

Point of Views and HWMS

Mandarin Trainer!

Team 7

Shiny Yu and Eric Bennett



Team Members



Shiny



Eric

Introduction

Problem Domain: Chinese Language Learning

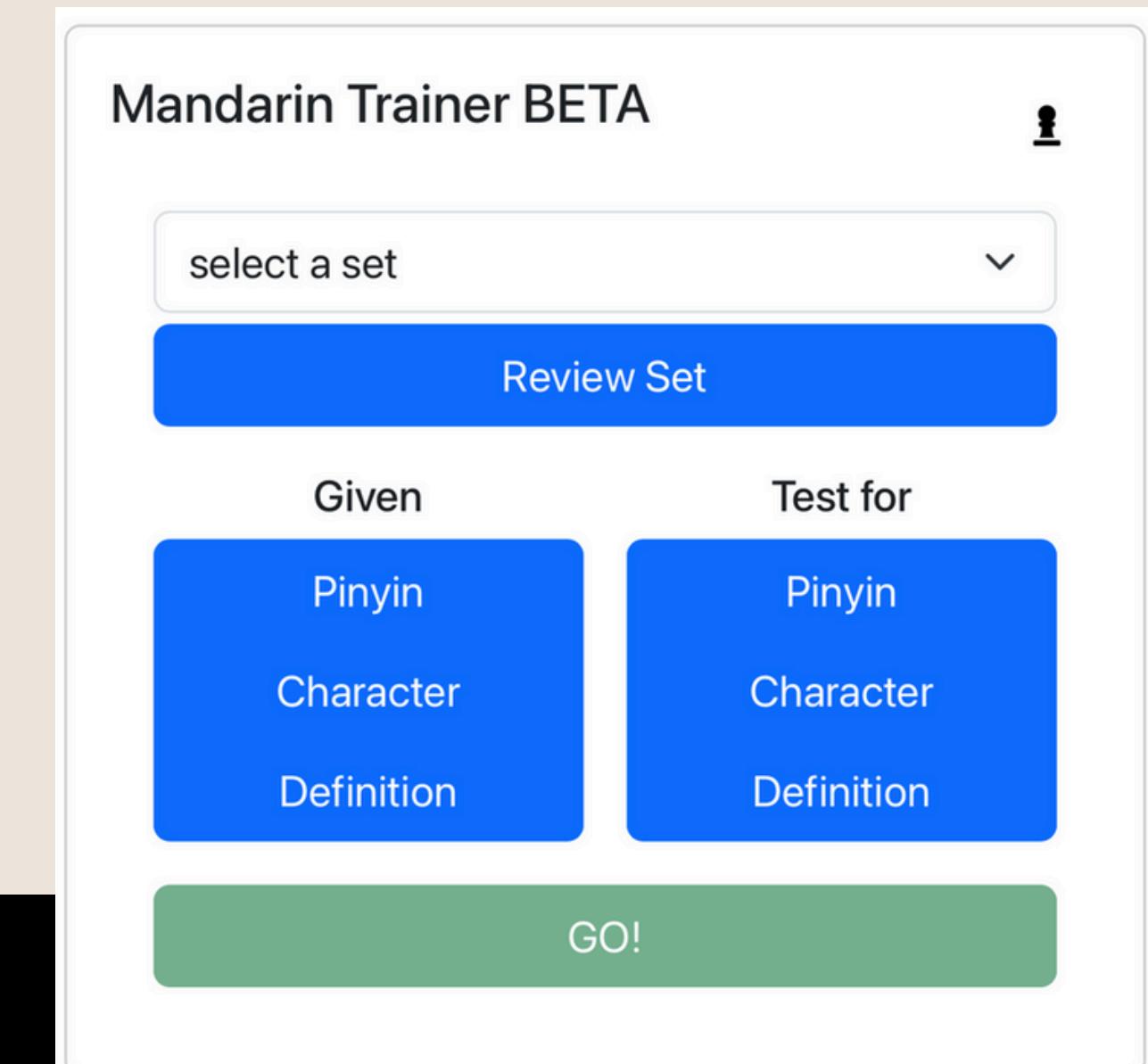
Current product: 'Mandarin Trainer'

Features:

- Multiple Choice/Free Response
- Simple SRS Learning Algorithm
- Vocab sets with 3 attributes

Limitations:

- No user profiles
- No database of vocab sets
- No learning tracking



Initial POV

We Met

Kaila, an exchange student in NTU

We were amazed to realize

despite using multiple existing study tools, she finds it frustrating to integrate pinyin, meaning, and character writing effectively

It would be game changing to

create a tool that allows users to seamlessly switch between different learning focuses (pinyin, meaning, and writing) without having to create multiple flashcard sets

Additional Needfindings

Interviewees

01 Yassine

24 years old

Male

French

French & English

Working



02 Melody

21 years old

Female

American

English

exchange in NCCU



03 Yujin

21 years old

Female

American

English & Korean



Empathy Map -says

Learning vocabulary, pronunciation, and understanding is very hard

Writing is really important, but my professor didn't require it

I wish Duolingo had better vocabulary retention and review features

It would be great to share flashcards with classmates and track progress

Grammar is easier compared to other languages

I don't really use online tools to practice Chinese characters.

Empathy Map -thinks

Learning Chinese is fun but also very time-consuming

Flashcards are useful, but creating them is repetitive

Writing is tedious, but I see its value in long-term learning

Memorizing characters is difficult but necessary

A community aspect could make learning more engaging

I wish there were a more efficient way to memorize characters

Empathy Map -does

Uses Anki flashcards but
struggles with
categorization

Writes words repeatedly
to reinforce memory

Uses Duolingo for daily
practice

Tries to categorize
vocabulary into themes

Learns characters quickly
but forgets them over time

Uses Pleco to look up
words she doesn't know

Empathy Map -feels

Frustrated by the difficulty of learning characters and tones

Limited by current tools that don't fully support writing practice

Disconnected when studying alone without interaction

Overwhelmed by the amount of vocabulary to remember

Excited about learning when using gamified tools like Duolingo

Revised POVs

Point of View 1

We Met

Yassine, who was a exchange student in Taiwan

We were amazed to realize

while using existed tools, he feel isolated because there is no easy way to share decks, track progress with friends, or compete in a fun way

It would be game changing to

design a vocabulary app that fosters collaboration, encourages sharing, and makes learning more interactive through shared flashcards, or friendly competitions

Point of View 1

-HMW

HMW make vocabulary learning more interactive and engaging with classmates?	HMW allow students to easily share flashcards and study materials with each other?	HMW create a sense of friendly competition to keep learners motivated?	HMW build a collaborative space where students can quiz and challenge each other?	HMW let learners track each other's progress and celebrate milestones together?	HMW create a system where students can contribute and improve each other's learning materials?
One-Click Share Link Users can generate a shareable link to send flashcards via messaging apps or social media	Group Mode Create shared study groups where students can collaborate on and edit flashcard sets together.	Public Flashcard Library A community-driven library where users can browse and download shared decks	Study Buddy Matching Match users with similar study goals to exchange and review each other's flashcards	Collaborative Editing Mode Multiple users can edit and improve a shared flashcard set in real-time	

Point of View 2

We Met

Melody, who is an exchange student in NCCU

We were amazed to realize

she appreciated the randomness of flashcards in Anki but also wished for a way to organize words by category for focused study

It would be game changing to

design a system that allows flexible learning—balancing structured categorization with randomized practice for better engagement

Point of View 2

-HMW

HMW allow users to categorize words while still maintaining an element of randomization?	HMW help users track their progress across different vocabulary categories?	HMW make organizing vocabulary into categories feel intuitive and effortless?	HMW allow users to switch between categorize and randomized practice modes seamlessly?	HMW incorporate AI to suggest personalized vocabulary sets based on past learning behavior?	HMW enable users to create their own categories while still benefiting from app-generated groupings?
Toggle Mode Button Add a simple toggle switch that lets users shift between category-based mode and random mode	Category-Specific Shuffle Users can shuffle within a category for some randomness	User-Controlled Weights Allow users to set a percentage split between category-based and random learning	Visual Vocabulary Map Let users see how words connect across categories, helping them transition smoothly between them	Theme-Based Randomization Group random words based on loose themes rather than fixed categories	Customizable Study Plans Users can pre-set learning plans that alternate between category-based and random modes based on their schedule

Point of View 3

We Met

Yujin, a dedicated Chinese learner who has been studying for three years

We were amazed to realize

despite using digital resources like Pleco for looking up words, she still relies on traditional handwriting methods for character memorization

It would be game changing to

design a tool that feels as natural and effective as traditional handwriting practice while integrating smart features to improve retention and efficiency

Point of View 3

-HMW

HMW convince an audience that doesn't traditionally use any tool to solve the problem

HMW integrate handwriting/stroke order practice with our tool

HMW leverage existing accepted traditional methods of practicing characters for our own tool

HMW build ensure our tool feels natural for users?

Real-time stroke order correction
AI detects incorrect strokes and provides instant feedback

Handwriting accuracy score
Users get a score based on stroke order, shape, and proportion

Daily stroke-order challenge
Users practice 5-10 new characters per day

Custom character practice
Users input words from textbooks and practice writing them

Writing quests
Users complete missions by mastering a set of radicals or characters

Summary

Summary

Key Points:

- Learners want a collaborative and interactive experience
- Flashcards feel repetitive and hard to organize
- Writing aids retention but is often neglected

Revised POVs:

- Social Learning:
Share vocab, track progress, compete
- Flexible Learning: Combine structure and randomness
- Handwriting Integration Digital tool mimicking writing



Thank You