THE POSSIBILITY OF TESTING SIGHT-READING ABILITY DURING PIANO PERFORMANCE

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Sight-reading is a process of converting special visual symbols – music notation – into sounds. These sounds may be silent, conceived internally, or they may be produced externally through the voice or through musical instruments (*Hodges*, 2011). From this rather simplistic definition there arise a number of more complex issues to be explored.

In our study we deal with the sight- reading ability of pianist students aged 6 to 18. One part of the research is metacognition and the study of the relations of musical abilities, and the mapping of the different music reading strategies. We would like to explore the characteristics of the expert sight-reading strategy users and the different possibilities for the teaching of music reading strategies. We would also like to examine whether sight-reading is an acquired skill and analyze the individual differences in sight-reading performance. According to *Singer* (1983), between 1879 and 1972 more than one thousand research studies were dealing with reading, while in the same period, less than 250 were dealing with music reading. Moreover, no global theories had been born about music reading. In different domains of expertise (including music), there is a close relationship between the level of performance individuals have attained and the amount of practice time they have accumulated during training in the domain (*Ericsson*, 1993). *Waters*, *Townsend* and *Underwood* (1998) used a set of six predictors to show that sight-reading achievement can be explained by three component skills: pattern recognition in musical score elements, prediction skills, and the ability to use auditory representation (i.e. inner hearing). From *Sloboda's* (1974) early studies on the importance of eye-hand span we know that the ability to read ahead while playing unrehearsed music is a condition for successful sight-reading. Eye tracking analysis has become a popular tool in methodological researches nowadays. Eye movement in music reading – the scanning of a musical score by a musician's eyes – is a very complex phenomenon that involves a number of unresolved issues in music psychology and requires intricate experimental conditions to produce meaningful data.

We would like to continue our research at Kecskemét College, at the Teacher Training Faculty, where eye movements data and finger movements during piano playing would be measured simultaneously by an eye tracking system and an MIDI keyboard system.

The results of the latest research suggest that skill level of performers, difficulty of music pieces and knowledge for music pieces were crucial factors which influenced the preview time as well (*Miyazaki* and *Hiraga*, 2008).