Examining the Relationship Between Music Training and Early Reading Skills in Children

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Why?

Perceptual Skills

Cognitive Processing

Reading

(Gordon, Fehd, & McCandliss, 2015)
Past Research

(Gordon, Fehd, & McCandliss. 2015)
(Anvari et al., 2002)
What Perceptual Abilities?

➢ Pitch?
➢ Beat?
➢ Rhythm?

Problems in Past Research

Pure Tones

Cognitive Controls
How is it really tested though?

Hypothesis

- Melody
- Pitch
- Beat
- Tempo

Reading
Methods

Mini-Profile of Musical Perception Skills (PROMS)
Methods

Beat Alignment Test (BAT)
Methods

Wide Range Achievement Test IV (WRAT)

**Word Reading**
- see
- wrap
- privilege
- conspiracy

**Spelling Test**
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
Methods

Peabody Picture Vocabulary Test (PPVT)

“Look at these pictures, put your finger on the picture that shows the table”
Methods

Parent Questionnaire

- Demographic
- Hours spent reading
- Music training
- Non-music extracurriculars
- Big 5 Inventory (BFI)
Results

Sample Characteristics

- \( n = 120 \) children, 109 returned questionnaires
- Ages 6 to 10
- 39 children with music training
Simple Correlations

Parent Education

Music Training

Vocabulary

Melody

Tuning

Accent

Speed

Beat

Correlations with Reading

Correlation values:
- Beat: (.08)
- Speed: (.13)
- Accent: (-.03)
- Tuning: (.23)
- Melody: (-.05)
- Vocabulary: (.31)
- Music Training: (.09)
- Parent Education: (.13)
- (Note: Correlation values range from -1 to 1, indicating the strength and direction of the relationship.)
Hierarchical Regression

Step 1: Cognition

Step 2: Musical Perception

8.4%
Discussion

Melody

Pitch

Beat

Tempo

Reading
Implications
Thank you!

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Questions?