"從創建閱讀風氣至實踐深化閱讀" Deep Reading

Dr. Sam Chu

PhD in Education (Library & Information Science, HKU, HK)
PhD in Education (e-Learning, UCL Institute of Education, UK)
Associate Professor, Teacher Education & Learning Leadership Unit Faculty of Education, HKU

Strategies for encouraging students to read

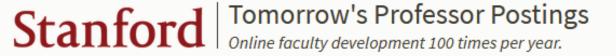
- o language teachers book reports
- public library summer reading program
 - number of books borrowed
- school library
 - acquire many books and other reading materials
- classroom library corner
- regular reading time in school
- sharings by principal, teachers, parents, students
- eBooks enhance the accessibility of books to students
 - very useful, especially during COVID

Deep Reading

- Deep reading, also called slow reading, is the intentional act of reading slower and more thoughtfully with the purpose of increasing— or "deepening"— comprehension and enjoyment.
- The likelihood is you've stumbled into a deep reading experience at least once in your life before, at least to some extent, whether it's your favorite fiction story or a powerful non-fiction thought piece.

Deep Approach to Reading

Stanford University SUNetID Login



WELCOME POSTINGS STATISTICS FEEDBACK RICK REIS THE BOOK HELPFUL LINKS CTL

Strategies to Promote a Deep Approach to Reading

Tomorrow's Teaching and Learning

Message Number: 928

A deep approach to reading is an approach where the reader uses higher-order cognitive skills such as the ability to analyse, synthesize, solve problems, and thinks meta-cognitively in order to negotiate meanings with the author and to construct new meaning from the text. The deep reader focuses on the author's message, on the ideas she is trying to convey, the line of argument, and the structure of the argument. The reader makes connections to already known concepts and principles and uses this understanding for problem solving in new contexts.

From HKEdCity's Reading Challenge to Reading Battle

- Content is King!
- Good book list from HKEdCity



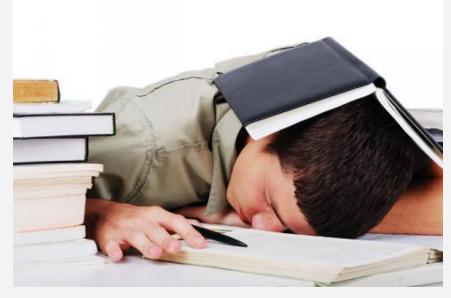


Why can Reading Battle promote deep reading?

- 4 levels of questions higher order thinking questions
 - Students discuss challenging questions and books with classmates, siblings, parents
- worm catcher students read like a critic
- gamified reading motivated many students to read
- Give students a reason to read
 - eg. some students read because reading can help them with digital story writing
- "Compete with Socrates!"
 - read a book and learn to create questions for others to tackle

Digital Native generation requires interactive learning environments

Digital Native or gamer generation requires new learning methods and more interactive learning environments (Lee & Hammer, 2011).



Source: http://www.centurytimesonline.com/2012/12/07/sleep-hygiene-and-its-repercussions-for-century-college-students/



Source: https://www.bpl.org/teens/2016/06/05/stop-the-press-early-schoolstart-times/

Gamification is required to enhance students' engagement and motivation in the 21st century learning (da Rocha Seixas, Gomes, & de Melo Filho, 2016)

Gamified reading & writing - Sam's most important project!

- Strengthening students' reading comprehension ability (both Chinese and English) through developing children's literature equiz bank on cloud (May 2013 - Feb. 2016); Quality Education Fund (HK\$2,846,000).
- Gamifying primary students' reading process through an online battle platform: Factors for success and obstacles to be overcome (Jun 2018 - May 2020); Standing Committee of Language Education and Research (SCOLAR), Education Bureau (HK\$2,164,347)

How much can students self-learn?

Can students learn how to read from primary 1 level to primary 4 level on their own (with little intervention from teachers nor parents) within 5 months? (Answer in kahoot!)

- **→**yes
- \rightarrow no
- **→**maybe



Student Gordon's Sharing (Primary) - 1

Reading Battle, a gamified reading platform: Change a reluctant reader into a book lover - caught up 4 years of curriculum in 5 months!

- "憑著係玩reading battle呢段期間所培養出嘅寫作能力和我呢一年黎嘅努力,我成功咁攞住中文全級第一,仲成為咗校刊編輯。"
- "憑著係過去咁多年,由reading battle睇書開始建立嘅語感,特別係英文,令到我咁多年係中學嘅英文成績每次都係頭10%。"



Gordon as a Primary Student

Source: https://youtu.be/SyLWg0CA-pY?t=328



Gordon as a Secondary Student

Source: https://www.youtube.com/watch?v=p9eACNISums

Proper gamification is like magic!





Magician David
Copperfield flying through
2 rotating hoops

https://gfycat.com/gifs/search/david+copperfield

Reading Battle's Homepage - equiz.cite.hku.hk



Trial accounts

Username: test1

Password: password

-

-

Username: test100

Password: password

Selecting a book



獵人與我

Author: 李懿及朱啟華博士團隊

Publisher: Academy 22

Book ID: 3009

Reading Level:

Start Battle





222 vote(s)

Hayden Man Saves The World

Author: 梁睿哲及朱啟華博士團隊

Publisher: Academy 22

Book ID: 2201

Reading Level: 000







Amy's Fantasia

Author: 卓穎彤及朱啟華博士團隊

Publisher: Academy 22

Book ID: 2200

Reading Level: 000



Start Battle







小欣的奇妙書旅

Author: 朱恩琳及朱啟華博士團隊

Publisher: Academy 22

Book ID: 3016

Reading Level:

Start Battle





502 vote(s)

Best Friends

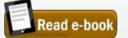
Author: 黃心榆及朱啟華博士團隊

Publisher: Academy 22

Book ID: 2206

Reading Level:

Start Battle







拯救公主記

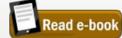
Author: 黄梓晴及朱啟華博士團隊

Publisher: Academy 22

Book ID: 3020

Reading Level:

Start Battle



Free access of some eBooks



"Hayden Man Saves the World" **♥**)



a RB (reading battle)book. the book talks about a retired superhero called Hayden Man saved the world from the bad virus of V-2022 and Dr.Virus,the greatest bad guy of all times . (42 pages)

Privacy level: FAMILY
Teacher can see this book

2406 reads 14 fans

Why can each book be battled/attempted 3 times?



PIRLS Question Framework











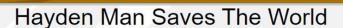


































[Information Retrieval]

Who threw the glitter at Dr. Virus?

- o a. News Reporter
- ob. Dr. Smart
- oc. Police
- od. Hayden Man

Confirm



Tips of worm catcher

Four Processes of Comprehension

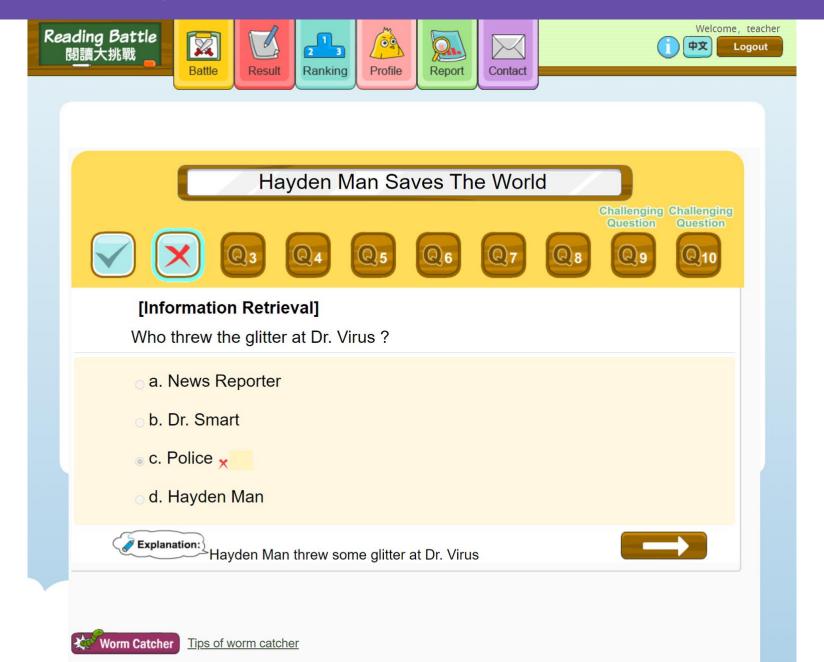
- I. Focus on and retrieve explicitly stated information (e.g. recall sequence of events, character traits, making comparisons)
- II. Make straight forward inferences (e.g. inferring cause-and-effect relationships, outcomes)
- III. Interpret and integrate ideas and information across the text to provide (e.g. interpretations about characters' feelings and behaviours)
- IV. Examine and evaluate content, language, and textual elements, for example:
 - · Interpret figurative language and abstract messages
 - Making judgement about the text comparing with external criteria
 - Making judgement about worth, desirability, acceptability
 - Identification with characters and incidents, e.g. how you would have reacted if you were the main character, or how would your mother feel if you decide to leave home and build a life of your own somewhere else?
 - · Comparing the contextual changes taking place and the changes in the character over her

Adapted from Mullis, I. V., Martin, M. O., Kennedy, A. M., Trong, K. L., & Sainsbury, M. (2009). PIRLS 2011 Assessment Framework. International Association for the Evaluation of Educational Achievement. Herengracht 487, Amsterdam, 1017 BT, The Netherlands.

Hint - Scaffolding Support



Explanation - Real-Time Feedback



Worm Catcher



National Geographic Kids - Dinosaurs

Please fill out the form below to report problems in the question (can be about the question, answer choices, or images).

What characteristics did a Pachycephaslosaurus have?

 a. It walked on two legs and had a domed head with large horns. b. It walked on two legs and had a thick, domed head. c. It walked on four legs and had a thick, huge head. d. It walked on two legs and had a spiky head with horns.
What is this problem about? Others Book title mismatch Problem in the question Problem in some of the choices Problem in display Image not displayed
Please explain the problem that you are reporting
Your email address: Submit Cancel





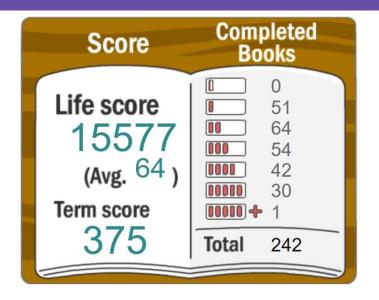
National Geograp

請填妥以下之表格以匯報問題(如關於問題的内容、答案、圖片)

你的電郵地址:

What characteristics did a Pachycephaslosauru a. It walked on two legs and had a domed he b. It walked on two legs and had a thick, don c. It walked on four legs and had a thick, hug d. It walked on two legs and had a spiky hea
你要匯報之問題是關於那—項? 以其他 以題目錯配 以題目若配 以題目不當 以部份選擇不當 以書面出現問題 以有圖片顯示 請詳述要匯報之問題

User Learning Profile





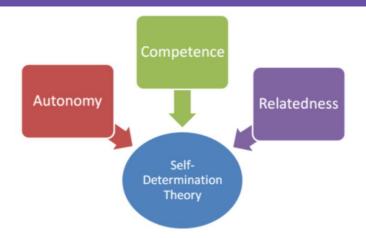
Details:

	Books		Trial Scores		Best	School	World	
	Doons		1st	2nd	3rd	Score	Average	Average
大雄的神奇	魔法油	00	***	Try Again		88	88	86
Nice Jelly			79	Try Again		79	79	74
暖爐放寒假			46	Try Again		46	46	71
與龍的友誼			79	Try Again		79	79	78
王子拯救小	王國		79	83	50	83	83	79

Leaderboards



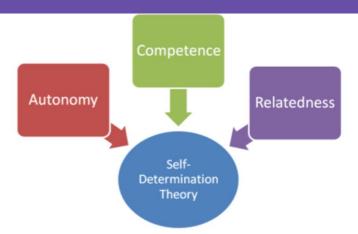
3 types of leaderboards



Source: https://en.wikipedia.org/wiki/Self-determination_theory

- It fulfills human's 3 essential psychological needs: autonomy, competence, and relatedness (Deci & Ryan, 2012).
 - Autonomy refers to a feeling of being in control of or self-determination in activities.
 - Competence implies a need to improve abilities or to develop a feeling of mastery. Pink (2009) described "mastery" as a desire for "getting better at something (e.g., performance, competence, skills, time)".
 - Relatedness is defined as a social need to connect with others and a sense of belongingness.

Li, X., & Chu, S. K. W. (2020). Exploring the effects of gamification pedagogy on children's reading: a mixed-method study on academic performance, reading-related mentality and behaviors, and sustainability. *British Journal of Educational Technology* (Accepted).



- Li, X. & Chu, S.K.W. (2021). Exploring the effects of gamification pedagogy on children's reading: a mixed-method study on academic performance, reading-related mentality and behaviors, and sustainability. *British Journal of Educational Technology*. 52(1), 160-178.
 - Rank: 19/264 within top 7%; Impact Factor: 4.9; 5-Year Impact Factor: 5.0 (JCR Edu & Edu Res, 2020)
 - ∘ Chu, S.K.W.'s level of contribution 40%
- Contains 3 studies
 - Study 2 addressed the question of how students/parents/teachers perceive students' motivation and gaining in the use of the gamified platform.

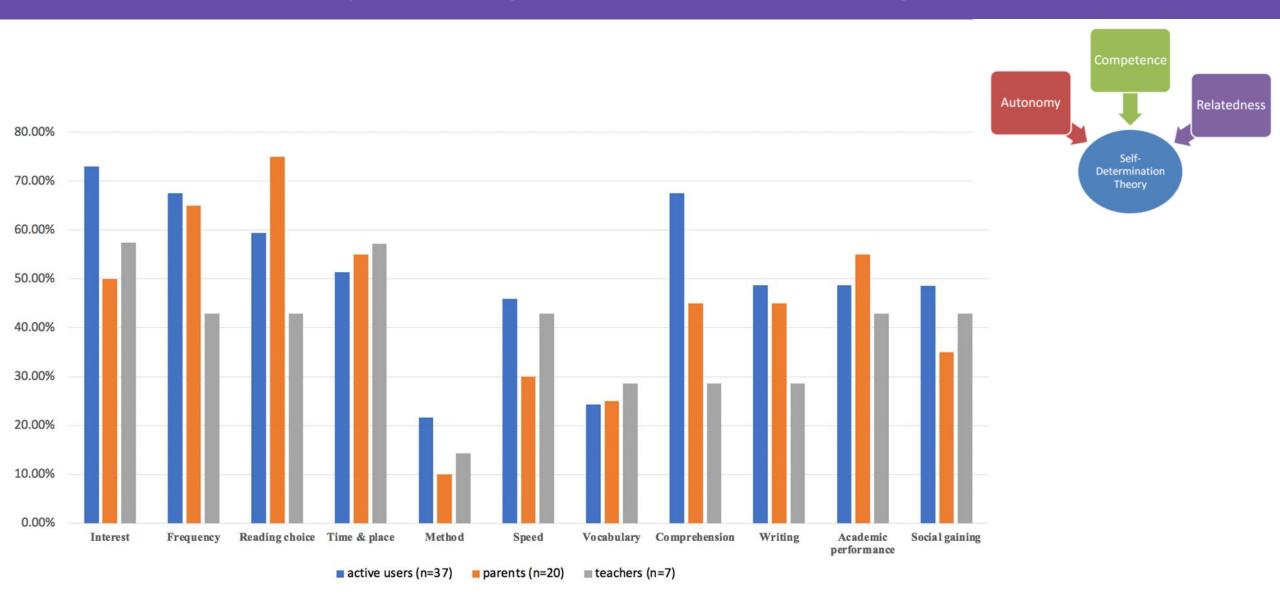
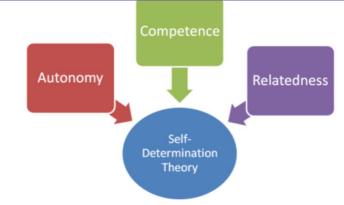


Figure 4. Coding results of interviewees' perceived effects of RB in Study 2 (Chu & Li, 2021)

- Student Gordon reported, his reading choices became richer
 - as RB illustrated the battles based on 11 genres of books.
 - This satisfies which element in SDT?



- Through reading books and completing book-battles, students strengthened their reading abilities in terms of reading comprehension, vocabulary, general knowledge & writing too.
 - This satisfies which element in SDT?
- Students' social interaction was enhanced during the use of RB according to the responses.
- 48.64% of the students and 35.00% of the parents mentioned social activities/elements during children's use of RB.
- Parent Mary stated that she often talked about RB with her son, ... guided him on figuring out
 answers to some challenging questions. Her son became more active in talking about what he read..
- Another parent reported that her 2 daughters often read books and finished battles on RB together.
- Teacher Nancy observed that some children liked to share print books and discussed the content of books and their experience of RB with classmates.

- ...我小四嘅時候,我對reading battle嘅睇法開始有啲改變。
- 我之前一直都覺得reading battle, 咪同其他個啲扮到好似 遊戲咁, 懶好玩嘅網上練習一樣。同個啲又悶又無聊嘅功 課根本就無分別。
- 但係上到小四,我開始發現reading battle唔淨止係咁。佢 係一個非常完善,
- 具有好大自由度嘅平台。而係當中最吸引到我嘅,就係呢種自由度。
- 當其他平台會限制你去睇某一片文章,或者某一本書嘅時候,reading battle佢俾我有各種唔同嘅選擇。佢嘅系統囊括咗各種唔同類型嘅書,從淺至深嘅都有。





Source:

https://www.youtube.com/watch?v=p9eACNISums

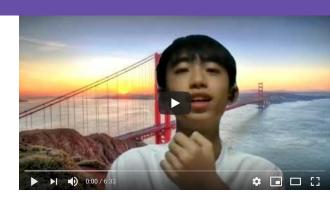
Why is <u>autonomy</u> so important in motivating students to read?

- 咁點解呢樣野,呢種自由度咁重要呢?
- 當你問一個老師,或者你嘅家長,有咩書可以建議俾你睇嘅時候,佢地通常都會答你[睇呢幾本啦,佢地 攞過啲咩獎咩獎]或者係[睇呢幾本啦,睇完你啲文筆一定會有進步]。
- 但係其實咁樣對一個未開始對讀書有興趣,甚至係唔鍾意讀書嘅人黎講,係一啲幫助都無,甚至仲會令 佢地更加抗拒讀書。而我正正就有過咁嘅經歷,所以我係小四之前,都係極討厭睇書。
- 但係就係因為有reading battle呢個平台,包含咗各式各樣嘅圖書種類俾我地自己去選擇,我終於有機會可以睇我自己鍾意嘅書。

Student Gordon started having interest to read, then formed a good habit (competency)

▶ 於是我越睇越多,開始睇唔同種類嘅書,開始漸漸培養出對睇書嘅興趣,培養出一個睇書嘅習慣。





Relatedness in Reading battle?

- Reading battle上面有一個可以睇到你同同學嘅分數排名嘅榜。我仲記得我小四至小五個段時間好鍾意 去追人地嘅分數,當我追到人地嘅分數嘅時候,我就會獲得好大嘅成就感,呢個亦都係其中一個我鍾 意玩reading battle嘅原因。
- 就係因為咁,我日日做完功課就睇書,跟住就上網做練習。係我最後仲可以做reading battle嘅個幾個月,我甚至係睇到唔夠書睇,逼住要揀啲勁深嘅書黎睇。
- 而係個兩年入面,我嘅學業成績有一個極大嘅進步,無論係係閱讀定係寫作方面。

Reading Battle can help students develop creativity





- 因為我最近好鍾意睇中文嘅散文同英文嘅詩,我發現我嘅思維變得無咁狹窄,變得更有創意。有一啲好新奇,好有創意,甚至係無厘頭嘅idea,會突然出現係我個腦入面。
- 有啲人可能會問,咁變得更加有創意無用架,佢遞時唔會幫到你。但係現實就係啱啱好相反。宜家係外國,甚至係香港都開始提倡 "Entrepreneurial spirit" 創業精神。而其中一樣要求嘅野,就係創意。
- 就以我自己為例,閱讀對我宜家參加緊MIT嘅programme有幫助,而係MIT嘅呢個 programme係同寫作能力同埋閱讀能力完全無關。



Reading is not just for enhancing academic performance

- 其實閱讀對我地嘅好處好多,只係我地可能未發現到。所以永遠都唔好將自己困係[睇書就係為咗增進自己學業成績]同埋[要睇啲所謂有營養嘅書先至好]嘅傳統概念入面,盡量去睇多啲唔同種類嘅書,善用reading battle呢個平台去加深你對書本內容嘅了解。
- 好啦,我今日要講嘅野就係咁多。我最後想係呢度多謝朱博士同佢嘅團隊,設計出一個咁完善嘅平台,培養出我對閱讀嘅興趣; 多謝Miss Chan係我小學度推廣reading battle,如果之前無接觸到reading battle,我就唔會鍾意睇書,亦都唔會有今日咁好嘅發展。我今日嘅分享就到呢度,多謝大家。

Will students "go back to normal" after stopping the use of the gamified reading platform "Reading Battle"?

- Some educators criticize that digital gamified learning is detrimental to students' intrinsic development in learning because students will only learn when they have a gamified platform to play with. They will stop learning as soon as the platform is taken away from them.
- Li, X. & Chu, S.K.W. (2021). Exploring the effects of gamification pedagogy on children's reading: a mixed-method study on academic performance, reading-related mentality and behaviors, and sustainability. *British Journal of Educational Technology*. 52(1), 160-178.
 - Study 3 the sustainability of the positive effects of RB on students

Table 1. Thirty-two active users' usage data of RB in Study 3

Items	Mean	SD	Minimum	Maximum
Use semesters	4.5 (2.5 years)	1.63	2	7
Stopping time (months)	12.56	8.38	6	29
Finished battles	190.81	108.28	101	488
Total score	17404.06	10209.62	7958	47434
Average score	90.78	3.77	81	97

Study 3 – the sustainability of the positive effects of RB on students

Table 3. Active users' ratings on the effects of RB in Study 3

Variable	Sub-variable	Period 1	Period 2	Period3	Compa	rison of	Comparison of	
		Mean	Mean	Mean	Period 1 & 2		Period 2 & 3	
					Z	Sig.	Z	Sig.
Intrinsic	Involvement	3.58	5.09	4.92	-4.62	.000**	-1.10	.27
motivation	Achievement	3.26	4.92	4.98	-4.79	.000**	63	.527
for reading	Curiosity	3.44	4.67	4.38	-4.37	.000**	-2.10	$.037^{*}$
	Challenge	2.84	4.98	4.57	-4.90	.000**	-1.91	.055
	Importance	3.50	5.06	5.03	-4.71	.000**	188	.851
Reading in-	N/A	3.29	5.14	4.78	-4.78	.000**	-1.87	.061
terest								
Reading	Reading fre-	3.98	5.47	4.72	-4.81	.000**	-3.24	.001**
habit	quency							
	Book choice	2.66	4.88	4.25	-4.98	.000**	-2.46	$.014^{*}$
Reading ability N/A 3.26		3.26	4.75	4.78	-4.80	.000**	45	.653

Note. *statistically significant at p < 0.05, **p < 0.01.

Study 3 – the sustainability of the positive effects of RB on students

Why can the positive effects of RB on students sustain?

- Seven active participants (17.95%) mentioned that they first played RB for ranking and rewards, but later on they enjoyed reading books simply for pleasure.
- Before using RB, they regarded reading as homework; however, now they found RB helpful as it provided knowledge and pleasure.
- They also recognized the importance of reading, even though they did not use RB anymore.

Efficacy of Reading Battle - 1

Does RB actually help students improve in their reading abilities?

Study 1 – the sustainability of the positive effects of RB on students

Study 1 - Assessment of academic performance

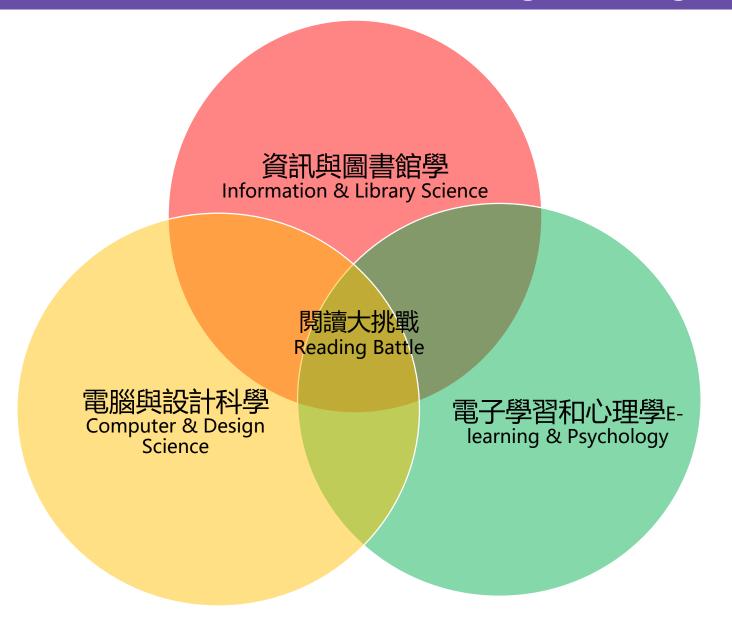
Study 1 was implemented in a real learning context where students' use of RB was not controlled by the research team but occurred naturally based on their own will. After one semester's natural intervention of RB, participants in Study 1 were divided into two groups based on their finished battles in RB (Mean = 11.46; Median = 5). Taking the median of finished battles as a division, Group A consisted of 29 students who were light users, having finished 5 or fewer battles (Mean = 2.79; SD= .98), while the other Group B comprised 28 students who were active users, having completed more than 5 battles (Mean = 20.42; SD =23.98). For the 28 active users in Group B, the average of finished Chinese book-battles was 12.71, while that of English book-battles was 7.71.

Efficacy of Reading Battle - 2

Study 1 – the sustainability of the positive effects of RB on students

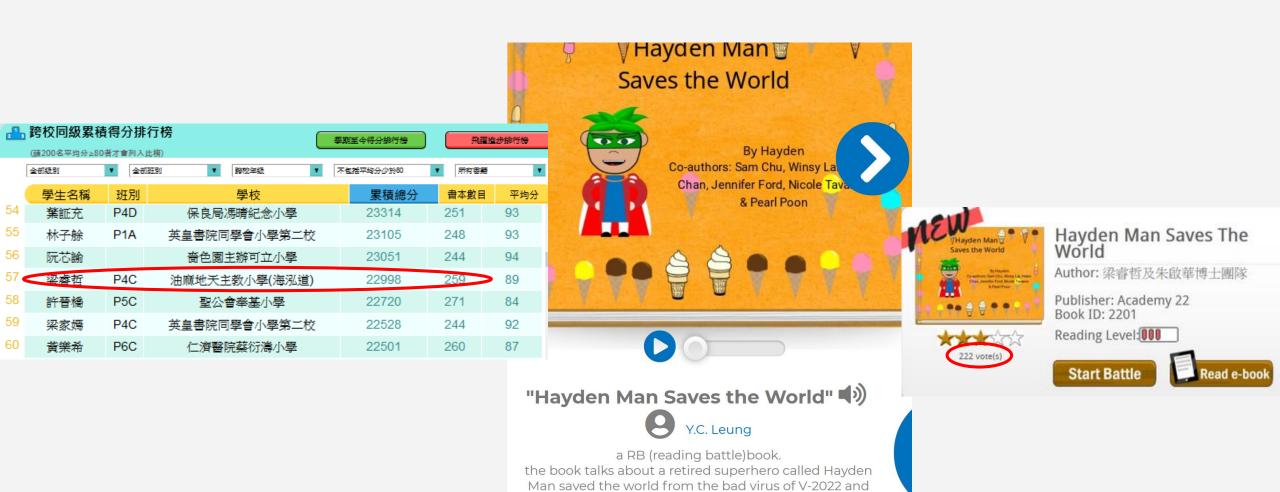
- The results show that the change in English reading scores had a significant difference between the two groups, meaning that Group B students made more improvement in English reading in the experimental semester than Group A students.
- Although the findings suggested that the change of Chinese reading scores in Group B was higher than that in Group A, the difference was not statistically significant.

Reading Battle: Apply a multidisciplinary approach to help solve a critical issue in learning - Reading



21st Century Skills: 4th research project

Gamified reading & writing - From reading to writing - 1



Dr.Virus,the greatest bad guy of all times . (42 pages)

Privacy level: FAMILY
Teacher can see this book
2406 reads 14 fans

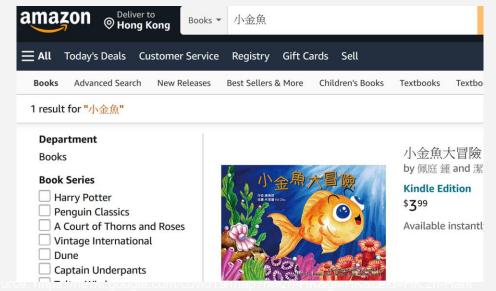
com/covid19/map?hl=zh-HK&gl=HK&ceid=HK:zh-Han

21st Century Skills: 4th research projects

Gamified reading & writing - From reading to writing - 2







21st Century Skills: 4th research projects

Gamified reading & writing - From reading to writing - 3





How does this song relates to deep reading?

How does this song relates to deep reading?

How can a gamified learning platform like Reading Battle motivate students to self-learn?

陳奕迅 / Eason Chan

Shall We Talk

作詞:林夕 作曲:陳輝陽 編曲:金培達 明月光 為何又照地堂

Radiant moonlight, why do you shine on the earthly paradise again? 寧願在公園躲藏 不想喝湯

I'd rather hide in the park since I don't want to drink soup.

任由目光 留在漫畫一角

Allowing my gaze to remain on the corner of a comic

為何望母親一眼就如罰留堂

Why does looking at my mother seem like a punishment?

孩童只盼望歡樂 大人只知道寄望

Children only hope for fun, adults only know of the future.

為何都不大懂得努力體恤對方

Why don't we comprehend the need to work harder to sympathize with one another?

大門外有蟋蟀 迴響卻如同幻覺

There is a cricket outside the door; the echoes are like an illusion.

Shall we talk Shall we talk

就當重新手拖手去上學堂

Let's start over and walk hand-in-hand to school.

An illustration of how gamified learning works through a song

- Try Reading Battle now! (1.0)
- Sign up for Reading Battle (2.0)
 - Release in Oct 2021
 - For Kindergarteners (1-3), Primary 1-6, Secondary 1-3
- Reading Battle (3.0)
 - A collaboration between human and artificial intelligence coming next year!



Dr Sam Chu, Univ of Hong Kong (samchu@hku.hk)