WELCOME TO THE Multivrse

Comparing Language Learning Behavior in Human vs. AI-driven Environments

CS377E | Spring 2019 | Nathan D., Glenn D., Joyce H., Angelica W.
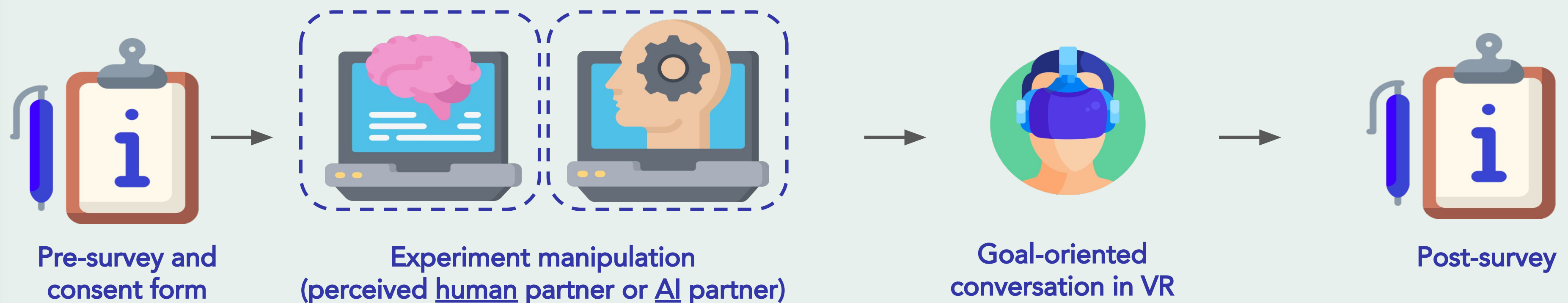
MOTIVATION

Foreign language learning is starting to incorporate more AI, including chatbots; We seek to understand how AI-driven language practice affects learning behavior.

RESEARCH QUESTION

How do people's foreign language interactions change when they are speaking with AI conversational partners?
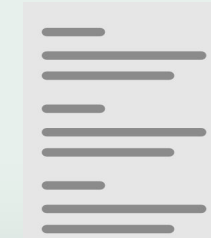
APPROACH

We ask adult, native Chinese study participants to practice speaking English in real-world situations, with a simulated conversational agent in VR. Then use a pre and post survey to measure foreign language anxiety and level of psychological safety felt when making mistakes.

Pre-survey and consent form → Experiment manipulation (perceived human partner or AI partner) → Goal-oriented conversation in VR → Post-survey

KEY FEATURES
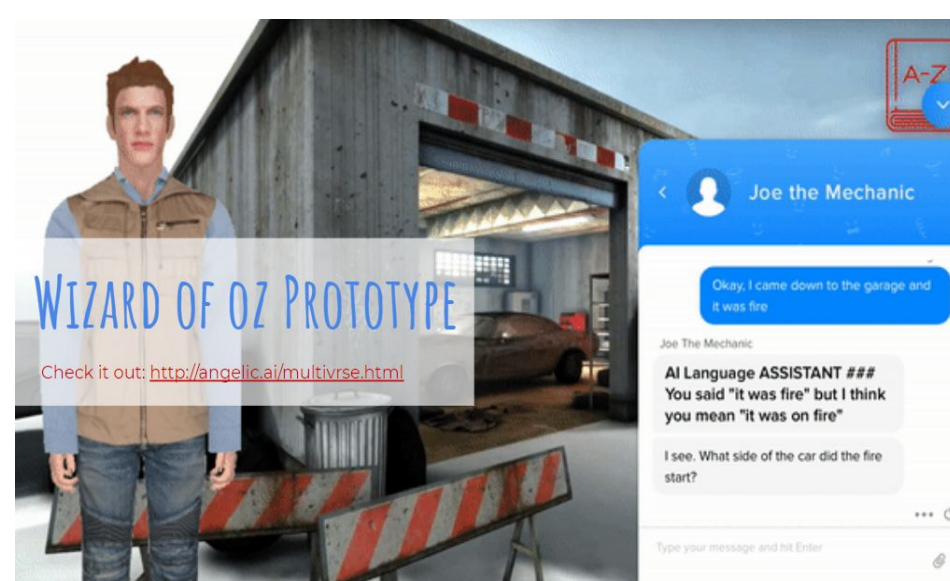
Task-based language teaching

Skill-level adaptive WoZ script, Google WaveNet text-to-speech

DESIGN EVOLUTION

Low-Fi scenario: buying products or calling a phone service provider

Medium-Fi scenario: a visit to the mechanic

High-Fi: immersive virtual reality mechanic scenario

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