Breaking Down Language Barriers
Teaching Anesthesia Providers Focused Medical-Spanish Phrases

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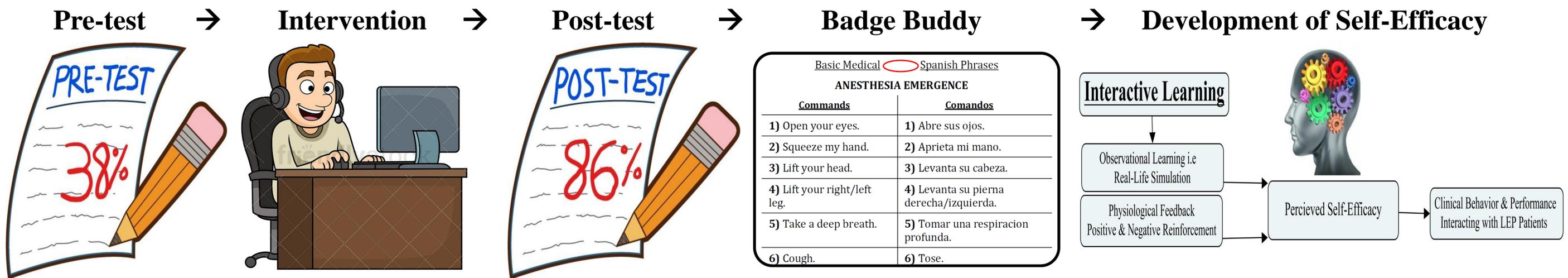
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INTRODUCTION

- Pew Research Institute: By 2021 50% of newly insured individuals will likely have limited English proficiency (LEP) → Increased frequency of encounters between providers & LEP patients
- LEP patients are more likely to be admitted to the hospital, have longer stays, receive insufficient anesthesia, are subjected to unnecessary diagnostic testing, & have increased exposure to medical errors

BACKGROUND & SIGNIFICANCE

- Language translation services, such as by phone or in-person translator, are not always readily available and underutilized
- Active learning methods are superior for knowledge retention compared to passive learning methods in various subjects such as science, mathematics, & language
- Implementation of an interactive e-Learning course for focused medical-Spanish terms & phrases → efficient learning & increased provider self-efficacy when caring for a patient of limited English proficiency (LEP)

METHODS & RESULTS

- **INTERVENTION**: Active learning derived from a developed interactive e-Learning course: Engages the learner's visual, auditory, and tactile cognitive domains. Subject-matter of the online course: medical-Spanish terminology utilized during anesthesia emergence (44 subjects)
- **RESULTS**: Average scores → Pre-tests: 38.24% Post-tests: 85.52% → 47.3% improvement following the intervention (e-Learning course). 30-day post-intervention provider self-efficacy survey results in communicating with LEP patients: Positive correlation identified between the e-Learning course & enhancement in provider self-efficacy

Pre-test → **Intervention** → **Post-test** → **Badge Buddy** → **Development of Self-Efficacy**

PRE-TEST 38%

POST-TEST 86%

Basic Medical Spanish Phrases
ANESTHESIA EMERGENCE

Commands	Comandos
1) Open your eyes.	1) Abre sus ojos.
2) Squeeze my hand.	2) Aprieta mi mano.
3) Lift your head.	3) Levanta su cabeza.
4) Lift your right/left leg.	4) Levanta su pierna derecha/izquierda.
5) Take a deep breath.	5) Tomar una respiracion profunda.
6) Cough.	6) Tose.

Interactive Learning

Observational Learning i.e Real-Life Simulation

Physiological Feedback Positive & Negative Reinforcement

Percieved Self-Efficacy

Clinical Behavior & Performance Interacting with LEP Patients

DISCUSSION

- Perception → Improving provider communication abilities → Increased efficiency of care provision, enhanced patient safety, & improvement of provider & patient satisfaction
- Expansion → Other languages, supplementary assessments (Pre-op, Post-op, standardized assessment tools i.e. STOP-BANG, Glasgow Coma Scale), & Procedural guides i.e. Epidural placement
- Augment Accessibility → Utility for CEUs, supplementation of academic curriculums i.e. core class versus elective course, & multi-platform support i.e. phones, tablets, computers.

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