

Using Virtual Assistants for Language Learning



A Case Study for Alexa

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MOTIVATION & BACKGROUND

Rapid growth in both the language learning and virtual assistant industries

47.3 MILLION

reported smart speaker usage in the USA as of January 2018



+B Babbel boasts over **1 MILLION USERS**

memrise voted **BEST APP OF 2017** in the Google Play Awards

Computer
Assisted
Language
Learning

p r o j e c t

existing
language
learning
software

AIMS & OBJECTIVES

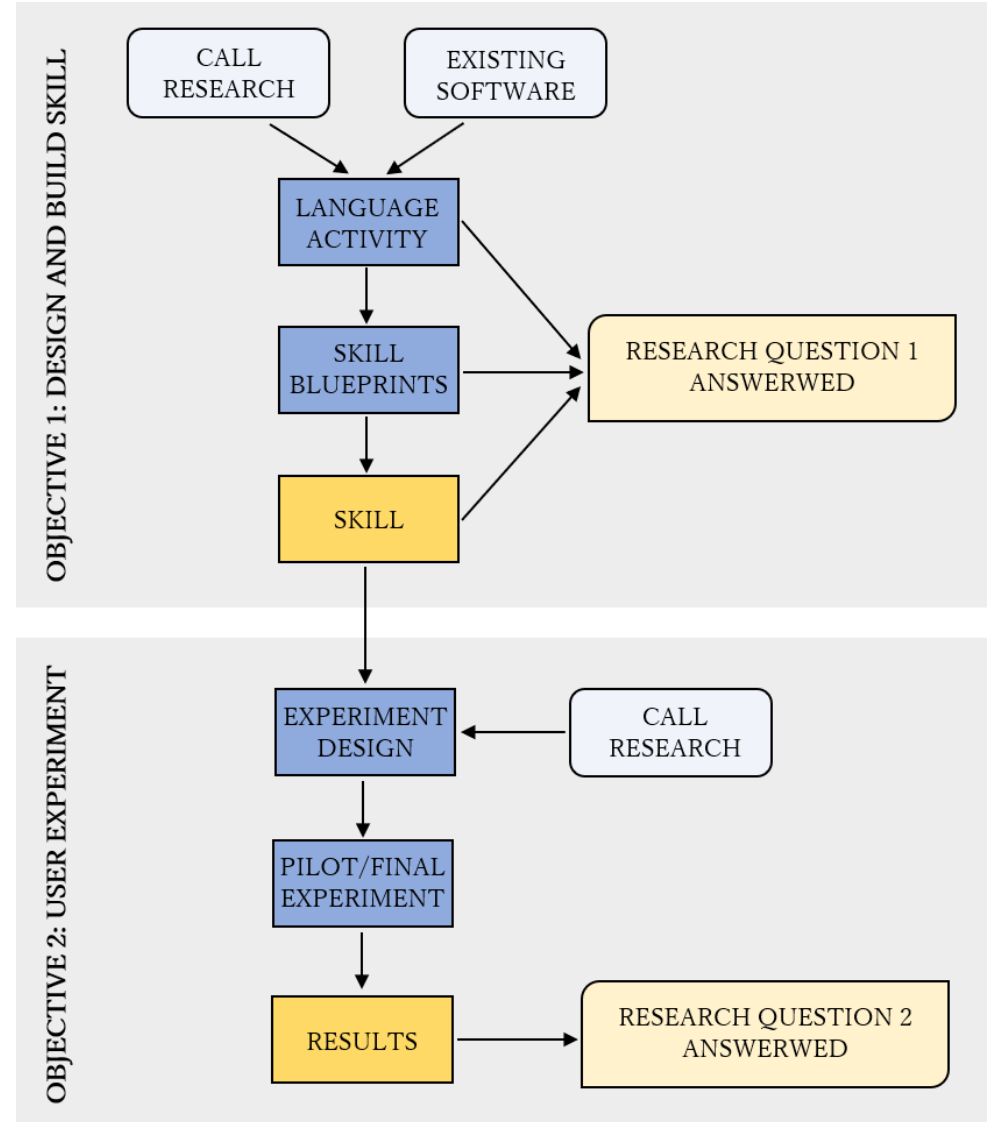
RESEARCH QUESTIONS

- 1 *What are the design advantages and limitations of an Alexa skill for language learning?*
- 2 *What are users' perceptions of Alexa for language learning?*

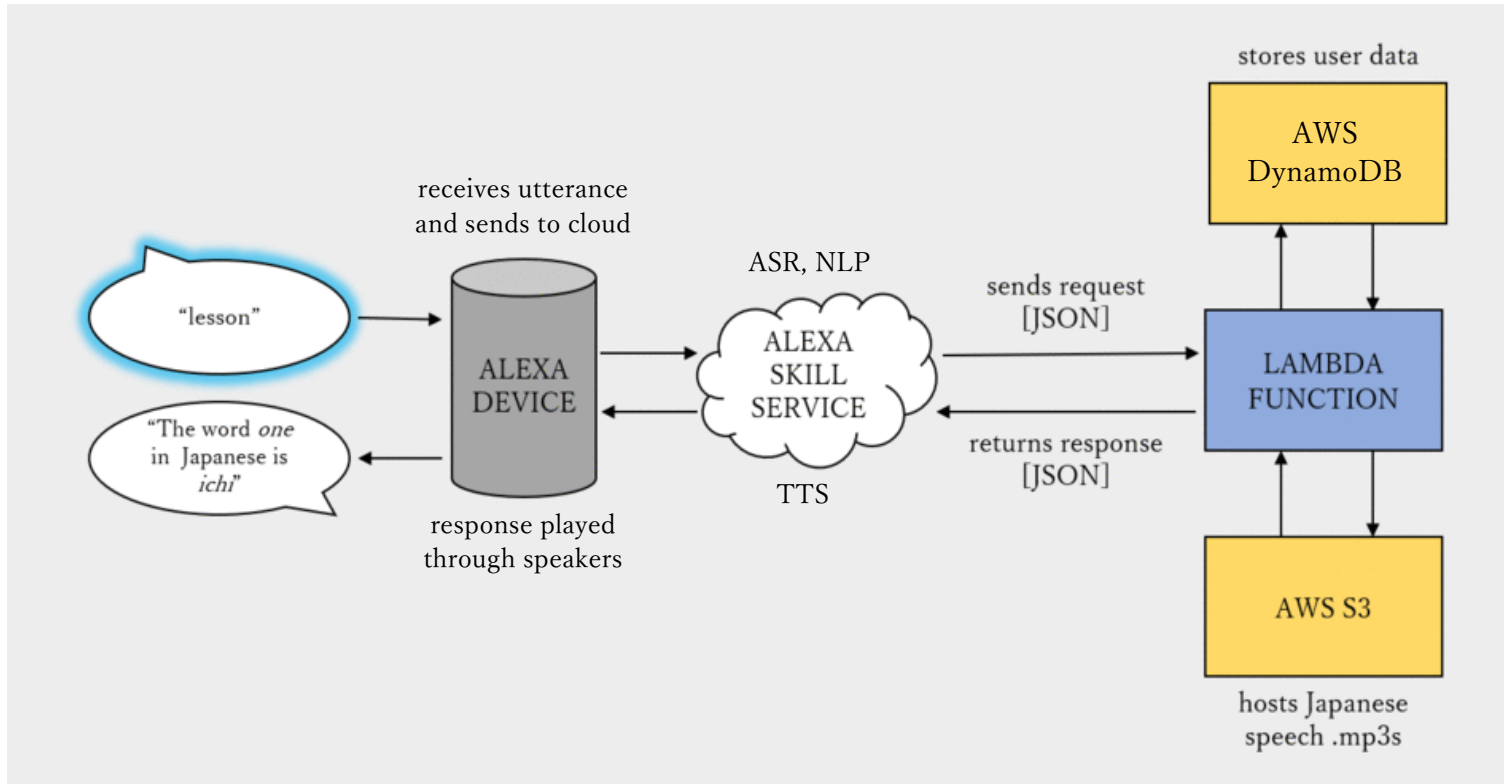


OBJECTIVES

- 1 *Design and build a skill for Alexa*
- 2 *Conduct a user-based experiment*



SKILL IMPLEMENTATION



INTERACTION EXAMPLE

Intent Name:
LessonIntent

Preceding prompt: "Please choose between *lesson*, *practice* or *quiz*."

Sample utterances:
'lesson'
'lesson please'

What are the design advantages and limitations of an Alexa skill for language learning?



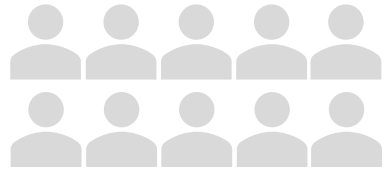
- Personalisation
- Gamification
- Dynamic interaction



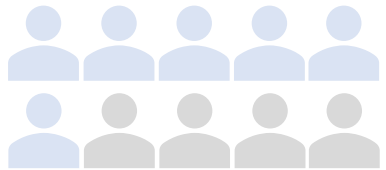
- Monolingual speech recognition
- AWS Polly not integrated
- Binary feedback

USER FEEDBACK

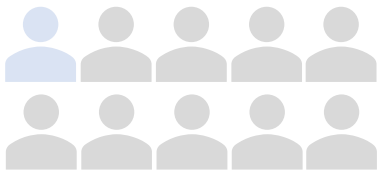
PARTICIPANTS



10 PARTICIPANTS

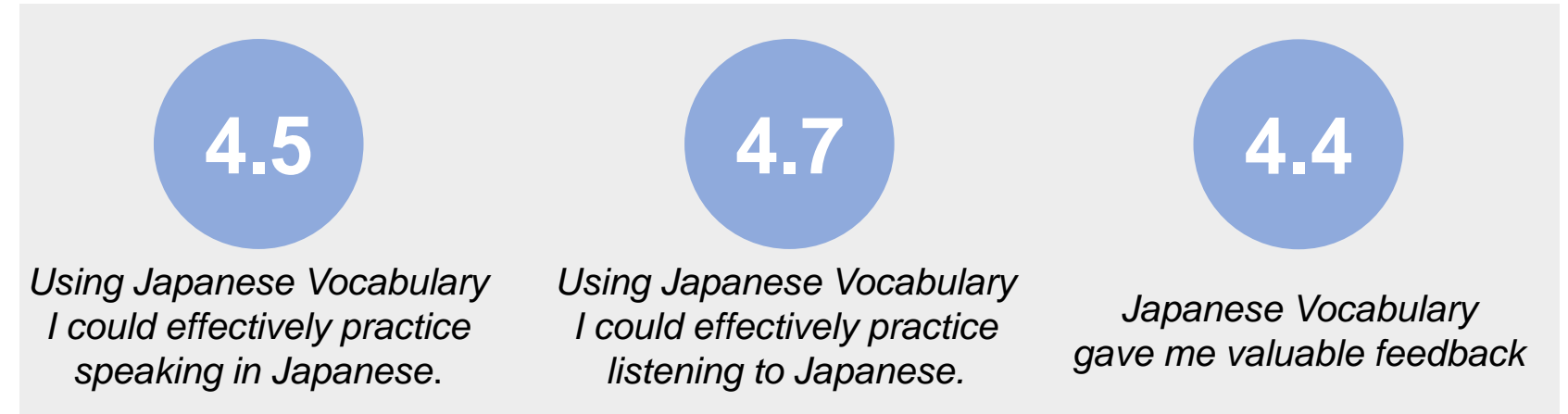


6 have knowledge of Japanese



1 regularly uses virtual assistants

What are users' perceptions of Alexa for language learning?



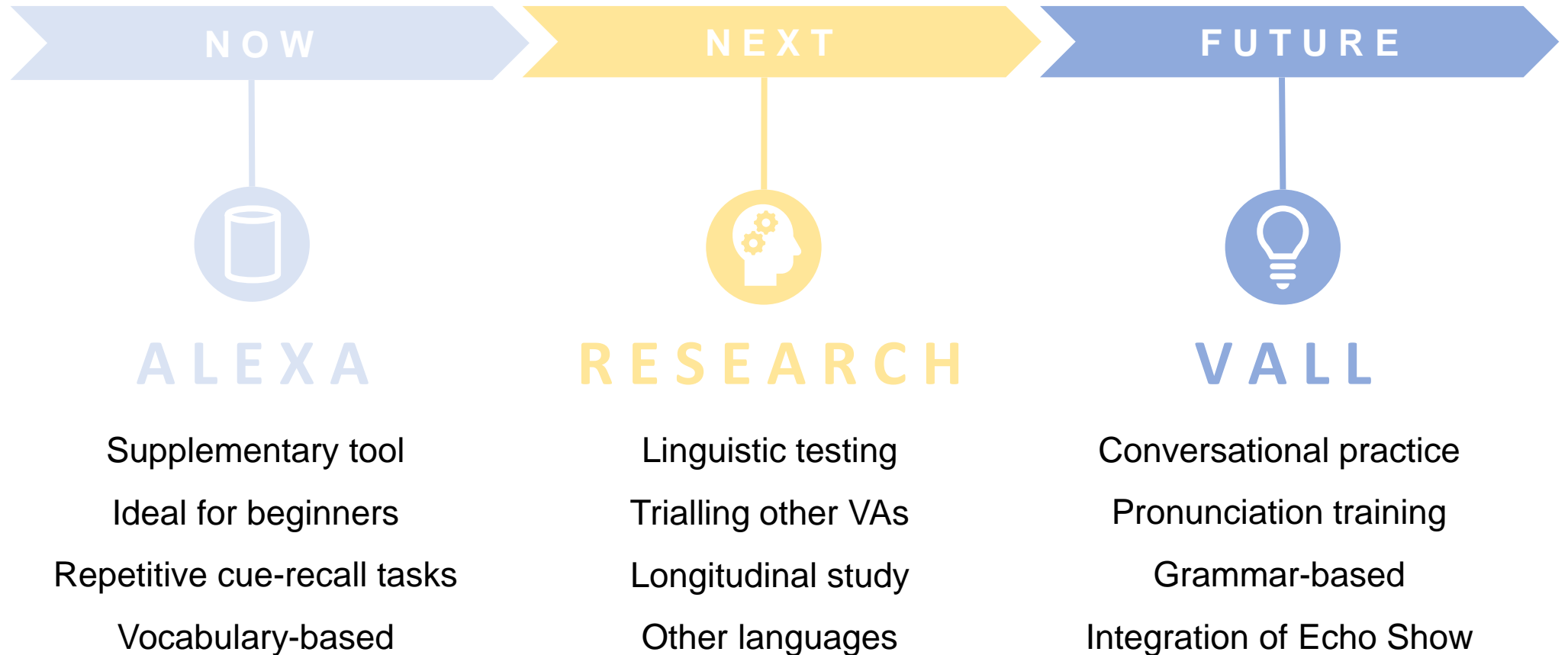
1 = strongly disagree 2 = disagree 3 = neutral 4 = agree 5 = strongly agree

	<ul style="list-style-type: none">“possible to tailor the lesson”“instant feedback”“ability to repeat words”		<ul style="list-style-type: none">Visual accompanimentOption to pause to thinkOption to slow down JapanesePronunciation ratingRepetition of new words
	<ul style="list-style-type: none">“it didn't report how closely my utterances were to correct pronunciation”		

“I think it's a great way to use technology to improve educational choices”

CONCLUSION

A starting point for voice-assisted language learning



“Alexa, open Japanese Vocabulary”

