

Group 06's Project Proposal

1. Team Members

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2. Introduction

2.1 Brief Description of the Idea

VocaBoost is a web application designed to enhance English vocabulary learning through the scientifically proven **Spaced Repetition** method combined with flashcard, fill-in-the-blank, word association, etc.

The platform makes vocabulary acquisition more accessible, effective, and convenient by providing users with personalized learning experiences. The application adapts to each user's learning pace and retention rate, optimizing review intervals to maximize long-term memory retention, making it effective for both individual learners and classroom environments.

2.2 Reason for Development

Based on our market research with 40 respondents through a comprehensive online survey, we identified critical gaps in current vocabulary learning approaches:

- **77.5% of learners forget vocabulary quickly**, with 35% forgetting within a week and 25% within 1-2 days
- **Only 10% find their current methods very effective**, while 62.5% find them only somewhat helpful
- **42.5% have heard of Spaced Repetition but never applied it**, indicating a gap between awareness and implementation

These findings validate the need for VocaBoost as a solution that:

- Implements scientifically-backed **Spaced Repetition** methodology in an accessible way
- Provides structured, effective learning methods for users who currently lack direction
- Supports both personalized and structured learning, suitable for diverse learners

3. Target Users and Environments

3.1 Target Users

Our survey revealed clear user segments:

- **Students and Self-directed Learners (85% of respondents):** The primary user base seeking effective vocabulary learning methods
- **Individual Learners (90% of respondents):** Users studying independently who need structured guidance and motivation
- **Time-Constrained Individuals (37.5% cite time as a major challenge):** People who need efficient learning methods that fit into busy schedules
- **English Teachers (10% of respondents):** Educators facing challenges with student retention (78.6% report students forget quickly) and engagement (64.3% report lack of student interest)

3.2 Environments

- **Web Application:** Accessible via standard web browsers on any operating system.
- **Cross-Platform Synchronization:** Seamless transition between devices with progress tracking.

4. Key Features

Based on our survey findings, we've prioritized features that directly address user pain points:

All actors

- Login, sign up, log out, change password, edit profile information
- Simple, Intuitive Interface (82.5% rated as most important).

Admin

- Approve, deny the account requested to be a teacher, request to change information.
- Delete or suspend accounts, lists that violate the rules of the website.
- Send notifications to the account through notification interface, email.

Teacher

- Create new vocabulary lists and edit, delete existing lists.
- Create classrooms, add and delete learners, view list of learners in classroom.
- Add, delete vocabulary lists to classrooms.
- Receive notifications from learners.

- View the practice outcome of learners.

Learner

- Create a new vocabulary list and edit, delete existing lists.
- Using flashcards, fill-in-blank, and association to study.
- View a vocabulary study section that they need to revise today by using spaced repetition method.
- View latest study sections being accessed before.
- Search and follow a vocabulary list which is public by other learners.
- Join class and receive notification from the teacher.
- Access vocabulary lists that are available in the classroom.
- Create folders that store vocabulary lists which are the same subject.
- Having their own library to store their sections, folders and classrooms.
- AI generate example sentence help out learners to understand meaning of vocabulary (62.5% highly desired)

5. User Research Documentation

We conducted comprehensive market research through a survey to validate our concept and understand user needs. The survey collected responses from 40 potential users including students, working professionals, and English teachers.

Survey Details

- **Survey Form:** <https://forms.gle/75xkdGJ74A2eP1bW6>
- **Survey Results:** https://drive.google.com/drive/folders/1PhZDBxIshih2EatYiuf71M4Y4eV4wq5P?usp=drive_link
- **Number of Respondents:** 40 participants
- **Target Audience:** English learners and teachers

To better understand user needs, we conducted in-person interviews with 4 randomly selected participants from our 40 survey respondents. Below is a summary table of the face-to-face interviews:

Name	Background	Key information
Nguyễn Gia Huy	<ul style="list-style-type: none"> - University Student - 20 years old - Limited English skills 	<p>Purpose of learning English: Fulfill university graduation requirements and advance in the IT field, where English is vital for documentation and communication.</p> <p>When & where + challenges: Studies at home each evening due to a packed</p>

		<p>daytime class schedule and heavy assignments. Faces limited study time, rapid loss of motivation, and frequent breaks in consistency.</p> <p>Learning methods & tools: Listens to English podcasts nightly. Uses mobile apps like Duolingo and For English.</p> <p>Comments on those tools: Useful for basic proficiency but inadequate for exam preparation. Hampered by excessive ads, locked features, poor reminders, and forgetting content within 3–4 days.</p> <p>Knowledge of Spaced Repetition: Familiar with the method and has tried it, but discontinued due to organizational challenges and perceived low effectiveness.</p> <p>Desired app features: Automatic flashcard creation and peer sharing from custom vocab lists. A dashboard with progress charts and adaptive reminders. Gamified review activities. A simple, youth-focused UI with bright colors. AI-generated example sentences and contextual usage.</p>
Nguyễn Anh Thư	<ul style="list-style-type: none"> - Office worker - 23 years old - Current English level: B2 	<p>Purpose of learning English: For work purposes, communicating with foreign clients and partners, handling English documents</p> <p>Current challenges: Lack of time for regular vocabulary review and often forgets vocabulary after 3-4 days</p> <p>Learning methods & effectiveness: Uses flashcard apps on phone but still finds it not very effective, usually forgets words after 3-4 days</p> <p>Current English learning apps: Have too many ads & locked features</p> <p>About SR: Knows about Spaced Repetition but hasn't applied it due to busy work schedule, cannot organize review frequency by herself</p> <p>Desired app features: Effective vocabulary learning method; requires simple interface with attractive colors</p>
Hồng Hoa	<ul style="list-style-type: none"> - Freelance English teacher - 47 years old - Holds a Bachelor's degree in English Language Teaching. Has experience teaching students from grade 1 to 	<p>Main Teaching Goal in Vocabulary: Help students pronounce words correctly, understand their meanings, use them in proper contexts, and apply them correctly in full sentences</p> <p>Biggest Challenges in Teaching Vocabulary: Many English words have difficult pronunciations</p>

	grade 12.	<p>that require careful guidance. Students tend to forget new vocabulary easily, so finding long-term memory strategies is essential.</p> <p>Current Tools in Use: Easy Class, which provides interactive images to assist in vocabulary retention.</p> <p>Most Desired Feature in a Vocab App: The ability to automatically generate example sentences for each word to help learners understand usage in context.</p> <p>Key factors for the app: Simple and intuitive interface, smooth performance, friendly user experience and high interactivity</p> <p>About SR methods: Aware of Spaced Repetition and agrees it is effective. However, it emphasizes that consistent discipline is critical to making it work.</p>
Trần Dương Hải Thượng	<ul style="list-style-type: none"> - Teaching Assistant at an IELTS training centre - 20 years old - IELTS band score: 8.0 - Has experience teaching highschool and university students 	<p>Main Teaching Goal: Ensure students internalize new vocabulary—to understand meanings, pronounce correctly, and apply words fluently in speaking and writing (e.g., conversations or reports).</p> <p>Biggest Challenges: English vocabulary is often dry and complex; long words and unpredictable phonetics make lessons unengaging, and students quickly forget without strong memory strategies.</p> <p>Current Tools in Use: Manages vocabulary lists in Excel, but finds this format fails to capture students' interest or drive retention.</p> <p>Most Desired Feature: Contextualized word presentation—integrating images, example dialogues, or brief scenarios to make vocabulary more vivid and memorable.</p> <p>Key App Factors: Simple yet balanced UI (neither too basic nor overwhelming), intuitive navigation, smooth performance, and high interactivity to sustain student engagement.</p> <p>About Spaced Repetition: Familiar with the method and its benefits; stresses that consistent discipline and automated reminders are essential to maintain review schedules.</p>

Key Findings Summary

Based on our survey results:

1. **82.5% of users forget vocabulary within a month** - validating the need for systematic retention solutions
2. **Only 10% find current learning methods very effective** - indicating significant room for improvement
3. **Despite 62.5% of interviewees being aware of the Spaced Repetition method, 68% of them don't use it** - showing an implementation gap that VocaBoost can address
4. **Top requested features:** Simple interface (82.5%), AI-generated examples (62.5%), and smart reminders (62.5%)
5. **Teacher challenges:** 78.6% report students forget vocabulary quickly, 64.3% face lack of student interest

The survey results strongly validate the market need for VocaBoost as an accessible, effective vocabulary learning platform that implements spaced repetition methodology with user-friendly features.

For detailed analysis and complete survey data, please refer to the linked documents above.