

# Chapter 9

## Medicina: Methods, Models, Strategies

**Amanda Müller**

*Flinders University, Australia*

**Gregory Mathews**

*Flinders University, Australia*

### **EXECUTIVE SUMMARY**

*The School of Nursing & Midwifery at Flinders University provides dedicated support for the English language needs of over 500 international students. As part of a strategic plan to deal with communication difficulties among these students, a series of language-learning initiatives are being implemented. One of these is a game called Medicina, which has already undergone the full cycle of development, testing, and release. This game familiarizes students with confusable and common medication names. It also aims to improve phonological awareness through a focus on word form. This chapter discusses the creation of Medicina from inception through to dissemination, detailing the stages, challenges, and lessons learned in the process, in the hope of informing other educators of the level of commitment involved in a digital game-based project.*

### **OVERALL DESCRIPTION**

The School of Nursing & Midwifery at Flinders University provides dedicated support for the English language needs of over 500 international students. As part of a strategic plan to deal with communication difficulties among these students, a series of language-learning initiatives are being implemented. One of these is a

DOI: 10.4018/978-1-4666-2848-9.ch009

game called *Medicina*, which has already undergone the full cycle of development, testing, and release. This game familiarizes students with confusable and common medication names. It also aims to improve phonological awareness through a focus on word form. This chapter will discuss the creation of *Medicina* from inception through to dissemination, detailing the stages, challenges, and lessons learned in the process, in the hope of informing other educators of the level of commitment involved in a digital game-based project.

## LITERATURE REVIEW

The *Medicina* game has been created in order to support learning and address existing problems with language among international English-as-a-Second Language (ESL) students. The exact cause of the communication difficulties needs to be ascertained before a game could be considered. The identification of the problem can be achieved through a number of means: a needs-analysis, educators' judgments, a literature review, feedback from students, and a review of policy. Before *Medicina* was conceived, a needs analysis was conducted, as described next.

### Needs Analysis and a Definition of the Problem Addressed by the Game

As a part of the needs-analysis study of international students' language difficulties, a combination of information sources was used. We did a literature review of nursing journals documenting the language problems found among international ESL students in the health field. We also obtained a personal analysis of the commonalities among struggling students referred for one-on-one assessment. We also combined feedback from the clinical coach who deals with struggling students, feedback from clinical facilitators, and other sources of anecdotal evidence gathered at committee meetings and from students within English classes. This needs assessment was published in Müller (2011).

Among the international students, it was identified that a lack of specialist vocabulary knowledge was found to be a key underlying issue, and listening was found to be a focal skill deficiency. While most international students possess an advanced level of general English, it is specialized medical terminology (including medication names) and the colloquial language used by patients which pose the greatest problems. This is unsurprising because these classes of vocabulary can be considered low-frequency, which means that the student is not often exposed to these words, and there are few opportunities to engage with them before being assessed on their use.

19 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: [www.igi-global.com/chapter/medicina-methods-models-strategies/74205](http://www.igi-global.com/chapter/medicina-methods-models-strategies/74205)

## Related Content

---

### New Opportunities in Marketing Data Mining

Victor S.Y. Lo (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition* (pp. 1409-1415).

[www.irma-international.org/chapter/new-opportunities-marketing-data-mining/11006](http://www.irma-international.org/chapter/new-opportunities-marketing-data-mining/11006)

### Statistical Data Editing

Claudio Conversano and Roberta Siciliano (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition* (pp. 1835-1840).

[www.irma-international.org/chapter/statistical-data-editing/11068](http://www.irma-international.org/chapter/statistical-data-editing/11068)

### XML-Enabled Association Analysis

Ling Feng (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition* (pp. 2117-2122).

[www.irma-international.org/chapter/xml-enabled-association-analysis/11112](http://www.irma-international.org/chapter/xml-enabled-association-analysis/11112)

### Knowledge Acquisition from Semantically Heterogeneous Data

Doina Caragea and Vasant Honavar (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition* (pp. 1110-1116).

[www.irma-international.org/chapter/knowledge-acquisition-semantically-heterogeneous-data/10960](http://www.irma-international.org/chapter/knowledge-acquisition-semantically-heterogeneous-data/10960)

### Guided Sequence Alignment

Abdullah N. Arslan (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition* (pp. 964-969).

[www.irma-international.org/chapter/guided-sequence-alignment/10937](http://www.irma-international.org/chapter/guided-sequence-alignment/10937)