

CS6460 Milestone 1

Hello Everyone, welcome to my presentation for comp sci six four six o milestone 1. I am on the research track and currently investigating the pivotal role of educational software in fostering student engagement within online learning. Let's get started.

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OVERVIEW

Goals:

- To demonstrate the progress I have made so far
- To get suggestions and feedback

List of Content:

- Recruitment Procedure
- Research Methodology
- Work I have Done so far

I will first go through the recruitment procedure I went through for the last a few weeks, followed by the research methodology I am planning to apply and the work I have done so far.

Recruitment Procedure

I recruited participants in two main ways:

A. is to make posts on Ed Discussion and recruit my peer students. I have tried my best to reply to whoever shows interest in my study and engage them. This slides showed a few post I made.

B. Asked my friends to help, which was designed as a backup plan but conducted because of the unforeseen changes of plan.

- Leverage Ed Discussion to Recruiting CS6460 students to participate.

CS6460 students were the most accessible potential participants to me, and I think that earning participation points for engaging in research or surveys is an effective mechanism for incentivizing participation. Here are the posts I published for this purpose:

- [Research Track - Learn a new language using Duolingo with me!](#)
 - [Participant Recruiting! Come learn a new language with me!](#)
 - [Participation points for my participants?](#)
- Virtually or physically invite friends of mine to participate.

This was originally my backup plan, and when I realized that I needed more feedback as expected from Ed Discussion, I immediately initiated this step to recruit participants simultaneously.

Unforeseen Changes of Plan

- After my recruitment of participants, several students who previously agreed to participate emailed me that they would not be able to participate anymore.
- Some also expressed their willingness to participate in Duolingo learning activities after the recruitment had ended.
- So, I decided to use the data collected since week 9 instead of week 8. which is fine coz I got extra time to work on other stuff, the final paper for example
- At the same time, this also left me some time to start drafting the Final Project Outline ahead of schedule.

in terms of the

Research Methodology

- Controlled Experiments
- 18 Participants in total which are randomly divided into 2 groups - one of groups will study the new language in a traditional way and the other group will be leveraging
- Goal: to examine the effects of interest and self-motivation on Student Engagement and Learning Outcomes in a remote learning context.
- Approach: Participants were randomly grouped into experimental and control groups

There are 2 types of data
that I mainly collect

• Data Collecting:

- Participants' weekly feedback
- Final Duolingo levels and badges

• Data Analysis: And I plan to examine those data quantitatively and qualitatively

- Quantitative
- Qualitative

Through Quantitative Analysis, I would like to assess the student engagement and evaluate students' learning outcomes.

Research Methodology - Quantitative Analysis

- Engagement Assessment

I will keep a track of if I have received weekly feedbacks from each participant and take it as an indicator to their learning engagement.

I will quantitatively evaluate the engagement levels of the experimental and control groups by examining the participants' weekly feedback, encompassing tracking how many participants in each group reduced the frequency of their learning or discontinued learning in any given week.

- Learning Outcome Evaluation

And I will take the badges as the final learning outcomes

I will quantitatively assess the participants' final Duolingo levels to gauge the extent of their learning outcomes.

Weekly feedbacks is not just about Engagement, but also helps me understand participants' learning process.

Research Methodology - Qualitative Analysis

By reading through their feedbacks, I can have a better understanding of how they progress week by week and see if I will have any interesting findings in their self-reflection

- Understanding Learning States

I will delve into understanding the participants' evolving learning states by collecting weekly feedback from participants. This qualitative aspect will focus on identifying the obstacles and challenges encountered by participants during their learning journey.

- Reflection and Discussion

towards the culmination of the study in week 15, I will invite participants to reflect on their overall learning experience and encourage them to raise any noteworthy points they believe are worth discussing in the future. This qualitative input will enable me to gain deeper insights into their perspectives, potentially shedding light on the future direction of Educational Technology.

Now moving forward to the

Work I have done so far

- Participant Recruitment and Engagement
- Data Collecting
- Final Paper Outlining

Participant Engagement

Sent Items ☆		☐ Select
To	Subject	Sent ▾
Today		
Enders, Lauren; B...	CS6460 - Daily Language Learning Re...	Sat 10/21
Yesterday		
Enders, Lauren; B...	CS6460 - Weekly Feedback Reminder 🕒	Sat 10/21
Enders, Lauren; B...	CS6460 - Daily Language Learning Re...	Sat 10/21
This week		
Enders, Lauren; B...	CS6460 - Daily Language Learning Re...	Sat 10/21
Enders, Lauren; B...	CS6460 - Daily Language Learning Re...	Sat 10/21
Enders, Lauren; B...	CS6460 - Daily Language Learning Re...	Sat 10/21
Enders, Lauren; B...	CS6460 - Daily Language Learning Re...	Sat 10/21

- As planned, I sent participants daily learning reminders for the first two weeks and weekly feedback reminders to reflect on the previous week.
- This is to help participants get on board and get used to the rhythm of learning a new language in the early stages.

Data Collecting

As of this writing, I have created Excel spreadsheets for confirmed participants (18 total) to track their status and contact information and I will convert those into better charts later on. have been collecting weekly feedback for two weeks.

First Language	Suggested Language	Onboarded?	Weekly Feedback	Weekly Feedback
English?	Japanese	✓		
Telugu		✓		
English	Japanese	✓		
English	Japanese	✓	✓	✓
English	Japanese	✓	✓	✓
Russian	Japanese	✓	✓	
English?	Japanese	✓	✓	✓
Kannada	Japanese	✓		
English	Japanese	✓	✓	✓
English	Japanese	✓		
English		✓		
Hindi	Japanese	✓		✓
English? Mandarin?	Japanese	✓	✓	
Chinese	Russian	✓		
Chinese	Russian	✓		
Cantonese?	Arabic	✓	✓	✓
Chinese	Russian	✓	✓	✓
Chinese	Arabic	✓		

Final Paper Outlining

The outline shown will be gradually refined while my research dives more profoundly, and for now, it only represents my current understanding of the project.

[this is an initial version and will be refined later on.](#)

- ✓ 1 Introduction
 - 1.1 Background
 - 1.2 Project Overview
- ✓ 2 Methodology
 - 2.1 Research Design
 - 2.2 Data Collection
 - ✓ 2.3 Data Analysis
 - 2.3.1 Quantitative Analysis
 - 2.3.2 Qualitative Analysis
- ✓ 3 Results
 - 3.1 Student Engagement
 - 3.2 Learning Outcomes
- ✓ 4 Discussion
 - 4.1 Critique
 - 4.2 Future Work
- 5 Conclusion
- 6 References

Challenges

Despite being only two weeks into my research, I was only able to receive Weekly Feedback from roughly half of the participants, and while I probably knew that this phenomenon seemed very much in line with the reality of remote learning, I was likewise more concerned that I didn't have enough data to conduct the final analysis - after all, I didn't have a very large number of participants per se.

- I am not sure if I should go for an intervention for more data but the intervention itself will bring biases to my study.
- Or maybe I just let the participants go with the flow and draw conclusions based on the small amount of data.

Suggestions needed here.

The End

If you have any questions, please email me at
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Thanks for your attention!