**Results & Conclusions**

**Correlations**. Findings from this study indicate a strong positive relationship exists between PAT-2 standardized composite scores and IMMA raw composite scores (*r* = .541, *p* = .025) as well as IMMA raw tonal subtest scores (*r* = .526, *p* = .03).

**Predictions.** A linear regression helped the researcher determine IMMA raw tonal subtest scores were reasonable predictors of PAT-2 standardized composite scores (*R2*= .277, *F*(1, 15) = 5.742, *p* = .03). A stepwise linear regression helped determine IMMA raw composite scores were reasonable predictors of PAT-2 standardized composite scores (*R2*= .293, *F*(1,15) = 6.207, *p* = .025) and slightly better predictors than IMMA raw tonal subtest scores.

**Implications for Music Learning Across the Lifespan**

The strong positive relationship between music aptitude and phonological awareness; and the predictive potential of IMMA scores for PAT-2 scores has implications for music learning across the lifespan. The predictive potential of IMMA scores for PAT-2 scores seems to indicate improving music aptitude early in life may naturally improve phonological awareness – a foundational skill that may affect students’ literacy throughout their lifespans (Bauman-Waengler, 2012). Most important, results provide support that the *musical* *practices taking place in music classrooms support phonological awareness.*

**Applications to Teaching**

Use appropriate musical experiences to improve phonological awareness, increase music aptitude, and overall music ability.

**Rationale:**

1. The Common Core Standards have expectations for Literacy
2. Phonological awareness is a building block of literacy
3. Students with deficits in phonological awareness may be considered “at risk” for failure in reading and may be pulled out of naturalistic environments (e.g., music class) for remediation
4. Musical experiences *already occurring* in many elementary general music classes have been shown to increase students’ phonological awareness
   1. e.g., songs, rhymes, chants, games, books, and poems
5. A student’s ability to achieve and engage in musical experiences may be influenced by music aptitude
6. Music aptitude can be positively influenced by musical experiences until age 9

**Solutions:**

1. Provide rich musical experiences to *all* students from an early age
   1. Songs, rhymes, chants, games, books and poems can improve a student’s music aptitude
   2. Songs, rhymes, chants, games, books and poems can improve a student’s phonological awareness
2. Provide “musical” remediation and tailor instruction
   1. Appropriate musical experiences can be provided to suit a student’s musical aptitude
   2. Additional musical experiences can be provided to students who are “at-risk” for failure in reading
   3. Music teachers can collaborate with reading specialists, classroom teachers, and speech-language specialists to come up with new and innovative strategies

References

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