

## **Young Piano Students' Sight Reading: The Effect of Colorful Illustrations in Piano Method Books**

Method books for the piano have emerged as one of the principal tools used by piano teachers for the instruction of young beginners. Over past decades, one of the most apparent changes has been a greater emphasis on colorful illustrations, which can sometimes occupy more than 50 percent of the page. These illustrations raise significant questions from a music-reading perspective: what is the impact of these colourful sketches on music reading and does their presence, as a potential source of distraction, lower the quality of performance? The purpose of this research was to determine the impact of these illustrations on young students' piano sight playing by using the eye-tracking technology. Eye-tracking technology is commonly used by researchers evaluating adult musicians' processing of musical material, and children's processing of the written language. Participants consist of 40 piano students, aged from 6-11, elementary to early intermediate level. Each subject was required to sight-read ten short piano pieces, which were taken from existing method books for young beginner piano students. Those pieces contain colorful illustrations and grand staff. The same pieces were then edited to remove all traces of color and illustrations. Each subject was asked to sight play five pieces with illustrations and five other pieces without illustrations. There is a 30-second preview before sight playing the pieces. Eye movement of both the preview and play was recorded with Eyelink II, a head-mounted, binocular eye-tracking device at a sampling rate of 500Hz. Data was compared between the performances using music with illustrations and without illustrations. The results showed that the students' gaze is drawn to illustrations during both preview and playing of the piece. During the 30-seconds preview, the participants fixated in music zones 20% more with the edited excerpts (only have musical piece, no illustration) than the original excerpts. During the sight playing, the participants fixated in music zones 10% more with the edited excerpts than the original excerpts. Interestingly, the quality of the sight playing was better with the edited excerpts than the original. This study shows that the colourful illustrations appear on the method books does impact the students' concentration of the music at certain degrees, as well as the performance quality. Music teachers might consider using relatively simple method books (not have many colourful illustration on the page) for teaching.