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Title: Type-O's

As technology becomes more heavily integrated in all aspects of modern day society, the ability to accurately and effectively interact with computers becomes increasingly important. This research will investigate a method to increase the memorization of key positions by treating the keyboard as a musical instrument, and not as a word processor. In typing games, such as JumpStart Typing, the user processes simple words generated from a prepared list. This method of memorization solidifies word patterns, but not the positions of the keys. These words consist of prefixes, roots, and suffixes that are used to generate other words; this is not how a musician learns his/her instrument. A musician does not memorize musical phrases that are more likely to appear in future songs he/she may encounter. A musician learns to play his/her instrument, and read sheet music simultaneously, by learning the positions of individual notes. Type-O's is constructed in Unity3D using the C# programming language. Unity3D is a virtual game developing environment with libraries of game object elements which fulfill basic game developing mechanics, such as physics components and a Cartesian coordinate system. This expedites the production of a three-dimensional computer game, which can then be exported to a number of professional platforms. Because of its privacy and explicit variable declaration requirements, which add to the readability of the scripts, C# is the preferred language by 80% in the Unity3D community. Type-O's uses a randomized layout to prevent a memorization of the game objects' positions. As a ball traverses the field bumpers need to be activated by pressing their appropriate key to keep the ball in play. This fast pace environment and random events demand constant attention to the monitor, and not the keyboard. The following game mechanics teach typing as a musical instrument.

Key Words: *Typing, Educational Videogame, Unity3D, C#*