

WHAT IS THE PROBLEM?

Okay, let me
upload my
assignment now.

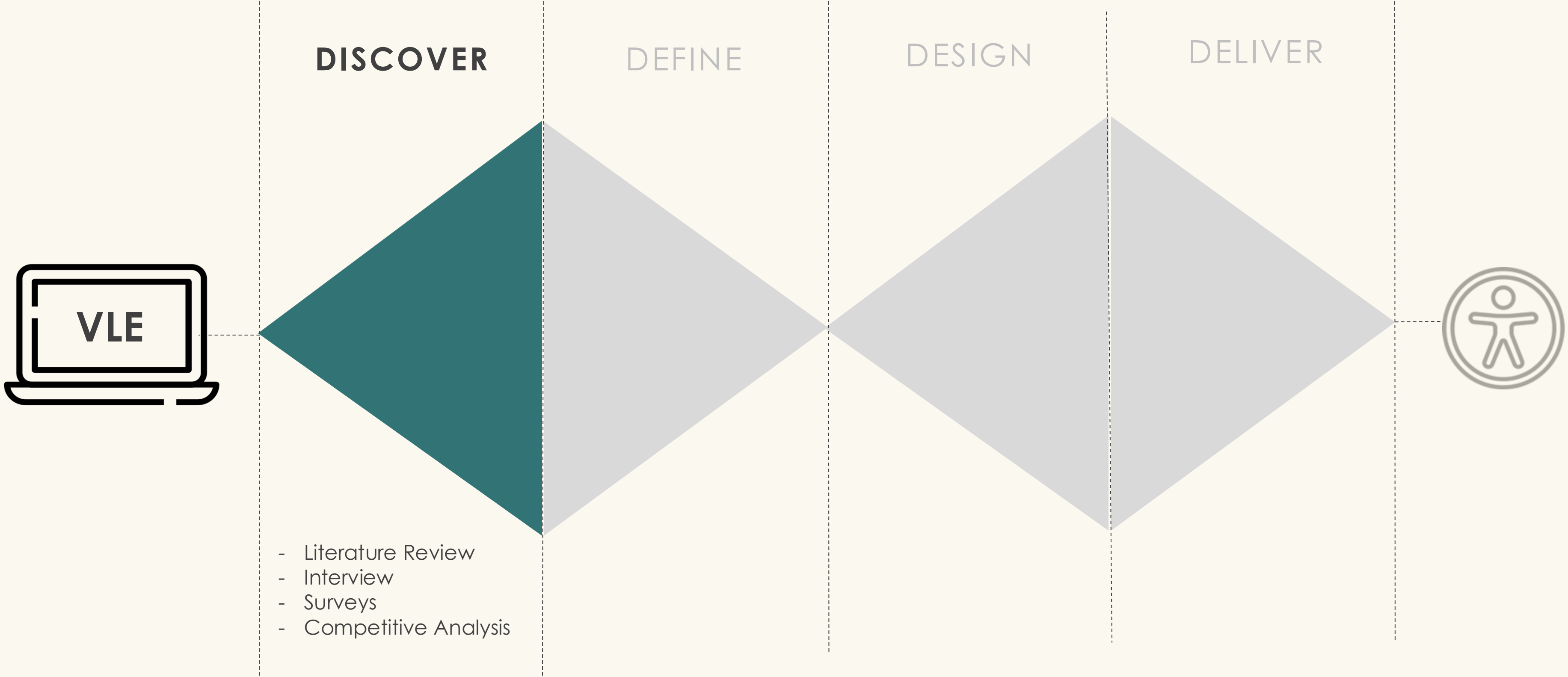


Ugh! I hate to do
this! Why is this
always such a
hassle?

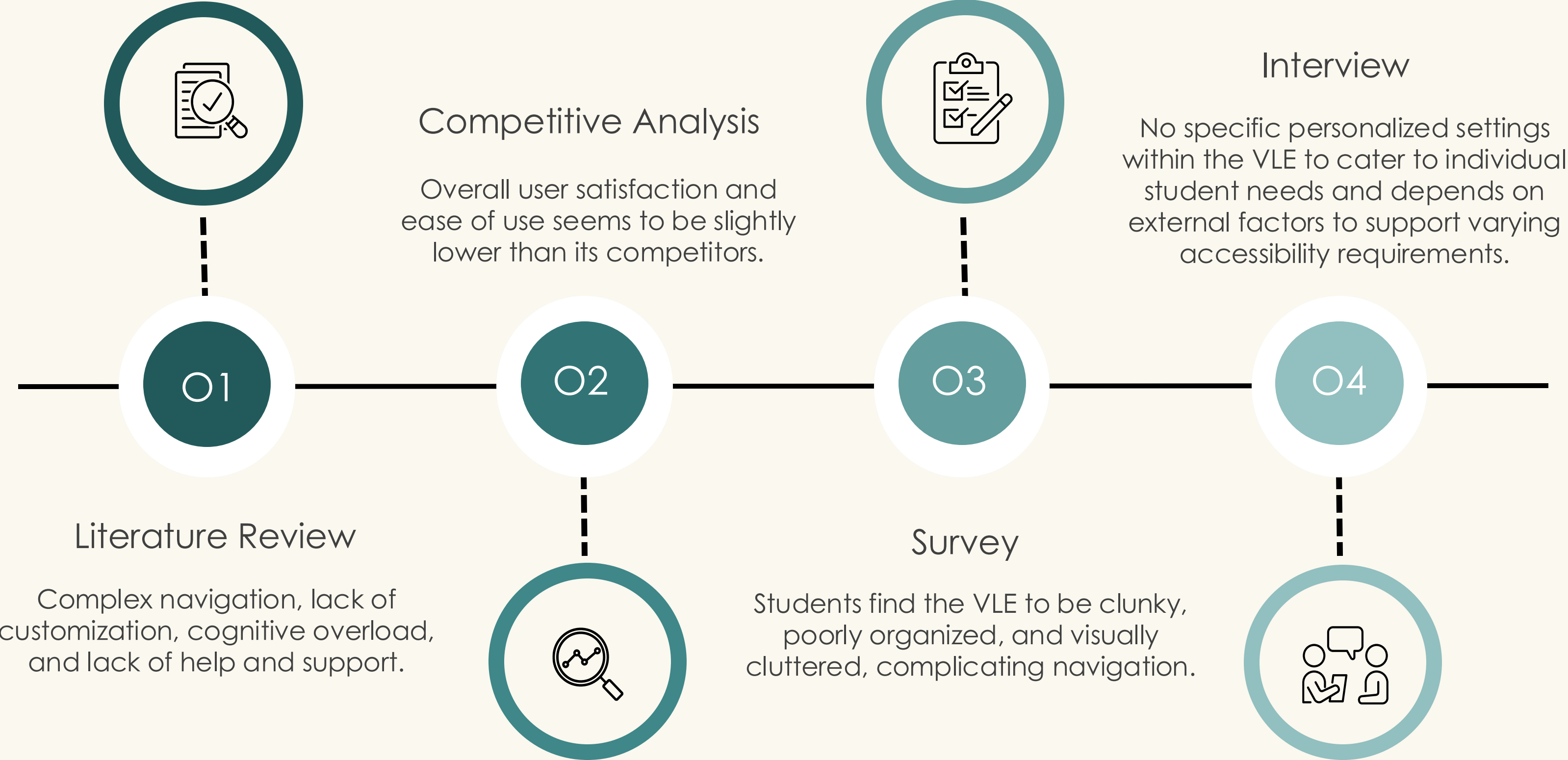


Bridging the Accessibility Gap: Enhancing Goldsmiths' VLE for Students with Dyslexia

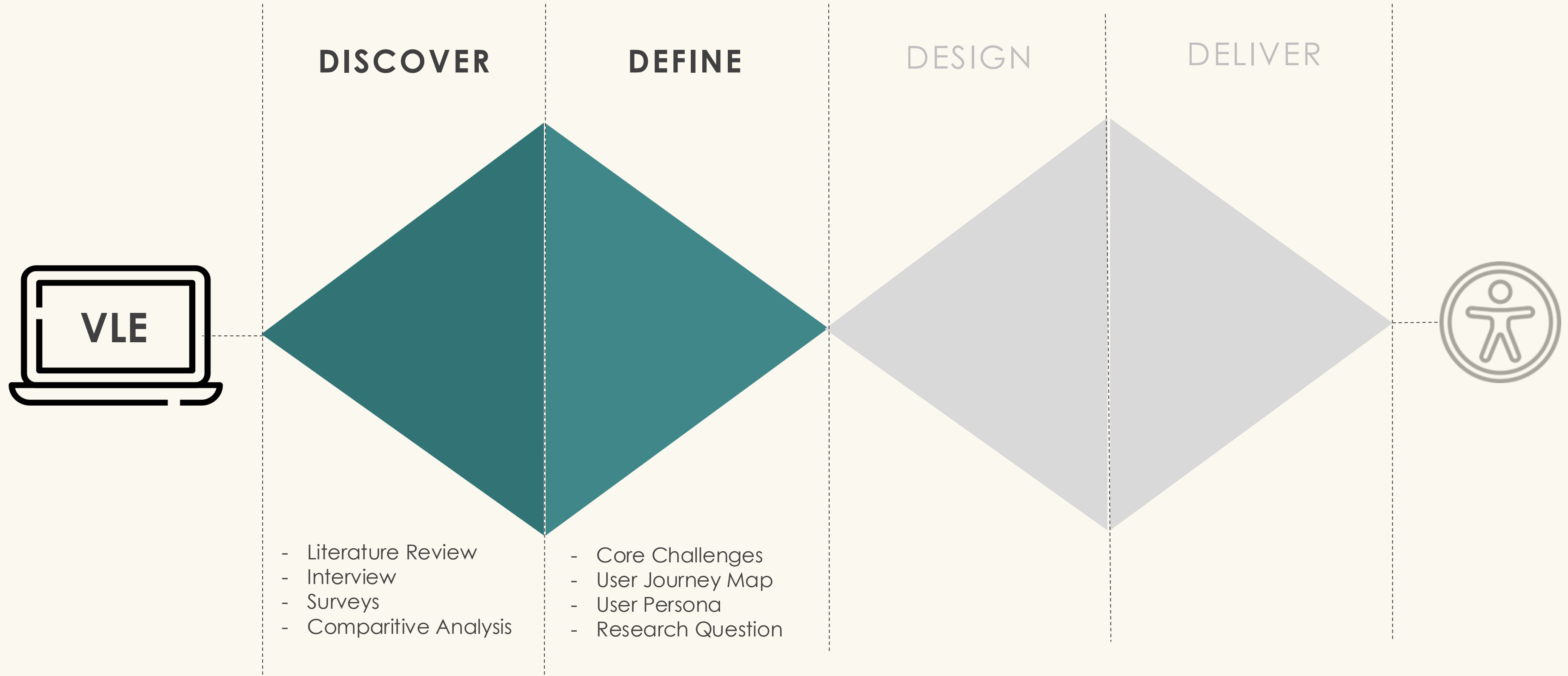
PROCESS: DISCOVER



DISCOVER: KEY INSIGHTS

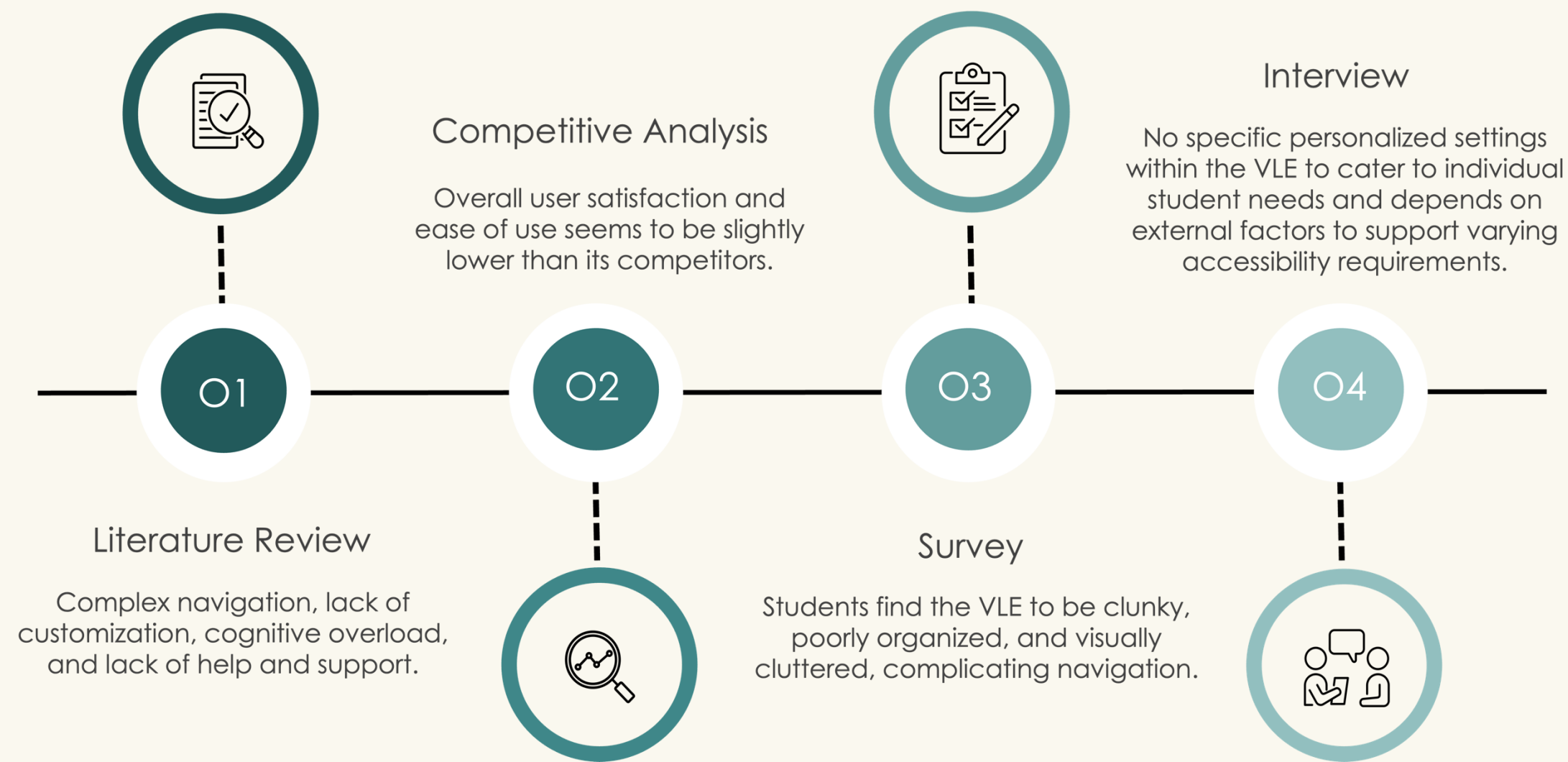


PROCESS: DEFINE



CORE CHALLENGES

INSIGHTS



CORE CHALLENGES

- Improve Navigation
- Improve Content Clarity
- Improve Ease of Use
- Provide a Customizable Interface
- Improve Visual Design

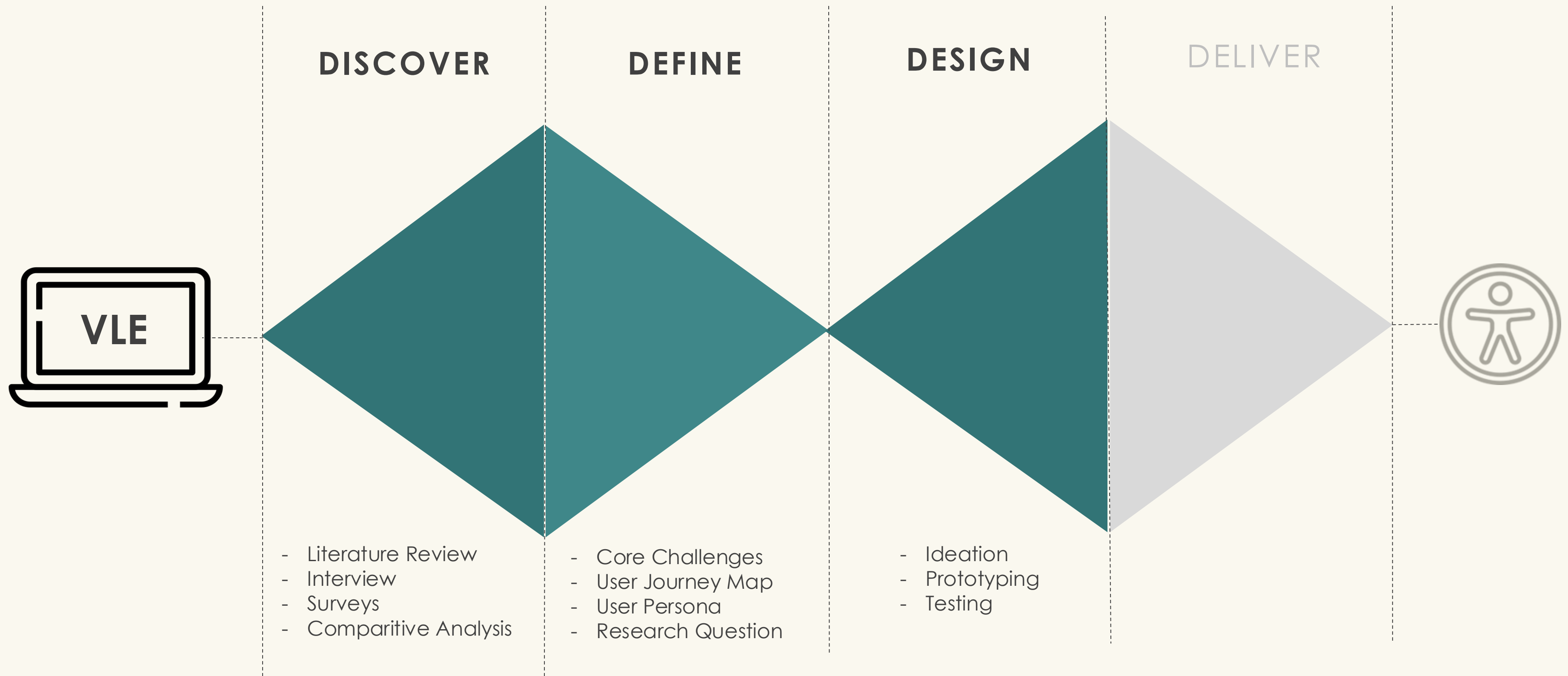
RESEARCH QUESTION



How can Goldsmiths' Virtual Learning Environment (VLE) be enhanced to improve accessibility for students with dyslexia?

- What specific design features and interface elements can be implemented in the VLE to better support students with dyslexia?

PROCESS: DESIGN



IDEATION

BRAINSTORMING

NAVIGATION <ul style="list-style-type: none">• Search• Hamburger• Breadcrumbs• Back button• Course Page	AI BASED <ul style="list-style-type: none">• Personalise modules based on the learner• Summary on Lecture Notes• Content on VLE	CONTENT-SPECIFIC <ul style="list-style-type: none">• Font Based Changes• Unwanted Elements• Error Messages• Unwanted elements• Language Used
STAFF TRAINING <p>Materials to be uploaded - needs to be accessible</p>	WRITING SPECIFIC <ul style="list-style-type: none">• Assignments• Spell-check and Grammar	VISUAL DESIGN <ul style="list-style-type: none">• Adjust Color• Calendar• Icons
HELP AND SUPPORT <ul style="list-style-type: none">• Resources• Chat Option,	READING-SPECIFIC <ul style="list-style-type: none">• Text-speech• Focus Reader• AI• Labels and Links	LAYOUT <ul style="list-style-type: none">• Tab Layout• Hamburger Menu

KEY IDEAS

Navigation & Visual Design

- Search Button
- Breadcrumbs
- Hamburger Menu Structure
- Calander Layout
- Remove Unwanted Elements

Content Clarity and Comprehension

- Readability of Text
- Information Presentation
- Error Messages
- Use More White Space

Customizable Interface

- Accessibility Toolbox

CRITERIA FOR SELECTION

Relevance

Impact

Feasibility

PROTOTYPING



01

Methods & Tools

- Sketches
- Interactive Prototypes using Figma

02

Process

Tested and refined based on user feedback

Usability Testing

- 7 Tasks
- Task Performance Metrics

Survey

- WCAG Compliance Survey
- Post-task Survey

TESTING

Semi-structured Interview

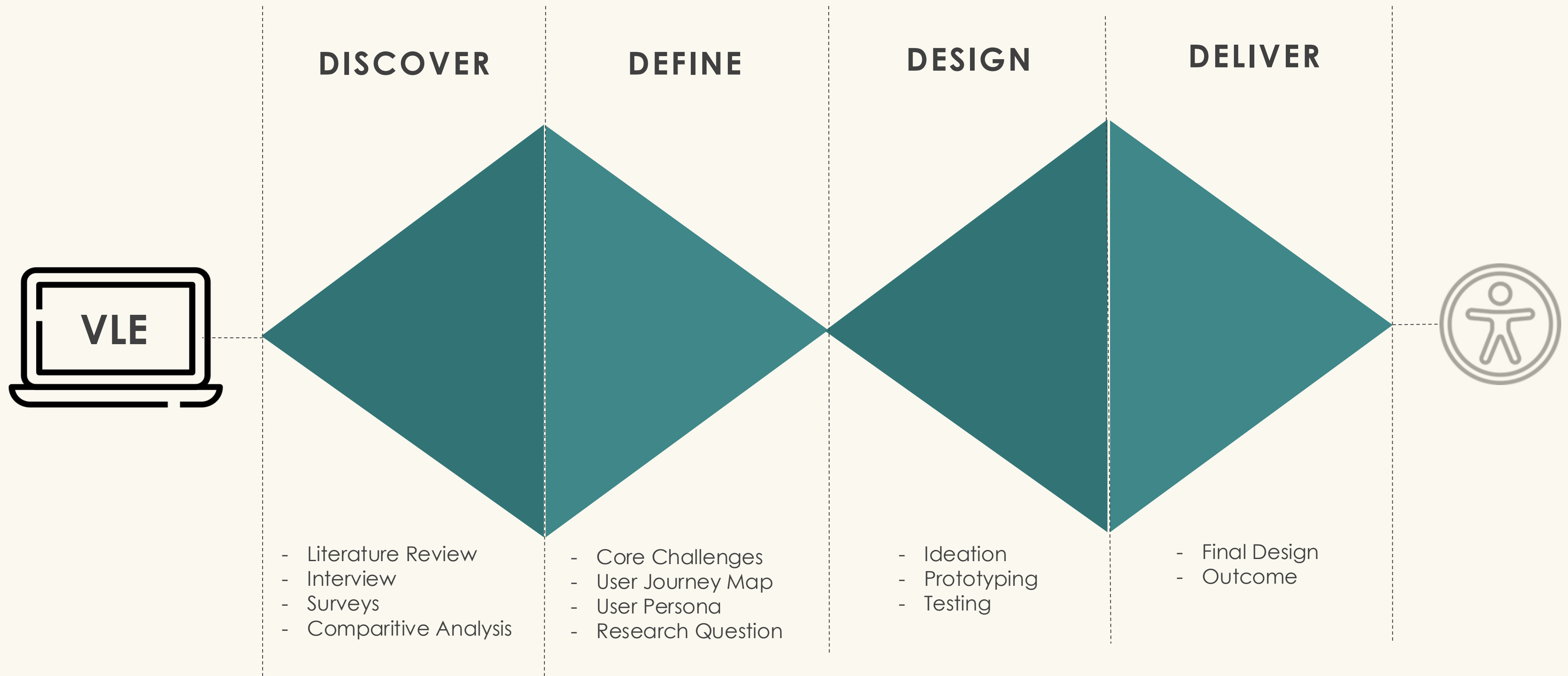
- Overall Rating of the Redesigned VLE

Expert Review

- Test Guidelines
- Test Overall Accessibility



PROCESS: DELIVER



FINAL DESIGN

LEARN.GOLD

Search

6

English

Phoebe Buffay
Student

Search

Dashboard

Calendar

My Courses

Term 1

Computing the User Exper...

Interaction Science

Human Factors

Course Content

Assignments

Term 2

Term 3

Notifications

Messages

Discussion Forum

Accessibility Toolbox

Disability Services

Logout

Accessibility Toolbox

ADHD

Vision Impairment

Sensory Disabilities

Content Adjustments

Adjust Font

Adjust Character Spacing

Inter-Word Spacing

Line Spacing

Adjust Font Size

Color Adjustments

Contrast

Adjust Font Color

Adjust Background Color

Black and White Mode

Reading Adjustment & Layout

Read it to me

Read it to me with Highlights

Focus Reader

Alignment

FINAL DESIGN

IS71107B/A: Human Factors (2023-24)

The module will explore the human as a user of technology, and the biomechanical and psychological factors that govern usage and interactions. It will consider the Human Factors of technology use in a variety of settings in order to illustrate the diversity of design and usage issues. The fundamental tools and investigation approaches will be explored and practiced in labs. Students will practice various approaches to presenting and communicating the outcomes of Human Factors and Ergonomic investigations.

Course Content

Assignments

Reading Lists

FAQs

Announcements

Course Content

The course will be delivered in a mixed teaching and lab session:

- 10 Lessons
- 3 Assignments
- 24h 32m Completion Time


Expand All Weeks

+ Learning Outcome	2 Sections . 15 minutes
+ Week 1	2 Sections . 30 minutes
+ Week 2	4 Sections . 84 minutes
+ Week 3	6 Sections . 120 minutes
+ Week 4	2 Sections . 80 minutes

Download Lecture Schedule



YIN CHEN

 Whitehead Building, Ian Gulland Lecture Theatre.

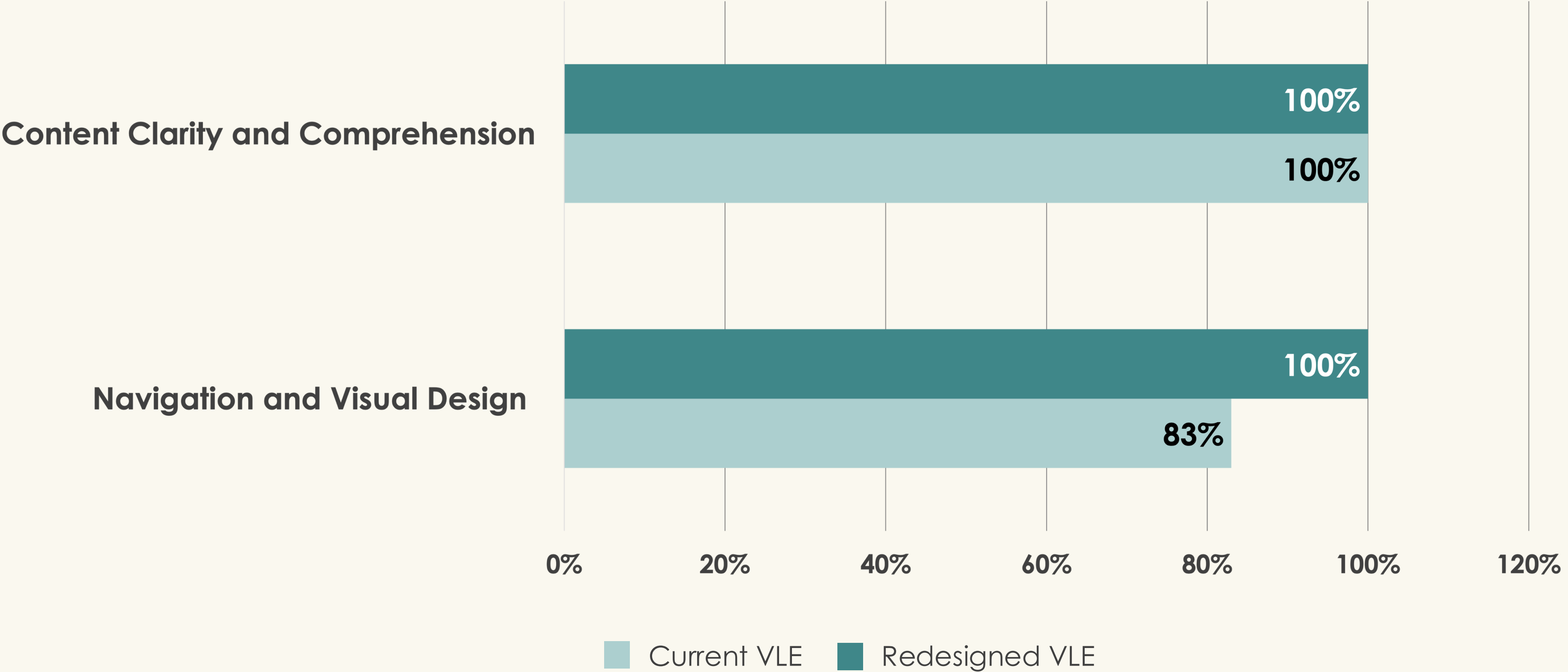
 Book Office Hours

Teaching Schedule:

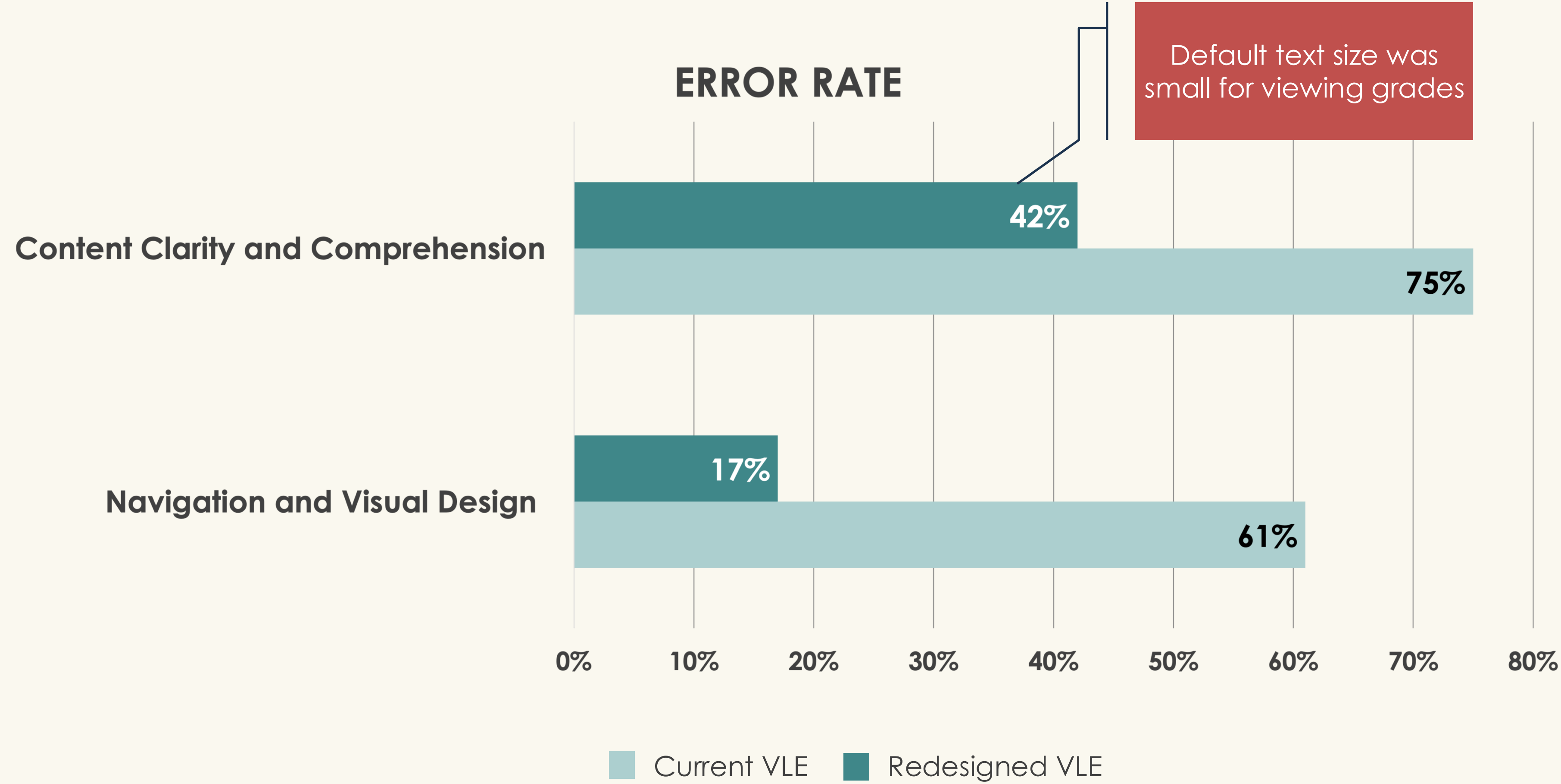
- Lecture: 2-4 pm Tuesday
- Seminar Lab Group 1:
Tuesday 5-7 PHS 314
- Seminar Lab Group 2:
Wednesday 5-7 pm PHS 314

RESULT: USABILITY TESTING

TASK COMPLETION RATE



RESULT: USABILITY TESTING

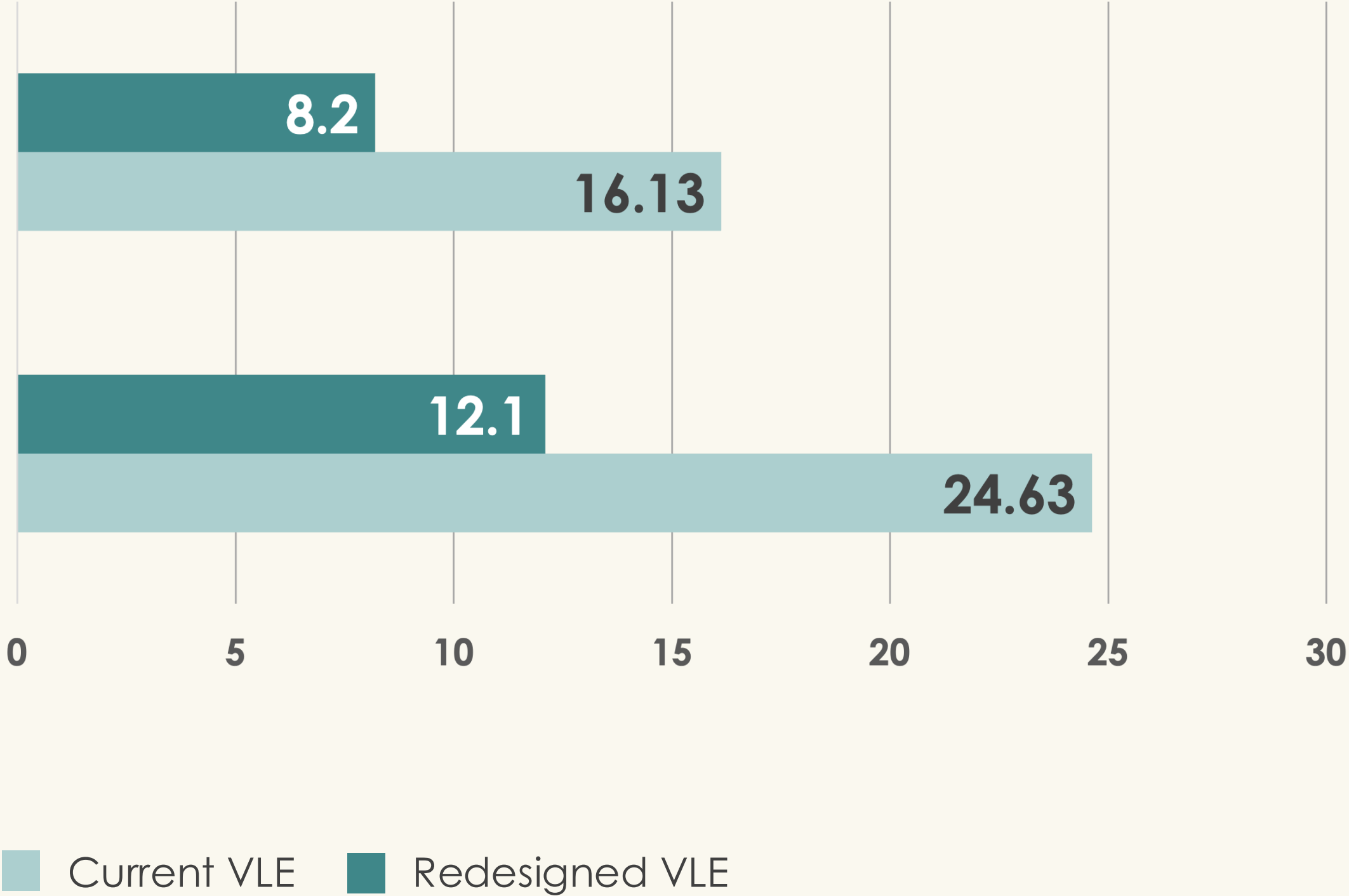


RESULT: USABILITY TESTING

TIME ON TASK (IN SECONDS)

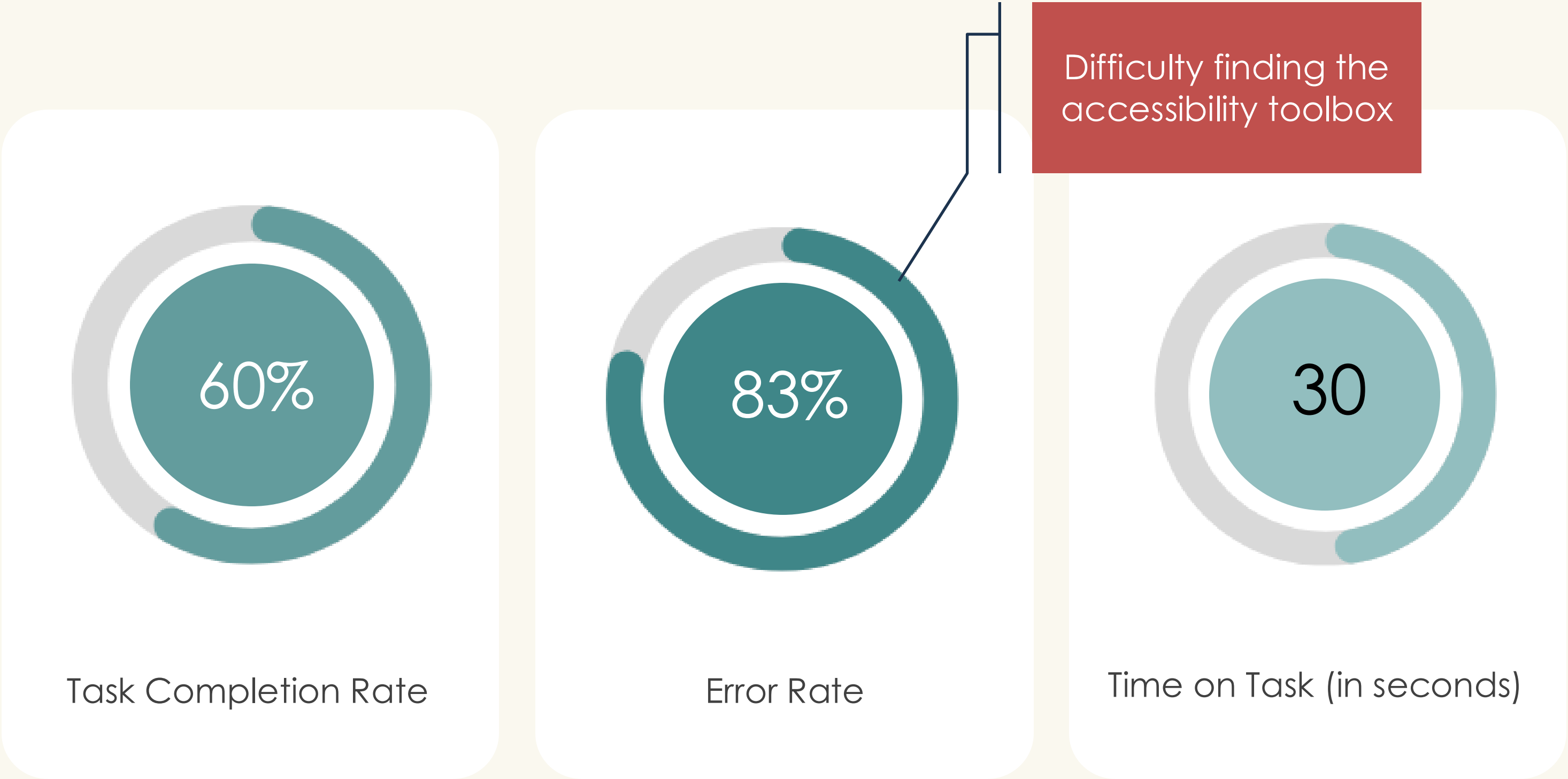
Content Clarity and Comprehension

Navigation and Visual Design



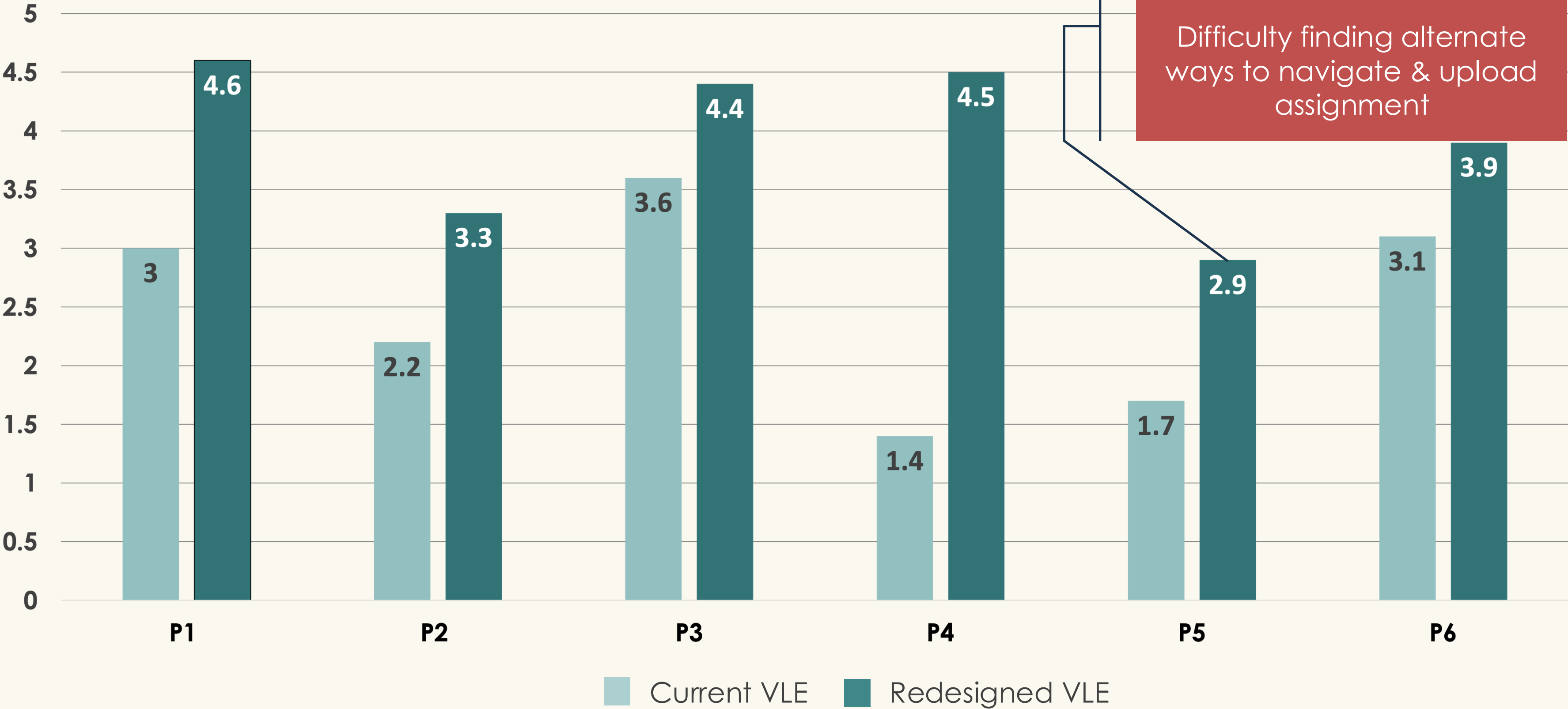
RESULT: USABILITY TESTING

Customization (Accessibility Toolbox) Rating for the Redesigned VLE



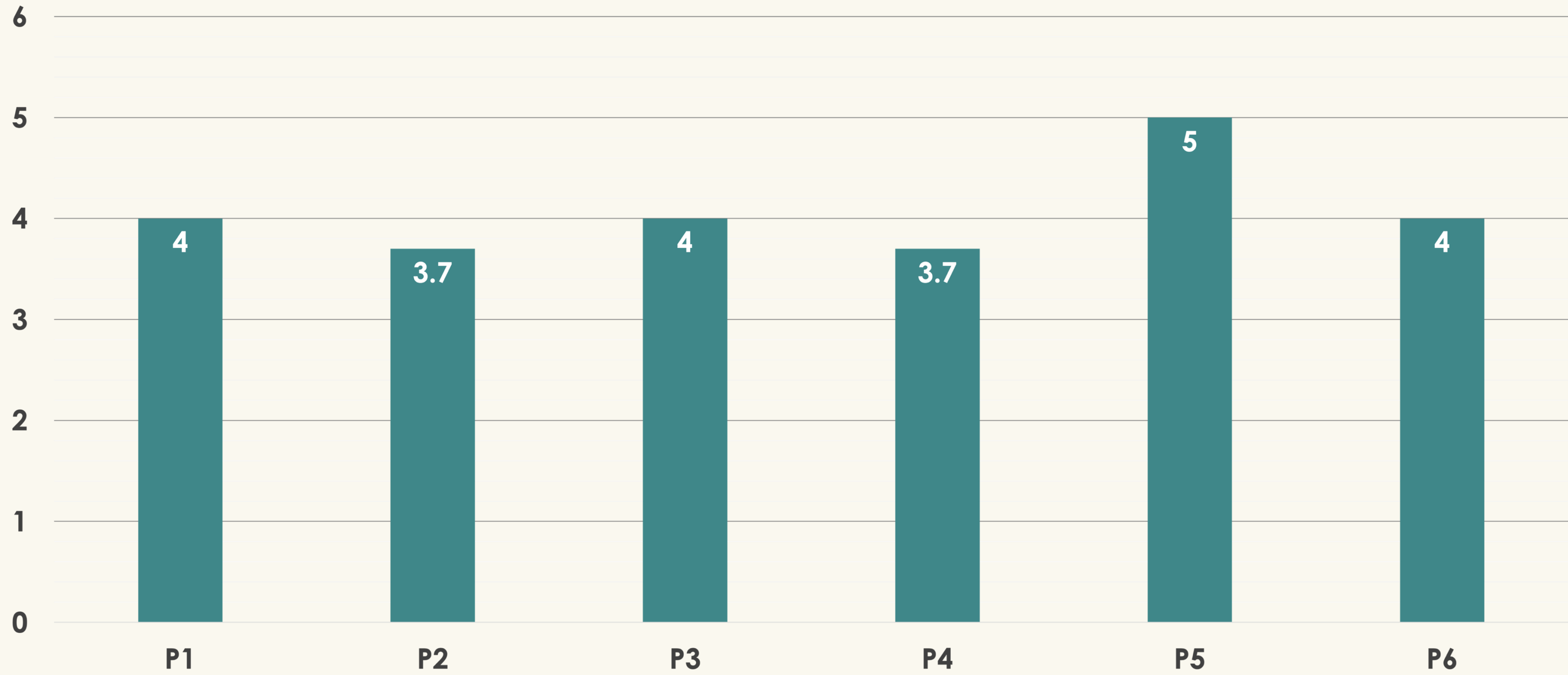
RESULT: POST-TASK SURVEY

Average Satisfaction Score: Current VLE vs Redesigned VLE

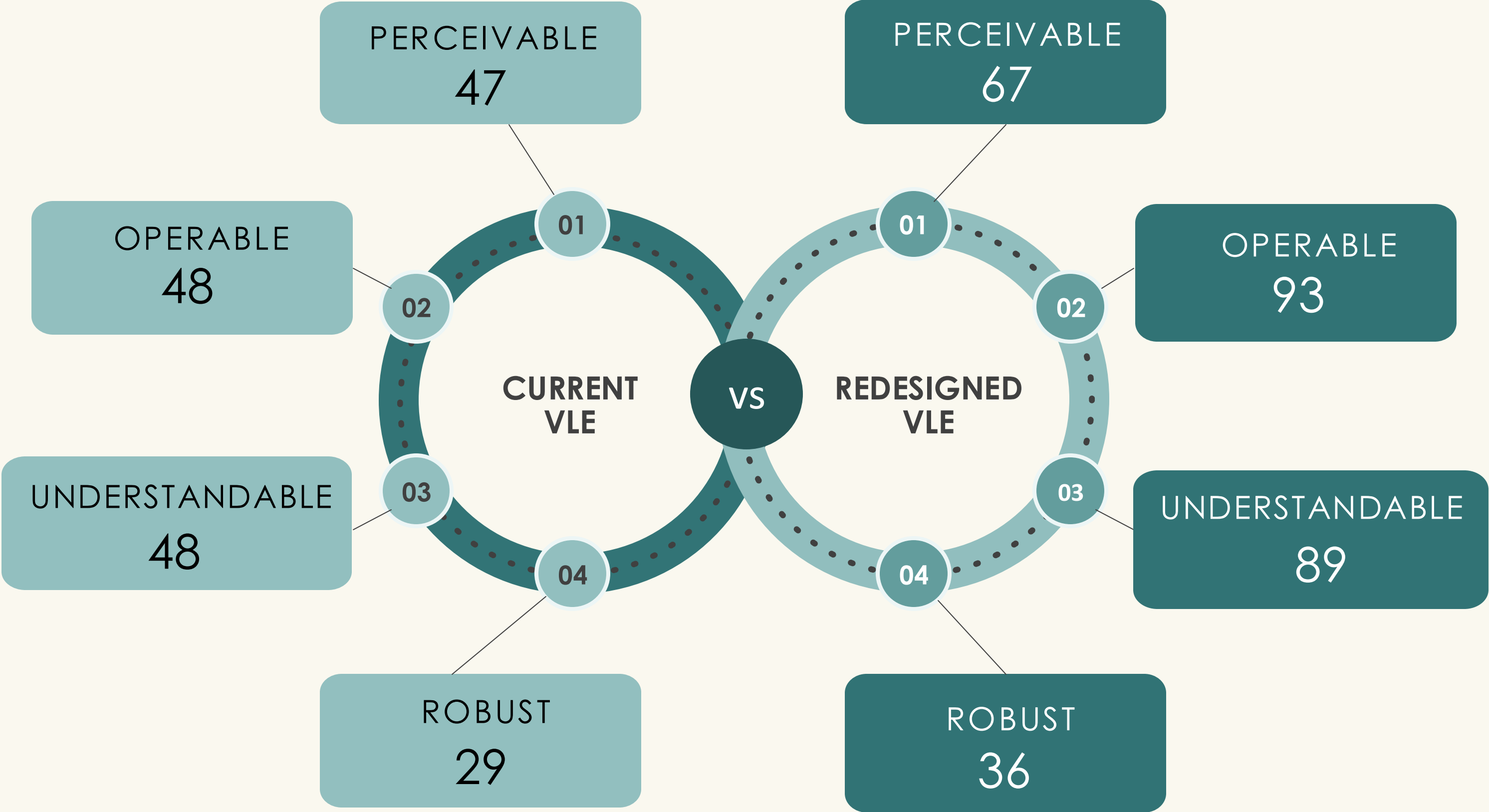


RESULT: SEMI-STRUCTURED INTERVIEW

Overall Rating of the Redesigned VLE



RESULT: WCAG COMPLIANCE SURVEY



RESULT: EXPERT REVIEW

DISABILITY EXPERT



4.5

VLE EXPERT



3.0

WHAT IS THE SOLUTION?

Guidelines



**Simplify and Streamline
Navigation**



Minimize Visual Clutter



**Strengthen Feedback
Elements**

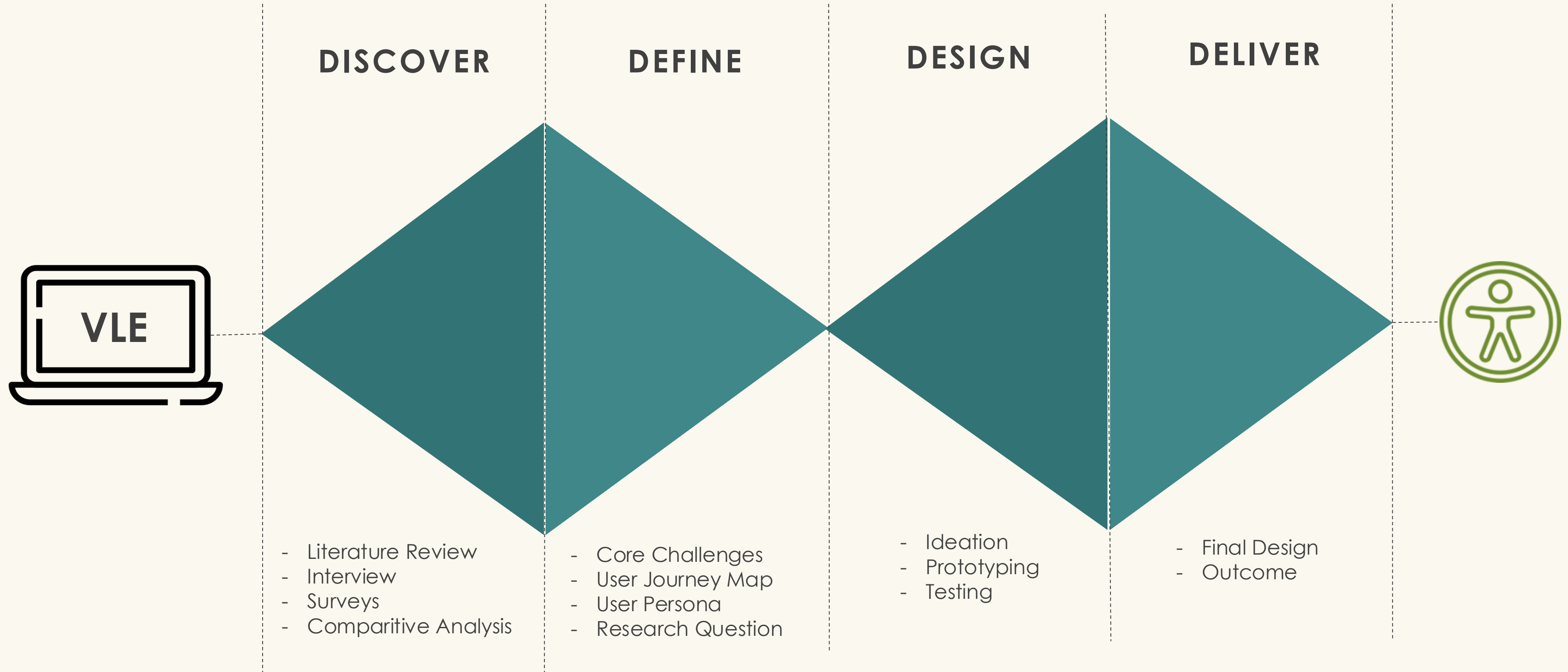


**Balance Customization
Options**



**Improve Content
Presentation**

IT'S ACCESSIBLE!



FUTURE WORK

- Inbuilt AI-driven tools that generates concise summary of lecture notes for the students.
- Personalised learning by adjusting content difficulty and format based on individual student's needs.

