Models of EFL Thai Readers' Reading Process: Evidence from Thai Graduate Students' Translation แบบจำลองกระบวนการอ่านของพู้อ่านไทย ในการอ่านข้อความภาษาอังกฤษซึ่งเป็นภาษาต่างประเทศ: หลักฐานจากการแปลอังกฤษเป็นไทย

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#### **Abstract**

This paper presents the results of a qualitative research study that aimed to find out the reading process of EFL Thai learners. The data were collected by using a translation test administered to Master's degree students majoring in Business Economics and in Administration Technology at National Institute of Development Administration. They were divided by their performance on the test into good, average, and poor reader groups. The translation papers of only those in the poor reader group were analyzed and some of the students were selected for interview to find out what strategies they used in constructing the meaning of each text in the test. Those in the good reader group were also interviewed about their strategies too, but their papers were not analyzed. It was found that poor readers relied mainly on top-downprocessing, using their background knowledge of the world in constructing the meaning of the texts they read, while good readers used both bottom-up processing and top-down processing alternatively and simultaneously in their reading. Both groups started reading by finding out what the text was about, but they differed in the way they interpret the information. Also, while poor readers skipped many words in the text,

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good readers took almost all of them into consideration while reading. Poor readers added some information or connectives not appearing in the texts, while good readers supplied a connective only when a certain relationship was implied in the text. Poor readers were found to be greatly influenced by the mother tongue. From the findings, models of reading process of poor EFL Thai readers and good EFL Thai readers are presented in this paper.

# บทคัดย่อ

บทความนี้นำเสนอผลการวิจัยเชิงคุณภาพซึ่งมีวัตถุประสงค์จะศึกษา กระบวนการอ่านภาษาอังกฤษของนักศึกษาปริญญาโทสาขาเศรษฐศาสตร์ธุรกิจและ สาขาเทคโนโลยีการบริหารที่สถาบันบัณฑิตพัฒนบริหารศาสตร์ ข้อมูลในการวิจัยได้ จากการให้กลุ่มตัวอย่างทำแบบทดสอบการแปล และการสัมภาษณ์กลุ่มตัวอย่างบางคน ในกลุ่มเก่งและกลุ่มอ่อน ผู้วิจัยได้วิเคราะห์กลยุทธ์การอ่านของกลุ่มที่เป็นกลุ่มอ่อนจาก ข้อผิดพลาดในการแปล และมีการสัมภาษณ์ประกอบ ส่วนกลุ่มเก่งผู้วิจัยใช้การ สัมภาษณ์เพียงอย่างเดียว พบว่า กลุ่มอ่อนจะใช้ความรู้ภูมิหลังในการทำความเข้าใจ เนื้อเรื่องที่อ่านเป็นส่วนใหญ่ ไม่ค่อยจะทำการวิเคราะห์ทางด้านภาษา ในขณะที่กลุ่ม เก่งใช้ทั้งสองกลวิธีสลับกันหรือพร้อมกัน ทั้งสองกลุ่มเริ่มด้วยการดูว่าเนื้อความนั้นเกี่ยว กับเรื่องอะไร แต่กลวิธีในการอ่านต่างกัน ในระหว่างที่อ่าน กลุ่มอ่อนข้ามคำต่าง ๆ ใน เรื่องจำนวนมาก โดยสนใจเฉพาะคำที่ตนรู้ความหมายและนำมาผูกความกันโดยใช้ ความรู้ภูมิหลัง ไม่ค่อยมีการวิเคราะห์ลักษณะทางภาษาของภาษาอังกฤษที่อ่าน ในกรณี ที่ภาษาอังกฤษมีความซับซ้อนมากและมีศัพท์ยากแต่ผู้อ่านมีความรู้ภูมิหลัง จะใช้วิธี สรุปมาจากความรู้เดิม ไม่สามารถให้รายละเอียดในเรื่องที่อ่านได้ อีกทั้งยังเติมคำเชื่อม และคำอธิบายที่นอกเหนือไปจากที่มีอยู่ในต้นฉบับภาษาอังกฤษอีกด้วย ในขณะที่กลุ่ม เก่งพิจารณาคำเกือบทุกคำในเนื้อเรื่องเพื่อสร้างความหมายและมีการวิเคราะห์ประโยค โดยจะใส่คำเชื่อมต่อเมื่อประโยคนั้นบ่งบอกไว้เป็นนัยเท่านั้น ไม่ใส่ข้อมูลอื่นเพิ่มเติม เข้ามา จากผลการศึกษาผู้วิจัยได้สร้างรูปแบบจำลองการอ่านของทั้งสองกลุ่มไว้ด้วย

# 1. Introduction

Reading involves the reader, the text and the interaction between the reader and the text. Experts in reading agree that "more information is contributed by the reader than by the print on the page" (Clarke and Silberstein, 1977: 136-7). According to Aebersold and Field (1997), family or home, community, school, socio-cultural environment, and individual differences are the five most crucial sources that shape life experiences which readers bring to reading.

Researchers have built several reading models to describe what people do when they read. Barnett (1989) groups them into three main models or approaches: bottom-up model, top-down model, and interactive model. The bottom-up model argues that readers construct the meaning of the text from the smallest units (letters to words to phrases to sentences and so on). This process is automatic for efficient readers. Decoding is an earlier term for this data-driven process. On the other hand, the top-down model states that while reading readers apply a great deal of background knowledge (linguistic, historical, cultural) to the text, they have expectations and assumptions about it. In other words, they fit the text into their existing knowledge. They continue reading as long as the text confirms their expectations. They check back when new or unexpected information appears. Top-down processing is thus conceptually driven. However, researchers have later found that both processes occur either alternatively or simultaneously while readers are trying to comprehend a text (Rumelhart, 1980). This process is called an interactive process, and schema theory is one widelyknown interactive reading theory which emerged in the late 1970's. According to this theory, "a text only provides directions for listeners or readers as to how they should retrieve or construct meaning from their own, previously acquired knowledge" (Carrell and Eisterhold, 1998: 76).

The readers' background information—whether linguistic knowledge, knowledge of rhetorical structure or organization, content, culture, including their beliefs, often referred to as schema—are used to comprehend the text. There are four main types of schema: content schema (background knowledge about the content of the text), formal schema (the knowledge of rhetorical structure),

linguistic schema (the linguistic knowledge), and cultural schema (the cultural background knowledge).

The background knowledge readers bring to reading allows them to adjust their expectations and strategies to fit the text they are reading. The meaning one reader gets from a text—which can be anything from a few words, to one sentence, to thousands of words or thousands of sentences—may be different from that of other readers reading the same text.

Schema theory has contributed to the understanding of reading process, especially in first language (L1) reading. Similar to the findings of L1 reading research, many ESL/EFL studies have confirmed the interactive theory. For example, Johnson (1982) studied the effects of content schema on ESL reading comprehension and reported that a text on a familiar topic was better recalled by ESL readers than that on an unfamiliar one. Studies by Carrell (1981), Johnson (1981), and Steffensen, Joag-dev, and Anderson (1984) have shown how cultural content knowledge presupposed by a text interacts with the reader's own cultural knowledge of content. Also, Alderson and Urquhart (1998) have found a discipline-specific effect of cultural background knowledge on tests of reading comprehension.

From the review of related literature, most ESL research has observed oral reading behavior of ESL learners and the results support the interactive models of reading. The subjects of earlier studies were usually asked to orally recall what they read and oral miscue analysis was made to find out their reading process. The subjects of most studies consisted of students prepared to study in the USA or in English speaking countries. Few studies exist that focus on the reading process of EFL Thai learners. Therefore, the objectives of this study were to describe the reading process of good and poor Thai readers reading English academic texts to confirm that reading is an interaction between the reader and the text, and to construct a model of reading process of good Thai EFL learners and that of poor Thai EFL learners. The results of the study can help to understand how Thai learners who are not English majors process academic reading texts and can be used as a guideline for English teachers at the university level to find some technique to teach EFL Thai learners to read efficiently.

# 2. Methodology

Subjects. The study included 100 first-semester Master's degree students at National Institute of Development Administration (NIDA) who were taught by the researcher in the same semester. However, at the analysis stage only 40 of them were selected as the sample (see the analysis stage that follows): 20 out of 40 students majoring in Business Economics (BE) (weekday program) and 20 out of 60 students majoring in Administration Technology (AT) (weekend program). They were required to take an English reading skill development course because their reading ability was not good enough to read academic texts.

Materials. An English-to-Thai translation test was constructed by the researcher to collect the data. The test consisted of 10 single complicated sentences and 2 two-sentence paragraphs. These sentences were purposively selected and pre-tested with other groups of students before the semester in which the data collection was made. They contained some difficult features that required the students to use their background knowledge of different types, particularly linguistic knowledge and correct reading strategies, to construct the meaning from each given text. The aim was to find out how they processed the texts to derive the meaning.

Data collection. The test was administered for two hours to all the 100 students after they had been taught the technique of sentence analysis—identifying sentence patterns, core parts of the sentence, head words and modifiers. The BE students were administered the test as a quiz in the normal class period. Some who could not finish it on time were allowed some extra time to complete it to make sure that all the items in the test were translated. The AT students, the weekend students, were assigned to do the translation as a take-home exam and were asked to return it in the next class. In addition, all the students were allowed to use any dictionary to help get the meaning of unfamiliar words.

After grading the test papers, the researcher informally interviewed some selected good readers and some selected poor readers, having them describing how they translated the texts.

Data analysis. After the test papers were graded, the students were divided

into three groups—good, average, and poor—on the basis of their performance on the test. Only the top ten students were put in a good reader group for interview, and thirty students whose scores were at the bottom of the list were selected to put into the poor reader group and their errors in translation were analyzed. Only 10 students in the poor reader group were selected by using fish bowl draw for interview about how they read the texts. The average reader group was not interviewed.

# 3. Findings

The errors in the poor readers' translated versions imply not only their reading deficiency but also their reading process. Even a small sample of their errors can reflect their reading strategies.

# I. Application of the mother tongue's grammar to decode the meaning

Poor students applied the grammar of the mother tongue to reading EFL. The sentence below illustrates this point.

Sentence 1: Standardized production makes it difficult to meet the needs of different customers for variations in the design, quality, and price of a product.

Thai version: การผลิตให้ได้มาตรฐานเป็นสิ่งที่ยาก<u>เพราะ</u>จำเป็นต้องรู้ถึงความต้องการของ ลูกค้าที่แตกต่างกัน <u>เช่น</u> ในเรื่องของดีไซน์ คุณภาพ และราคาของผลิตภัณฑ์ ที่ลูกค้ามีในแต่ละคนที่ไม่เหมือนกัน

The Thai translated version can be translated back into English as follows:

<u>To reach the standard of production</u> is difficult <u>because</u> it is necessary to know the customers' different needs <u>- for example</u>, design, quality and price of the product <u>- which are different among the customers</u>.

This sentence is a good example of the students' difficulty in constructing the meaning of a noun with a pre-noun modifier in the form of past participle, because in Thai the head noun comes before the modifiers.

Moreover, since the Thai language does not place a suffix after an adjective, poor EFL Thai readers tend to overlook this linguistic feature. Here the students

did not take into account the suffix -ed in the word "standardized". The interview revealed that some thought that standardized is a verb and production is the object of the verb.

Besides, because Thai does not have some linguistic features found in English, poor EFL Thai readers overlook such features as English structure words, articles, and capital letters used to indicate a proper noun. The following two-sentence paragraph in the test shows that poor Thai readers sometimes overlook some linguistic features of EFL when they construct the meaning from English texts.

Paragraph: A Thai International plan to set up a duty-free shop at Don Muang Airport's arrival terminal has won support from the Airports Authority of Thailand because it will provide a better tourist alternative and also generate much-needed foreign exchange. Passengers will have a wide range of goods to choose from once the duty-free shop is ready; moreover, it will divert revenue currently being spent on duty-free goods on aircraft to the country's coffers.

Thai version: การวางแผนด้านต่างประเทศของประเทศไทยที่จะจัดตั้งร้านค้าปลอดภาษี ณ ขา เข้าของท่าอากาศยานดอนเมืองได้รับการส่งเสริมจากการบินแห่งประเทศไทย เพราะจะ ทำให้นักท่องเที่ยวได้มีโอกาสในการเลือกสินค้าตามความต้องการ ผู้โดยสารจะมีโอกาส ในการเลือกชื้อสินค้าปลอดภาษีจากร้านค้าปลอดภาษีเพิ่มขึ้น และยิ่งกว่านั้นจะทำให้ เป็นการเบี่ยงเบนความสนใจการชื้อสินค้าปลอดภาษีบนเครื่องบินในปัจจุบัน

The Thai translated version can be translated back into English as follows:

Thailand's planning of setting up a duty-free shop at the arrival terminal has been supported by the Aviation of Thailand because it will enable tourists to have an opportunity to choose a wide range of goods as they want. Passengers will have more opportunity to buy duty-free goods from the duty-free shop; moreover, it will divert them from buying duty-free goods on the planes at present.

The first sentence reveals that the student did not notice that Thai International was written with a capital letter in each word and it is a proper noun, referring to the national Thai airlines, so they interpreted each word as a



common noun. However, he noticed the capital letters in *the Airports Authority of Thailand*, although he gave a wrong translation because he did not know the exact name of the organization.

Other errors in the translated version shows that that he skipped some parts of the original text, especially those in which he did not know the meaning of some words (*divert and coffers*), and tried to construct the meaning as he expected that it should be from his own experience.

# II. Application of the knowledge of word meaning acquired in the mother tongue to EFL reading

The background knowledge acquired in the mother tongue is also used to get the meaning of the English text. Both the error in translating "standardized production" in Sentence 1 and the interview revealed that most of the samples assigned a wrong meaning to the word "standard" even in their own language. They misunderstood that this word meant "a high quality", not "the same pattern".

# III. Constructing the relationship between ideas through top-down processing, adjusting the language structure of the constructed meaning to fit the mother tongue's syntactic structure

Poor students tried to make the ideas in the text relate to each other by adding some connectives, particularly conjunctions and prepositions. Again the errors in translating Sentence 1 can illustrate the point. In trying to make the translated version smooth, some added the conjunction "because" and the conjunctive adverb "for example" to link between ideas, even though these connectors did not appear in the original text.

Some even gave further explanation. Sentence 2 below illustrates this point.

Sentence 2: When shares are issued in two or more classes, the ordinary shares are the shares most likely to benefit from the success of the company as regards both dividend payments and capital appreciation.

Thai version: เมื่อหุ้น<u>ถูกแบ่ง</u>ออกเป็นหลายๆ <u>ระดับ เช่น หุ้นกู้ หุ้นบุริมสิทธิ์ หุ้นสามัญ เป็นต้น</u> หุ้นสามัญถือเป็นหุ้นสามัญถือเป็นหุ้นที่มีส่วนร่วมในผลประโยชน์<u>กับ</u>ความสำร็จของบริษัท

# โดยการที่ได้รับผลตอบแทนเป็นเงินปันผลหรือ<u>มูลค่าหุ้นที่เพิ่มขึ้น</u>

The Thai translated version can be translated back into English as follows:

When shares <u>are divided into several levels, such as debentures, preference share and ordinary shares etc.</u>, ordinary shares are those that participate in the benefit and the success of the company by receiving the returns in the form of dividend or <u>the increasing value of the share</u>.

In this sentence the reader showed his understanding of the text by adding some kinds of shares as examples.

# IV. Using the guessing strategy (top-down processing approach) when one does not know some words and cannot skip them without losing necessary information

In Sentence 2 cited as an example in the preceding item, the reader did not know the meaning of the word "issued", so he assigned a wrong meaning to the word through his background knowledge. He translated "issued" as "divided", and "classes" as "levels". However, this student's translated version shows that he knew that this verb was in the passive voice and he considered it when constructing the meaning. In other words, he also used the bottom-up approach to derive the meaning along with the top-down processing. The fact that he could correctly translated the noun phrase "capital appreciation" implies that he did not use word-for-word translation but tried to construct the overall meaning of this noun phrase.

From their translated versions, the researcher noticed that they did not like looking up difficult words in the dictionary.

- V. Skipping some words that one does not know and still the derived meaning not very much deviating from the original text because of activating the right schema
  - Sentence 3 below is an example.
- Sentence 3: The purpose of capital as one of the agents of production is to assist labor by increasing the output from a given amount of effort.
- Thai version: <u>การใช้เงินทุนในการผลิตสินค้า</u>เป็นการช่วยเหลือแรงงานโดยการเพิ่มผลผลิต<u>จาก</u> <u>การใช้จำนวนการผลิตที่เท่าเดิม</u>

The Thai translated version can be translated back into English as follows:

<u>The use of capital in production of goods</u> is to assist labor by increasing the quantity of goods by using the same amount of production.

Often in translation some details in the original text were missing. In this example, the student did not take all the words in the first part of the sentence into consideration because he did not know some technical terms; however, he still tried to make sense out of it and the derived meaning was not very much deviated from the original text because he activated the right schema.

From the interview, the student knew the meaning of the word "purpose", but he translated it as "use". He ignored the meaning of the word "agents" in translation, and tried to make sense of the text by using the preposition "in" to link the ideas. He said, "If I did not translate *purpose* as *use*, the sentence would not make sense to me." The interview of other students revealed that many did not know the meaning of the technical term "agents of production". This is the case even among the BE students because they did not major in Economics in their undergraduate study.

# VI. Reading part by part

All the translated sentences in the test reveal that the students in the sample normally read part by part. However, poor readers did not always read in thought units. They either skipped any part that contained difficult words or tried to construct the meaning of the next part based on the preceding part.

VII. Sampling some words in a sentence part that contain a certain complicated structure to construct the meaning by summarizing the meaning of that part using the background knowledge

Sentence 4 below is an example.

Sentence 4: A cheque that appears to have been paid by the banker on whom it is drawn is evidence of the receipt by the payee of the sum payable by the cheque.

Thai version: เข็คที่มีการสั่งจ่ายโดยเจ้าหน้าที่ของธนาคารถึงผู้ที่ถอนเงินถือว่าเป็นหลักฐานใน การรับเงิน

The Thai translated version can be translated back into English as follows: A cheque paid by the bank officer to the withdrawer is evidence of receipt.

The cheque schema is quite familiar among Thai graduates. However, the structure of this sentence is very complex because it has an adjective clause within an adjective clause, so most students found it difficult to understand it. The first part of the sentence was not difficult, so the student who produced the translated version of Sentence 4 above could translate it easily, but the adjective clauses seemed to cause a problem to him. Therefore, when encountering difficult a sentence structure, the student turned to top-down processing to derive the meaning of the sentence. He said that although he could succeed in analyzing the sentence, he did not know what the last part of the sentence (starting with the adjective clause "on whom....) actually meant. To him there were too many prepositional phrases. So he decided to summarize the sentence rather than translating it part by part. Because of this, much information was missing in his translated version, although it could be understood. This shows that Thai learners tried to apply bottom-up processing but turned to top-down processing when they could not get the meaning. Many said that they tried analyzing the meaning first as had been taught; still they could not get the meaning from the chunks. Finally, they came up with using the summarizing strategy. In other words, they eventually used top-down processing or an educated guess.

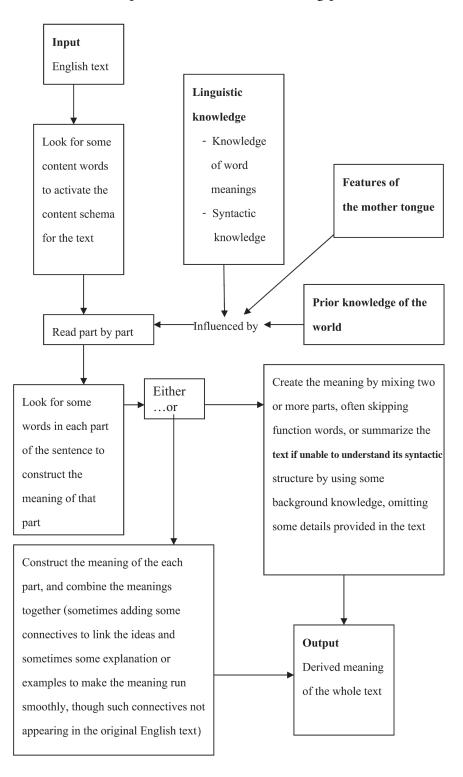
# 4. Findings from the Interview of Good Readers

The good readers in the study used sentence analysis and read in thought units. They took into consideration linguistic features of the original text. They hardly skip any words, although in translation some words did not appear in the translated version because some features of English did not exist in Thai. First, they skimmed for some words that could tell them what the text was about. Then they started reading from the beginning of the sentence and went on constructing the meaning of each part. When they read they also anticipated what to come next by using their background knowledge. They used their logical reasoning in their anticipation. If the information in the next part confirmed their prediction, they would go on until the end of the text. If not, they reread the preceding part

and sometimes the whole sentence before constructing the meaning of each part again. When rereading, they made sentence analysis, mainly finding the subject and the main verb and identifying connectives. This time they paid close attention to every single word and combined the meanings. They also linked the meaning of each part together and made sure that their interpretation made sense. They tried to guess the meaning of unfamiliar words using the contextual clues available and their background knowledge simultaneously. They also looked up some words in the dictionary. When encountering difficult structures, they also applied the sentence analysis. If unsuccessful to use the same sentence structure as in the original English text in the Thai version, they constructed the meaning with a Thai sentence structure.

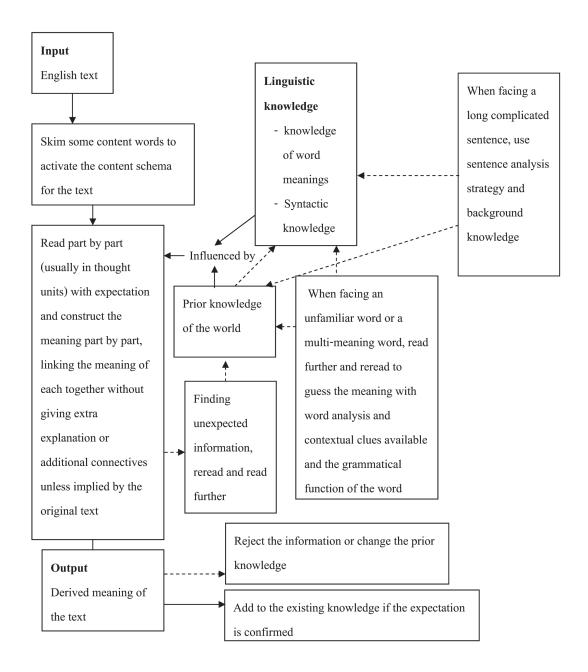
Construction of reading models. From the findings, the reading model of poor EFL Thai readers and that of good Thai readers in the study were constructed as seen on the next pages. The description can be found in the discussion section.

# Model of poor EFL Thai readers' reading process





# Model of Good EFL Thai readers' reading process





In the next section, discussion will be on how the students constructed the meaning of each text.

## 5. Discussion

# Reading process of EFL Thai learners

The poor reader group in this study was found to start processing a written text by looking for a few content words in the sentence that they thought they knew the meaning in order to predict what the text was about or the topic of the text. They looked for the topic to start retrieving their background experience to comprehend the text. This strategy was seemingly like what good readers did. But, in fact, poor readers ignored many words in the sentence, especially structure words or function words. This might be because they did not master the syntactic structure of English sentences. On the other hand, good readers took almost all of the words in the sentence into consideration, while previewing the sentence to look for some key words to find out roughly what the text was about. They browsed the text or sentence intentionally at a fast speed as if automatic. At this stage, a content schema was activated for both groups.

At the next stage, poor readers read part by part. They were mainly influenced by their prior background knowledge of the word, their linguistic knowledge of the L2 language and features of their mother tongue—Thai in this study. Poor readers did not always break the sentences into thought units. They skipped or overlooked function words and linking devices. They constructed the meaning for the part that was not too difficult for them, but combined the meanings of two (or more) parts together if they could not make sense of any of them. In the latter case, they looked for some words they knew in the part they were reading, and in case they failed to understand it, they went on to the next part and attempted more to get the overall meaning by combining the meaning of the two parts together, sometimes adding some connectives to link the ideas and sometimes providing some explanation or examples, though such information was not stated in the text. Still, if they failed to construct the meaning of nearly all the parts of the sentence, they turned to their background knowledge and presented the meaning of the whole text from that source, omitting some details provided



in the text.

On the contrary, although good readers read part by part too, they read in thought units. Their errors, if any, came mainly from not knowing technical terms, and not finding some Thai equivalent words or expressions. They expected what should come after the part that they read, using their background knowledge. If nothing in the text was contrary to their expectation, the information was added to their existing knowledge. But if the information in the next part did not confirm their expectation, they reread and read further, using linguistic knowledge and background knowledge of the world to construct the meaning again. They either rejected the information as true or changed the prior knowledge. When faced with unfamiliar words or multi-meaning words, they used word analysis and available clues in the text to get the appropriate meaning. They also knew how to use a dictionary to get the right definition. When faced with a long complicated structure, they made sentence analysis—finding the core parts, head words and modifiers, identifying the relationship between ideas through linking devices—and used their background knowledge at the same time. In other words, they used both bottomup processing and top-down processing alternatively or simultaneously as stated in the interactive models of reading.

Poor readers did not seem to care whether the meaning of the first part went along well with the next part. Many adhered to the first schema activated from the start to construct meaning and adjusted the meaning of the next part to correspond with the preceding one. Since the poor EFL Thai learners in this study possessed poor linguistic knowledge, they relied mainly on top-down processing strategy, wildly guessing the meaning of the text. This was evidenced from their summarizing the sentence rather than figuring out the details in the text, or sometimes adding whatever idea or relationship that they thought the text conveys. Vocabulary and expressions seemed to be a serious hindrance for interpretation. If a poor reader did not know any words or expressions, he not only could not get a full comprehension of the text, but also was often misled by his own top-down processing and came up with some meaning that could not connect smoothly with the meaning of the preceding part.



Good readers in the study were like good readers elsewhere. They interacted with the text by using both bottom-up and top-down approaches, rarely skipping any word necessary for comprehending the text.

# 6. Conclusions

From the analysis of the poor Thai EFL readers' translated versions, and interview of both poor and good readers about their reading strategies when they did the translation test, what has been found can be stated as follows:

- 1. Poor readers tend to ignore the logic of their constructed meaning. They go on and on constructing the meaning, which they themselves sometimes do not understand, either. In the sample group in this study, some produced a meaningful translation; others didn't. On the other hand, good readers often construct a logical meaning, even though they cannot get the exact meaning.
- 2. Word meaning seems to cause the most trouble to poor readers' comprehension, because if they get the wrong meaning of some words, they will activate an inappropriate content schema to use in synthesizing the meaning of the text. Good readers look up an unfamiliar word in a dictionary for the definition that fits the context. They activate a new schema as appropriate.
- 3. Poor readers skip the meaning of any word they do not know or any expression that they do not understand, and try to use the meaning of other words to construct the meaning of the whole text. Not many try to guess the meaning of unfamiliar words. Good readers try not to skip any word. If they do not know the meaning of any word, they guess by using the context clues available or look the word up in the dictionary.
- 4. When poor readers fail to do the structural analysis because the sentence is too complicated for them, they turn to the top-down processing, drawing their content background knowledge, and use the technique of summary. They seem to summarize the information from their own experience rather than from the text.

Good readers analyze the sentence to find out the structural meaning of the sentence and combine it with the meaning of lexical words to come up with the

meaning of the whole sentence.

- 5. Poor readers transfer the knowledge of the grammar in their mother tongue to facilitate their making sense out of L2 texts. The influence of L1 is one reason why their translated versions deviate to a large extent from the original meaning of the L2 text. Good readers master the grammar of L2 more than poor readers, and avoid the interference of the grammar of the mother tongue. They carefully select equivalent words or expressions in Thai to match those in English. They try to keep the sentence structure of the original text in their translated version and modify it only to make the ideas run smoothly in Thai.
- 6. Poor readers supply extra connectives to link the ideas together, and often those connectives do not express the same relationship as intended in the original text. Good readers rarely supply additional connectives. They, however, do so to achieve cohesion when the connectives are implied in some English texts.
- 7. Poor readers do not reread to confirm the meaning they have constructed, but choose to move forward towards the meaning of the next part. They are meaning oriented. On the contrary, good readers go back to reread the preceding part if the part that they are reading does not go well with the preceding one. They also activate a new content schema if they find some clues indicating that they are not in the right direction. Good readers go back and forth between words and meaning.

#### 7. Recommendations

## Recommendations for instruction

Poor readers in this study rely mainly on top-down processing, using their background knowledge. Although they have been taught the sentence analysis skill (how to identify parts of speech, word functions, sentence patterns, core parts, head words and modifiers)—a bottom-up processing skill, which is believed to facilitate their comprehension—they still hardly apply it to their reading. This is perhaps because the number of teaching hours for this skill in the required reading course offered at NIDA is small (only 9 hours). Therefore, the students in this study did not master this skill; they also lacked enough practice. This skill is

said to be automatic among efficient readers.

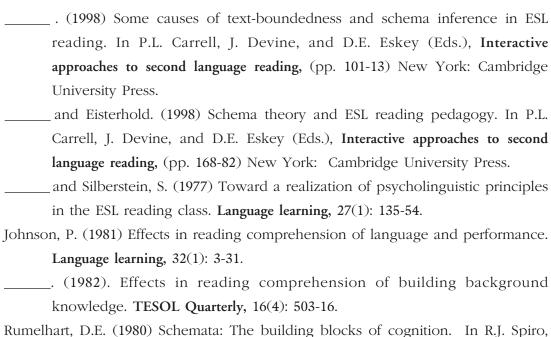
It is recommended that more teaching hours should be allotted to enhance the sentence analysis skill. However, to attack complicated sentences this skill alone cannot deal with them efficiently. Vocabulary development skills and more reading practices are also recommended.

#### Recommendations for further research

Further research should focus on reading at the discourse level and different text types or genres. This study did not consider cultural schema; further research should look at the role of cultural schema in reading comprehension. This study took into account many student-translated papers for data analysis. Although not exactly the same words or expressions appear in the Thai versions, their errors are quite similar. This indicates that only a few carefully selected sentences are enough to be used to elicit the data to reveal their reading process; it is not necessary to use a large sample. Further research may include only a few cases. Also, interview of the strategies the students use in constructing the meaning of the text is helpful in confirming the findings from the administered test. Interview is therefore recommended to be used along with other tools in collecting the data. Lastly, a translation test is recommended as a good tool to study the reading process.

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