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Pedagogy Saturday
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Modeling Joy in the Studio:
the positive impact of music making on cognitive function and health-related quality of life

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Cognitive function improves when we study music, whether we are 6 or 66, and experiencing joy in music making promotes the neuroplasticity that drives cognitive change and improves quality of life. Are we still finding that joy in music ourselves, and are we modeling that joy for our students?

There is a series of posts on my blog site, The Musician's Brain, under the general title "Fountain of Youth" that discusses the cognitive advantages of studying a musical instrument for both children and adults, and explains how the cognitive reserve built by studying music delays cognitive decline in the elderly. These posts go into greater detail than it is possible to do in the conference presentation. The second in the series concerns other activities, such as art, that also develop cognitive reserve and delay aging.

Links to the four posts:

1. Might making music be a "fountain of youth?"
2. Fountain of youth, part 2
3. Music making as a "fountain of youth," part 3
4. Music making as a "fountain of youth, part 4

For links to blog posts having to do with the cognitive advantages for children of studying music, click on The Musician's Brain in the menu, go to "Categories" in the R.H. column and click on "Benefits of studying music" and "Music Cognition."

Book

Svard, Lois. *The Musical Brain: What Students, Teachers, and Performers Need to Know.* Oxford University Press, 2023. (The 10th chapter in this book, "Does Music Really Make You Smarter?," discusses in detail the cognitive advantages of studying music.)

The coupon below this handout on the Resources page is for a 30% discount on the book that Oxford has offered to attendees of this conference.

A collection of articles from Science Daily that may be of interest:

Music may bring health benefits for older adults, poll suggests, February 7, 2024

Playing an instrument linked to better brain health in older adults, January 29, 2024

How music can prevent cognitive decline, April 17, 2023

Just a few years of early musical training benefits the brain later in life, November 5, 2013

Open access research articles concerning the Hannover-Geneva study

James, Clara E., Eckart Altenmüller, Matthias Kliegel, et al. "Train the Brain with Music (TBM): Brain Plasticity and Cognitive Benefits Induced by Musical Training in Elderly People in Germany and Switzerland, a Study Protocol for an RCT Comparing Musical Instrumental Practice to Sensitization to Music." *BMC Geriatrics* 20, no. 418 (2020): https://doi.org/10.1186/s12877-020-01761-y.

Jünemann, Kristin, Anna Engels, Damien Marie, et al. "Increased Functional Connectivity in the Right Dorsal Auditory Stream After a Full Year of Piano Training in Healthy Older Adults." *Scientific Reports* 13, no. 19993 (2023): https://doi.org/10.1038/s41598-023-46513-1.

Mack, Melanie, Damien Marie, Florian Worschech, et al. "Effects of a 1-Year Piano Intervention on Cognitive Flexibility in Older Adults." *Psychology and Aging* 40, no. 2 (2024): https://dx.doi.org/10.1037/pag0000871

Marie, Damien, Cécile A. H. Müller, Eckart Altenmüller, et al. "Music Interventions in 132 Healthy Older Adults Enhance Cerebellar Grey Matter and Auditory Working Memory, Despite General Brain Atrophy." *Neuroimage:Reports* 3, no. 2 (2023): https://doi.org/10.1016/j.ynirp.2023.100166.

Worschech, Florian, Damien Marie, Kristin Jünemann, et al. "Improved Speech in Noise Perception in the Elderly After 6 Months of Musical Instruction." *Frontiers in Neuroscience* 15 (2021): https://doi.org/10.3389/fnins.2021.696240.

Worschech, Florian, Damien Marie, Christopher Sinke, et al. "Quality of Life in Older Adults is Enhanced by Piano Practice: Results from a Randomized Controlled Trial." *Annals of the New York Academy of Sciences* (2025): 1-16. https://doi.org/10.1111/nyas.15397.