

The Impact of a Language Teaching Computer Game on ESL Student's Recognition of Spoken and Written Word Forms

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Abstract

This paper reports on an empirical study of the effectiveness of a language teaching computer game, called *Medicina*, which was designed to automatise ESL nursing students' recognition of word forms found in medication names. This is a particularly challenging task because it involves low-frequency vocabulary not often found in the general English-speaking population.

The paper will begin with a description of the *Medicina* game and its educational aims to develop a number of skills. Specifically, this flash game is part of a larger project to improve nursing students' ability to communicate in the workplace. *Medicina* acts as the vehicle for this learning, and is meant to meet the pedagogical needs of the student who has been brought up in a gaming environment. This game intends to be whimsical and entertaining, but with the serious aim of familiarising and exposing students to key language content. The intention is to directly improve listening skills in the health field and its specific Latin/Greek terminology. It aims to improve players' attention to, and ability to distinguish, small sound differences and indirectly encourage better pronunciation, particularly using Australian word stress. The game is designed to improve automaticity and familiarity with medication names and expose students to some of the confusable medication names they will encounter in the workplace. Some background information regarding the effectiveness of multimedia design on listening and reading skills will also be provided.

The paper will then move onto a description of the quantitative part of the study. This involves a repeat measures study which examines the effect of education (the computer game) on listening and writing skills using a pre-test and post-test design presented in a time-limited setting. The statistical significance and effect sizes will be reported and interpreted in a results section.

Thereafter, the paper will finish with a discussion of the findings and an exploration of the role of the *Medicina* game in a university setting and how it affects students' recognition of spoken and written word forms, not only for medication name genre but also in terms of developing metacognitive skills which impact upon their wider educational experience.