



UNIVERSITY
of HAWAII®
MĀNOA

Instructional Design

Piano Basics for Online Mobile Learning



Introduction

Motivation

- *As a life-long pianist and mindful epileptic with a neurological disorder, I am a firm believer in the cognitive potential of music from a physiological and psychological perspective.*
- *As a parent who continues to play “Baby Einstein” music for my children at night, I believe that their cognitive abilities and continued academic success is directly related to music.*

Rationale

- *Recent studies have proven that the playing and or listening to music can be very effective at enhancing spatial-temporal reasoning in people of all ages.*
- *Studies show that when used as a therapeutic tool, music can be an effective way of reducing stress and anxiety, which help to promote emotional wellness.*

Problem Statement

The purpose of this instructional design project is to develop and evaluate a web-based instructional module teaching beginner level adult students, with no musical background and between the ages of 18-65 years old, how to identify and play chords, scales, and melodies on a contemporary piano keyboard.

Background

Literature Review

- *Music study has been effectively illustrated and empirically proven to be a powerful cognitive development tool for people of all ages*
- *Case study showed that long-term music intervention programs significantly alter physiological brain development in early childhood*
- *Listening to musical compositions on the piano has been verified to enhance spatial-temporal reasoning (widely used in work related fields such as Art, Architecture, Mathematics, Engineering, and Science)*
- *When used as a therapeutic tools, music can be an effective way of reducing stress and anxiety among elderly individuals*
- *Findings from a neuropsychological spatial IQ study suggests that listening to musical compositions for the piano helps to stimulate and enhance an individual's cognitive "working memory" performance temporarily*
- *Playing and or listening to the piano has been proven to promote substantive feelings of emotional well-being and overall improvement in an individual's Quality of Life (QOL)*

Subjects

- *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*
- *Subjects should possess basic computing skills (PC and Tablet)*

Instrumentation and Implementation

- *Module will incorporate a mixed-method approach consisting of both quantitative (student learned outcomes) and qualitative (perceptions of learning) methods of evaluation*
- *Gagne's Nine Events of Instruction will be utilized throughout the instructional module to help guide the internal and external conditions of learning (previous knowledge and new knowledge respectively)*
- *Self-paced practice lessons and quizzes (pre and post tests) will help provide instructional feedback and guidance (Examples and Non-Examples)*
- *Instructional materials consisting of PDF documents and MP4 video files will be provided via website portal and tablet interface*

Methods