Think e-Reader: pedagogy-led open educational resources (OER) for metacognitive reading skills among elementary readers

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THINK E-READER: PEDAGOGY-LED OPEN EDUCATIONAL RESOURCES (OER) FOR METACOGNITIVE READING SKILLS AMONG ELEMETARY READERS

Por Fei Ping [a*], Chau Kien Tsong [b] , Chew Bee Leng [c]

[a]Wawasan Open University

54 Jalan Sultan Ahmad Shah, 10050 Penang.

[b]Universiti Sains Malaysia

11800 USM Penang.

[c]Wawasan Open University

54 Jalan Sultan Ahmad Shah, 10050 Penang.

*fppor@wou.edu.my

ABSTRACT: Research has indicated that reading comprehension is an interactive, constructive, meaning-making process, which entails the use of reading skills and the types of reading materials. In that sense, the presentation of reading text is a valuable and a critical component in developing metacognitive reading skills to comprehend texts. Studies have also found that elementary readers encountered difficulties in comprehending traditional printed texts which contain rigid and static presentation of information. Besides, both experimental and descriptive studies claimed that metacognitive reading skills play an outstanding role in enhancing comprehension in reading. With this ever-growing significance of metacognitive reading skills, this study mainly aimed at developing matacognitive reading skills among elementary readers through the invention of Think e-Reader. Based on the Experiential Learning Theory of David Kolb (1984), Think e-Reader consolidates open educational resources (OER) by transforming reading experiences, including cognition, environmental factors and emotions for deeper cognitive processing. The findings of this study suggested that Think e-Reader has successfully engaged and developed metacognitive reading skills among elementary readers on an average of 40 per cent. The readers were able to provide correct answers for reading comprehension questions and relate their thoughts with the story in open-ended questions. The findings have implications on learning and teaching reading comprehension strategies among elementary readers by tapping into the contemporary online literacy practices.

Keywords: Think e-Reader, pedagogical-led, open educational resources, metacognitive reading skills, and elementary readers

Category: 1. Social Sciences

Sub-category: d. Education and Language

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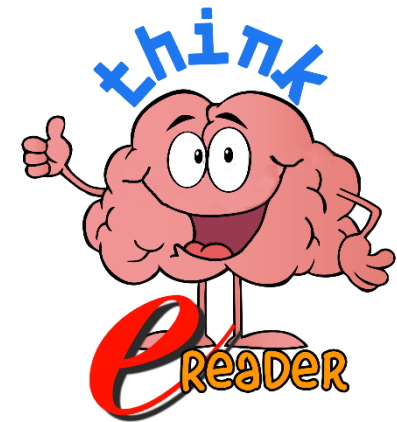
Introduction

Reading

- primary means for learning new information (Grabe & Stoller, 2001)

- multidimensional experience which correlates with cognitive and emotional engagement of the readers (Çakici, 2017)

- interactive and dynamic process (Karbalaei, 2010) and a meaning-construction process (Al-Rubaye, 2012)

- combine information taken from the text with own background knowledge to make meaning (Anderson, 2004)

- require monitoring comprehension as a metacognitive activity (Baker & Brown, 1984)
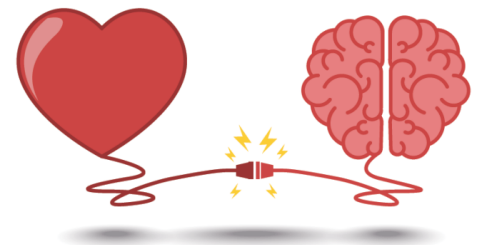
Reading But Not Comprehending

- Unable to construct meaning from the reading texts

- Unable to internalise information

- Unable to associate with the reading texts to create coherent mental representation

(Hashim, 2000; Williams & Atkins, 2009; Yusuf, 2016)

Due to

- reading materials not meaningful to them

- lack cognitive and emotional engagement

(Eagle, 2011; Genlott & Grönlund, 2013; Jourbert, 2009; Yusuf, 2016)
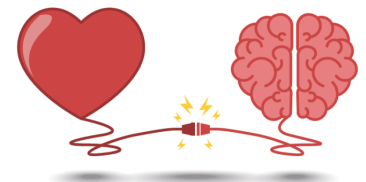
engaging

interactive

- Reading which engages readers develops metacognitive reading skills - important among low knowledge readers such as elementary students
- Metacognitive reading skills will improve if reading materials are made meaningful to them, and with fun interaction

(Brown, 2018; Eagle, 2011; Genlott & Grönlund, 2013; Miller, 2002)

Metacognitive Reading Skills

- delve deeper than fluency and word recognition and focus on the ability to assess understanding, to think critically and make connections (Brown, 1978; ;Favell, 1976; Kuruyer & Özsoy, 2016)

- thinking about thinking, which is a higher order thinking that enables understanding, analysis, and control of cognitive processes (Aberšek & Aberšek, 2013)

- connecting new information to former knowledge;

- Cognitive processes:

   a) planning,

   b) monitoring, and

   c) evaluating (Dirkes, 2010; Jacobs & Paris, 1987; Kluwe, 1987)

Think e-Reader

- hyperlink stories of Open Educational Resources (OER) of similar theme to facilitate deep learning and enhance metacognitive reading skills

- Matijević (2012) stated that the **Internet** has helped to create engaging and innovative reading environment as it contains vast and varied resources

- Interactive and dialogic features are able to engage elementary readers for deeper text processing.
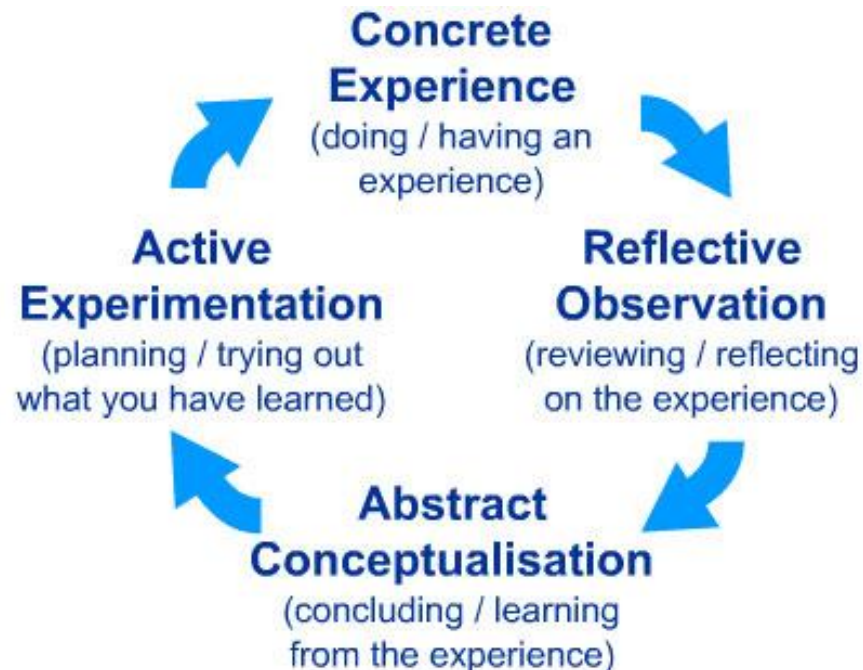
Think e-Reader:
Hyperlinked Reading Intervention

- engages the elementary readers to continue reading and process the contents cognitively by linking the reading text interactively to websites with arts and crafts, virtual tours, video clips, animated explanation, games, online quizzes, picture galleries, and virtual experiments, which offer a wide range of learning activities relevant to the theme of the learning topics

Experiential Learning Theory (Kolb, 1984)

- Emphasis on the learner's internal cognitive processes
  - Acquisition of abstract concepts can be applied flexibly in a range of situations
  - Learning is the process whereby knowledge is created through the transformation of experience

Concrete Experience
(doing / having an experience)

Reflective Observation
(reviewing / reflecting on the experience)

Abstract Conceptualisation
(concluding / learning from the experience)

Active Experimentation
(planning / trying out what you have learned)

Holistic Approach (Miller, 1991)

- Philosophical orientation and pedagogical practice rooted in experiential learning with the focus on wholeness

- Proposes educational experiences on a more balanced development of different aspects of the individual

— Level 3 / Story 2 #Rapunzel —

Literacy	Cognitive	Aesthetic

Bedtime Stories for Kids - Princess Story
(credit: Fairy Tales & Stories for Kids)

Bedtime Story - Rapunzel
(credit: Bedtime Story.TV)

Princess Rapunzel Brushes Her Hair- Kids Song & Nursery Rhymes
(credit: Little Angel)

Tic-Tac
(credit: Disney)

Quiz - How Well Do You Know Rapunzel
(credit: Disney)

Reading Quiz for Rapunzel
(credit: ProProfs)

Rapunzel Bookmark Craft
(credit: Cool School)

Kids Craft - Princess Rapunzel
(credit: Mum & Baby)

Rapunzel Children's Art Craft and Rapunzel Book List
(credit: My Shae Noel - Shauna W)

Open Educational Resources (OER)

- UNESCO 2012 Paris OER Declaration
  - UNESCO believes that **universal access** to high quality education contributes peace, sustainable social and economic development, and intercultural dialogue.

- Open Educational Resources (OER) are teaching, learning and research materials in any medium – digital or otherwise – that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions

A Basic Guide to
Open Educational Resources
(OER)
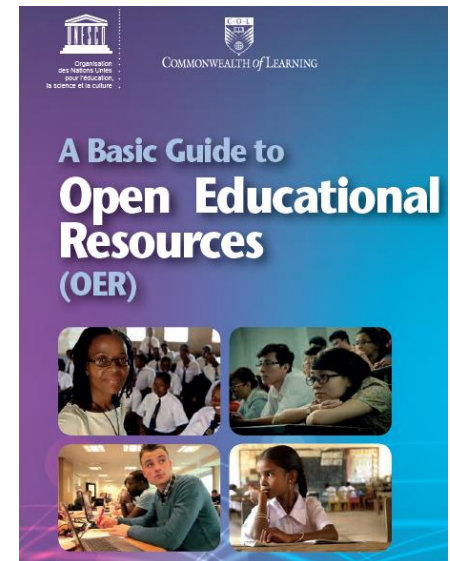
Method

Action Research

- Action research was employed in this study to **improve and reflect** the **learning and teaching practice** of English reading lesson in a learning centre in Penang by investigating the implementation of Think e-Reader and its effects on metacognitive reading skills of the elementary readers: able to read more words and longer sentences with help (OxfordOwl, 2019)


THE ACTION RESEARCH
PROCESS

- **Identify** the focus area
- **Clarifying** the approach
- **Work** on research questions
- **Data** collection
- **Analysis** of the data
- **Reporting** the results
- **Action** planning

Action Research

- a systematic form **of self-reflective inquiry** undertaken by practitioners such as teachers, school principals, counsellors or stakeholders to understand and improve their own practices in the context where these practices are carried out.

- differs from traditional or conventional research in that it is carried out by teachers or educators themselves in order to improve their educational practices and to formulate personal theories whereas traditional research aims to contribute to **new knowledge development by testing a theory and making generalisations about the research findings**.

Reading Lessons in the Learning Centre (homeschool)
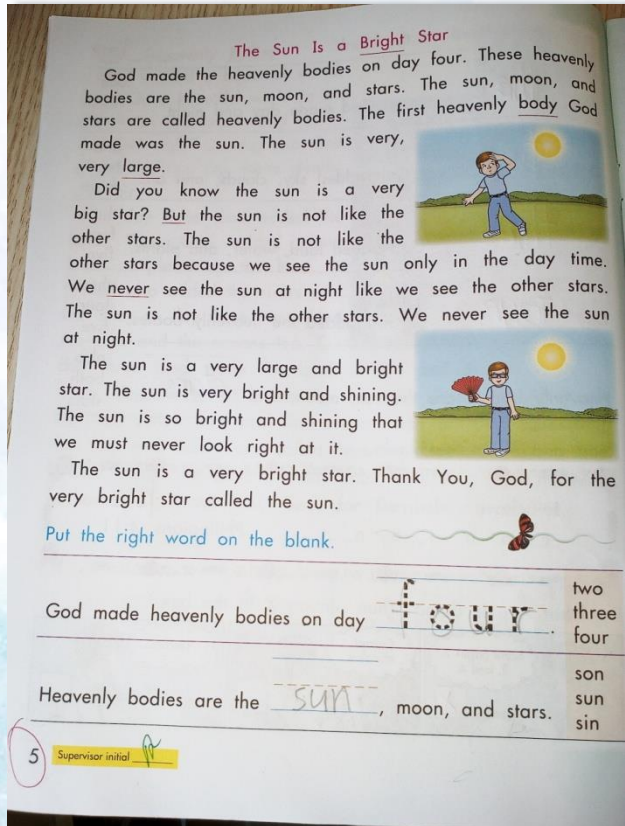
- The students of the learning centre (homeschool) are using the **conventional printed texts** including books and worksheets in their reading lessons.

- The students work on the packets in their own small cubicles.

- The printed texts without interactive or dialogic (Simsek & Erdogan, 2015) features contain rigid and static presentation of information becomes less popular among elementary students who have been exposed to digital devices.

- Each core subject consists of 12 PACEs (Packet of Accelerated Christian Education) per level.

- Typical students work daily on one PACE in each subject and may be performing at varying levels. The diagnostic test results help to identify academic weaknesses.

- Students have to complete 144 PACEs in the period of 12 years schooling *(six years of primary education, four years of Junior High School, and two years of Senior High School [SHS])*.
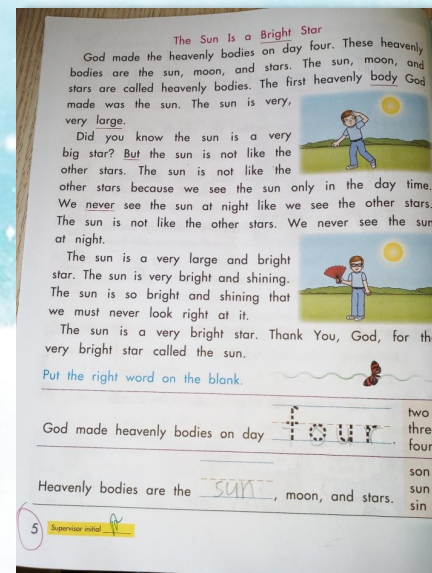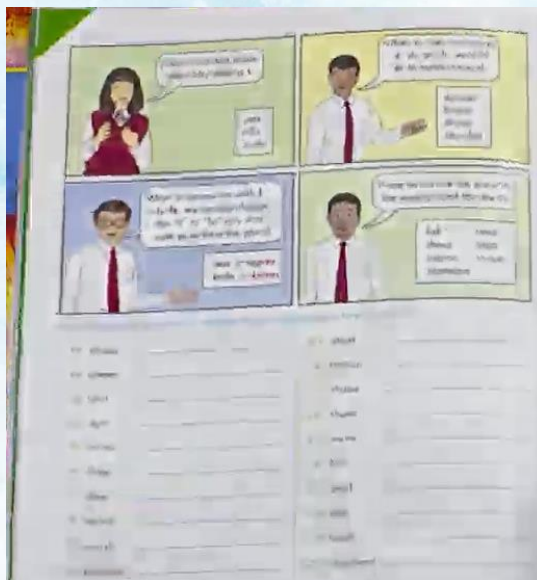
Method

- A total of **ten** students aged **between seven and eight years** from the elementary level participated in the study.

- The intervention was carried out for **six reading lessons (30min each lesson)** using Think e-Reader.

- **Interviews** were conducted with the ten participants before and after the intervention. The interview questions were formulated based on the three metacognitive reading skills: planning, monitoring and evaluation (Dirkes, 2010; Jacobs & Paris, 1987; Kluwe, 1987)

Date	Activity
14/3/2019	Interview Metacognitive Reading Skill: Planning
21/3/2019, 27/3/2019, 28/3/2019, 4/4/2019, 11/4/2019, 18/4/2019	Think e-Reader: hyperlinked reading intervention
25/4/2019	Interview Metacognitive Reading Skill: Monitoring, Evaluation

Lesson No.	Hyperlinked Websites - OER
1	Bedtime Stories for Kids – Princess Story Tic-Tac
2	Rapunzel Bookmark Craft
3	Bedtime Story – Rapunzel Quiz – How well do you know Rapunzel
4	Kids Craft – Princess Rapunzel
5	Princess Rapunzel brushes her hair – kids song & nursery rhymes Reading quiz for Rapunzel
6	Rapunzel children's art craft and Rapunzel book list

Rapunzel

Level 3 / Story 2 #Rapunzel

Literacy

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Results

Interview Results

Rapunzel

Student No.	Metacognitive Reading Skill: Planning Look at this picture and the title. Have you ever read this story before? Yes - Do you remember what it was? Was it interesting? Why? No - Do you think it will be interesting? Why?
1	*Yes, about a princess with golden hair. I don't like the story. It's scary.*
2	*Yes, the long hair girl. No. It's not nice. Got the witch.*
3	*I have not seen it. I think I'll like it. I want to have long hair.*
4	*Yes, I see before. But, I can't remember. Teacher, what is it about?*
5	*I think got. I think got long hair and tall tower.*
6	*No, I haven't read yet. I don't know the story nice or not.*
7	*I think so. I think it is a sad story…*
8	*Yes. About prince and princess.*
9	*No. What' is that? It is so adventure. Can climb with hair.*
10	*Got. The prince died.*

Results

Interview Results

Student No.	Metacognitive Reading Skill: Monitoring When you go through the activities, do you think they help you understand the story better? Why?
1	*Yes, I can keep watching.*
2	*I like the arts and craft.*
3	*I made the princess with very long hair.*
4	*Yes, I can remember the story again.*
5	*I like computer. I can click.*
6	*The song is nice. I can do the exercise.*
7	*Yes. I can do many things.*
8	*Yes, it is fun.*
9	*Got movie, story, song. I can make the princess.*
10	*Yes. I like it. Got youtube.*

Results

Interview Results

Student No.	Metacognitive Reading Skill: Evaluation Do you think you learned something from the story? What is that? Do you think there is someone that loves you just like how the Prince loved Rapunzel? Why?
1	*The prince never gave up. My Daddy always tells me never give up. He is my prince.*
2	*Don't believe the witch.* *Yes, my mummy. I make her angry. She still buy me toys.*
3	*Need to be strong. To win the witch.* *My mum. She said I am her precious.*
4	*I want to be the prince. Protect my JieJie.* *I always fight with her. But, she still help make my bed.*
5	*Love. Cannot be like the witch. Won't be happy.* *Yes, it's my mummy. She loves me so much, and I love her too.*
6	*The prince try his best.* *Papa. He is my super papa. He try to fix things for me.*
7	*Need to protect children.* *Yes, my Dad. He always plays with me. And, my mummy. She always cooks nice food.*
8	*Don't mix with bad friends, like the witch.* *I have many best friends. They like me.*
9	*Cannot be greedy like Rapunzel's mummy.* *My mummy love me. But, Rapunzel's mummy don't love her.*
10	*Rapeunzel's papa love the mummy.* *My papa also loves us. He always work hard.*

Conclusion

- Modern psychologists and educators consider that metacognitive training is a crucial aspect of developing reflection, autonomous learning and construction of knowledge (Virginia, Anibal, Jesus & Lorena, 2009).

- Features of **flexible, interactive and engaging nature** have the ability to **engage and stimulate cognitive processing** such as planning, monitoring and evaluating

- Put forward the **implications** to the learning centre to **plan and design the reading lessons** by integrating **appropriate and relevant hyperlinked** reading intervention in the learning and teaching process to improve the current practice

- To **expand the potential** of hyperlinked intervention on other subjects and to include students of different age groups.

THANK YOU

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- Sciences and Engineering
- Health and Life Sciences

IMPORTANT DATES

Abstract submission – 30ᵗʰ April 2019

Full paper submission – 9ᵗʰ June 2019

Early bird registration – 21ˢᵗ June 2019

Registration deadline – 21ˢᵗ July 2019

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International Presenter (Student)	USD 250	USD 225
Local Presenter (inc. co-organisers' universities)	RM900	RM800
Local Presenter (Student - inc. co-organisers' universities)	RM700	RM600
Participants	RM400 / USD100	

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