
Past Work and Ideas for the Eye and Ear Care Education App

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Image source: Arclight Project. <https://www.youtube.com/@arclightproject>

Table of Contents

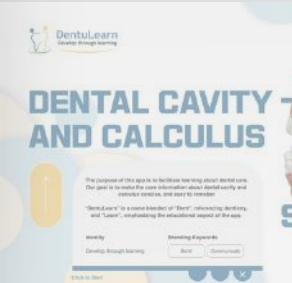
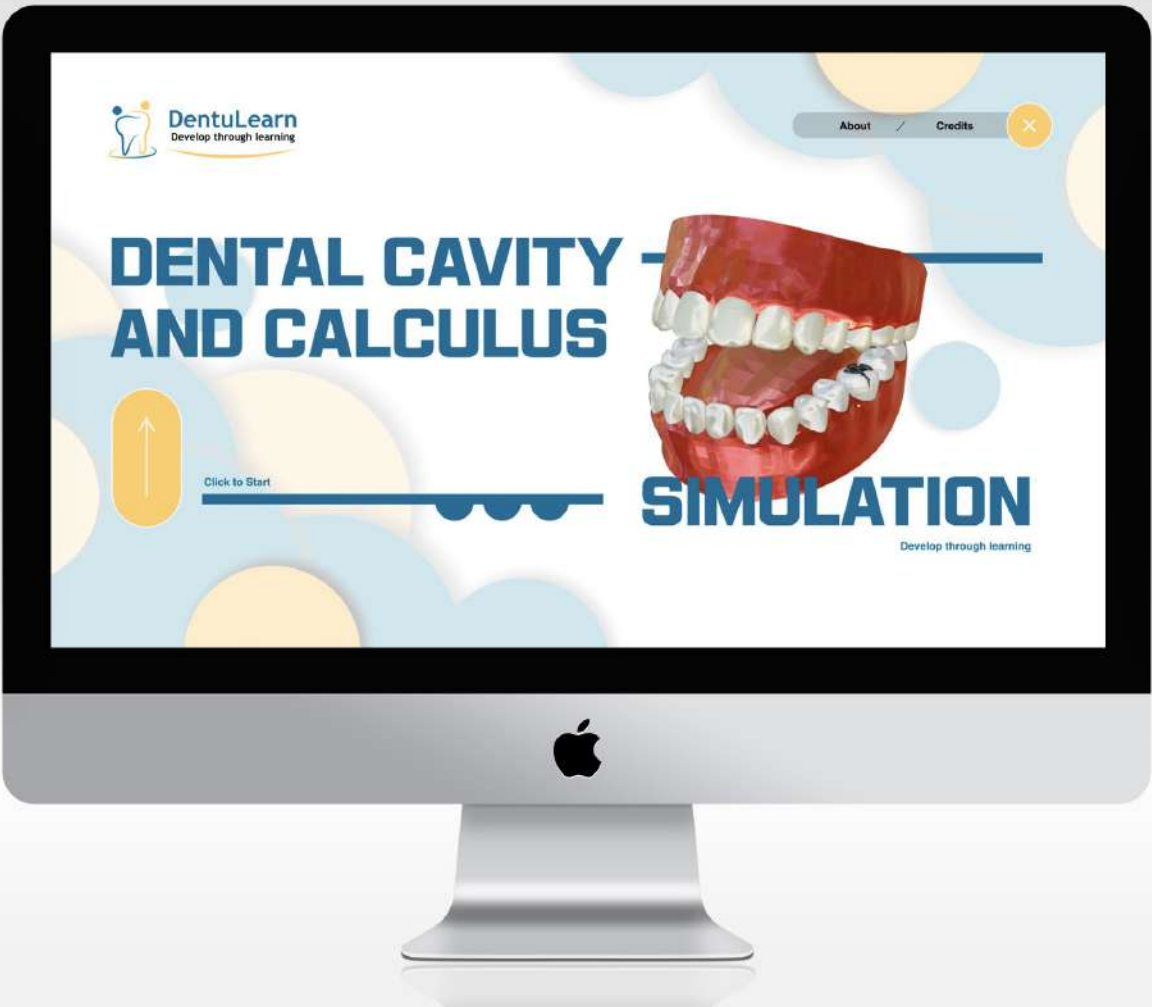
- 01** **Past Works**
- Interactive Learning Tools
 - Animation

- 02** **Project Idea**
- Target Persona
 - Learning Pathway
 - Prototype Mockup
 - User Testing
 - Key Considerations

Past Works

Interactive Learning Tools:

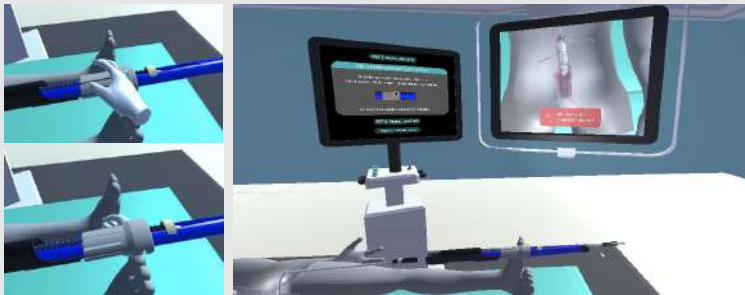
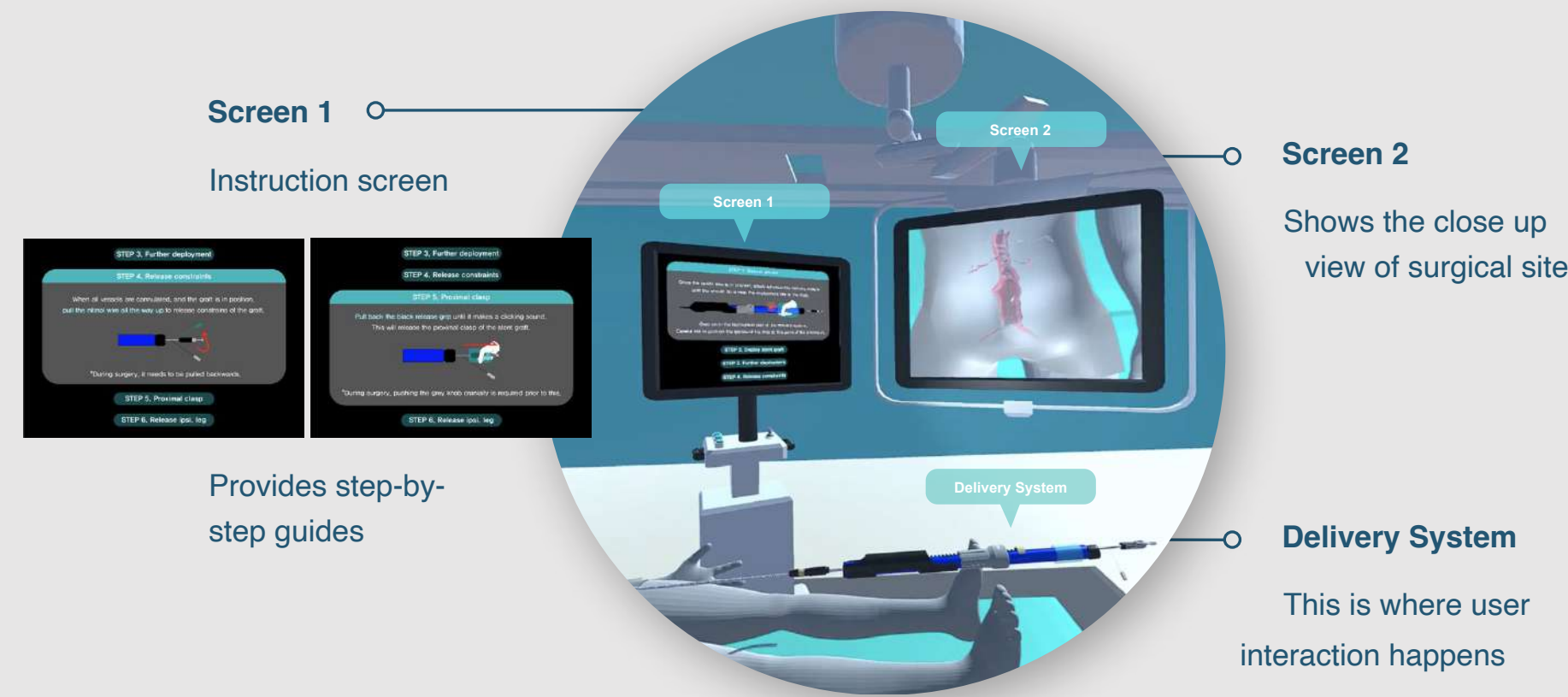
DentuLearn



Interactive Learning Tools:

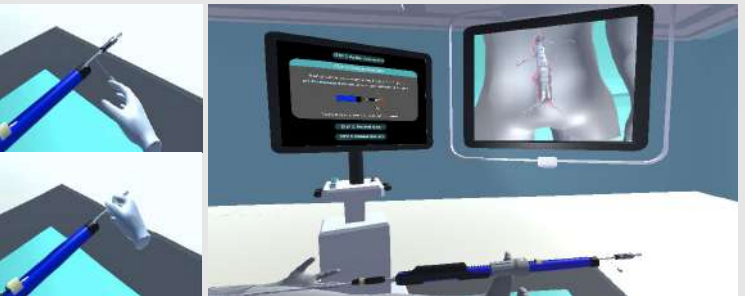
VR Training for TA Implant Techniques: Fenestrated TREO

VR Scenes



User interaction - rotate the grey turn knob in the direction of the arrow

Triggered animation - deployment will continue until the contralateral leg is extended



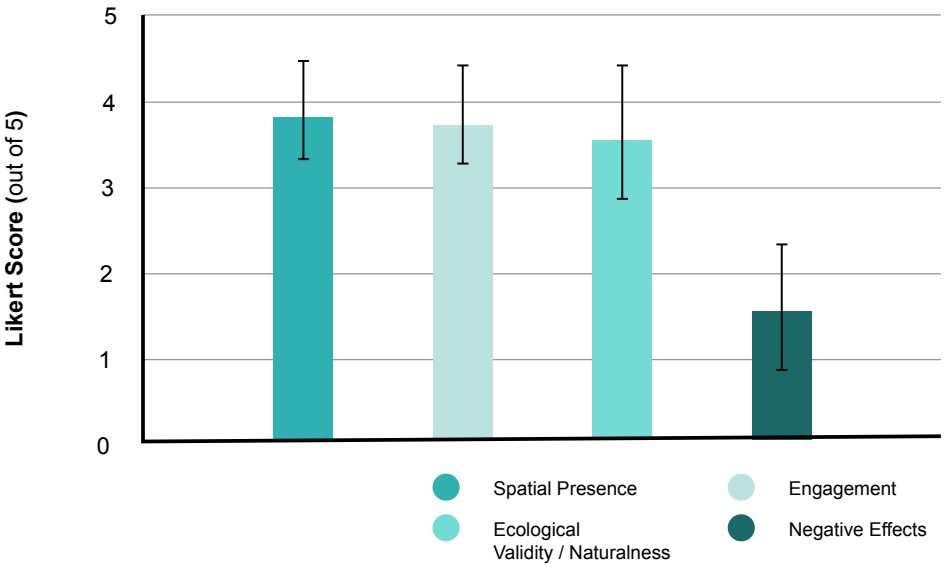
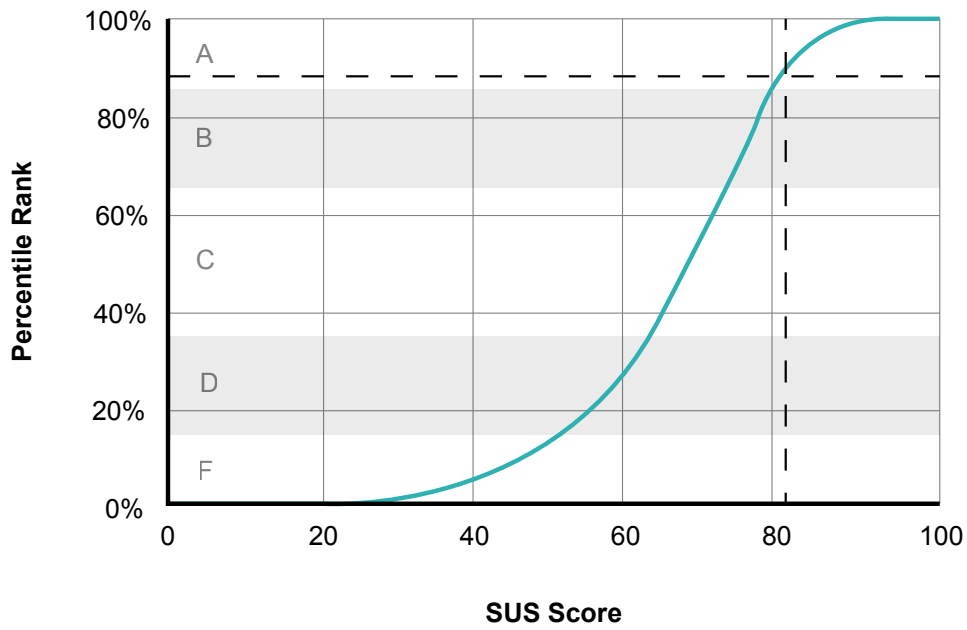
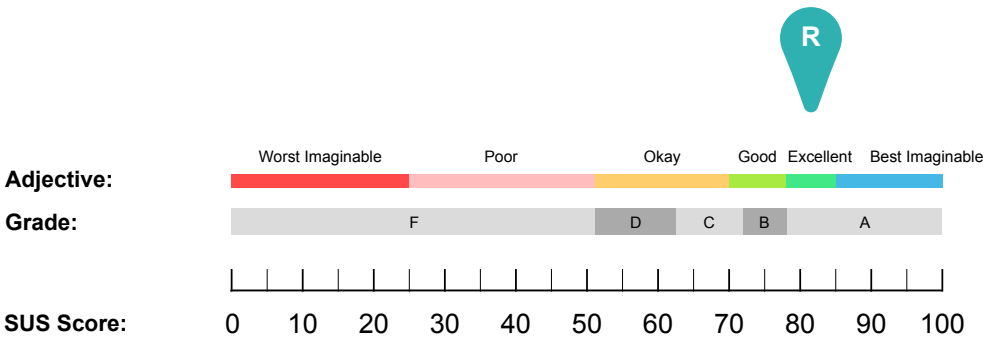
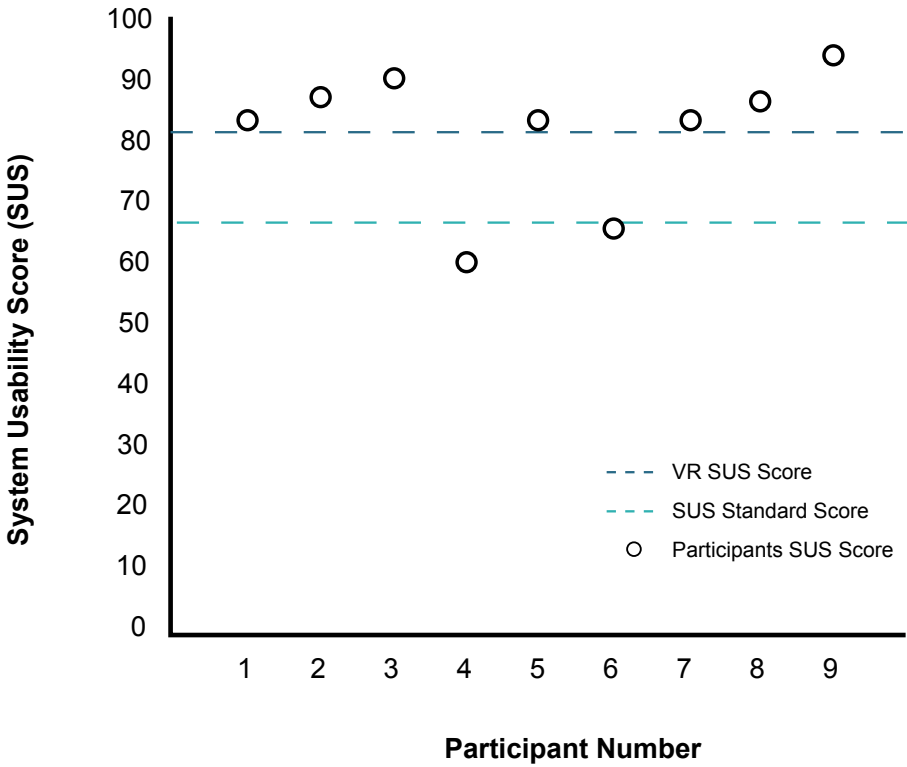
User interaction - pull the black release grip back until it makes a clicking sound

Triggered animation - proximal clasp will be released

Interactive Learning Tools:

VR Training for TA Implant Techniques: Fenestrated TREO

User Testing Results



Project Idea

Target Persona



Amy

“ I wish I could study independently without carrying heavy textbooks and have the opportunity to practice using medical devices.

Age	18
Occupation	Medical Student
Location	Malawi

Key Traits

- Outgoing
- Motivated Learner
- Tech-savvy
- Likes challenges

Pain Points

- Limited access to diagnostic tools and training resources
- Challenges in mastering diagnostic techniques without direct supervision
- Difficulty in understanding complex procedures without visual demonstrations

Needs

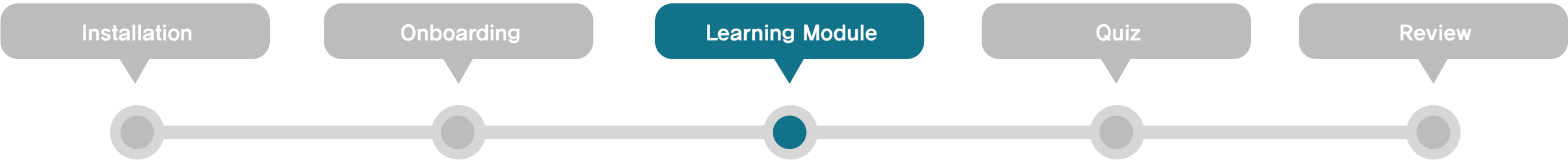
- Interactive and engaging learning materials tailored for self-study
- Case-based learning scenarios to improve clinical decision-making skills
- Step-by-step guidance and real-time feedback on examination techniques
- Access to training modules for areas with limited internet connectivity
- A platform for connecting with peers for mentorship and support

Training
& Learning

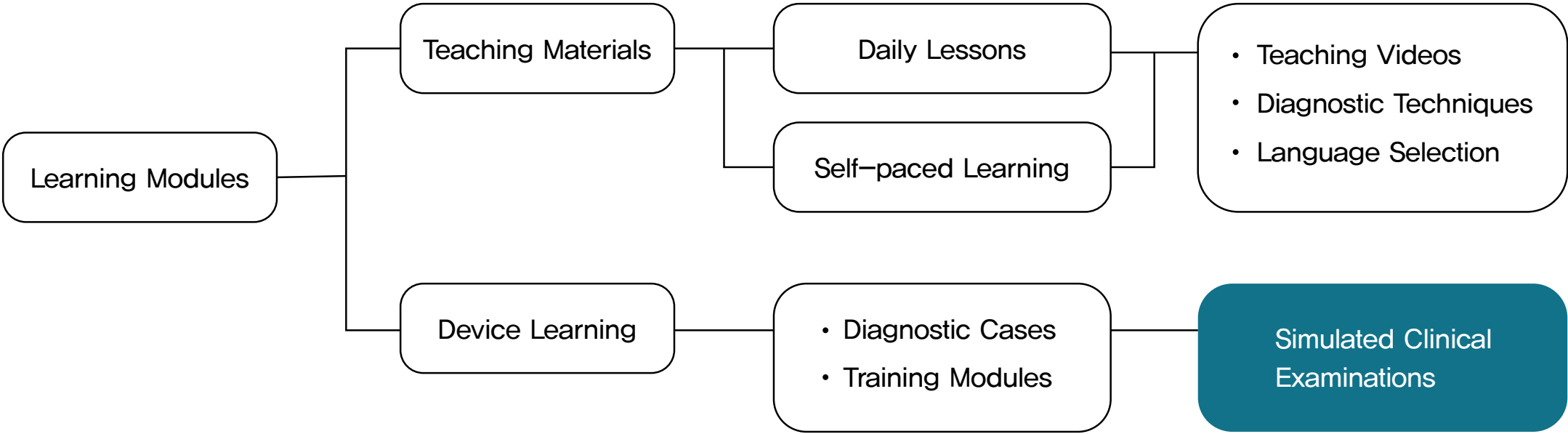
Hands-on
experience

Eye and Ear Care
Education App

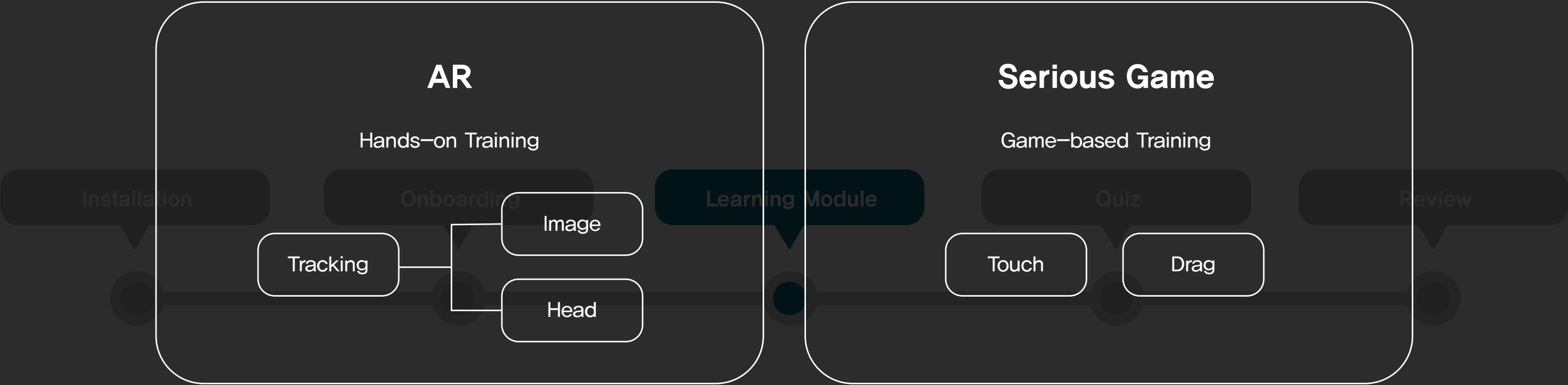
Learning Pathway



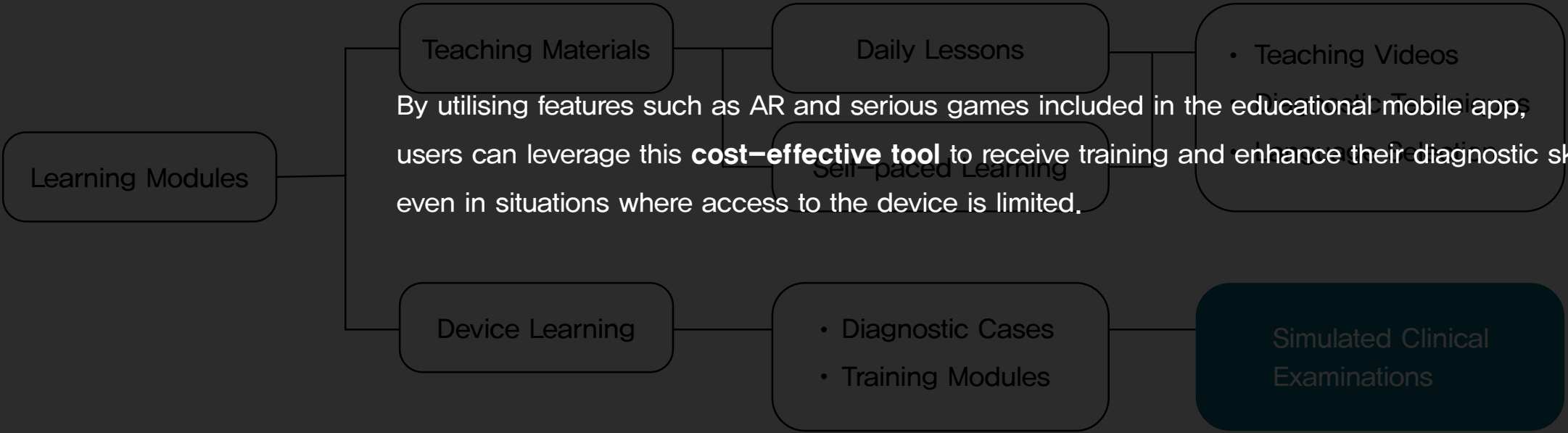
Key Categories



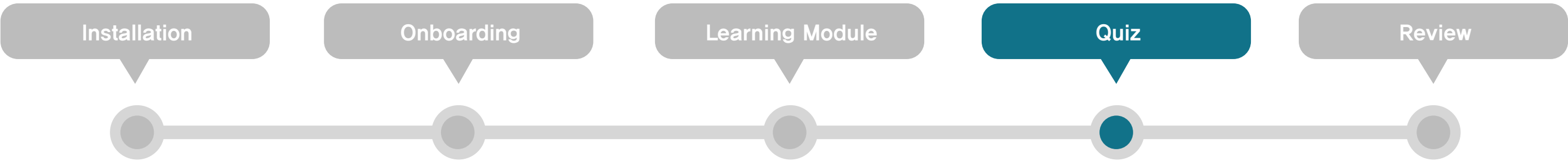
Learning Pathway



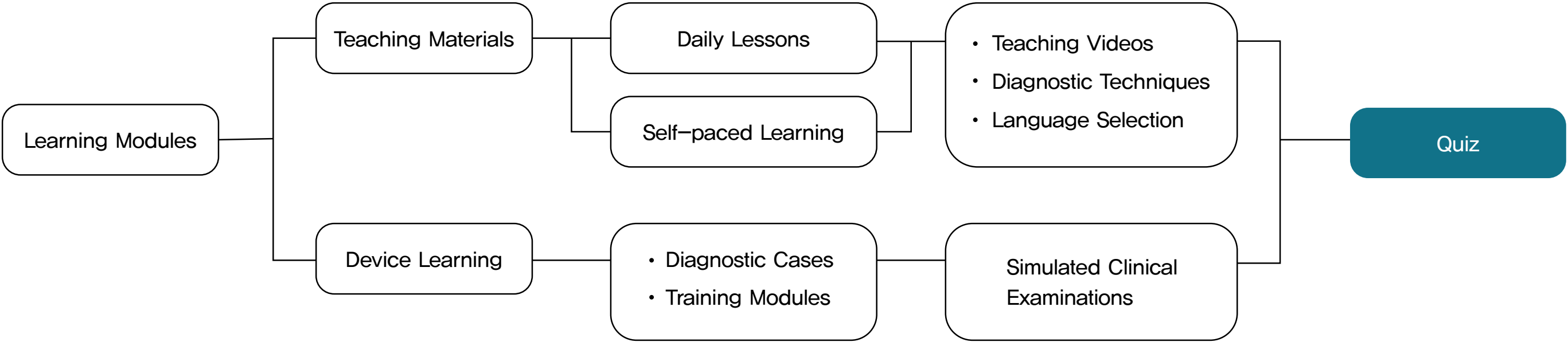
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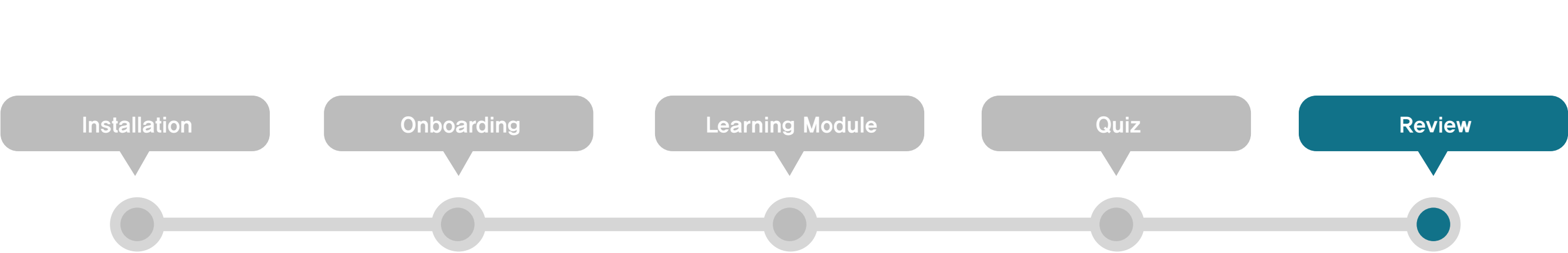
Learning Pathway



Key Categories



Learning Pathway



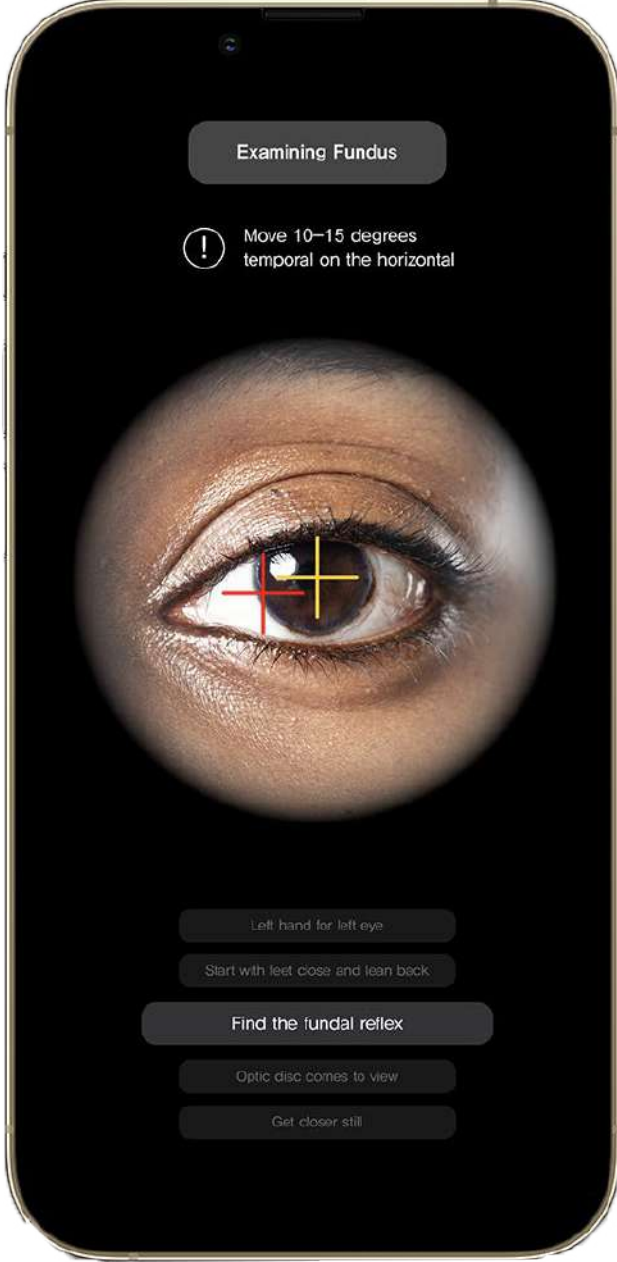
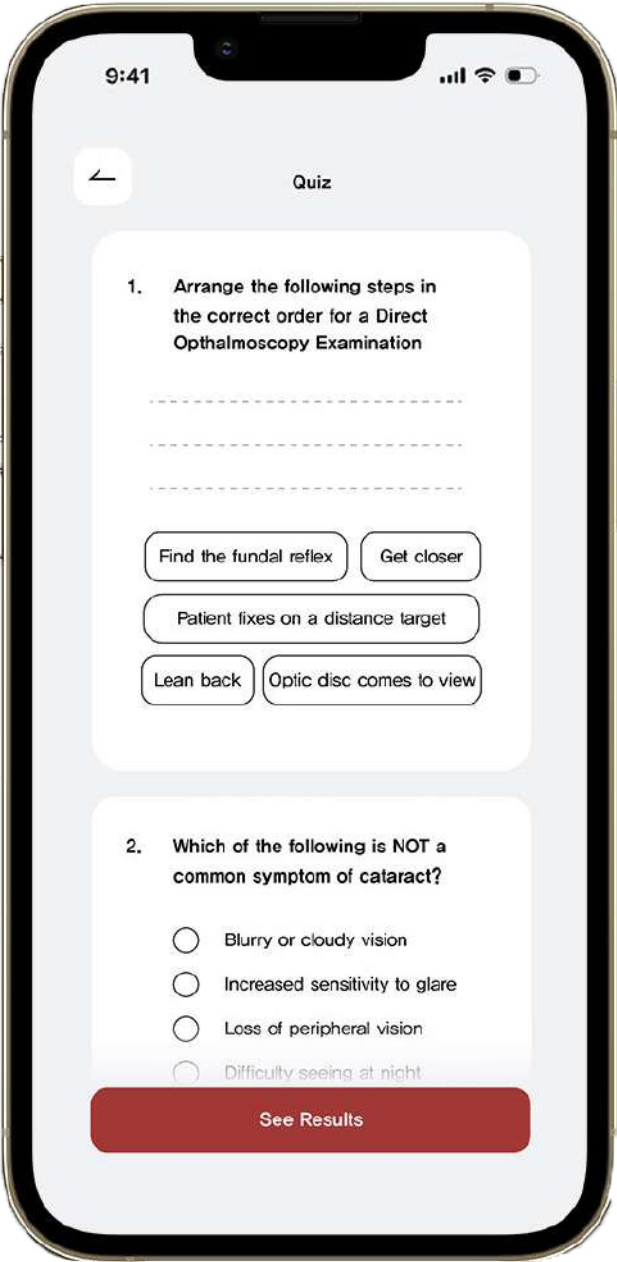
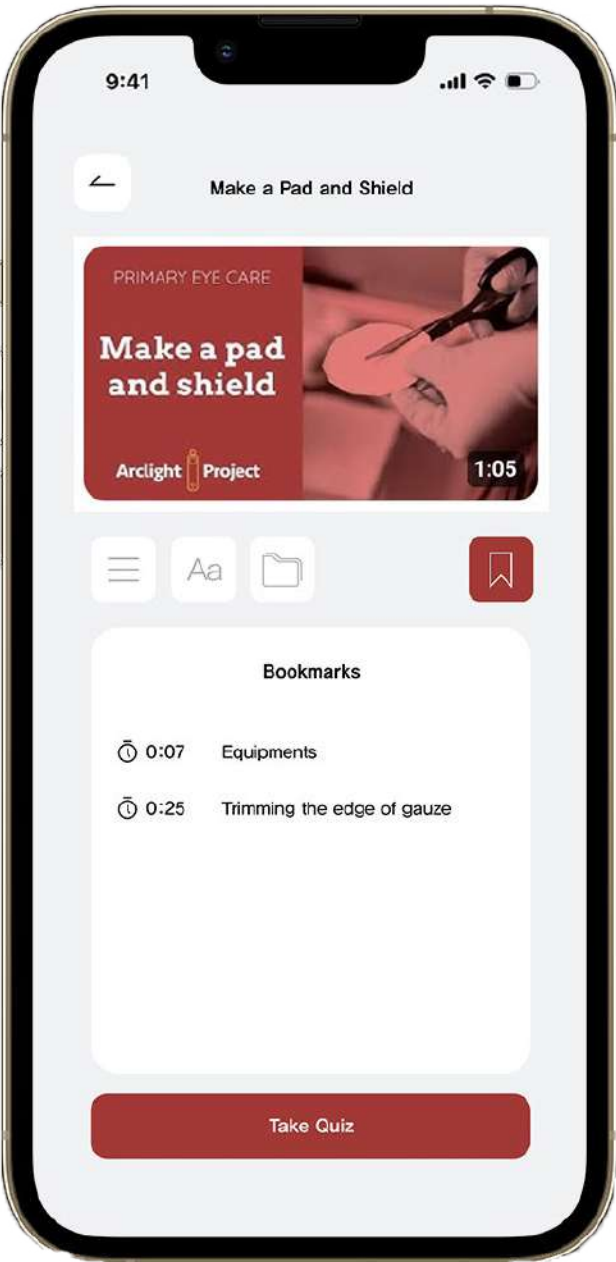
Optimal Review Timeline (Spaced Repetition)

- Immediate review through quiz – prevents rapid forgetting
- Next-day review – short-term to long-term memory
- Weekly review – reinforces recall and strengthens retention
- Final Reinforcement – Ensures long-term retention

Supports Effective Review

- Built-in spaced repetition reminders
- Quiz-based recall exercises, including interactive review sessions
- AR / Serious game features for practical reinforcement

Prototype Mockups



User Testing

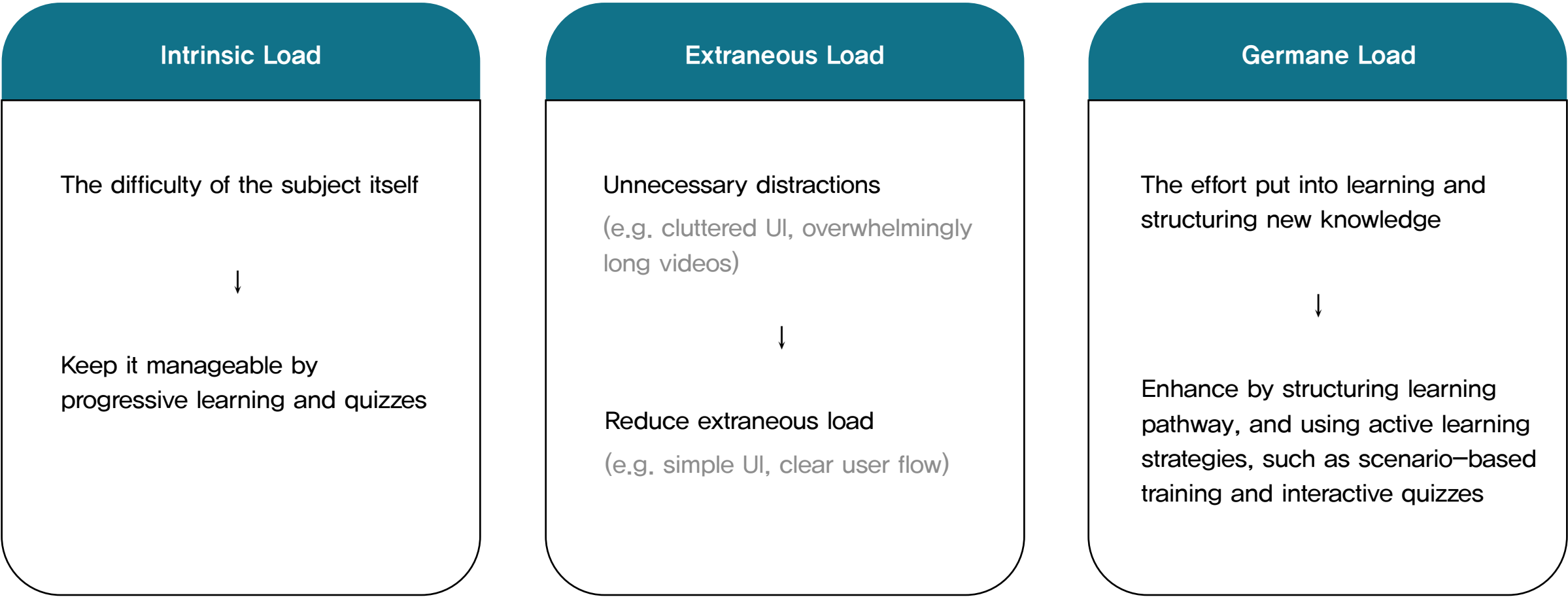
User Research Methods & Questionnaires

- General Information → Demographic Survey → Technology Familiarity Survey
- Application Testing → SUS Usability Survey → IMMS Survey → (HARUS AR Usability Questionnaire) → Participant Feedback (Qualitative)

Key Findings



Key Considerations for Development – Cognitive Load



This project is more than just developing an app

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It's about maximizing the impact of Arclight as a powerful educational tool,

The app will provide structured, interactive, and accessible features
to enhance global eye and ear health training.

Thank you for listening