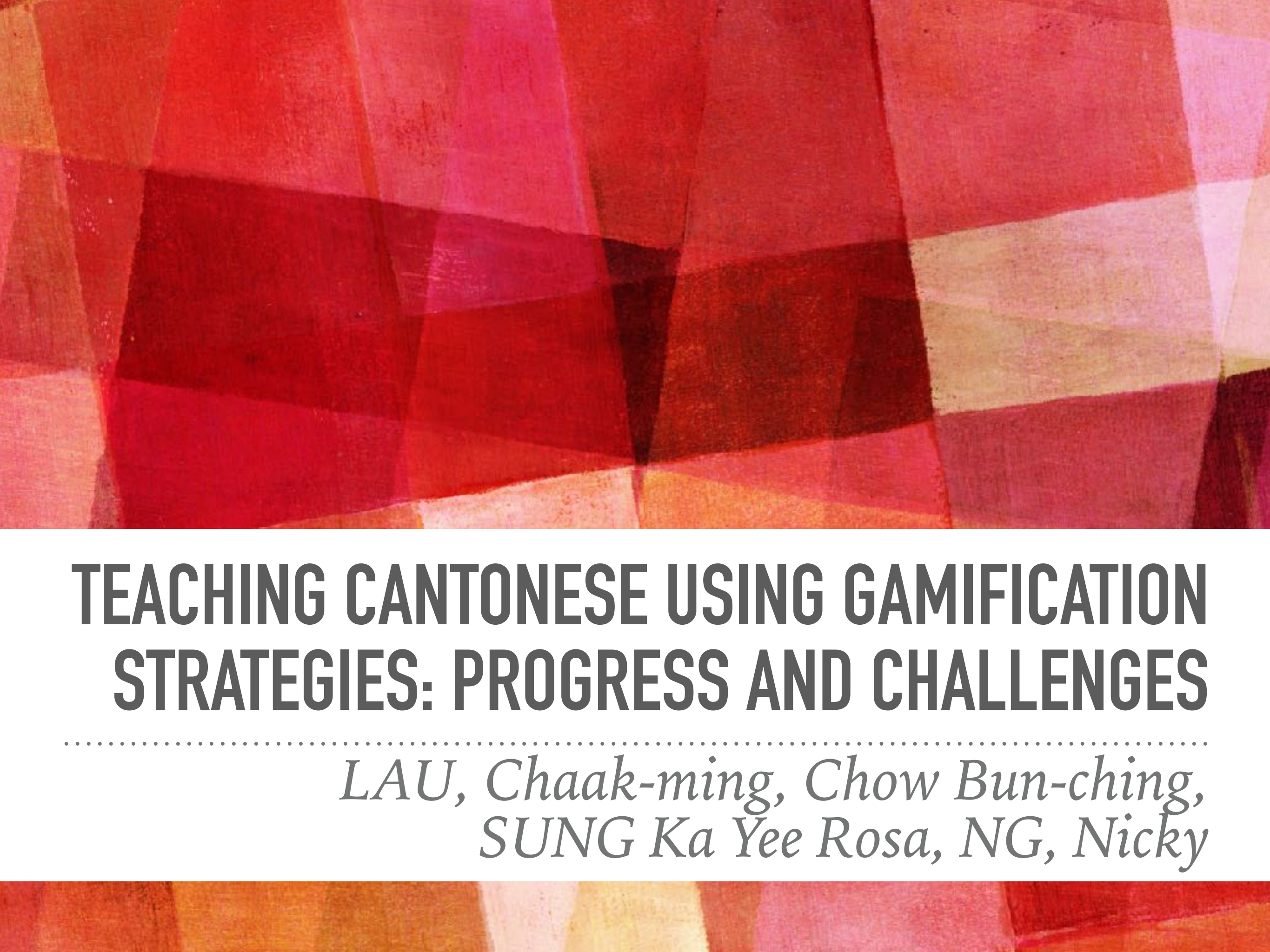




TEACHING CANTONESE USING GAMIFICATION STRATEGIES: PROGRESS AND CHALLENGES

*LAU, Chaak-ming, Chow Bun-ching,
SUNG Ka Yee Rosa, NG, Nicky*

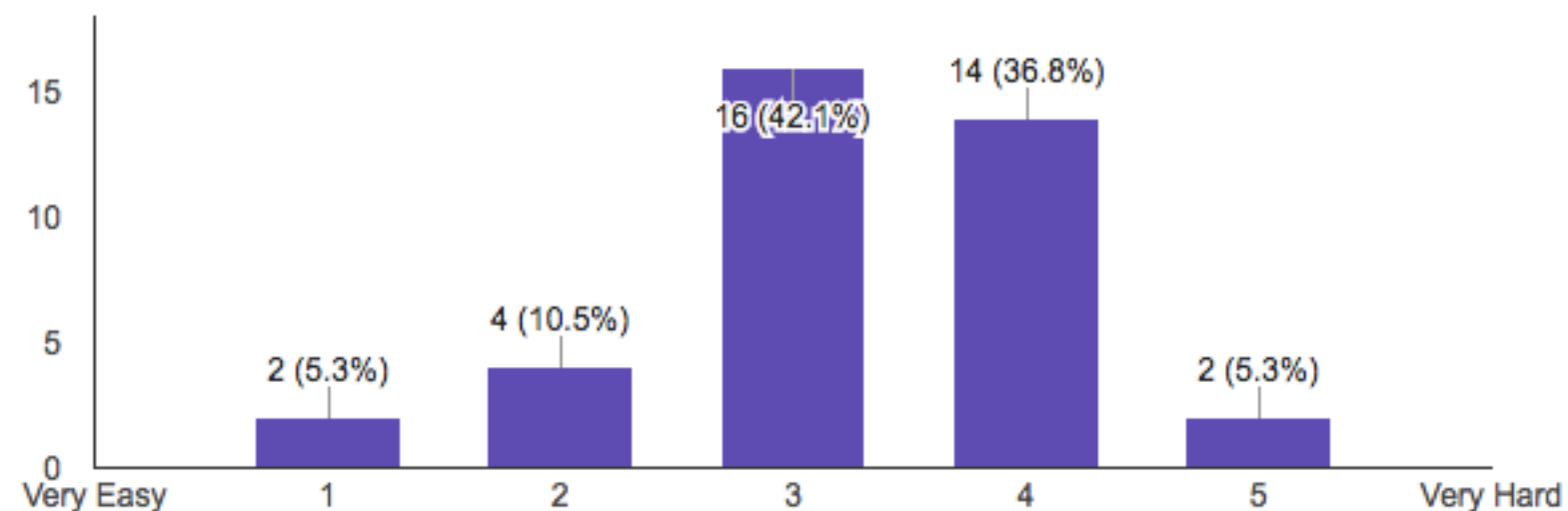
OUTLINE

- CantoSounds - the project
- Trial round (2015 2nd Semester)
- Data and Analysis
- Issues

THE CantoSounds PROJECT

- Why?
 - Pronunciation and Romanisation are crucial
 - Diversified needs in class
 - Absence during add / drop period

Do you find Cantonese pronunciation hard? (38 則回應)



THE CantoSounds PROJECT

- What?
 - a simple gamification platform
 - scores and level system (Badge system not yet released)
 - planned to be used as flipped classroom materials
 - available on demandesktop and mobile (responsive design)

<http://cantonese.hku.hk/cantosounds/>

login: citers

password: a

LANDING PAGE

.....

CantoSounds

 Home

 Contents

 Learn ▾

 Check

 Logout

Welcome!

CantoSounds is a complete online pronunciation course designed by the Chinese Language Centre of the University of Hong Kong for Cantonese learners. In this online course, you will learn about Cantonese romanisation and individual Cantonese sounds, with plenty of recordings, videos, exercises and games.

Enjoy!

Start Learning Now!

You can learn new sounds and earn marks by clicking on "Content" or "Learn". If you have any questions, please contact us by email (cantosounds@gmail.com).



Citers 2016

11 points
Newbie

Contents



Learn



Check



SCORES AND LEVELS

- You can get scores by
 - playing a video
 - clicking on images (to listen to the sounds)
 - doing a quiz

Profile



Citters 2016

11 points
Newbie

List of Levels

Expert 1001 - 9999

Advanced 501 - 1000

Apprentice 101 - 500

Newbie 0 - 100

CONTENT

- A list of sounds for students' easy reference

Contents													
Finals													
	aa 🎧		a	e 🎧		i 🎧	o 🎧		u 🎧	oe 🎧		eo	yu 🎧
	L	S		L	S	L	S	L	S	L	S	L	
-i	aa <i>i</i> 🎧	ai 🎧			ei 🎧			oi 🎧		ui 🎧			eo <i>i</i> 🎧
-u	aa <i>u</i> 🎧	au 🎧				iu 🎧			ou 🎧				
-m	aa <i>m</i> 🎧	am 🎧				im 🎧							
-n	aa <i>n</i> 🎧	an 🎧				in 🎧		on 🎧		un 🎧		eon 🎧	yun 🎧

LEARN

CantoSounds

Home

Contents

Learn -

Check

Logout



Citers 2016

11 points

Newbie

5. Long Finals

Diphthongs | aai | oi | ui |
aau | iu | Nasal Endings |
aam | im | aan | in | on | un
| yun | aang | eng | ong |
oeng | Stop Endings | aap |
ip | aat | it | ot | ut | yut |
aak | ek | ok | oek |

aai

aai [aɪ]

English (BrE): aisle

This final is made by combining the vowel **aa** and **i** sound. This is like the word **hi** or the letter **i** or the word **aisle** in English. The **i** sound here is very short if you compare that to the length of the **aa** part.



Click on the picture and mimic the sound!

Big.

dāai⁶



Street.

gāai¹



Shoes.

hāai⁴



CHECK



Citers 2016

11 points

Newbie

Check

Picture to Jyutping Quiz |
Long versus Short quiz |
Nasal endings quiz | Stop
endings quiz | Aspiration
quiz | Tones quiz |

Picture to Jyutping Quiz

1. Question

Pot.



b ou 1

2. Question

Dry.



g _ 1

3. Question

Cicada. A noisy insect.



im4

OTHER ONLINE ACTIVITIES

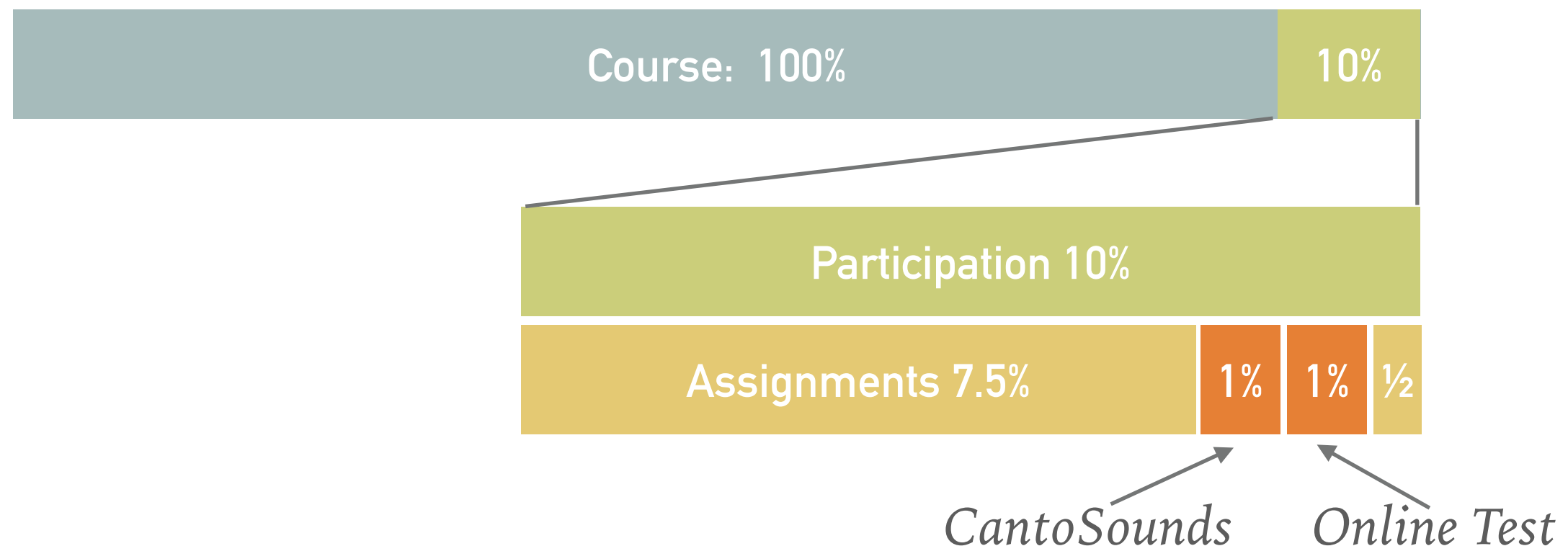
- Flashcards on [Quizlet](#)
 - vocabulary list for each lesson
 - a convenient study tool
(which is essential for the spelling task)

STUDENTS

- Demographics (self-reported on CantoSounds)
 - Mandarin - 35
 - English - 23
 - Korean - 20
 - Misc. - 16
- Background
 - Undergraduate students from Level 1 (CHIN9511) or Level 2 (CHIN9512), Graduate School (GS1402), Cantonese courses at HKU.
 - Absolute beginners or beginners

INSTRUCTIONS TO UG STUDENTS

- If you achieve the highest level on CantoSounds (i.e. 1000pts / Expert), you will get this one mark for your participation.
- If you finish a separate online test with a score higher than 60%, you will get another mark.



DATA

- **CantoSounds** logs we kept from Feb 2016 to May 2016
 - actions performed by students are logged
 - 91 students participated
- Survey results from CHIN9511
 - 37 responses out of 71 enrolled students

QUESTIONS

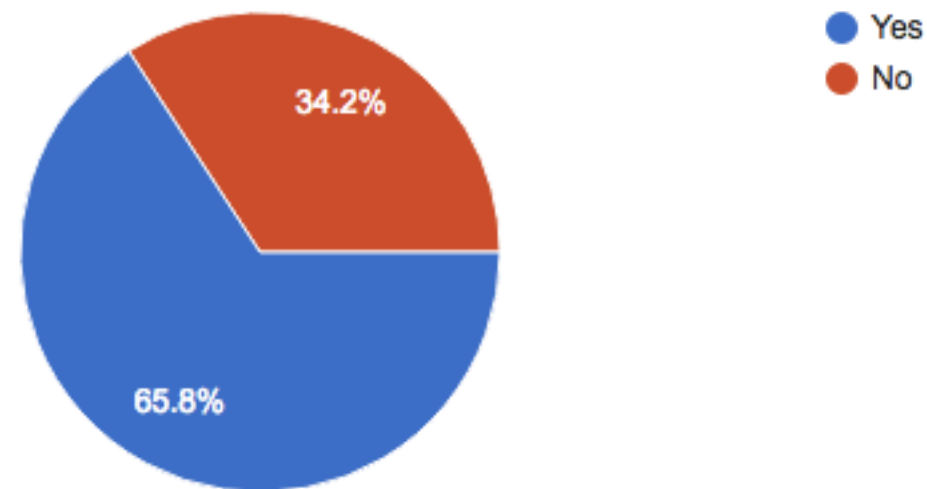
- Are these tools helpful?
- Can students really be motivated by gamification platforms?

ANALYSIS

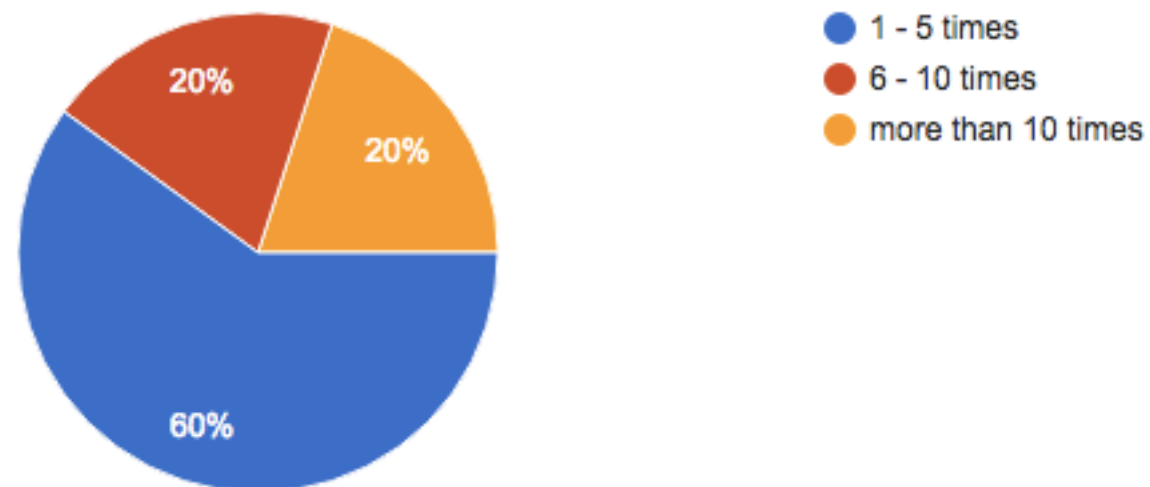
- Question 1 - Usefulness
 - Usage Report
 - Correlation between CantoSounds score and grades
 - Correlation between CantoSounds score and online test

SURVEY – USAGE STATISTICS

Have you ever used CantoSounds? (38 則回應)

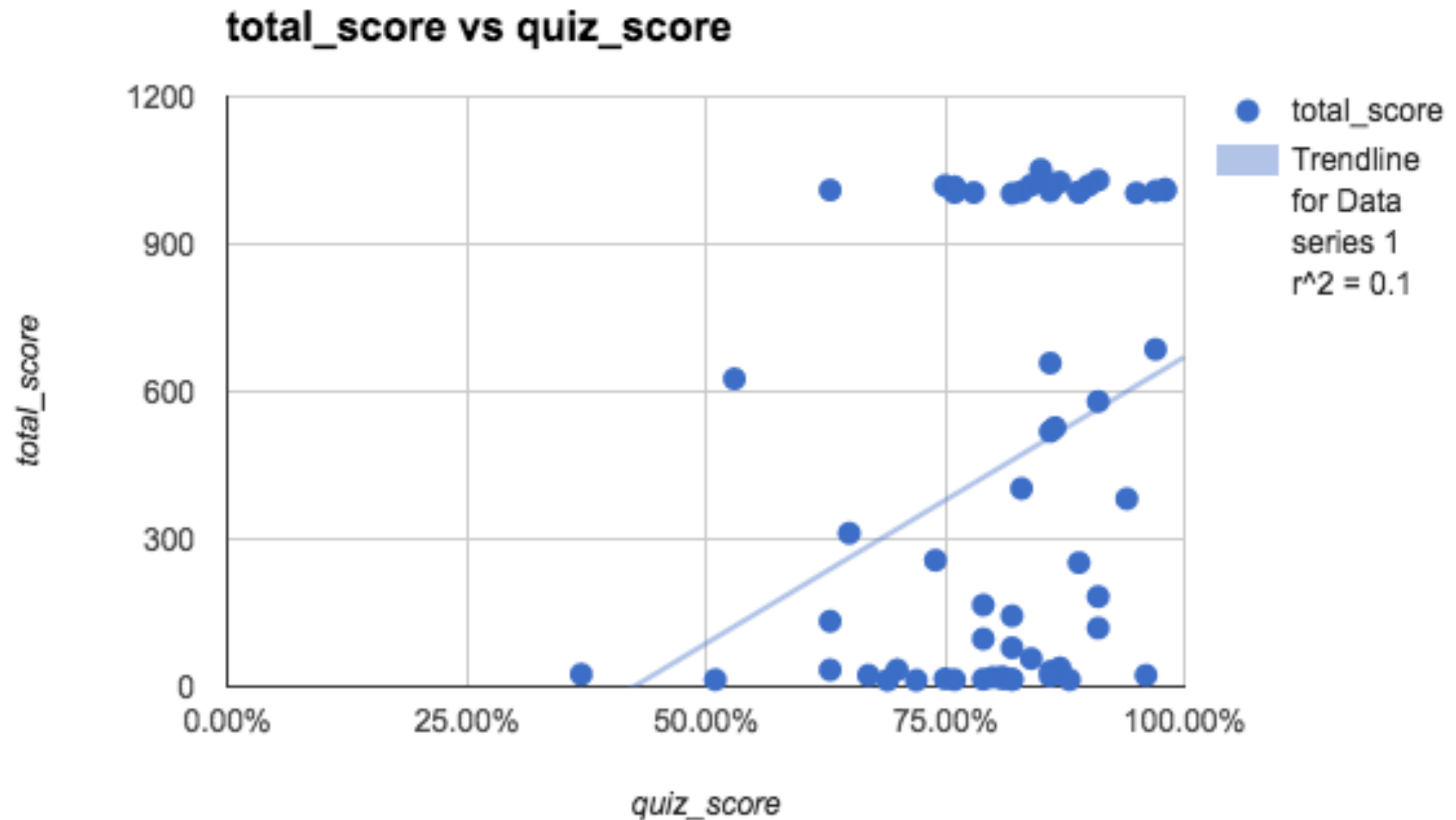


How many times have you used the platform? (25 則回應)



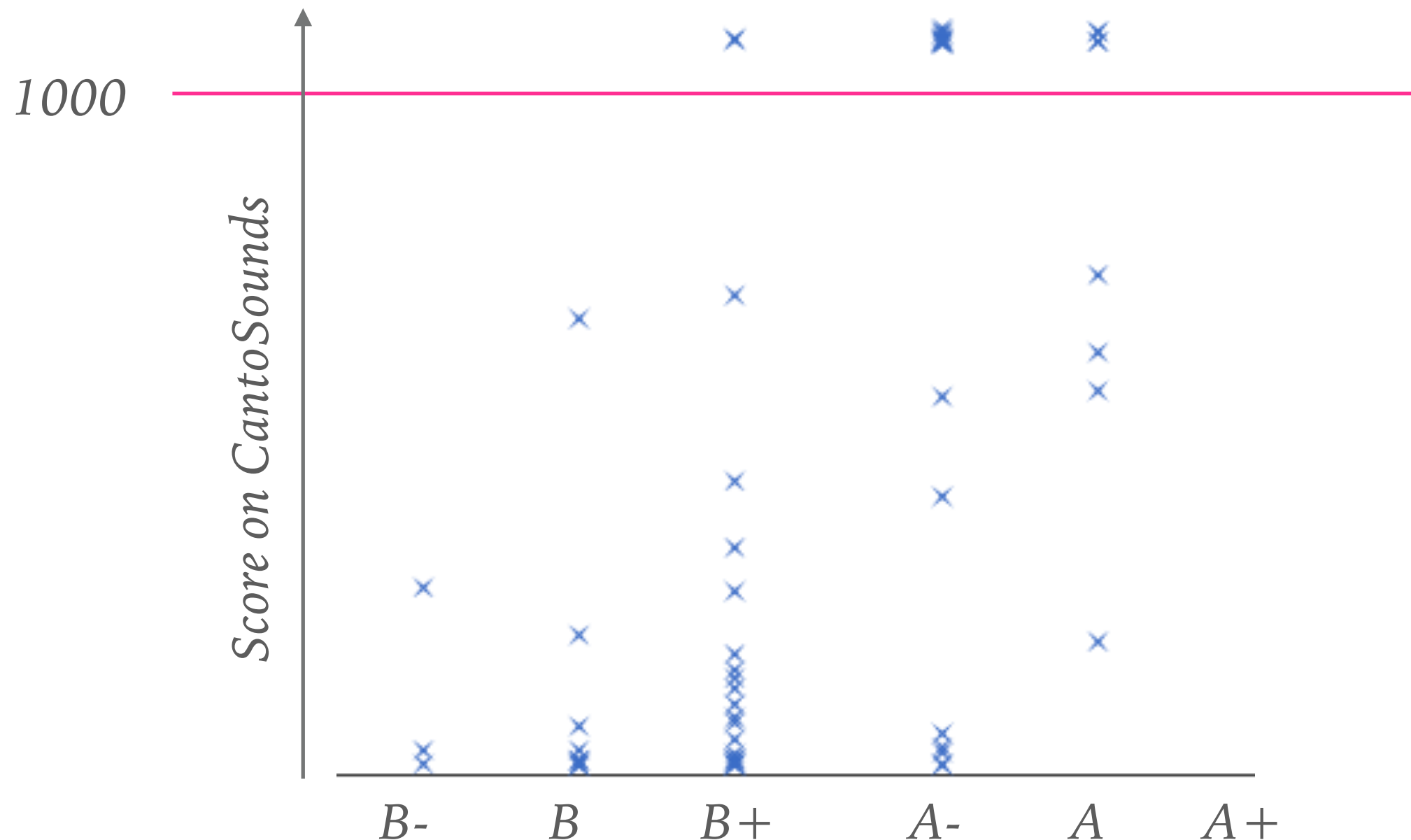
CANTOSOUNDS SCORE VS. ONLINE TEST

- Weak correlation
 - $r^2 = 0.100$



CANTOSOUNDS SCORE VS. GRADE

- 66 valid data-point (students from CHIN9511)
- Correlation between CantoSounds score and Final grade



.....

Coefficients					Help
	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	3.208	0.053	61.047	< 0.0001	
total_score	0.001	0.000	5.753	< 0.0001	
ANOVA Table					
	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Model	1	3.129	3.129	33.100	< 0.0001
Residual	64	6.049	0.095		
Total	65	9.178	0.141		

OVERALL USEFULNESS

- Many students did not use the system at all
- We cannot show conclusively that the platform helped improve their pronunciation and romanisation knowledge
- Correlation between score and grade can be explained by the fact that those students are more diligent

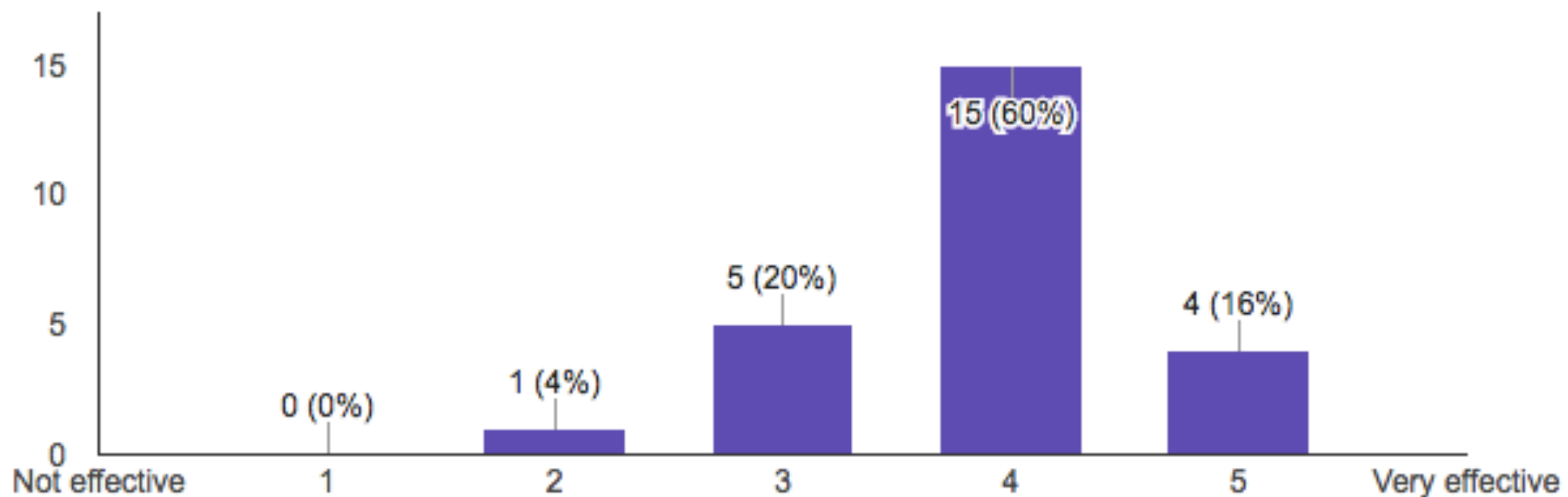
ANALYSIS

- Question 2 - Motivation
 - Self-accessed responses
 - Time-spent on the system
 - The effect of "Scoring"

MOTIVATION (SELF-ACCESSED)

Do you think the CantoSounds platform can effectively motivate you to learn more about Cantonese pronunciation?

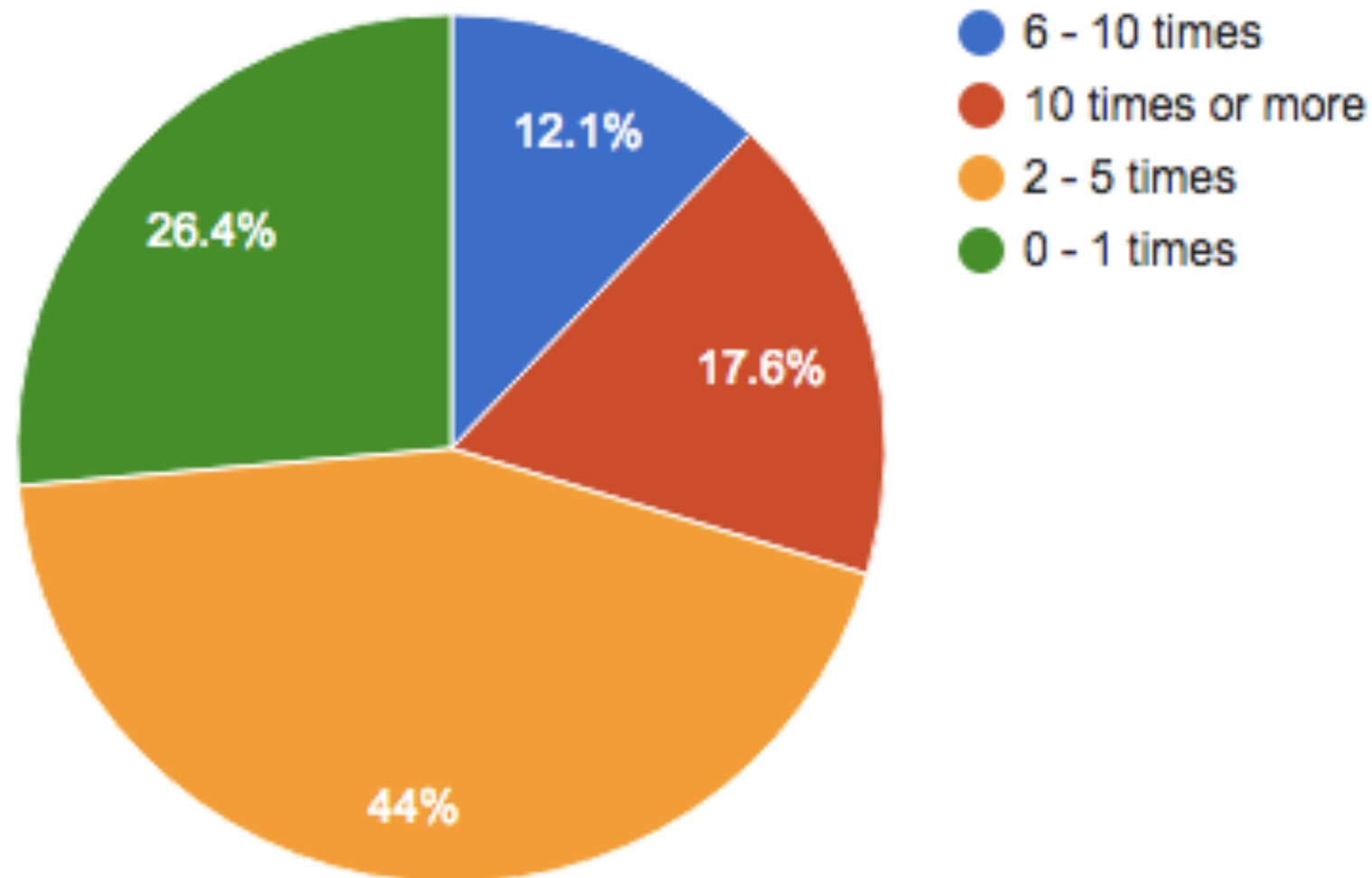
(25 則回應)



TIME-SPENT ON THE SYSTEM

- Average - 4.67 separate days (Std. Dev. 4.137 days)

Count of Grouped



EFFECTIVENESS OF GAMIFICATION ELEMENTS

➤ Score	1052	1009
➤ 20 students stopped right past 1000	1030	1008
	1026	1008
➤ 20 students between 101 and 1000	1024	1007
➤ 21 students between 21 and 100	1020	1006
	1019	1006
➤ 30 students below 20 (i.e. did almost nothing)	1019	1005
	1017	1005
	1012	1004
	1010	1003

ISSUES

- Link to realistic measurement is crucial
 - 1% is insignificant
 - elements that require interaction?
- We cannot assume that students have strong motivation
 - unlike users of, e.g. Duolingo
 - i.e. other elements may be needed
- Should we
 - stimulate the best students to learn more? or
 - motivate the least motivated ones?

FUTURE DEVELOPMENT

- Recent improvements
 - Removal of drills
- Use games
 - HTML5 game being developed, to be released soon
- Use gamification on a more interesting topic as starter
- **True integration with classroom teaching**
 - ask students to learn online instead of making it a supplement