VOCAB SUMMIT

When Learning Becomes a Mountain You Want to Climb

Motivation by Design in Self-Directed Learning

Chun Kai Xin . HOD/MTL . 26 August 2026



Vocabulary is the building block of language

It has to be learned by repetition. Our students resist this mode of learning.

NO CHOICE

"I'm forced to learn MTL."

NO SUCCESS

"I keep doing badly in MTL."

NO COMMUNITY

"No one close to me uses MTL out of class."

What makes a student choose to practise

MOTIVATION FRAMEWORK — SELF-DETERMINATION THEORY

Autonomy

I have real choices here.

Competence

I can see myself getting better.

Relatedness

I'm not doing this alone.

The question was never "how do we make vocabulary fun"

IT WAS THREE OTHER QUESTIONS

1

How would our students feel in charge?

2

How do we let them know they are succeeding, regularly?

3

How do we make them feel part of a learning community?



CLIMB ALONG WHILE I TALK

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Key Pedagogical Strategies

PUBLISHED RESEARCH AND OPEN TEACHING RESOURCES

Gamification

Game elements are not effective in themselves. Different elements satisfy different psychological needs — competence, autonomy, relatedness.

Sailer & Homner, 2020
The gamification of learning: a meta-analysis. *Educational Psychology Review*
doi.org/10.1007/s10648-019-09498-w

Sailer, Hense, Mayr & Mandl, 2017
How gamification motivates: game design elements and need satisfaction. *Computers in Human Behavior*
doi.org/10.1016/j.chb.2016.12.033

Spaced retrieval

Retrieving a word from memory, after a delay, is one of the most reliable ways to make it stick.

Dunlosky et al., 2013
Improving students' learning with effective learning techniques. *Psychological Science in the Public Interest*
doi.org/10.1177/1529100612453266

Nakata, 2015
Effects of expanding and equal spacing on L2 vocabulary learning. *Studies in Second Language Acquisition*
doi.org/10.1017/S0272263114000825

Agarwal et al., ongoing
Retrieval Practice — research summaries for teachers
retrievalpractice.org

A word is not simply known or unknown. Each encounter grows a different aspect of word knowledge — form, sound, meaning, use.

Webb, 2007
The effects of repetition on vocabulary knowledge. *Applied Linguistics*
doi.org/10.1093/applin/aml048

Vocab Summit runs various modes over the same word list, asking learners to demonstrate understanding of the vocab item in different aspects

BEHIND THE PLATFORM

Built and run with five tools

One teacher, no vendor

Claude Project

Design decisions, pedagogy notes and word lists kept in one place

Claude Code

Writes and edits the platform code directly in the repository

ChatGPT

Second opinion on item wording and question variety

GitHub

Version history, so any change can be undone

Firebase

Hosting, student sign-in and progress data

KEEN ON THE SETUP

Come find me after the session and I will walk you through it.

How Vocab Summit fills each gap

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Autonomy

EVERYTHING IS A CHOICE

- Which climber to play as
- Learn mode or game mode
- Which words, and when
- How to build up their camp
- Which powerups to spend on

Competence

PROGRESS YOU CAN SEE

- Experience points that never fall
- A badge per chapter component
- Currency earned by practising
- Height gained up the mountain

Relatedness

NOBODY CLIMBS ALONE

- Classroom climbs, started by the teacher or by the students themselves
- Peer challenges between friends
- Leaderboards and placing badges

AUTONOMY

Choosing your climber

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Free at registration



Twelve zodiac climbers. Every student picks one, free. Nothing is assigned.

Bought with what you earn



Five story climbers, priced 300 to 600 in a currency that only comes from practising and winning.

Hard-earned rewards



Four mythic beasts, at no price at all. One is released for each annual trial cleared, Sec 1 through Sec 4.

Two ways up, chosen by the student

Learn mode

- No frills self-study
- Own pace, no clock, no score
- Words and meanings only

Game mode

- For students who learn better through fun
- Same words, met in challenges and races
- Switch across at any time

Students also determine their own learning scope every time they use the web app.

COMPETENCE

Progress that can only go up

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Experience points are never deducted. Wrong answers don't cost progress.

ONE BADGE PER CHAPTER COMPONENT



Everyday life



Core



Consolidation



Advanced



Culture

Badges are earned by completing all the vocab learning of the component.

Powerups to taste more success

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One extra life

Tanghulu · candied hawthorn



Combo shield

Youzhisan · oil-paper umbrella



Freeze the clock, 5s

Dingfengzhu · wind-stilling pearl



Eight more seconds

Tonghudilou · bronze water clock



First mistake doesn’t count

Huxi · knee guard



Remove one wrong option

Sinan · south-pointing compass



A random item

Jinnang · brocade pouch

Every one of these is bought with game currency the student earned by practising.

COMPETENCE

One design, every stream

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3,889 vocabulary entries across all five areas — G1, G2, G3, HCL and the beginner pier

The same motivation design serves the students across all readiness.



Climbing together

LIVE LEADERBOARD



- Classroom mode, initiated by teachers
- Peer challenges, initiated by students
- Badges earned via securing placing



Q&A

Let's chat!

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