

THE ART & SCIENCE OF

IMPLEMENTING A COST EFFECTIVE VIRTUAL PATIENT BASED LEARNING MODEL (VPBLM) TO TEACH SPANISH FOR HEALTHCARE PROFESSIONALS

María José Rodríguez, Pacific University
Jeff Edouard Rouyer, Royal Roads University

A WHAT IS IT?

The Virtual Patient Based Learning Model (VPBLM) implements a set of research-based instructional design strategies that blend current state-of-the-art instructional technology with online teaching practices that promote language fluency and cultural competence.

B WHY IS IT IMPORTANT?

Educators, students, medical professionals, and ultimately Spanish-speaking patients benefit significantly from the reduction of language and cultural barriers within the healthcare system.

The goal of this project is to explore and test innovative and meaningful solutions to second language learning challenges within complex healthcare education environments and to do so using open resources and scalable infrastructure to minimize costs.

Importance: **Reducing Language Barriers**

Wolz, M. M. (2015). Language barriers: challenges to quality healthcare. *International Journal of Dermatology*, 54(2), 248–250.

C WHERE IS IT HEADED?

VPBLM follows a continuous quality improvement process through a proposed Design-Based Research study with the goal to improve second-language learning context, relevance, practice, and community engagement.

Methodology: **DBR**

Design-based Research Collective. (2003). Design-based research: An emerging paradigm for educational inquiry. *Educational Researcher*, 5–8.

On completion of the study, the project will be made available as an Open Educational Resource to ensure a continued lifespan and broader application across many other educational disciplines. **What are your ideas for this project?**

D HOW DOES IT WORK?

VPBLM incorporates several instructional strategies based on research in design principles targeting student engagement, motivation, and game-based learning.

1. Exploración — The exploration section introduces students to a set of core communication goals and concepts with emphasis on Latino patient cultural norms.

Design Principle: **Motivation & Second Language Learning**

Noels, K. A., Pelletier, L. G., Clément, R., & Vallerand, R. J. (2000). Why are you learning a second language? Motivational orientations and self-determination theory. *Language Learning*, 50(1), 57–85.

2. Práctica — The practice section presents opportunities for students to practice key phrases and vocabulary through real-time voice interaction with a virtual patient avatar. Students practice across three levels of difficulty based on a pre-assessment score. Each level regulates the complexity, speed, feedback, and game based achievement goals.

Design Principle: **Motivational Design**

Poulsen, A., Lam, K., Cisneros, S., & Trust, T. (2008). ARCS Model of Motivational Design.

3. Participación de la comunidad — The community section promotes communication with local Spanish-speaking healthcare associations and international interdisciplinary cohorts.

Design Principle: **Engagement Theory**

Whitton, N. (2011). Game Engagement Theory and Adult Learning. *Simulation & Gaming*, 42(5), 596–609.

