

Idea Paper

Instructional Design: Piano Basics for Online Mobile Learning

Adam K. Halemano, Jr.

University of Hawai'i at Manoa

September 27, 2013

What is the need for emotional enjoyment and how does the listening and learning of music help to broaden and strengthen the human condition? Since its earliest origins, the employ of music has and continues to play a fundamental and pivotal role in the way societies around the globe engage in cultural and spiritual traditions. For many, music is an emotively soulful method of human expression that crosses the barriers of language, nationality, age, religion, and culture. For some, music is a central key toward the development and enrichment of cognitive processes within the pedagogical context of cognition and instruction (Chabra & Misra, 2013). The need and desire to improve one's cognitive abilities by way of music learning has proven to be an appealing, effective, and rewarding endeavor that has a direct psychological and physiological connection toward learning. As a means of addressing the innate need for emotional enjoyment, the intended purpose of this instructional design project is to develop and evaluate a web-based instructional module teaching beginner level adult music students how to identify and engage in the playing of chords, scales, and melodies on a contemporary piano keyboard.

With the technological inception and global proliferation of digital information via the Internet, access to a vast knowledgebase of music instruction is readily available to individuals seeking to learn how to play a musical instrument with the mindful goal of obtaining soulful and or cognitive benefit. While information is abundant via subscription based instructional sites and social media hubs such as YouTube and Vimeo, in many cases the information conveyed is not intuitive and cohesive, making for an ill-conceived development and delivery of instructional principles and concepts (Herbert, 2007). Despite this fact, a recent research study conducted by Horspool and Yang (2010), confirm that positive student perception toward Internet-based music instruction is equally on par with face-to-face instruction, with the consideration that the context, materials, and methods that are being delivered and explored are practical, relevant, and fun.

With the ubiquitous use of mobile tablets and web-based applications, the growing community of online learners are swiftly becoming a more savvy and open-minded caste of scholastic Netizens (Kirkwood, 2008). This new progressive online mindset makes for a much more receptive, eager, and enthusiastic group of learners, particularly when you consider the tangible and quantifiable neurological benefits associated with music study and emotional enjoyment.

According to a neurological case study conducted by Hyde, Lerch, Norton, Foregard, Winner, Evans, & Schlaug (2009), the case findings showed that long-term music intervention programs significantly alter physiological brain development in early childhood. The correlation between cognitive wellness and applied music knowledge has been effectively illustrated and empirically proven to be a powerful cognitive development tool for people of all ages. In a study conducted by Wang (2013), listening to musical compositions on the piano has been verified to enhance spatial-temporal reasoning, which is widely applied in work related fields such as art, architecture, mathematics, engineering, and science. In a neuropsychological spatial IQ study conducted in 1993 by Rauscher, Shaw, and Kai (as cited in Wang, 2010, p. 6), findings by Rauscher et al. suggests that listening to musical compositions for the piano, specifically that of Mozart's Sonata for Two Pianos in D Major, K. 448, helped to stimulate and enhance an individual's cognitive "working memory" performance temporarily. According to an attitudinal study conducted by Lee, Chan, & Mok (2010), this underlying performance benefit suggests that music, when applied within a therapeutic setting, can be an effective way of reducing stress and anxiety among individuals, which in turn helps to promote feelings of happiness and emotional enjoyment, directly improving an individual's quality of life.

The target population for this instructional module will be adult participants between the ages of 18-65 with no formal musical experience. The demographic makeup will consist of men

and women of various ethnic and socioeconomic backgrounds. Participants of this project should possess basic computing skills (having the ability to navigate a web-browser and touch-based tablet interface). In addition, participants of this study should have a moderate degree of intrinsic interest and personal desire to play a musical instrument.

The instructional module will incorporate a mixed-method approach geared toward the need to effectively measure quantitative student learned outcomes and qualitative perceptions in the form of participant scrutiny of the course materials. All activities will be entirely web-based with pre- and post-tests conducted via online data gathering interfaces for PC desktop and tablet. Gagne's Nine Events of Instruction will be utilized throughout the instructional module to help guide the internal and external conditions of learning. Presentation of knowledge will be in the form of digital PDF documents and MP4 video playback files chunked in 5 minute sessions for manageable assimilation and synthesis of each unit module. Examples and non-examples will be incorporated into self-paced practice lessons to help provide instructional feedback and guidance to the student.

In summary, the pedagogic objective for this instructional design project is to develop and evaluate a web-based instructional module geared toward imparting emotional enjoyment by way of students that can identify and engage in the playing of chords, scales, and melodies on a modern piano keyboard. The use of progressive online tools and time-honored learning strategies will aid in delivering informational content via a motivationally appealing instructional lesson plan for individuals seeking soulful improvement. From an objective standpoint, I really believe that participants of this instructional module will find the unit lessons to be practical, relevant, and fun. When it comes to emotional enjoyment, I personally believe that there is no better or more gratifying way to broaden and strengthen the human condition than by playing the piano.

References

- Chabra, S., & Misra, M. (2012). A study of the effect of learning music on the personal values of adolescent studies. *MIER Journal of Educational Studies, Trends & Practices*, 2(2), 158-167.
- Herbert, D.G. (2007). Five challenges and solutions in online music teacher education. *Research and Issues in Music Education*, 5(1), 20-36.
- Horspool, A., & Yang, S. S. (2010). A comparison of university student perceptions and success learning music online and face-to-face. *MERLOT Journal of Online Learning and Teaching*, 6(1), 15-29.
- Hyde, K.L., Lerch, J., Norton, A., Forgeard, M., Winner, E., Evans, A.C., Schlaug, G. (2009). Musical training shapes structural brain development. *The Journal of Neuroscience*, 29(10), 3019-3025.
- Kirkwood, A. (2008). Getting it from the Web: why and how online resources are used by independent undergraduate learners. *Journal of Computer Assisted Learning*, 24(5), 372-382. doi: 10.1111/j.1365-2729.2007.00265.x.
- Lee, Y.Y., Chan, M.F., & Mok, E. (2010). Effectiveness of music intervention on the quality of life of older people. *Journal of Advanced Nursing*, 66(12), 2677-2687. doi: 10.1111/j.1365-2648.2010.05445.x
- Wang, A. (2013). The cognitive effects of music: working memory is enhanced in healthy older adults after listening to music. Retrieved from <https://arizona.openrepository.com/arizona/bitstream/10150/281781/1/Wang%20Alan.pdf>