Using the Interactive Reading Model to Develop High School Students’ Reading Comprehension Ability

Abstract

The teaching and learning of reading skill in high schools, just like the other three skills, contains a lot of problems that have been criticized for a long time. Despite the fact that it is the most taught skill of the four, reading has not become any easier for students. This paper, therefore, would seek to remedy the problems lying in the situation by introducing the three most popular reading models in the field of English language teaching, namely bottom-up, top-down and interactive reading models. It then would utilize the latest one as the foundation for forming the principles which high school English teachers can use to adapt the reading lessons in their textbooks so as to eliminate the current problems.

I. INTRODUCTION.

The teaching of English language in high schools has long been criticized for being too exam-oriented and neglecting the importance of using language to communicate. However, most high school teachers, who have to teach under the pressure of time constraint and scholastic achievements, have been trying to teach at least one skill that would be useful for students in acquiring lexical items and taking examinations: reading skill. Due to that fact, reading has never received its proper status as a communicative skill. This can be understood as the consequence of many different causes coming from the teaching method, the design of the textbook and the students themselves.

By definition, reading comprehension can be generally understood as the ability to understand texts of different kinds. Liu (2010) states that reading is the way learners deal with written or printed language messages which involves processing to understand them. Widdoson (1979) defines it as “the process of getting linguistic information via print.” Urquhart and Weir (1998, as cited in Liu, 2010) may have a broader way of defining reading as “the process of receiving and interpreting information encoded in language form via the medium of print.” Brown (2007) even has a broader one when identifying comprehension as “the process of receiving language, listening or reading; input”.

Though different in some ways, those definitions all focus on the ability that a learner should possess in order to understand something written or printed for them. To help high school students accomplish this aim, this paper would address the issue by employing the interactive reading model to teach the reading texts provided in the current textbook to simultaneously avoid the problems caused by bottom-up reading process and to help high school students develop their reading comprehension ability.
In search of an appropriate way to remedy this deep-seated problem, this paper is going to examine the present reading model which are widely employed, i.e. bottom-up process, in the first place. Both advantages and disadvantages of this model will also be presented. The model which is considered in total contrast in teaching reading, top-down process, will also be discussed. The newest one of the three most dominating models, the interactive model, will eventually be analyzed in this part. The current problems that students and teachers are facing and the factors that cause those problems will then be outlined so that the selected characteristics of the interactive model presented in the next part can be shown. Finally, the principles for applying this target process in adapting the reading texts will be suggested.

It is believed that if the interactive reading model is appropriately employed, high school students’ reading comprehension ability can be developed to some proper extent.

II. LITERATURE REVIEW.

1. The current reading models used in English language teaching.

1.1. The bottom-up reading model.

Seen as the first and oldest approach to appear in teaching reading, bottom-up processing view the reading process in a traditional way (Nagao, 2002). Bilokcuoglu (2012) argues that texts are constructed from the smallest to the largest units of letters, words, phrases, clauses, sentences, texts in collaboration with grammatical knowledge. This model emphasizes on texts that are written or printed and claims that meaning is the result of a process in which reading proceeds from part to whole (Liu, 2010).

Although considered a very old and problem-causing approach (Nagao, 2002), bottom-up model seems to have some advantages that should be taken into consideration by teachers of English. Seen as linear process in which meaning is driven directly from the text, bottom-up model is often used with learners with low proficiency in reading. That is to say, a weak reader may employ this model when the difficulty of the text is beyond his level of comprehension. This advantage of its makes bottom-up processing model itself of much favor when a teacher comes to teach reading comprehension to young learners who do not have very good reading skill and occasionally have to spend time examining the text very carefully to fully understand it. Another advantage would be taken by those who need to understand the texts intensively like someone who reads the process of doing or making something that he needs to perform very carefully; or a reader that need to analyze a literature work in depth. One more benefit from using this teaching approach is the way teachers use it to concentrate on vocabulary development and word recognition as Carrell (1988) states that those two focuses have long been recognized as crucial success of bottom-up as decoding skill.

However, there are still some weaknesses of this processing that have been mentioned by researchers. Rumelhart (1977) claims that bottom-up model is considered only a one-way direction process which
implies no higher level information. In some circumstances, readers have to utilize higher level semantic and syntactic processing to be able to identify a word correctly. Additionally, reading employing bottom-up seems not to be a natural one since it fails to use the reader’s background knowledge as a tool to interact actively and communicatively with the text. Carrell and Eisterhold (1983) use the following sentence as an explanation for that point of view, “The policeman held up his hand and stopped the car.” This sentence can easily be understood as a situation where the policeman was a traffic cop who held up his hands as a signal to stop the car. It would be a certainty that the driver of the car would understand the signal and used the brake to stop the car. It is obvious to claim that as the reader of this sentence tries to understand it, he may have to draw upon much more knowledge then only words written in the sentence. A normal reader can hardly read a text to just simply understand it as the printed/written words show without applying his existing knowledge to the process of comprehension as a human would certainly does.

What needs to be emphasized here is the call for an approach which allows readers to use the prior knowledge to function properly and actively in trying to comprehend any text, which leads to the use of the top-down reading model.

### 1.2. The top-down reading model.

As a response to the need for an alternative approach in place of bottom-up processing, the top-down reading model goes in an opposite direction which emphasizes on what the reader has already known about the topic of the text and may bring to it as a process proceeding from whole to part. That is partly because there is an assumption that good readers ready so quickly that they do not have to rely on phonemic code. This process is referred to as concept-driven model (Liu, 2010) where knowledge of a higher level which affects processing at a lower one is involved. In fact, top-down model is, as Treiman (2001) argues, “a whole-teaching approach in which readers focus on the context and manage to construct meanings in the text.” It, therefore, would be very reasonable for Nagao (2002) to claim that the language mentioned here, in contrast with bottom-up, is not what a reader knows linguistically but contextually.

Used by many teachers of English, the top-down reading model is supposed to bring some interrelated advantages. Seen as a more natural approach in comparison to bottom-up model, top-down model truly reflects the way which a normal reader may employ when coming to real-life reading as it makes use of readers’ contextual knowledge of the text (Nagao, 2002). In most circumstances when a person tries to understand what he has just read, prior knowledge would be utilized. This would not only make reading more natural but also influence the way a reader interpret the text (Carrell& Eisterhold, 1983). Nagao (2002) cited the following passage used by Branford and Johnson to illustrate this viewpoint:

> A newspaper is better than a magazine. A seashore is a better place than the street. At first it is better to run than to walk. You may have to try several times. It takes some skill
but it's easy to learn. Even young children can enjoy it. Once successful, complications are minimal [...]).

Each sentence in this passage will not be difficult for a student to understand if he possesses a basic knowledge of English. However, that reader may ask himself a question after he has understood every piece of the text: “What is this written about?”, yet still cannot understand the overall meaning of the text.

In addition, while bottom-up has long been emphasized on reading as a passive process where learners explicitly decode meaning from text, top-down here is an active one where learners have a chance to interact with the text by means of their experience and expectation, which consequently makes a receptive skill like reading become more communicative.

Although bringing some advantages, the top-down reading model seems to have some drawbacks as well. One of those that has been pointed out by Carrell and Coady (cited in Swaffar, Arans & Byrnes, 1999) shows that a minimum understanding of 5000 words is required for top-down processing to operate. Eskey (1988) claims that top-down processing is most appropriate used for readers who possess a fluent skill of reading with automatic perception and decoding. This would mean that the model of top-down can hardly be used at elementary levels of language instruction (Škudienė, 2002). Moreover, Eskey (1988) claims that, “In making the perfectly valid point that fluent reading is primarily a cognitive process, they tend to deemphasize the perceptual and decoding dimensions of that process.” That would lead to a conclusion that Weber (1984, cited in Carrell, Devine & Eskey, 2000) made, “a top-down model of reading is essentially a model of the fluent reader and does not account for all the needs of students who are acquiring reading skills.”

1.3. The interactive reading model.

In search of a teaching approach that can do what neither bottom-up or top-down can: account for what occurs during the reading process, theorists have developed the third and latest reading model: the interactive reading model. Rumelhart (1977) defines this approach as a “combination of top-down and bottom-up processing” and proposes it as a way in which the processes of both data-driven sensory information and non-sensory information happen simultaneously. Bilokuoglu (2012) suggests that in interactive model, “readers are expected to go through both bottom-up and top-down processing before eventually settling upon an interpretation of a text topic.” Neither neglecting the textual information nor the prior knowledge of a reader, the interactive model stresses on what has already printed or written and what the reader may bring to it by using both previously mentioned processing.

According to Rumelhart (1989, cited in Liu, 2010) this model should begin with the reader himself, looking at a place in his mind where all the words and their corresponding spelling are kept, which he calls “visual information store.” He then would extract characteristic features of those words and place
them in the pattern synthesizer. Eventually, he arrives at the meaning by means of syntactic, semantic, orthographic and lexical knowledge.

Another scholar, Stanovich (1980) proposes an interactive-compensatory model which may bring to the field is that it allows the two models of bottom-up and top-down to compensate for each other’s weaknesses by their own strengths. This author also mentions that the problems caused by the two can be reduced in a way that in bottom-up model, higher-level processing strategies are not allowed to have influence on the lower-level ones and in top-down model a reader with little or no background knowledge of the text topic fails to perform predictions. This theory shows that in some experiments, an unexpected situation happened showing that poor readers sometimes show greater sensitivity to the context than good readers do. This is when less knowledge of orthography or lexicon can be compensated by semantic knowledge.

2. The current situation in teaching and learning reading in high schools.

2.1. The problems in teaching and learning reading in high schools.

As mentioned above, though considered the most important skill of the four to be taught in high schools, reading skill still contains some very significant problems that need to be addressed with full consideration.

One of the problems comes from the teachers when they teach this skill is not necessarily a communicative skill; on the contrary, they virtually follow the method of Grammar-Translation. During his observation in five different reading classes in the school where he is currently teaching and two classes in two other schools where he had the opportunity to visit, the author finds that, though stated in the lesson plans as to follow Communicative Language Teaching, all the teachers complied the procedure of asking something related to the lesson at first, then teaching vocabulary, asking students to listen to the recording and do the tasks that follow, trying to avoid translating the whole passage but some important sentences. It can be seen that the translating of passages was avoided was mostly due to the presence of the visiting teachers who would possibly criticize on that technique, yet the lessons still revealed something unusual from the teachers’ normal way of teaching reading when both teachers and students feel more comfortable to read and translate the passage in to Vietnamese. Provided that the teachers did follow the same procedure as when observed in their everyday teaching, it still could not be clear enough to find out the communicative feature in those reading lessons. Undoubtedly, it is an unspoken assumption among teachers that it is the most appropriate way owing to many reasons.

Another problem would come from students when they show little or no interest in studying reading. Most students when asked confess that because of their lack of vocabulary, they feel incapable of understanding anything in a foreign language, and therefore, refuse to read. A small survey conducted among 100 students in the high school where the author is working reveals that only 5% of students feel confident in reading the passages in their textbook while over 50% admit that they would never read the
passages without the assistance of teachers or friends. It can be clearly seen that due to many different external and internal factors, many students do not feel like reading in English, and therefore, miss the opportunity to practice the skill.

2.2. The primary factors that cause the problems in teaching and learning reading in high schools.

It has always been an endless story to talk about things that make teaching and learning English at high schools so problematic, and in our case, those of reading. English teachers are totally aware of what the causes of their performance are, yet some of the grounds are not coming from the teachers but from other factors. Those which are from teachers, institutions and the programs will be discussed here.

The first problem that has been presented that reading skill is not considered a communicative skill and teachers are not using the appropriate method in teaching it arises from many different grounds. One of those is the constraint of time which only allows a limited amount of time spent on teaching the skill. To be more specific, one period per two week (45 minutes) which is utilized for teaching reading is definitely not enough for anyone to acquire a skill soundly. Additionally, English teachers in high schools are under much pressure of meeting the quality requirements in students’ performance. Those exams, needless to be said, virtually concentrate on testing grammar knowledge and vocabulary. Owing to their restricted amount of time, teachers have no choice but spend most of the available time making students do many grammar exercises. This would consequently results in teachers’ style in teaching English known as the “exam-oriented style” and they would, therefore, train themselves to become exam teachers.

Another justification that can be examined here comes primarily from the topics of the reading texts in the course books. As the same survey conducted in the mentioned school states: only 4 percent of students asked said that the topics in their textbooks are interesting enough to learn. They, therefore, feel little or no motivation in learning the English reading lessons if teachers do not provide more interesting things into those, which would be a rare case, as 90 percent of them confessed.

It can be concluded here in this part that the reasons that have negatively influenced both teachers and students’ performance in teaching and learning reading skill come from many different aspects, namely: the limited amount of time, the requirements for quality in exam results, teachers’ style in teaching and the uninteresting topics in the textbooks.

III. DISCUSSION.

It can be seen that the problems of teaching and learning reading skill in high schools currently have so many deep-seated causes that one single solution can never be applicable to all of them. In the framework of this discussion paper only the most practical solution will be taken into consideration; that is the way which teachers can follow to interact with the teaching materials: adapt the reading lessons in the textbooks by following the interactive reading model.
1. The advantages of using the interactive reading model to develop high school students’ reading comprehension ability.

As the theories suggest, the interactive reading model is nothing new but a broader view of the nature of reading in which the advantages of the two proceedings, i.e. top-down and bottom-up reading models, have been taking. Especially, in the case of teaching and learning reading skill in high schools where neither of the two mentioned processes can be used, the use of interactive model could be the most practical choice.

In the light of top-down process, reading is considered much more natural than in bottom-up process when the readers take an overview of what they are going to read before diving deeply into the contents with more concentration on linguistic aspects. This is very important to high schools students, those who are very curious and would never accept to read anything without wondering about the level of interest. More than that, knowing something about the reading text will give students a basic understanding of the content; and with the assistance of teachers, they may possibly make some prediction or at least think about it, which would really help in the process of actual reading. Additionally, this reading model follows the way which high school students would be very interested in: to make use of their background knowledge. Firstly, students will feel that they are respected when teachers, very carefully, ask them to share the knowledge they have on the fields. Secondly, many students will feel more involved in the reading lessons when the contents of those are very much related to what they know. Finally, top-down reading model when applied into the teaching process will make students become more confident when doing the exercises about which they have been aided with appropriate knowledge.

Likewise, the reading model of bottom-up once employed in the context of high schools would do no less helpfulness as the top-down one does. Of all the advantages that have already mentioned in this paper, the most significant would be the way it helps weak students in comprehending the reading texts. It helps students to develop comprehension by using the techniques based on this model, which means the exercises, whether have already been in the lessons or are designed by the teachers, will give students opportunities to practice very basic stages in reading advancement. Moreover, when this reading model is utilized, it will give students chance to develop their range of vocabulary as it primarily concentrates on the linguistic aspect of understanding. Lexical items, whether isolated words or phrases or expressions, would be explained by teachers or guessed by students, which consequently gives learners the practice they need in acquiring vocabulary.

In a few words, it can be claimed that once the advantages of top-down and bottom-up reading models are combined in the interactive reading model in the way that reading will become more natural, students are involved in the teaching-learning process, low students will have opportunity in
understanding and developing vocabulary range, some of the most significant problems in teaching and learning reading in high schools can possibly be solved.

2. The principles in using the Interactive Reading Model to adapt the reading lessons in the textbooks.

2.1. An overview of the structure of the reading lessons in high school textbooks.

To be able to apply the principles suggested in this paper, one must first gain a full understanding of what it looks like in each reading lesson; in other words, the structure of the reading lessons in high school textbooks should be examined and presented here.

The reading lessons in the high school textbooks do follow the same structure, which is divided into three prime parts: Before you read (Pre-reading), While you read (While-reading) and After you read (Post-reading).

In Before you read, students are introduced to the topic of the reading text in some different ways. The most common techniques used in this part are using pictures or asking questions related to the theme. This is supposed to “warm students up” or to familiarize students with the topic of the reading text.

The While you read part provides students with a reading text of different kinds in different lessons, which are followed by some tasks. The tasks, which can also be analyzed as exercises, primarily focus on vocabulary practice and reading comprehension, which are in the forms of gap-filling, matching, answering, table-filling, giving Vietnamese equivalents. There are rarely the cases when the exercise for main idea is utilized in this part. If there are ever, they are usually placed at the end of this part with the belief that students will be able to find out the main idea easily after they have examined the reading text carefully with the aid of the preceding exercises.

Part After you read is usually in the form of a short requirement which asks students to discuss something related to the topic of the lesson, based on the content of the reading text. This can be seen as the stage where students employ other skills (mainly speaking) to enlarge the theme.

2.2. The suggested principles in adapting the reading lessons following the Interactive Reading Model.

After having analyzed the three most dominating reading models in teaching and learning English and examined the structure of the reading lessons in the high school textbooks, the author would suggest the following principles so that high school teachers will find it easier in adapting the reading lessons as well as in resolving the problems lying in the teaching – learning process:

1. The model of “Pre-While-Post” should be maintained to keep the structure of the lessons.
2. In certain lessons where one of the two (top-down or bottom-up) is not utilized, exercises/tasks of that kind should be designed and introduced by teachers.
3. Part While you read, whatever kind of reading it provides, should follow the following stages:
   (i) Top-down process should be used at first to gain a general understanding of the whole text.
(ii) Bottom-up oriented exercises/tasks should be done simultaneously while students read the text.

4. Vocabulary practice exercises, though placed in While you read, should be conducted by teachers right after all the necessary lexical items have been presented since students would need not read the texts to be able to complete the exercises

IV. CONCLUSION AND RECOMMENDATION.

1. Conclusion.
It can be concluded here that the teaching and learning of reading in high schools, while following the bottom-up reading model, is very much problematic due to various reasons. By analyzing the three most dominating reading models, namely, bottom-up, top-down and interactive, the author would argue that the advantages of bottom-up and top-down reading process can be taken and combined in the interactive reading model, the features of which can be employed to solve the problems in teaching and learning reading skill in high schools. Top-down process would make reading more natural when students take an overview of the picture before they go deeply into details while bottom-up process would allow low proficient students (there are many of them) to have opportunity to examine the texts more carefully to gain a better understanding as well as to develop their range of vocabulary.

Though different in the way they view the nature of reading process, the two reading models of top-down and bottom-up, while used under the name of the interactive reading model, would be of very much benefit for high schools teachers in adapting the available reading lessons in the textbooks they are currently using to make the teaching and learning of reading in high schools become closer to its nature as a language skill.

2. Recommendation.
It is recommended that English teachers working in high schools, if they ever want to apply the interactive reading model into their teaching, should first read as much as they can about top-down and bottom-up reading process – the basis on which this new coming model is based on. It is always better to go from the roots to the branches although the flowers and the fruits grow on them. In addition, before adapting any lesson from the textbooks, teacher should read the principles suggested above carefully and should never do so without considering the real level of their students as well as the objectives of the lesson. It is believed that every student, every classroom and every lesson should be considered in a different way so that the principles can be applied flexibly and proves to be effective.
REFERENCES


APPENDIX

Questionnaire

Students’ attitude towards learning reading at Phu Hoa High School

1. What level do you think you are in reading skill?
   A. Very good
   B. Good
   C. Fair
   D. Not good
   E. Bad

2. What do you think about your teacher’s way of teaching reading?
   A. Very good
   B. Good
   C. Fair
   D. Not good
   E. Bad

3. How much do feel confident in reading the texts in your English book?
   A. Read with confidence and full understanding
   B. Understand most of the texts
   C. Understand the general meaning with help
   D. Understand very little
   E. Only read with help from teachers or friends

4. How much do you like the reading texts in your English book?
   A. Very interesting
   B. Interesting
   C. OK
   D. Not interesting enough
   E. Boring

5. Does your teacher add more interesting things into the reading lessons?
   A. Yes. There are a lot.
   B. Yes, but only some good things.
   C. Yes, but only a few.
   D. Yes, but very few.
   E. Never
Survey Result

This survey was conducted among 100 students of different classes and grades in Phu Hoa High School.

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td>16</td>
<td>54</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>2</td>
<td>12</td>
<td>46</td>
<td>12</td>
<td>11</td>
<td>19</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>3</td>
<td>24</td>
<td>20</td>
<td>51</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>2</td>
<td>35</td>
<td>11</td>
<td>50</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>52</td>
<td>38</td>
</tr>
</tbody>
</table>
Sample lesson plan

UNIT 4: SPECIAL EDUCATION

LESSON A: READING

I. Objectives: After finishing this lesson, students will

- be able to develop reading skill, both scanning and skimming skills.
- understand how difficult it can be for disabled children to learn something, therefore, be conscious of their own study.

II. Language focus:

Vocabulary:

- disabled / dis.ˈeɪbl / (adj)
- deaf / def / (adj)
- dumb / dum / (adj)
- mentally retarded / ˈmen.tə.ˈre.təd / (adj)
- prevent / prɪ.ˈvent / (v) (+from)
- opposition / ˌɒpə.ˈzɪʃn / (n)
- gradually / ˈɡræ.dʒuə.lɪ / (adv)
- make effort / ˈmeɪk ˈɛfərt / (v.ph)
- time consuming / ˈtaɪm kən.ˈsent / (adj)
- demonstration (= demo) / ˌde.mən.ˈstreɪʃn / (n)
- add / æd / (v)
- subtract / səb.ˈtrækt / (v)

III. Techniques:

+ Games
+ Group work
+ Reading skills: scanning, skimming
+ Top-Down Approach
+ Communicative Oriented Approach

IV. Teaching aids: chalk, black board, word cards, group boards, pictures

V. Time: 45 minutes

VI. Procedures:

<table>
<thead>
<tr>
<th>Stages</th>
<th>Contents</th>
</tr>
</thead>
</table>

1. **Warm-up (5’)**

*Interpreting Game:*
- T shows the picture of a blind person who is reading a book and introduces the Braille Alphabet to Ss.
- Ss are divided into groups of six.
- T shows the code below and asks Ss to work in groups to interpret it into normal language.

```
ALL CHILDREN CAN
LEARN
```

Key: ALL CHILDREN CAN LEARN
- T leads in, “*All children can learn – and disabled children can as well. Today, we are going to study something about them.*”

2. **Pre-reading (15’)**

- T teaches the new words, using appropriate techniques.
- As teaching the words, T has Ss read the words in chorus and individually to check their pronunciation.
- T asks Ss to work in pairs and do Task 1 in 5 minutes.
- T calls some Ss to read out loud the answers.
- T corrects and gives feedback where necessary.
- **Keys:**
  1. c, 2. e, 3. a, 4. b, 5. d

3. **While-reading (15’)**

- T numbers the paragraphs in the passage and tells Ss about that.
- T shows the three main ideas and asks Ss to skim the passage and match the main ideas with the paragraphs.

A. *Thuy’s efforts in teaching the children*
B. *An Introduction to Thuy’s class*
C. *How the class was formed*
- Ss work in groups, skim the text and match in 2 minutes.
- Ss write the answers on their group boards and stick on the black board.

- T asks Ss to look at Task 2 and shows them how to do the exercise.
- T asks Ss to scan the passage to answer the questions. As Ss read, they have to note down in which life the information for each answer lies.
- Ss work individually in 5 minutes to choose the best answer for each question.
| 4. Post-reading (9’) | - T asks Ss to work in groups to read the passage again and fill in the blanks in the summary with suitable words.  
- Ss work in groups and write the answers on their group boards, then stick them on the black board.  
- T checks the answers and gives feedback.  
- **Keys:**  
  1. disabled, 2. read, 3. write, 4. efforts, 5. opposition  
  6. time-consuming, 7. maths, 8. arms, 9. fingers, 10. proud |
| 5. Homework (1’) | Ss learn the words and prepare Speaking part for the next lesson. |