IMPORTANT: Please do not submit this Google Doc as your final proposal. This is just a framework to help you to organize your thoughts and to ensure that you have everything that you need when you write your final proposal. You CAN present the data that you intend to collect as a bulleted list, but please DO NOT copy my table headings (for example, in YOUR proposal each data item will either have units or a scale, not both, and something called "additional information" would look vague in a proposal – you'd just want to state the information without that label!)

## **Hypothesis:**

use of spaced repetition
As <u>(versus massed practice)</u> [increases/decreases], <u>24-hour delayed vocabulary</u> recall [increases/decreases].

## **Objective Data:**

Data To Be Collected	Units or Scale	Expected Range of Values	Collection Frequency or Times	Collection Method	Additional Information (Specifics!)
Date & Time	Hour	7am-10pm			
Study time	Minutes	~0.5–60	Per study session	Timer/app logs	Only active study time (exclude test).
Error count	Count	0-20	Per recall	Count of non-target words	Record intrusion type if possible.
Delayed recall correct count	Count	0-20	24 hrs after study (per trial)	Free recall test, 2-min timed Target list	20 words; only exact matches scored.

## **Subjective Data:**

Data To Be Collected	Units or Scale	Expected Range of Values	Collection Frequency or Times	Collection Method	Additional Information
Self-rated recall confidence	Scores 0–10	0-10	After each recall	Self-rating immediately post	Compare confidence with accuracy; note distractions

The primary goal of this project is to compare the effectiveness of different memorization strategies on vocabulary retention measured after 24 hours. I will quantify both learning outcomes (immediate and delayed free-recall scores) and the time-cost of each method so I can evaluate trade-offs between efficiency and long-term retention. Secondary goals are to track error patterns (intrusion errors) and to assess subjective confidence in recall, which may reveal metacognitive differences between methods. Ultimately I want to identify which strategy (or strategies) give the best retention per unit study time for future language-learning practice.