A Practical Application of Schemata Theory to Enhance Reading of Authentic Texts in a Japanese EFL Classroom

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I. Introduction

Much research into second language acquisition (SLA) has focused on the language itself, rather than those who are acquiring it, assuming that meaning is derived from the language, devoid of an agent or in this case: a learner. Under this pretense, the salience of the background knowledge of the learner is ignored (Carrell & Eisterhold, 1983). Schema theory is a psycholinguistic model that emerged in the 1960 s and 1970 s which addresses learners' pre-existing knowledge about the world and how it impacts their construction of meaning in second language (L2) reading (Carrell & Eisterhold, 1983). *Schemata* refer to "cognitive structures representing generic knowledge . . . which do not contain information about particular entities" (Emmot & Alexander, 2014, p.756) and readers use their existing schemata to fill gaps in their existing knowledge. This affords readers the ability to understand a text without understanding every piece of information it contains. Schema theory is used by researchers in a variety of contexts to examine how readers interpret a text (Emmot & Aleander, 2014; Fahriany, 2014; Zhao & Zhu, 2012), and is thus highly relevant in both the study of one's first language, and in SLA in English as a Foreign Language (EFL) contexts.

By activating students' schemata, prior to presenting a piece of authentic text, it is hoped that the students will be far more receptive to the text's content and better comprehension will be facilitated as "efficient readers are able to relate 'texts' to their background knowledge of the world" (McConough, Sha & Masuhara, 2013, p.119). Students face a myriad of difficulties when reading due to 'cognitive

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deficits' (Cook, 2008). These deficits are unrelated to language ability and in fact stem from problems associated with processing L2 language. By activating the students' schemata, however, many of these deficiencies can be overcome by facilitating 'top-down' processing (Ur, 2012), enabling students to better understand a text by providing them with context and overview of the text they are reading. Evidence for the efficacy of activating background knowledge to improve reading comprehension was demonstrated in previous studies (Chen & Grave, 1995; Van Staden, 2011; Zhao, & Zhu, 2012). One study found that the prior activation of specific information related to the text led to significantly better comprehension among the treatment group as compared to a control group (Chen & Grave, 1995).

Harmer (2007) also stresses the importance of selecting a text with an appropriate level of difficulty that is neither too easy, nor too hard for the students. While highlighting the demotivating nature of carelessly chosen authentic material that contains too many unknown words, he also acknowledges that it may be necessary to pre-teach certain words if they might become a serious obstacle to comprehension. Hammer (2007) proposes a common sense solution to the problem of using a challenging authentic text－scaffolding the students' efforts to comprehend the text by providing just enough explanation of unknown words. The article selected in the prescribed treatment below was chosen for this reason.

The present paper outlines an actual approach used to teaching reading using authentic text in a Japanese EFL business teaching context. By making explicit reference to how schema theory informed decisions made in the design and implementation of an English reading lesson, it is hoped that this approach will provide other educators with an outline as to how they can adapt it to their own teaching contexts to effectively teach authentic text employing the same strategies. The target group of students and reasoning behind the choice for the authentic text are discussed next, followed by an outline of how the lesson was applied.

II. The Present Paper

The treatment outlined below was designed for a small group of Japanese professionals with an intermediate level of English. The four students were in their mid-twenties and mid-thirties. Although they occasionally had the opportunity to use English on business trips, their primary motivation for learning English was simply for pleasure. While business English was a component of their studies, the students reported using English lessons as an opportunity to take a break from the routine of their jobs. They particularly enjoyed discussing topics related to pop-culture and this influenced the choice of the authentic text for the lesson described below.

The text utilized in this approach was a short article taken from the Guardian

Newspaper ("Pen-Pineapple", 2017). It concerns a meeting between American President Donald Trump, and Japanese comedian Pikotaro. Ur (2012) notes that in order to promote reading fluency, the texts "should be based on information or world knowledge that the students are familiar with" (p.144). She also highlights the importance of selecting a text based on the readers' interests but "with enough extra information to invite curiosity and increase knowledge" (p.145). At the time the lesson was conducted, Pikotaro's *Pen-Pineapple-Pen* song gained a great deal of attention in Japan and internationally, and was thus appropriate for this treatment.

The lesson design was divided into three sections: pre-, during, and post-reading activities. The relevant details for each section are discussed below with explicit reference to the literature, rooted in schema theory, that informed their design. The article also provides suggestions other educators might use for taking a similar approach.

1. Pre-reading Activities

Prior to having students work with a particular text, it is important to engage students and create interest. With reference to students, Harmer (2007) notes that "we want to activate their knowledge before they read . . . so that they bring their schemata to the text" (p.206). In the first pre-reading activity, the students taking part in the present treatment were provided with just the headline of the article. This pre-reading activity satisfied both the requirements of engagement and familiarity, as the students' familiarity with Pikotaro was intended to spark their interest, activate their schemata, and alert them to the possibility of Pikotaro being featured in the text. The inclusion of the word 'President' may activate their pre-existing knowledge concerning the current U.S president and allowed them to predict that the story could involve a meeting or relationship between these two people. This activity was used therefore "as part of the procedure to create interest and activate the student's schemata" (Harmer, 2007, p.272).

The students were then given the following questions to discuss in pairs:
1) What kind of text does this come from? (a book? /a magazine? / a newspaper? / a comic?)
2) What people are going to be in the story?
3) What do you think the story is going to be about?

McConough, Sha and Masuhara (2013) state that "pre-reading questions can be useful because they focus learners' attention on the types of information that they are about to read" (p.117). Once the students discussed the questions in pairs, they shared their answers with others. The teacher then presented the students with two pictures: one of Donald Trump and one of Pikotaro. Van Staden (2011) advocates the utilisation of tangible, hands-on, practical materials including the use of visual

aids during lessons in order to actuate schemata, prior to a reading task. From the preceding discussion in pairs, the students should have already identified Trump and Pikotaro as the two main people featured in the story (if they had been unable to do so, the pictures would have informed them of the link between the headline and the people in question). The integration of these distinct, schemata activating tasks (the discussion of topic relevant questions and examination of relevant visual aids), facilitates cognitive predisposition to efficient language uptake during the subsequent reading activities.

Their is a necessity to employ both 'top-down' and 'bottom-up' reading strategies (Ur, 2012). The activation of the students' schemata through the first activity will allow the students to get an overview of the content of the text and facilitate more fluent reading and better understanding. Nevertheless, without sufficient knowledge of individual words featured in the text (the 'bottom-up' strategy), the text could be too difficult for the students. While stating the necessity of students being able to engage with texts without understanding every word, Harmer (2007) also concedes that pre-teaching certain words is sometimes necessary. This is particularly relevant when the chosen texts contain a high number of words students are unfamiliar with, or in texts that contain specialized language that is uncommon outside of a particular context. It has also been noted that "the top-down process interacts with the bottom-up process in order to aid comprehension" (McConough, Sha, & Masuhara, 2013, p.119-120). A second pre-reading activity ensured that the students are able to employ the 'bottom-up' strategy to understand the text by encouraging them to find the meaning of some of the more difficult words featured in the text.

For their second pre-reading activity, the students were presented with a list of words featured in the story (Table 1). The instructor chose words he perceived to be beyond the students' knowledge, given the participants' level of linguistic competence at the commencement of the study. The students were then tasked with matching these words to the corresponding definition. To ensure that the students were able to successfully perform the activity, the first answer was modelled by the instructor who asked one of the higher proficiency students to provide the correct definition to one of the easier words (e.g. 'brief'). Having confirmed accurate comprehension of the task, the students were instructed to complete the activity in pairs.

Table 1　List of Words and Corresponding Definitions Provided for Pair-matching Activity

Word	Definition
Ostentatious	hugely successful
Outshone	quick
Creator	was better than/superior to～
Upbeat	loud, colourful, trying to show-off or impress
Smash hit	maker
Brief	positive

For the final pre-reading activity, the students were presented with the article subheading with certain words blanked out. The complete sub-heading reads: "The U.S President was briefly outshone on his Tokyo visit by the creator of the smash hit Pen-Pineapple-Apple-Pen." The students received: "The _. _ /_ _ _ _ _ _ _ _ _ _ was briefly _ _ _ _ _ _ _ _ on his Tokyo visit by the _ _ _ _ _ _ _ of the smash hit _ _ _ – _ _ _ _ _ _ _ _ _ – _ _ _ _ _ – _ _ _". In pairs, the students were tasked with filling in the blanks using some of the words from the previous activity. Once they had checked their answers with the rest of the class, they were given time to talk about the meaning of the sub-heading; discussing what it reveals about the content of the story, and comparing it with their answers from the first pre-reading activity.

2. During Reading Activities

With the students' schematas now sufficiently primed, they had an understanding of the background to the text and a knowledge of the people involved. It was hypothesized that the participants were therefore able to bring their pre-existing knowledge to bear on the complete article, and were better prepared to interpret its meaning in light of this knowledge using 'top-down' processing. For the first "during reading" activity, students were presented with the full article and were allotted 1 minute 30 seconds to skim-read the text. The instructor emphasized that it is not important that they understand everything in the text and that they are only attempting to comprehend the gist. They were instructed to skip over unknown words if possible and just concentrate on the general meaning. Harmer (2007) argues this strategy will aid students when "they read for more specific information" (p.202). Students then discussed in pairs what they think the story is about, then shared with the class.

The students were then asked to scan for specific pieces of information in the text. They were given 2-3 minutes to find the answers to the following questions:
1) Where did Trump and Pikotaro meet?
2) Why was Pikotaro chosen to perform?
3) How long is Pikotaro's song?

4) What member of Trump's family is a big fan of PPAP?
Students were reminded that they are searching for specific pieces of information and they were made aware that "it is not only legitimate but actually desirable to ignore redundant or repetitive items or chunks of text while reading" (Ur, 2012, p.144).

Students were then afforded the opportunity to investigate the meaning of some of the other unknown words from the text that may have aroused their curiosity. Thus far in the procedure of the study (with the exception of the word meanings revealed in pre-activity 2), the students had been encouraged to employ their skimming and scanning skills in conjunction with their pre-activated schemata, in order to obtain a general understanding of the text. This was due to the necessity for students to develop the ability to derive meaning from authentic texts despite the presence of difficult or unknown words. As Harmer (2007) notes "getting past words they don't understand is one of the skills they need to develop. By giving them some or all of those words, we deny them that chance" (p.272).

By supplying the students with the meaning of words they had previously been unable to recognize or deduce from the context, the students were able to engage with the text on a more cognitively challenging level. The importance of building a large recognition vocabulary in order to become a fluent reader has been stressed in the literature (Grabe, 2014). This activity therefore also acts as a vocabulary building exercise that serves to scaffold the students' subsequent reading efforts in other contexts, beyond the study in question.

The unknown words elicited from the students subsequent to the completion of the initial reading questions were then written on the board and the meaning was explained by the instructor. The instructor briefly answered any follow-up questions concerning meaning or how these words relate to the text. By listening to the instructor's explanations of these words, the students were also encouraged to apply their listening skills in relation to the text. The learners were thus enabled to probe the relationship between these new words and their current understanding of the article in the light of their schemata and the new information discovered through the previous activities.

Armed with a fuller understanding of the meaning of the text and of the previously unknown vocabulary, the students then completed the third during-reading activity by reading the text again. This time they were tasked with attaining a deeper comprehension of the text by attempting to find some of the less obvious points it is possible to infer from the article. The students were presented with the following questions:
1) How did Pikotaro feel about the meeting?
2) How do you think Trump felt about the meeting?

3) Do you think it was coincidental that the video of Trump's daughter dancing to PPAP went viral during Prime Minister Abe's trip to New York?

These questions require a more thorough knowledge of the vocabulary used in the article and the students were encouraged to infer the answers from the surrounding content, stylistic clues, nuances, and their own opinions. Again, the previous activation of the student's schemata is key to the success of this activity as students' must discuss the questions in the light of their own knowledge as well as in relation to the information provided by the text. They were also required to be sufficiently motivated by the subject matter to properly engage with the questions despite the raised level of difficulty. Harmer (2007) points out, "the best kind of tasks are those which raise student's expectations, help them tease out meanings and provoke an examination of the reading or listening passage" (p.274)

3. Post-Reading Activity

The students were then presented with some questions to discuss in pairs in light of the themes raised by the text:
1) Why do politicians meet with celebrities?
2) Do you think politicians meeting with celebrities is a good or a bad thing? Why?
3) Think of a place or an organization that is important to you. (e.g. your home city/ a school/ a charity / a political party / a club you belong to) If you could choose any celebrity to come to an event to support your important place or organization, who would you choose and why?

Students first discussed their answers in pairs before sharing and debating their answers with the class.

III. Conclusion

In sum, the careful selection of a text (suitable both in terms of the level of difficulty, its interesting nature and the cultural appropriateness for this class) will engage students. The pre-reading tasks are meant to activate their schemata and further stimulate interest and provoke speculation about the text. Using their activated schemata, students should be able to engage with the text using 'top-down' processing. The subsequent 'bottom-up' processing related vocabulary building exercises－in conjunction with aural input from the teacher and the various discussion tasks provoked by the text－will all ensure that "the students have had a rich language experience, and because they have had a chance to predict content, listen, read and then discuss the text, they are likely to be very involved with the procedure" (Harmer, 2007). Educators can adapt and apply a similar approach to

their own language classes, and employ schema theory to make more calculated, research-informed decisions about how they wish to design and execute reading-centred activities in the second language classroom.

References

Carrell, P. L., & Esiterhold, J. C. (1983). Schema theory and ESL reading pedagogy. *TESOL Quarterly, 17*(4), 553-573.

Chen, H-C., & Graves, M. (1995). Effects of previewing and providing background knowledge on Taiwanese college students' comprehension of American short stories. *TESOL Quarterly, 29*(4), 663-686.

Cook, V. (2009). *Second language learning and language teaching* (4th ed.). London, UK: Hodder Education.

Emmott, C., & Alexander, M. (2014) Schemata. In P. Hühn, J. C. Meister, J. Pier, & W, Schmid (Eds.), *Handbook of Narratology* (2nd ed.) (pp.756-764). Berlin, Germany: de Gruyter.

Fahriany, F. (2014). Schema theory in reading class. *IJEE Indonesian Journal of English Education, 1*(1), 17-28.

Grabe, W. (2014). Key issues in L2 reading development. In X. Deng & R. Seow (Eds.), *4th CELC Symposium for English Language Teachers.* Symposium conducted at the meeting of the Center for English Language Communication, National University of Singapore, Singapore. Retrieved from http://www.nus.edu.sg/celc/research/books/4th%20Symposium%20proceedings/2).%20 William%20Grabe.pdf

Harmer, J. (2007). *The practice of English language teaching* (4th ed.). Harlow, UK: Pearson Longman.

McDonough, J., Sha, C., & Masuhara, H. (2013). *Materials and methods in ELT: A teacher's guide* (3rd ed.). Chichester, UK: Wiley-Blackwell.

No author. (2017, November 7). *The Guardian.* Pen-Pineapple-Apple-President: Donald Trump meets Pikotaro. Retrieved from https://www.theguardian.com/world/2017/nov/07/pen-pineapple-apple-president-donald-trump-pikotaro

Ur, P. (2012). *A course in English language teaching* (2nd ed.). Cambridge, UK: Cambridge University Press.

Van Staden, A. (2011). Put reading first: Positive effects of direct instruction and scaffolding for ESL learners struggling with reading. *Perspectives in Education, 29*(4), 10-21.

Zhao, X & Zhu, L. (2012). Schema theory and college English reading reaching. *English Language Teaching. 5*(11), 111-117.