

## *Master's Defense Announcement*

### **THE DESIGN AND IMPLEMENTATION OF A KINDERGARTEN COMPUTER ASSISTED INSTRUCTION SOFTWARE PACKAGE**

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#### Abstract

Despite the general effectiveness of CAI-based reading programs for kindergarten-aged children, many American schools have not fully integrated CAI technology into their kindergarten curriculum. This report documents the author's year-long mission to design and implement such a kindergarten-level computer assisted instructional software package for a California primary school.

The author's objectives for the project were to develop an application using an emergent cross-browser compatible framework, Microsoft Silverlight, to develop a computer game that can be easily integrated into the kindergarten curriculum at Pinecrest School in Simi Valley, reinforcing the spelling lessons given in the children's kindergarten classes, to develop a computer game that not only teaches kindergarten-aged children the basics of reading the English language, but also facilitates the acquisition of basic computer skills like mouse and keyboard usage and to develop an application with two interfaces: an engaging game interface that appeals to four and five year old children, and a management interface that an adult can use with minimal training. The author successfully met all of these objectives and gained valuable practical experience through the development and implementation of this project.

#### Committee Members:

G. Michael Barnes, chair  
Gloria Melara  
Rick Covington

Date: Fri, December 3, 2010  
Time: 3:00 pm  
Location: JD 4440