Love at First Sight: A Review of Current Research on Sight-Reading
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I. Sight-Reading involves 3 distinct stages (Sloboda, 1985):
   a. Examine the score for relevant information.
      i. Score study procedures include:
         1. examining musical parameters
         2. looking for patterns
         3. noticing characteristics of musical styles
         4. finding common musical forms, and
         5. searching for difficult passages
            (Dib & Sturmey, 2011; Killian & Henry, 2005)
      ii. Brain processing: sight-reading involves all 4 lobes of the brain and the cerebellum and it goes beyond the typical brain processes necessary for identifying notes on the staff or reading words.
         (D’anselmo, et al, 2015; Hutka, Bidelman & Moreno, 2015)
      iii. Eye Movements: Expert sight-readers tend to look further ahead and backwards more often than do novice sight-readers.
         (Goolsby, 1994a; Truitt, et al., 1997; Waters & Underwood, 1998).
      iv. Expert sight-readers take in more information in a single glance than do novices and their eye movements are governed by the music’s structure rather than bar lines.
         (Furneaux & Land, 1999; Goolsby, 1994b; Sloboda, 1977)
   b. Recall previously learned musical material.
      i. Pianists learn patterns over time and are able to recall those patterns when reading new material.
         (Waters, Townsend, & Findlay, 1997; Wolf, 1976)
      ii. Expert sight-readers are able to predict what comes next based on the structural cues in the music as well as their experience with a given style or composer.
         (Fine, Berry, & Rosner, 2006; Sloboda, 1976; Wolf, 1976)
   c. Program the muscles necessary to perform.
      i. Preparing the body to perform is usually automatic, but you must have the necessary knowledge of keyboard topography to execute the music to be read.
         (Fourie, 2004)

II. Many attributes or experiences contribute to sight-reading success.
   a. Musical factors:
      i. Technique
         (Kopiez & Lee, 2006)
      ii. Aural Imagery/Audiation
      iii. Sight-reading experience
         (Kopiez & Lee 2008, 2006; Kopiez et al, 2006)
      iv. Private lessons
         (Cox, 2000; Hardy, 1995; Bernhard, 2003)
v. Accompanying experience  
(Lehmann & Ericsson, 1993)

b. Nonmusical factors:  
i. Psychomotor speed  

ii. Spatial-temporal reasoning  
(Kornicke, 1995; Salis, 1980)

iii. Working memory  
(Meinz & Hambrick, 2010)

iv. Academic achievement  
(Ciepluch, 1988)

c. While sight-reading success is attributed to some inheritable traits, such as working memory, most of the factors contributing to sight-reading success can be developed.

III. What are some methods used to improve sight-reading?  
a. Shadowing  
(Kostka, 2000)

b. Error detection  
(Killian, 1991; Kostka, 2000)

c. Pre-playing score study  
(Killian & Henry, 2005; Fisher, 2010)

d. Rhythm drills  
(Mishra, 2015)

e. Tonal pattern training  
(Gaynor, 1996; Henry, 2004; Pike & Carter, 2010)

IV. Bringing it all together.  
a. Practice sight-reading frequently.

b. Find music with clear patterns for your students to sight-read.

c. Practice sight-reading in groups to improve rhythmic continuity.

d. Experiment with different approaches to reading music.

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References


