Teaching Reading out of the Box by Activating Students’ Background Knowledge

Introduction

In order to enhance reading and promote the culture of reading outside a classroom setting, teachers are advised to revisit the strategies they employ when tapping texts. Reading comprehension should not be limited to understanding but should be extended to constructing new knowledge based on past experiences. In other words, teachers are to make their students move from literal comprehension of a reading piece to appreciation through making inferences and evaluating. Under the Reading Apprenticeship framework, students will develop their reading skills, expand their vocabulary repertoire, and become autonomous and critical readers. Based on Keene and Zimmerman’s findings (1997), the key for reading comprehension success is activating prior knowledge or schema. The use of schema in teaching helps students become metacognitive. In other words, they acquire the skill of learning to think about their own thinking while they are reading. They learn how to make connections between past experiences with actual new experience (the text).

This paper is twofold. We will discuss the implementation of metacognitive conversations (Reading Apprenticeship Framework), during the reading process with a little focus on prior knowledge and suggest ways on activating students’ knowledge. The activities in this paper listed have been implemented in our respective classes. Some of

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them might work for one class and not for another; therefore, we leave it to the teachers’ discretion to adapt them according to their own and students’ needs, age, interests, and aspirations.

**Description of the Reading Apprenticeship Approach:**

In the Reading Apprenticeship approach, we refer to metacognitive conversations which are means to uncover the different layers of thinking needed to engage students in the learning process. In other words, metacognition is thinking about thinking, a key component in successful learning (See Diagram 1).

Since students will be assessed on the basis of their ability to read, interpret meanings and respond, it is the teachers’ responsibility to uncover the layers of the metacognition conversation well positioned at the heart of the Reading Apprenticeship approach.

It is our belief that students can improve their reading skill and their self-image as readers by:

- immersing them in a class that fosters collaboration;
- helping them articulate their views on how they make sense of a reading passage through metacognitive conversations;
- assisting them to build their own schemas when dealing with more difficult passages;
- being critical towards a reading task which entails that there could be varied ways of viewing the passage;
- regarding reading as a process

In a Reading Apprenticeship classroom, four key dimensions give life to the metacognitive conversations and support reading development during which the teacher and the students discuss their personal relationships towards reading, the social environment, their cognitive activity, and the kinds of knowledge required to make sense of text.

The rationale behind the process of reading:

Reading comprehension means building up the meaning of a written message. It is not just extracting meaning from a text. It is “a dialogue between the reader and the text” (Grabe 1988, 56). It is seen as an active cognitive process in which the reader’s background knowledge plays a key role in the creation of meaning (Tierney and Pearson 1994). Reading is not a passive mechanical activity but “purposeful and rational, dependent on the prior knowledge and expectations of the reader (or learner). Reading is a matter of making sense of written language rather than decoding print to sound” (Smith 1994, 2).

To understand how students can improve their skills, it is essential for teachers to understand the way students learn to read. Two main approaches explain the nature of learning to read:

a. The bottom-up reading: The bottom-up approach was influenced by behaviorist psychology of the 1950s, which claimed learning was based upon “habit formation, brought about by the repeated association of a stimulus with a response” (Omaggio 1993, 45). Put differently, the bottom-up reading focuses on developing the basic skill of matching sounds with the letters, syllables, and words written on a page. It is associated with a teaching methodology called phonics.

b. The top-down reading: The top-down reading focuses on the background knowledge a reader uses to comprehend a written text. It is associated with schema theory. Though the debate about which approach to adopt is still on, the top-down approach is having great influence on ESL/EFL teaching. The adoption of the top down reading has
been, undoubtedly, fueled by the schema theory. Schema theory, which describes how the background knowledge of the students interacts with any reading activity has had a major impact on reading instruction. It illustrates how students’ knowledge and their past experience are essential for efficient comprehension.

**Criteria of a successful reading class:**

To train students to read and understand a text, it is crucial that the metacognitive conversations become part and parcel of every reading lesson as they develop attitudes like identifying themselves as readers, knowing how to approach a text and how to interpret their reading. Being engaged in an ongoing discussion with their teacher and their peers cannot yield considerable gains unless some criteria are considered on the part of the teacher. Before embarking on the reading portion, the teacher needs to:

- be aware of the skills needed to engage in the text;
- know how the text is organized;
- identify the structures inherent in the text to make sense of the content;
- think of ideas that could be an obstacle to the general comprehension;
- join previous knowledge with the new knowledge since it is important to create meaning (Tierney and Pearson 1994).

**Defining schema theory:**

Schema theory describes the process by which readers combine their own background knowledge with the information in a text to comprehend that text. It is “an act that involves one’s knowledge of the world as well” (Anderson et al. in Carrell and Eisterhold 1983:73). It acknowledges the role played by the reader in the construction of meaning. For Anderson and Pearson (1988), to say that one has comprehended a text is to say that she has found a mental ‘home’ for the information in the text, or else that an existing mental home has been modified in order to accommodate that new information (38). Therefore, a learner’s schemata will restructure itself to accommodate new information as that information is added to the system (Omaggio 1993). In some cases readers may not have a schema that is pertinent to the text; therefore, the reader may not be able to understand the text. When this occurs, the teacher’s role is to engage in “building new background knowledge as well as activating existing background knowledge” (Carrell 1988, 248).

**Benefits of Schema theory:**

Carrell, Devine and Eskey (1988:4) claim that schema theory has provided numerous benefits to ESL teaching and, indeed, most current ESL textbooks attempt schema activation through pre-reading activities. Not only does background knowledge contribute positively to develop the students’ predicting abilities, but it also sets forth smoothly the transition to the reading and post reading stages. Students who possess rich schemata on a subject matter will very likely understand the passage better than those with poor schemata (Hudson, 2007).

**Applications of Schema Theory to EFL/ESL Reading**

If well activated through well-thought-out activities that focus on the students’ investment, schemata will be helpful for the comprehension of the text. To apply and build schemata, it is imperative for the teacher to select texts that are relevant to students’ needs, preferences, individual differences, and cultures. Suggesting comprehensible input entails activating existing schemata and helping them build new schemata. Luckily, there is a wide body of research that provides suggestions on how to select texts (Carrell, Devine, and Eskey 1988). Of some of these suggestions, after selecting a text, the teacher can use the three-stage approach to activate and build students’ schemata:

1. **Pre-reading stage.** During this stage, the teacher is not required to explain every word or concept but establish an atmosphere whereby the students are able to approach the task without any language hindrances. In the pre-reading stage, the teacher should ensure students have the relevant schema for understanding the text. This can be achieved by having students think, write, and discuss everything they know about the topic through techniques like prediction, semantic mapping, diagram completion, maps, charts, photos eliciting opinion and reconciled reading (see suggested activities below).

2. **During-reading stage.** During the reading stage, appropriate exercises are devised in a way that would enable the students to understand the function of the text, its organization, its type of discourse, its content and the language used. Additionally, well prepared exercises enable students to guess the meaning of new/unfamiliar words and read with a purpose in mind using skimming and scanning strategies. This stage requires the teacher’s guidance and supervision to monitor the interaction between the reader and the text. One important skill teachers can impart at this stage is note-taking, which teachers need to work on seriously. Developing note taking while reading enables students to acquire new vocabulary, compile information and details, and to summarize information.

3. **Post-reading stage.** During the post-reading stage, students use their acquired knowledge to react to the text. They integrate their reading skill and information with the other language skills: listening, speaking, and writing, through commenting,
summarizing, paraphrasing, evaluating, synthesizing and reflecting. The sum of these skills contributes to the students’ consolidation and interpretation drawn from their interaction with the text (Varaprasad, 1997). The post-reading stage offers the chance to evaluate students’ adequacy of interpretation. Post-reading activities focus on a wide range of questions that allow for different interpretations. Bloom’s taxonomy provides an excellent range of simple to complex questions and activities that are perfect for this stage (Anderson and Krathwohl 2001). While schema activation and building can occur in all three stages, the pre-reading stage deserves special attention since it is here, during the students’ initial contact with the text, where their schemata will be activated.

**Implications of Schema Theory on Approaching a Text:**

The theory of schema had great impact on dealing with reading comprehension. It highlighted the importance of exposing students to topics they are familiar with. Indeed, the more students are familiar with the topic of the text they are reading (i.e., possess content schema), the better it is for them to comprehend a text. However, it is important to mention that reading is not impeded mainly by schema deficiencies (Carrell 1988a:105). Students can come to class with sufficient prior knowledge when approaching a text but with insufficient activated schemata. Therefore, the role of the teacher lies in building new background knowledge as well as activating existing background knowledge” (Carrell 1988b:248) by designing and preparing meaningful, flexible and varied activities that will lead to communication between the writer and the reader. Trying to explain every word and every idea of a text to palliate the deficiencies will result in text distortion and will have long lasting disastrous sequels as for developing effective reading strategies. At this point comes the schema theory which makes students not only predict what follows and read for a purpose, but it sets the students free from the constraint of reading for the sake of assigned tasks. Students are taught to draw their attention towards reading to learn and gain experience.

**Conclusion**

This paper has highlighted the importance of activating students’ background knowledge and its impact on their ability to understand what they are actually reading and on vocabulary acquisition. Empowered by a sound foundation set forth in the first stage by using schema theory, students will be highly motivated to move to the next stages. By the time they reach the third stage, they will have developed more skills.

Through pre-reading activities incorporated in metacognitive conversations as prescribed in an RA classroom, both students and teachers are aware of how learning is achieved and what has been learnt. Furthermore, students build knowledge by making connections which will result in accelerating their success in reading comprehension with less support from their teacher. In sum, they become agents of their own learning capable of solving problems, sharing their anxiety and taking academic risks. Paradoxically, when background knowledge is undervalued or incomplete, frustration sets in when it comes to approaching a reading text.

**Technique 1: THIEVES**

**Level:** All

**Description and Procedure:** The THIEVES strategy enhances and supports students in their pursuit of reading and helps students with comprehension by allowing them to preview the text structure in an organized manner. This pre-reading strategy will allow students to “steal” information before they actually begin reading the chapter. It helps the reader to create a “mental map” that can be used as the reader moves through the text (Learning Assistance and Resource Center, 2007). The mental map is based on the general structure of the text and helps guide the student during the reading process. Having mentally linked the textual clues, the reader is better able to follow the flow of ideas in the text and to detect the relationships among pieces of information. The THIEVES acronym stands for:

- **T:** Title
- **H:** Headings, I: Introduction
- **E:** Every first sentence in a paragraph
- **V:** Visuals and vocabulary
- **E:** End of chapter questions
- **S:** Summary

<table>
<thead>
<tr>
<th>Title</th>
<th>What is the title? What do I already know about this topic? Does the title express a point of view? What do I think I will be reading about?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headings</td>
<td>What does this heading tell me I will be reading about? What is the topic of the paragraph beneath it?</td>
</tr>
<tr>
<td>Introduction</td>
<td>Does the first paragraph introduce the chapter? What does the introduction tell me I will be reading about?</td>
</tr>
<tr>
<td>Every first sentence in a paragraph</td>
<td>What do I think this chapter is going to be about based on the first sentence in each paragraph?</td>
</tr>
<tr>
<td>Visuals and vocabulary</td>
<td>Does the chapter include photographs, drawings, maps, charts, or graphs? What can I learn from the visuals in a chapter? Is there a list of key vocabulary terms?</td>
</tr>
</tbody>
</table>
What do the questions ask?
What information do I learn from the questions?
Let me keep in mind the end-of-chapter questions so that I may annotate my text where pertinent information is located.

Summary
What do I understand and recall about the topics covered in the summary?


Model of how we used THIEVES in Gulliver’s Travels by Jonathan Smith with Grade 10 students:

<table>
<thead>
<tr>
<th>Title</th>
<th>Gulliver’s Travels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headings</td>
<td>There are four parts. Each part describes Gulliver’s voyages.</td>
</tr>
<tr>
<td>Introduction</td>
<td>Gulliver’s Travels is an adventure story involving several voyages of Lemuel Gulliver, a ship’s surgeon who, after a shipwreck, ends up on several unknown islands living with people and animals of unusual sizes, behaviors, and philosophies. After each adventure he is able to return to his home in England to set out again on a new voyage after some time.</td>
</tr>
<tr>
<td>Every 1st sentence in a paragraph</td>
<td>The paragraph of his first voyage begins with: During his first voyage, Gulliver is washed ashore after a shipwreck and finds himself a prisoner of a race of tiny people, less than 15 cm tall, who are inhabitants of the island country of Lilliput. The first sentence indicates that I will be reading a nonfiction story full of adventures.</td>
</tr>
<tr>
<td>Visuals and vocabulary</td>
<td>Key words: A heavy windstorm, shipwreck, Lilliput ruled by an emperor, inhabitants 15 cm tall</td>
</tr>
<tr>
<td>End-of-chapter questions</td>
<td>Questions that might come to the reader’s mind in the first section: Will he able to reach the shore? How will he survive on the Island? Are there inhabitants?</td>
</tr>
<tr>
<td>Summary</td>
<td>I know that Gulliver slept for some time but when he woke up, he couldn’t get up. He was tied up with ropes.</td>
</tr>
</tbody>
</table>

Technique 2: Socratic Seminar
Level: All
Description: Socratic seminar is used to help students apply the activity to their learning. The pedagogy of Socratic questions is open-ended, focusing on broad, general ideas rather than specific, factual information. The questioning technique emphasizes a level of questioning and thinking where there is no single right answer. It starts with an open-ended question proposed by the teacher. There is no first speaker. As individuals participate in Socratic circles, they gain experience in answering effectively.

Procedure: The teacher:
• keeps the topic focused by asking questions about the text itself and intervenes when there is confusion.
• engages reluctant students into the discussion.
• prompts participants to elaborate on their responses and to build on what others have said.

The participants:
• maintain the quality of the Socratic Circle by listening actively in order to respond effectively to what others have contributed.
• must demonstrate respect for different ideas, thoughts and values, and must not interrupt each other.

Note: To those interested in using Socratic seminar in their class and for tutorial, they can watch: https://www.youtube.com/watch?v=495Bu1Ybk4A
https://www.youtube.com/watch?v=_CPLu3qCbSU&t=5s

Technique 3: Semantic Mapping
Level: All
Description: “Semantic mapping is a visual strategy for vocabulary expansion and extension of knowledge by displaying in categories words related to one another” (Kholi, & Sharifafar, 2013) made by the students to help “web” out their ideas. It builds on students’ schema. While drawing on prior knowledge, it recognizes important components and shows the relationships among them” (Kholi, & Sharifafar, 2013). This building on previous knowledge is extremely important for their development of predicting the content of the text and vocabulary.

Procedure: Write the topic in the center of a circle, and then let students generate words related to the topic by asking questions. Answers are written on new circles and students discuss the ways ideas are connected and how connections are visually represented. Example of how we used semantic mapping when tapping a cause-effect type of text:
Technique 4: ReQuest  
**Level:** Pre-intermediate- Intermediate- Advanced  
**Procedure:** The students are asked to prepare in groups two questions they think would be answered in the text. The questions provide students with a purpose for reading. The students write their questions on slips of paper. Once the students are done, the papers are collected and rewritten on the blackboard. The ReQuest technique motivates the students because they read the text for the purpose of answering the questions they had written. There is a high probability that not all the questions can be answered. Based on the students' expected questions, discussion can be triggered on the writer's omission of certain details expected by the students.

Technique 5: Videos  
**Level:** All  
**Procedure:** First, find a short video that relates to the topic of the reading (Junk Food for example). The video segment should not be long (3 to 5 minutes). Some questions need to be prepared before playing the video in class. During the class time, play the video and then ask the students to talk with a partner about what they saw.

Technique 6: Quotations  
**Level:** Intermediate- Advanced  
**Procedure:** Find a quotation/statement about the topic, students discuss the quotation. What does it mean? Do they agree with it? Why/Why not.  
**Example:** Football is causing too much violence. It should be banned.

Technique 7: SQ3R (Reading strategy where students Survey, Question, Read, Recite, Review)  
**Level:** Pre-intermediate- Intermediate- Advanced  
**Procedure:** First, have students preview the title, pictures, graphs, or captions, then read the first and last paragraph of the article. Make a list below of the main points or objectives you find (Surveying). Then, have students write questions based on their survey of the text (Questioning). After that, have students read and answer the questions they wrote down as they a read (Reading). When done, have students look over their questions and be able to recite the answers without looking them up (Reciting). Finally, have students summarize what they wrote (Reviewing).

Technique 8: Bloom’s Taxonomy and Scaffolding  
**Level:** All  
**Procedure:** Students are introduced Bloom’s Taxonomy and highlighted about the levels of learning, where their learning is expected to be and how they will get to that level of learning! (i.e. homework and quizzes will be formative assessments about remembering and recalling, whereas written assignments and exams will move up to the understanding, applying, and analyzing levels).

Technique 9: Storyboard  
**Level:** All  
**Procedure:** A storyboard is a graphic organizer that plans a narrative or explains a process. It takes the form of illustrations in series each of which is displayed in a rectangle. The rectangles, arranged in linear direction, constitute a genius way to tell about the setting, the plot, the climax and the resolution. A storyboard can be simple like Red Little Riding Hood or more advanced stories like The Pearl (See below the link of The Pearl storyboard). The storyboard tool can be used assigned as project work. Student in groups work on stories seen in class and present their work in class.

The Pearl storyboard can be viewed at the StoryboardThat website: [https://www.storyboardthat.com/storyboards/3ae8386d95395/the-pearl--plot-diagram/](https://www.storyboardthat.com/storyboards/3ae8386d95395/the-pearl--plot-diagram/)

Technique 10: Talking to the Text  
**Level:** All  
**Procedure:** Talking to the text (TttT) means having a conversation with the text through which the reader learns how to figure out the meaning of a text based on his/her schema. As the reader is paying more attention to the text, s/he makes sense of the text. When adopting TttT, the students learn how to be autonomous and reflective.

While reading the students:
- Look at the title and respond to it;
- Look at the illustrations on the page if there any and connect to the title.
- Interact with the text; write down any questions/connections/comments as they come to their head.
- Clarify their understanding by writing ideas from the text into their own words.
- Underline or circle words they don’t know, then use context clues to figure out their meanings.
- Summarize to remember what they have read.

Such acts make students approach a text as a process and transcend their thinking onto paper. Then, the teacher talks about the text with students considering the meaning, structure, language, and knowledge.

The TttT strategy can yield several positive results. The students:
• feel prepared to discuss the text;
• are fully engaged in the metacognitive conversations which by themselves promote a deeper understanding of the text;
• work together to make meaning and build confidence.

**Technique 11: Cartoons**

**Level:** Pre-intermediate- Advanced

**Description and procedure:** Cartoons can be a genius tool in teaching. As a matter of fact, they can be used as a break from the textbook routine or from the traditional way of dealing with a topic in reading: Read the text and answer the following questions. Associated with fun and humor, cartoons can be very appealing to cover a topic as they generate participation and draw students in being interactive. There are several cartoon images online that could be used as a springboard tool to initiate conversation and activate students’ background knowledge about a range of topics. Example: [www.glasbergen.com](http://www.glasbergen.com)

**Technique 12: The “Golden Line”**

**Level:** All

**Description:** The Golden Line is a close reading strategy that allows students to interact and connect with the text. Students select a “golden line” from their reading, provide a summary of the story/book when the golden line was shared, and make a connection to the text. This line is very meaningful, and it might provoke anything in the reader’s life. This line could be line taken from any source, such as a textbook, a novel, etc. While reading or writing, students scan the texts regardless of its genre seeking their “golden line.” Finding the “golden line” could be the first step in working on several speaking, reading, and writing activities. It is a very good strategy that lets the students read outside the box.

**Procedure:** The students read a text. After discussing the title, subtitles and pictures, if any, students were given a medium-sized sticky note. The students were asked to write down their names on each sticky note and read the text individually, highlight or underline their “golden lines.” After that, the students were asked to write their “golden line” in their provided sticky notes (Post-it Note).

The students were teamed up with different “golden lines” to discuss and explain their lines and justify their choice. In order to access and scan these lines easily the students were asked to number the whole text. The whole class came together to discuss anything interesting to share with the whole class.

**Technique 13: Gallery Walk**

**Level:** All

**Description:** The Gallery Walk technique is used in class to give an opportunity for the students to discuss, share, and exchange their responses and comments in public on the classroom’s wall. The class looks like an exhibition for displaying students’ products. It highly encourages teamwork and increases self-confidence since everyone will display his/her comments, responses, and feedback vertically and publicly (see Nizar’s students’ Gallery Walk).

**Procedure:** Students in an ELA Advanced class were given several samples of resumes and were asked to go through each resume and display their feedback, comments, and responses on each one in five large “Post-it Super Sticky Easel Pad”.

Then, in groups of 3-5 students, they were requested to read and analyze each resume and write their comments on the “Easel Pads.” After the first round of the “gallery walk”, a new group of students were asked to read their peers’ findings, write feedbacks and go through the resumes again to post more comments. The groups that reviewed the resumes were asked to stand together to discuss their findings and take notes.
References:


