It’s music to their brains

By Suzanne Wu

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The Los Angeles Philharmonic Association (LA Phil), the USC Brain and Creativity Institute (BCI) and Heart of Los Angeles (HOLA) announced a research collaboration to investigate the emotional, social and cognitive effects of musical training on childhood brain development.

The five-year project will give USC researchers an opportunity to provide new insights and add rigorous data to an emerging discussion about the role of early music engagement in learning and brain function.

Through a collaboration with the Youth Orchestra Los Angeles at Heart of Los Angeles (YOLA at HOLA) program, a partnership between the LA Phil and HOLA, which provides free instruments and musical training to children from the Rampart District of Los Angeles, researchers with the BCI — led by neuroscientists Hanna Damasio and Antonio Damasio at the USC Dornsife College of Letters, Arts and Sciences — will track how children respond to music from the very onset of their exposure to systematic, high-intensity music education.

Starting when the children are between the ages of 6 and 7, to ages 11 and 12, the researchers will use standard psychological assessments and advanced brain imaging techniques to track brain, emotional and social development. The group of children involved in the YOLA at HOLA program will be compared to a control group of children matched in age, socioeconomic status and cognitive abilities but with no musical training.

All children will be followed for five consecutive years, providing a rare chance for researchers to discover the effects of musical training on emotional, social and cognitive aspects of development as they actually occur, rather than inferring later-life effects. The BCI team began working with YOLA at HOLA students last month.

USC University Professors Hanna and Antonio Damasio, directors of the BCI and the Dornsife Neuroimaging Institute at USC, and professors of psychology and neurology at USC Dornsife, will supervise the study. Assal Habibi of the Brain and Creativity Institute, herself a musician and a neuroscientist, and Beatriz Ilari of the USC Thornton School of Music, a musician and music educator, along with graduate students and research assistants, will work with YOLA children and their families, collecting data for the assessments.

Research results and summaries of findings will be reported to the scientific community and will be made available to the public.
Researchers at the USC Brain and Creativity Institute will explore the effects of intense music training on cognitive development.