R.E.A.P Strategy: Developing ESL Learners As Critical Readers

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Abstract: In Malaysia, there have been continuous efforts to inculcate reading skills and thinking skills among students particularly university students. The ability to read effectively and think critically are essential skills for university students especially ESL learners. These skills are important learning outcomes among other fundamental academic skills in ensuring success in the university. Higher education requires students to use high level of reading skills and critical thinking skills as they have to read various reading materials which are mostly in English. Hence, it is vital to have an intervention in guiding and developing students as critical readers or thinkers. An action research was conducted to investigate the effectiveness of using the REAP technique as an intervention in an English Academic Communication course. The REAP technique stands for Read, Encode, Annotate and Ponder is a meta-cognitive strategy which teaches students to think deeply and guides students to ways of responding differently to a text by following the four-step strategy. This paper details the implementation of the REAP strategy and highlights the benefits of the strategy to students reading ability.

Index Terms: Critical readers, critical thinkers, critical thinking, ESL learners, reading skills, REAP Strategy, reading technique strategy.

1 INTRODUCTION
There is a raising concern over the phenomena that university graduates are not able to contribute to the progress and advancement of their nations. These literate graduates were reported lacking good reading habits which are the driving force needed for their nations to be at par economically with other developing nations [1]. Hence, the importance of developing a critical approach to reading is propagated by many institutions of higher of education language and literacy practitioners [2]-[4]. Possessing good reading skills are deemed necessary in understanding, acquiring and utilizing relevant disciplinary knowledge. Being knowledgeable and literate are purportedly the foundations for the development of both intellectual skills and communication skills. In the 21st century, internet has made information from thousands of different sources easily accessible to everyone. Therefore, it is paramount for one to have the competency of reading critically to manage these sources and evaluate their accuracy. In Malaysian context, Malaysian graduates are expected not only to be knowledgeable in their respective disciplines, but also display high level of morality and ethics. This is among one of the 10 shifts that is outlined by MEB (HE) to stimulate students' aspirations. A sustainable excellence in system of the Higher Education Plan will ensure students are able to “harness, connect and apply knowledge learnt, and has an appreciation of culture, arts, and Science, Technology, Engineering and Mathematics (STEM)” [5]. In order to fulfil these aspirations, critical reading skills or critical literacy are given priority in [6].

The inclusion of critical reading skills is apt and timely; there is a shift of the role of knowledge from its traditional nature as being philosophical to a more dynamic, accumulative and integrative attributes. Knowledge needs to be appreciated and utilized interactively, meaningfully and wisely by Malaysian graduates for them to be employable and knowledgeable workers. Armed with the relevant disciplinary knowledge, Malaysian graduates are able to function globally and at same time contribute to the harmony and betterment of the family, society, nation and global community well-being. In the education scenario, many place a high priority on empowering students with reading skills and thinking skills such as the ability to comprehend reading materials; to evaluate information read and to think both creatively and critically. iThink education program is recently implemented in 10 Malaysian primary and secondary schools with the objectives of equipping students with higher thinking skills to enable them to think creatively, innovatively and critically, as well as think out of the box and resolve problems [7]. University students, especially ESL learners need to adopt a reading strategy that could help them read effectively and think critically. This is to ensure that they are able to not only understand but also react to the texts. The learners need to be taught to use a strategy that could empower them to react to different texts by rewording the gist of a particular article in their own words and reacting to the ideas presented by agreeing, disagreeing or creating other possibilities. These skills are important learning outcomes to ensure success in the university. It would also promote the use of high level reading skills and critical thinking skills as they read various reading materials such as academic texts, journals, books, research reports and online reading materials. Many second language instructors and module developers have experimented with several strategies to help foster reading comprehension and critical thinking as means to enhance information evaluation and information literacy upon reading academic texts. However, based on feedbacks and observations, students employ lower level reading strategies and lower cognitive reading strategies in their reading. Students who enter tertiary education are often found to face problems in reading as they are unprepared to handle the reading demands. Factors such as low level proficiency of the English language, poor reading strategy knowledge, perceptions of reading and low interest are those often mentioned by researches as contributing towards students’
problems in approaching reading [8]-[10]. In addition, there is no specific technique or steps stipulated in order to train students to successfully execute the task. Hence, opportunities have to be created to enable students to be “code breakers, meaning makers, text users and text critics” [11] which can be in the form of interventions during the reading cycle. Consequently, an action research was conducted to investigate the probability of using the REAP technique as an intervention for the mentioned purposes in the “Information Sharing” activity. This paper reports the implementation of REAP strategy in two English classes in a public university in Malaysia.

2 LITERATURE REVIEW REAP STRATEGY

A reading strategy known as R.E.A.P which stands for Read, Encode, Annotate and Ponder was first developed by [12] and further expanded by [13]. This technique is a meta-cognitive strategy which teaches students to think deeply and precisely of what they have read. It guides students to ways of responding differently to a text by following the four-step strategy: (1) READ to get the writer’s basic message; (2) ENCODE the message by translating it into own words; (3) ANNOTATE own analysis of the message by writing responses from several perspectives; (4) PONDER what have been read and written. Reference [13] highlighted the key of the four-step strategy approach evolved from a set of annotation types that range generally in hierarchical order from a simple summary of the author’s basic message to various perspectives for higher-order critical and creative analysis. R.E.A.P is a strategy developed for students to use to improve writing, thinking, and reading. As a teaching method, it is intended to teach students a variety of ways to respond to any text. The responses are brief and engaging ways to critique or annotate what they have read. There are different types of annotations which range from simple summary (reconstructive) to highly challenging critical-creative responses (constructive). The preliminary R.E.A.P annotation types require “reconstructive” thinking, understanding and perceiving the essence of the author’s meaning. Meanwhile, the remaining ones require “constructive” thinking – going further than the author’s intended meaning to form the personal schema connections, applications, and variations that permit the learner to transfer information and ideas from one context to another. This hierarchy facilitates assessment and gives guidance to students in reaching “up” to higher levels or “down” to more basic ones that may not yet have been mastered. Investigations into the effectiveness of students’ learning strategies have been becoming increasingly popular and results have shown correlation between the learning strategy used and learning. For example, [14] studied the effects of the R.E.A.P reading comprehension technique on students’ success. He studied written materials such as school textbooks to find out if the technique can create a significant difference in learning success compared to the classical method. The findings of his study showed that students’ learning success levels were significantly higher in the group in which R.E.A.P techniques were used, compared to the classical method group. In a study by [15] it was stated that the R.E.A.P strategy forces students to think about what they already know and apply it to what they just read. Along with forcing the students to summarize, the students will have to go back to the text and identify the phrases and key words that help to back up what they just read. When the students ponder they have to again think about what they learned and how it relates to them by making personal connections. The study also indicates that REAP allows for students to reflect on main ideas including quotes and significant words the author used as well as ponder connections with what the author is writing. Reference [16] stated critical reading is related to thinking and that is why one cannot read without thinking. The integration of 4 Step REAP Strategy in a language course deemed appropriate and timely as the course equips students with both critical reading skills and collaborates critical thinking training in completing a course assignment. The 4 REAP strategy which involves students to Read, Encode, Annotate and Ponder selected texts on a current issue they wish to study and understand. In the process of identifying the writer’s basic message of the text and determining the main ideas of the text, the REAP strategy allows students to engage beyond these four main strategies. It involves other critical reading skills as well such as predicting, acknowledging, comparing, evaluating and decision-making [16]. Students are also required to actively relate the knowledge they already have with the new knowledge they just discovered. As students read their chosen texts and in the process of making sense of what they read, students will need to recall, retrieve and reflect on their prior experiences or memories to construct meanings of the text. The students’ schemata can be seen as the organized background knowledge, which leads them to expect and predict aspects in their interpretation of the text. As stated above, one of the preliminary R.E.A.P annotations requires “reconstructive” thinking. [17] p. 1106 reiterated the infusion of critical thinking skills as part of the course instruction involves “deep, thoughtful, and well-understood subject matter instruction in which students are encouraged to think critically in the subject.” The integration of 4 Step REAP Strategy with the language course provides the students with the opportunity and meaningful experience to build knowledge and reconstruct his/her thinking. Reference [18] also observed that lessons emphasizing critical thinking on relevant topical issues allow students to learn to make decisions in and out of the classroom. The learner is actively interacting with the text in order to understand and perceive the gist of the author’s piece of writing. This active interaction with the text permeates the accumulation of knowledge and engagement with cognitive processes. Furthermore, [19] stressed the importance of students to go beyond memorization toward a construction of their own understanding. They asserted students must be allowed to become critical thinkers who ask questions, take risks, and learn through the process” (p. 190). Not only the 4 Step REAP Strategy encourages students to make intelligent guesses of the author’s thoughts by reconstructing their own thinking and understanding; but also, it provides opportunities for students to develop their questioning skills. When students are constantly questioning what they read they become “constructive” thinkers. [20] further highlighted one of the distinguishing features of critical thinkers “is to be able to raise questions and find pertinent answers for them on the basis of reliable evidence” (p. 775). The deep questions compel students to look beneath the surface and to face with complexities. In other words, the students construct their own understanding of the text by raising pertinent questions and finding answers to their questions as they read critically. They will look for reliable evidence in the texts to support their answers. They are able to make to the practical connection of what they read with their personal schema and apply the
knowledge in their daily interaction. Reference [21] discovered that by reading texts, mainly reading literary texts, improve students’ critical thinking, particularly in analysing a text. Reference [21] also observed the students in their study were able to differentiate facts from opinions; to understand the literal or implied meanings and the narrator’s tone; to locate details related to the issues discussed; to find out the causal relationship or the connections between the events or actions; to detect an inferential relationship from the details observed; to be perceptive of multiple points of views; to make moral reasoning and fair-grounded judgments; and most of all, to apply what they have learned from this process to other domains or the real world (page 5.) Interestingly the students who experienced 4 REAP Strategy also reported almost similar findings as [21]. These are some of the prevalent abilities claimed acquired by the students who participated in the 4 REAP strategy study. Majority of the students reported they were able to respond to a reading text in different ways; able to see the issue discussed from different perspectives; able to state their opinion on the reading text; able to state the rationale for their responses with the writer’s ideas; able to learn from their classmates’ different responses and they claimed that they could share their views on the reading text with their classmates. Hence, critical thinking instruction still needs to be carried out more systematically and explicitly in college classrooms so that the students’ employability can be enhanced.

3 RESEARCH METHODOLOGY

3.1 Research Design
The design of this research was a classroom action research which aims to investigate the effectiveness of REAP explored in achieving the learning outcomes of the “Information Sharing component. This research also intends to probe the effectiveness of REAP technique in enhancing students’ language skills and critical thinking skills.

3.2 Participants and Context of the Study
This study was conducted at a public university involving 64 undergraduates who enrolled in the English Academic Communication 1 course. The participants comprised of 41 first year, 23 second year and 1 third year students from four different faculties: Faculty of Science & Technology (FST), Faculty of Economics & Business (FEP), Faculty of Education (FPEND) and Faculty of Medicine (FPER). They were 19 males and 45 females who obtained a range of Bands 1-4 for the Malaysian University English Test (MUET).English Academic Communication 1 is a course offered for students who have passed MUET with either Band 3 or 4 as well as students who have completed the Foundation English course. This course aims to equip students with the language skills necessary to function effectively in academic settings. One of the course evaluation components includes “Information Sharing”. This evaluation component aims to enable students to read widely and effectively, to share and exchange views on information and issues related to general or academic topics. Students are to select, read, summarize and critically analyze an article related to a selected topic or issue. They are then to share the information and their viewpoints among a small group of three to four classmates. Upon listening to each other’s presentations, they would have to give their opinions regarding the issue and effectively engage in a group discussion. It can be seen that this component requires students to utilize meta-cognitive reading strategies and higher order of thinking skills in reading as students need to have the ability to differentiate between facts and opinions, thinking about viewpoints that cover both sides of the issue and reflecting on what was being read and responding to the writer’s views or message. Hence, the 4 Step REAP reading strategy is seen as an appropriate reading strategy to be introduced to this component in assisting students to read, think and respond to the reading article prior to the information sharing evaluation.

Diagram 1: The REAP strategy

3.3 Implementation of the Intervention
This action research was conducted in three phases mainly (1) pre-intervention phase; (2) intervention phase and (3) post intervention phase.

Phase 1: Pre-Intervention
Prior to the implementation of the intervention, students were asked to read an article related to a theme and identify the main ideas and important details of the article individually. They were also required to respond to the article. At this phase, the students were not introduced to any specific reading strategies. They then reported the main ideas and their responses to the reading article in a group discussion. At the end of this phase, the students wrote a reflective journal to record their experience of the activity.

Phase 2: Intervention (R.E.A.P.)
The intervention phase was conducted for a period of three weeks. Each week, the intervention was carried out for about three and a half hours. The intervention was carried out in three cycles. At the first and second cycles, the reading articles were provided to all students. For the third cycle, the students were divided into three groups. Each group decided a topic of a current issue, new invention or recent discovery. Each member of a group selected an article based on the group’s topic. The articles selected by the group members in each group should all be different from each other, providing different information / perspectives on the same topic. This third cycle is the preparation for the information sharing evaluation. For each intervention cycle, each student was given the REAP reading strategy form to write his/her responses.
Phase 3: Post Intervention
The post intervention for this research was the information sharing evaluation. Students were evaluated based on their ability to identify important main points of the reading article, response and discuss viewpoints in a group discussion. After the evaluation, subjects recorded their experiences using the REAP strategy in preparing for the information sharing evaluation in reflective journals.

3.4 Data Collection
The researchers collected the data from the reflective journals, focus group interviews and questionnaire. This paper presents the findings from the reflective journals and the focus group interviews.

Focus Group Interview
A focus group interview was conducted at the end of the semester upon completion of the course. The interview aims to investigate the students’ perceptions and views on their experience using the REAP strategy in the course. Two interviews were carried out with 12 students from two classes for the duration of one hour for each session. The students are allowed to respond in both Bahasa Melayu (BM) and English in order for them to feel comfortable and free to express their views. The interviews were audio recorded and then transcribed verbatim. The transcriptions were then analysed thematically. Students’ excerpts are labelled (S).

Reflection Entries
At the end of the information sharing evaluation session, students were required to write their reflections on the use of REAP strategy. This reflection aims to investigate the effectiveness of the REAP reading strategy especially for the information sharing evaluation component. Students’ responses are labeled (R).

4 RESULT ANALYSIS AND DISCUSSION
Data from the focus group interview and the reflection have revealed the effectiveness of the strategy utilised in the course prior the information sharing evaluation. The analysis of the data display several themes on the effectiveness of REAP strategy on the students reading skill.

4.1 REAP Strategy Promotes Critical Thinking
The ability to read critically is a required ability for university students. It is heartening to know that the REAP strategy promotes thinking as they read. The following excerpts from the reflection testify to this:

R3: “It helps me to stimulate my critical thinking as I write down my responses to the text. Other than that, it makes the whole information sharing process much easier as I don’t have to talk about the whole article. Instead, I just have to summarise and giving either agreement or disagreement about the main points.”

R5: “In my opinion, I feel that by writing out my responses regarding the article, it helps me to stimulate critical thinking to response to that article. I am able to write out my own opinion either agreement or disagreement.”

The interview data also indicated that students become critical readers. Having to respond by annotating requires them to think critically about the authors’ background, ideas presented in the reading text and also questioning of what they have read.

S4: “Because the first step you have to know who is the writer and what is the title. And sometimes the writer is talking about something that.. emm.. within beyond his…emm.. bukan knowledge… emm.”

S1: “So author and the date and the source. That only taught me that how important.. how much it is important to know the author when it is published because we have to know the opinion given in the article is closely related to what the person is doing or who is the person. For example if the writer or author is a PhD holder, emm.. his views might be more complex and reliable I must say.. emm.. and otherwise if he just emm.. a normal person or normal writer, his views might be you know based on what he think, what he feel but without evidence based on research and so on.”

“I think when we do the strategies, we jot down everything, the main points, everything and when we read it back we did not miss any point and then we started to think why this happen and what the author trying to say and this is how I think this try to teach us the critical thinking”

Students who underwent REAP realized that the experience and the activities offered by REAP manage to develop their critical thinking skills. This finding is also aligned with [22] assertion that the basic competency of reading is by critically thinking about information presented in the form of literature or informational text (in print or online). Students are critically reading a text when they are constantly interacting with the text; they are relentlessly evaluating the accuracy, authenticity and the relevance of the arguments and ideas put forward by the authors.

4.2 REAP Encourages Students to Think and Enable Them to Generate New Ideas
The respondents realized that after undergoing REAP reading strategy, it helps them to generate and organize their ideas better. They also felt that they are now more confident to share their ideas and opinions with their peers. The following excerpts illustrate the students’ claims on how REAP assist students to think objectively and generate new ideas.

S7: “When our context has organized, the benefit I found is I have confidence in talk. This strategy trying make us be organize in the content tu, then bila organize tu and then the last part kita kena share apa opinion kita.”

S5: “Jadi dengan cara tu, kita boleh keluarkan secara tak langsung minda kita berkembang untuk keluarkan idea.”(BM)

S5: “with this way, we are able to develop and generate idea” (English)

R9: “I find that this reading strategy helps me organize details of the text besides assisting me in producing an efficient presentation outline thus, I feel confident in presenting my point of views.”
R14: “I’m be able to share information with my friends and also gain some knowledges regarding global issues. Not only that, I also can communicate with them in English although not totally fluent but I still can improve myself by this sort of activity.”

The use of REAP technique is believed to give an effect in developing students’ reading comprehension [23]. This will aid students to analyse the text to outline the main points and generate new ideas as they finished reading. When students are able to understand, their mind will think further on the information gained from the reading materials.

4.3 REAP Strategy Improves Student Reading Skill in Which They Are Aware of What They Read.
Interestingly, REAP strategy creates students to be become critical reader as now they are more aware, critical and argumentative of what they are reading. They are now more skillful and critical in accepting and agreeing with the author’s opinions reflected in the written texts. Also, students tend to develop the habit of reading critically and objectively by constantly questioning and deliberating the opinions and ideas put forward by the authors in their written texts. Below are excerpts from the reflections and interviews to support the notion that REAP strategy improves students’ reading skill.

R11: “Yes. For example, before this I always completely agree with all the ideas in an article. Now, I learn that I need to think critically before agree or disagree with some ideas and I also know that I can actually give my own opinions based on the article.”

S8: “I actually like the strategy. emm where the part where we need to ponder, we need to share with our classmaters, our friends. Because we can clear other people view and we can maybe argue about it if we don’t agree and give our own opinion. That way it helps us to think critically with our own opinion and so on.”

Throughout reading, students are able to analyze, think critically, interpret and explain the information gathered from the text [24]. Thus, information will be summarized based on student’s understanding and new ideas were generated as the make conclusion of the text.

4.4 REAP Strategy Improves Understanding
Respondents revealed that REAP reading strategy is easy to understand and apply, enabling them to be more organized when reading hence improving their understanding of the reading materials. The students revealed that the strategy has helped them in the reading. They claimed were able to understand the reading text better.

The following excerpts from the interview and reflection testify to the claims;

S2: “when we jot down something (ENCODE) it makes me.. for me.. to understand more.. what actually I am reading.. because when we are writing we look at the thing that we write. Is it relevance for us to state in the article or not. So we can actually show our understand of the article.”

S5: “As for me, critical thinker means think out of the box, right? First from this strategy actually, in myself I’m developing a stage where understand the article clearly because before this.. before know this step.

R3: “The usage of REAP reading strategy helps me to understand the article better by understanding what the writer is trying to deliver. This is achieved by listing all the main points first before giving response to the article.”

R12: “Honestly, I manage to understand more about the article I am reading. I can grasp the main idea and its supporting details and make a brief annotation.”

R19: “I can get the main idea of the writer easily and understand more of the article rather than just reading without writing anything.”

R4: “It teaches me the correct way or technique of reading. It also saves my time in searching for the main points and to extract the relevant information.”

The interview conveyed that students have improved their reading comprehension using REAP strategy. Reading critically throughout the text make them understand better what are being discussed in the reading material. REAP strategy is said to improve students’ reading comprehension [25]. It is further supported by [26] which stated that REAP strategy is an effective way in comprehending a reading material.

5 CONCLUSION
This study was carried out to investigate the effectiveness of REAP strategy employed in an English course. The findings of the study demonstrated that the strategy through the four steps has helped students become engaged, effective and critical readers. This study highlights the importance of training and equipping students with the essential reading skills in promoting students as critical readers. Exposing and providing students with hands on activities of the different phases of REAP reading strategy, mainly, read, encode, annotate and ponder, would provide students with the significant, practical and meaningful experience in becoming critical readers. These four reading phases in REAP reading strategy offer valuable and meaningful experience for learners to interact and gain meaning from written texts. When learners are able to make meaningful connection with the written text, not only they become motivated to read texts beyond their discipline, but also, they are capable of reading and deciphering complex texts. Displaying good reading habits among students at institution of higher learning is pivotal as the right reading strategy could enhance the educational development and experience of students. As REAP strategy was pedagogically planned and implemented, it has the potential to advocate students as critical readers. Students need to develop their...
critical reading skills before they can master the 4 Cs—critical thinking, collaboration, creativity, and communication. In addition, REAP strategy is capable to instil and nurture these 4 Cs among the students due to its dynamic and flexible teaching and learning platform. REAP strategy, even though was operationalized within a traditional classroom context, does not delimit its capability to create opportunities and meaningful engagement that are necessary to enhance the educational experience of students as critical readers. REAP strategy is able to bring these critical reading abilities into the learning environment. REAP strategy can be seen as an effective learning platform for students to develop their critical reading skills as it scaffolds and engages students with both the foundational and advanced learning to achieve the targeted reading proficiency. Most importantly, REAP strategy does not only develop students with critical reading skills, but it also equips students with thinking skills which could lead them to be intellectually and professionally competent which are essential for college and career readiness.

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7 REFERENCES