# Reading Strategies to Develop Higher Thinking Skills for Reading Comprehension

Estrategias de lectura para el desarrollo de habilidades de pensamiento para la comprensión de lectura

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This paper reports an action research project which examined the foreign language reading comprehension of public school eighth graders who experienced a directed reading-thinking approach with strategies for comprehension and application. The strategies used were prediction, prior knowledge, graphic organizers, and questions. Data analyzed included participants' perceptions of the usefulness of the strategies and students' work on the graphic organizers and reading worksheets. Findings showed that participants thought that the strategies and an interactive reading task improved reading comprehension. The majority of students used English to answer knowledge, comprehension and a good number of application questions. The answers to the application questions provided by the less proficient students were, despite their use of Spanish, unclear.

*Key words*: Foreign language teaching, reading comprehension, directed reading-thinking approach, thinking skills, reading strategies

En este artículo se hace un reporte sobre un proyecto de investigación acción que examinó la comprensión de lectura en lengua extranjera de estudiantes de grado octavo de un colegio público, quienes vivenciaron un enfoque de lectura dirigida hacia el pensamiento, con estrategias para la comprensión y la aplicación. Se utilizaron las estrategias de predicción, conocimiento previo, organizadores gráficos y preguntas. El análisis de datos incluyó las percepciones de los participantes sobre la utilidad de las estrategias y el trabajo de los estudiantes en organizadores gráficos y en talleres de lectura. Los resultados mostraron que los participantes consideraron que las estrategias y una actividad de lectura interactiva permitieron mejorar la comprensión de lectura. La mayoría de los estudiantes usaron el inglés para responder a preguntas de conocimiento, comprensión y un buen número de preguntas de aplicación. Se encontró además que las respuestas que dieron los estudiantes con bajo nivel de inglés a las preguntas de aplicación no fueron claras, a pesar del uso de español.

*Palabras clave*: enseñanza de lenguas extranjeras, comprensión de lectura, enfoque de lectura dirigida hacia el pensamiento, habilidades del pensamiento, estrategias de lectura

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#### Introduction

Being able to understand what one reads is important for learning in school and for life in general. In secondary education, reading in English as a foreign language (EFL) requires teachers to explore strategies that can improve students' reading comprehension. In Colombia, students in public high schools tend to have low levels of English which makes reading comprehension challenging (Ríos & Valcárcel, 2005). Often, instructional approaches promote reading as a product rather than as a process. The former focuses on the text, while the latter explores the readers, their background knowledge and experience, predictions, and interaction with the text (Wallace, 2001). In addition, reading is often equated with students' knowledge of facts (Echeverría, 2008), which is the lowest thinking skill (Bloom, 1956, as cited in Wong & Wong, 1998). Thus, the thinking skills of comprehension and application which require interpretation and association of information in one's life tend to be left aside.

Making a shift in reading instruction was part of this action research project focused on helping eighth grade EFL students to understand the content better. I wanted to achieve this by restructuring reading lessons with strategies in before, during, and after reading activities. During these stages, students would be more active and make connections between their own knowledge and experience, and the new content. Students would predict information with visual aids, titles, and questions. Moreover, students would use graphic organizers to identify prior knowledge, make predictions, and organize important information from the readings. Additionally, teachers' questions would check students' knowledge of the topic, help them to communicate their ideas and demonstrate their level of comprehension, to connect and apply what they learned to their lives, as well as reflect on learning. With this interest, I decided to explore if reading strategies could develop the thinking skills for improved reading comprehension in high school EFL students.

#### **Theoretical Framework**

In the literature, using higher thinking skills has been associated with increased reading comprehension for junior high school L1 learners (Hendricks, Newman, & Stropnik, 1996; Bowman, Carpenter & Paone, 1998). Reading strategies such as higher thinking techniques for questioning, graphic organizers, and collaborative learning groups were found to increase students' reading comprehension. Norato & Cañón (2008) reported increased reading comprehension for junior high school FL students with higher thinking skills developed through questioning and cooperative work. Helping EFL students improve their reading comprehension beyond knowledge required an understanding of Bloom's (1956, as cited in Wong & Wong, 1998) higher thinking skills of comprehension and application, and strategies to develop them. These skills have been classified into a hierarchy of educational objectives from less to more complex: knowledge, comprehension, application, analysis, synthesis, and evaluation. The author suggests that teachers integrate and develop the skills in order to direct students' level of thinking in learning activities. According to Bloom, the lowest thinking skill, knowledge, requires students to recognize and recall information. For comprehension in learning, the author explains that students can retell or translate what they understand in their own words in written or oral form, put information in order, compare and contrast it, and interpret it. Concerning application, he recommends that teachers set learning objectives

for students to apply what they learn to their lives, and to solve a problem.

Strategies to develop comprehension and application in this study were activating students' background knowledge, having them make predictions, complete graphic organizers, and answer questions. These strategies were suggested in the literature and by knowledgeable others, and related to personal interest. Activating background knowledge for learning involves helping English learners make "connections between their own knowledge and experiences and the new information being taught" (Rumelhart, 1994, as cited in Echevarría, Vogt, & Short, 2008, p. 23). These connections can be made with motivating and relevant materials for students (Echevarría et al., 2008). Cummins (2009) affirms that activating and building prior knowledge helps ESL (English as a Second Language) students learn content, and suggests strategies such as brainstorming or discussion, using both visuals and graphic organizers. Moreover, visuals in the form of pictorial contextual organizers "depicting action from the beginning of the story" has improved English students' reading comprehension in French at the college level (Omaggio, 1993, p. 144). In addition, combining visuals with questions has facilitated comprehension for EFL college students in Brazil (Raglieber, Johnson, & Yarbrough, 1988, as cited in Omaggio, 1993).

Prediction as a strategy for improving comprehension "...helps the reader set a purpose for their reading" (McKown & Barnett, 2007, p. 17). Pesa & Somers (2007, p. 31) expand that before reading, prediction can "...activate prior knowledge, set a purpose for reading, and engage the reader from the outset". Introducing the title of the reading, pictures associated with its content, and key words can prompt prediction (McKown & Barnett, 2007). During reading, Pesa & Somers (2007) assert that prediction can help students monitor their

comprehension and continued interest. Block & Israel, 2005 (as cited in McKown & Barnett, 2007, p. 18) agree that "...good readers use their experiences and knowledge to make predictions and formulate ideas as they read". Also, students can compare their predictions with information in the actual text (McKown & Barnett, 2007). The importance of students revising their predictions when necessary is highlighted by Teele (2004, as cited in McKown & Barnett, 2007), who links this to improved reading comprehension. Teachers who read aloud in class can guide students' predictions with questions. Oczkus (2003, as cited in McKown & Barnett, 2007, p. 17) emphasizes that, "This strategy also allows for more student interaction, which increases student interest and improves their understanding of the text". After reading, this strategy can "... help students to interpret, analyze, and deepen their understanding" (Pesa & Somers, 2007, p. 32). Without prediction, students' comprehension can be difficult to develop.

Graphic organizers have been linked to the development of higher thinking skills for reading comprehension (Gil-García & Villegas, 2003). In a pre-reading activity, graphic organizers "...help prepare students for reading" (French & Landretti, 1995, as cited in Ben-David, 2002). Gil-García & Villegas (2003) cite benefits of this strategy in helping students to link and organize their background knowledge to new knowledge, think divergently, and recall, transfer and apply what they have learned. Similarily, Cassidy & Hossler (1992, as cited in Bowman et al., p. 8) affirm that students can organize and recall information better from a reading. Ben-David (2002) expands these benefits to helping students recall and display information, and show relationships in content. Alvermann & Boothby (1986, as cited in Ben-David, 2002, p. 13) suggest that "...the effects upon comprehension are increased when graphic organizers are partially

constructed by students as a during-reading or post-reading activity". Moreover, students can show personal understanding and response on graphic organizers (Buehl, 2001, reported in Echevarría et al., 2008).

Questioning as a strategy can develop different levels of thinking skills for deeper learning (Marzano, Pickering & Pollock, 2001) and help students to prepare for reading and to understand while reading (Hendricks, et al., 1996). Questioning can be facilitated with the Directed Reading-Thinking Activities Approach (DRTA) described by Haggard (1985, as cited in Hendricks et al., 1996) whereby the teacher reads a text with students, stops at intervals, and asks questions. Students discuss their answers in a whole-class activity in order to have a better understanding of what they are reading<sup>1</sup>. A Question-Answer Relationship (QAR) technique proposed by Raphael (1984, as cited in Hendricks et al., 1996) has been linked to improved students' reading comprehension after reading (Sorrell, 1990, as cited in Kelty, 1999; Spivey, 2000). Kelty (1999) explains four types of questions that differ in how their answers are related to the material. 'Right there' or literal questions have answers stated directly in the reading, and help students to focus on knowledge by finding and recalling information. 'Think and search' or comprehension questions also have their answers in the text, but require inference as students have to search for information in various parts of the reading and describe, compare, organize and explain ideas. 'Author and you' and 'on your own' questions require students to respond and look within themselves to find the answers. The former relates students' prior knowledge and inferences from the text, while the latter is related to students' life experiences. With these questions, students apply what they read to their lives before and after reading.

### **Context and Participants**

This study was carried out with an eighth grade EFL class in a public, elementary-high Normal School<sup>2</sup>, in Envigado (Department of Antioquia), Colombia. Participants were 30 students, aged 13 to 15, a cooperating teacher (CT), a practicum advisor (PA), and me as the teacher-researcher. For research purposes, students were divided into three groups: Group 1 with 10 students who participated a lot in class and had a good level of reading comprehension; group 2 with 10 students who participated sometimes and had average reading performances; and group 3 with 10 students who rarely participated and had problems understanding texts. These students were identified by using Creswell's (1998) qualitative sampling techniques of typical case and maximum variation. Students were "average" or "typical" or showed "diverse variation" with respect to the given criteria of class participation and reading performance.

#### Method

This action research study included various stages, namely, problem identification, literature review, planning and implementation of action strategies, data collection and analysis, and report writing (Johnson, 2005). Data were collected from four different sources. My reflections on how the students and I developed the reading activities and strategies were included in a journal (Crookes, 2003), which includes teachers' thoughts, feelings, clarified ideas, and experiences. Students, the CT and the PA completed an attitude and rating

<sup>1</sup> DRTA is also known as shared reading according to the Curriculum and Standards produced by the Department for Education and Skills in the United Kingdom (2005).

<sup>2</sup> An "escuela normal" is a school that trains high school students to become teachers. These students can teach with their high school diploma or they can get additional teacher training at university.

Table 1. Sample Item from Students' Attitude and Rating Checklist

Reading Strategies	Yes	No	A lot!	A little!	Nothing!	Why?
Thinking of what I know about the theme before reading						

Table 2. Sample Item from the CT's and the PA's Attitude and Rating Checklist

Reading Strategies	Yes	No	A lot!	A little!	Nothing!	Comments (How students used the strategies)
Predicting when they start reading						

checklist (Johnson, 2005) to identify which of 6 strategies were used, their perceived usefulness, and an explanation of the response<sup>3</sup>. An "other" option was included. A sample item for both participants is in Tables 1 and 2.

Students also completed a feedback card (Freeman, 1998) to give their opinion about the readings and if they understood them, their preferred activities and strategies, and their importance for their lives. Students' reading performances on the graphic organizers and reading worksheets (Johnson, 2005) were collected, and their answers were read and assessed by the CT and me based on the reading content as well as their ability to link the readings to their lives. The following three types of graphic organizers were used in this study: a descriptive pattern organizer to represent events and describe people; a timesequence pattern organizer to order events; and a problem-solution pattern organizer (Marzano, Pickering, & Pollock, 2001; Gil-García & Villegas, 2003). A reading about the history of jeans was used in a unit on inventions for our class. My adapted

version of this informational, nonfiction story taken from a reading resource center had 335 words in 6 short paragraphs. It was accompanied with pictures related to key concepts and vocabulary. A class discussion was used to activate students' background knowledge, and story pictures for student prediction. The graphic organizer was used initially for students to organize their ideas about the story and what they wanted to know. I read and asked students questions based on the question-answer technique. Students worked in pairs, shared their answers to the questions, and added and corrected information on their graphic organizers. Later they expressed their opinions about the reading and the strategies used.

The second reading I adapted was a high-beginner fable —"The Man, the Boy, and the Donkey"— about people pleasing others, taken from Using Folktales by Taylor (2000), which is a Cambridge Handbook for Language Teachers. This fable has 308 words with 7 short paragraphs, and was designed with an interactive format to guide students' reading and responses to the text *The Holt Reader for Elements of Literature* (Holt, Reinhart & Winston, n.d.). The material had left-

<sup>3</sup> Checklists were used in Spanish and translated into English for the purpose of this publication.

side column notes that asked students to make predictions, underline parts of the text, write responses to questions, and organize pictures. Important vocabulary was boldfaced in the text and a definition was provided in a right-side column note. In pairs, students read the fable. They predicted the events of the fable and the title with pictures. Then in pairs students read the fable with the interactive material, made more predictions, and answered questions with the question-answer technique. They drew the story on a graphic organizer and expressed their opinion about the reading and strategies.

All thirty students completed the attitude and rating checklist during the two reading lessons. Thirty students completed a feedback card during the first lesson, and twenty-eight during the second. One student from both groups 2 and 3 did not complete this instrument. Written and oral comments from the students and the CT were gathered in Spanish and translated into English for the purpose of this paper, whereas the comments of the practicum advisor were written in English. Data analysis consisted of tallying responses to the rating checklists, and analyzing open-ended items using a grounded approach that included coding, categorizing, and comparing data from different sources (Burns, 1999). Findings from two reading lessons were shared with the participants during a class to check my interpretations and to see if students identified with them. Participants stated that they agreed with them but they did not offer additional information.

## **Findings**

In this section, I present findings related to students' perceptions about the reading topics, participants' perceptions about the usefulness of the reading strategies and other strategies reported, the development of students' thinking skills of comprehension and application for reading, and language development.

# Students' Perceptions about the Readings

Most students reported positive perceptions about the readings for both lessons, as shown in Tables 3 and 4.

**Table 3.** Student attitude towards 'The Story of Jeans'

Did you like the reading today?						
Students	Yes	No				
Grp 1	10					
Grp 2	10					
Grp 3	9					

**Table 4.** Student attitude towards 'The Man, the Boy, and the Donkey'

Did you like the reading today?						
Students Yes No						
Grp 1	10					
Grp 2	9					
Grp 3	8	1				

Students thought the readings were interesting, informative, and relevant. Students reported that they liked the first reading because they were able to clarify their ideas about the topic. Students thought the second reading, a fable, was relevant for their lives: "I liked to read the fable because I learned a moral for my life" (group 2 student); "The text teaches us things that we must learn for our lives" (group 3 student). Likewise, I perceived that students were motivated and engaged with the readings we read in class (teacher journal, July 29,

August 12, September 4, 11, 18, October 30, 2008). Students' motivation towards the reading topics was important as it is a factor that influences the understanding of information (Martin, 1991). Despite these positive perceptions, one student from Group 3 reported dissatisfaction with the readings, commenting that the second one was too long. Concerning this issue, Sasson (2007) recommends that readings be short and interesting for junior high school ESL students with a lower level to facilitate comprehension.

# Participants' Perceptions about the Reading Strategies Making Predictions

The majority of students reported that they liked to make predictions more than the other strategies on the feedback cards during both reading lessons. Also, most students believed that making predictions before reading was a useful strategy for reading comprehension. The results are presented in Tables 5 and 6.

Various reasons were cited by students as to why making predictions was helpful before reading. Many students commented that making predictions allowed them to figure out what the topic of the reading was, and to express what they thought about it. I, too, considered making predictions a very useful strategy as it helped students to explore the topic before they read and thus understand it better: "I think they made predictions that helped them to understand the story better since they had an idea about the topic of the text before reading it" (teacher journal, July 29, August 12, September 18, October 30, 2008). Students thought this strategy helped them to focus their concentration, develop their thinking, and check their expectations about the content of the reading. These are cited benefits by Duke & Pearson (2005, as cited in McKown & Barnett, 2007). One student wrote: "It is amusing, and I can compare my predictions when we read" (student feedback card). Two students in groups 2 and 3 reported that making predictions helped to guide them and to advance in the reading.

**Table 5.** Student predictions about 'The Story of Jeans'

If used			Usefulness			
Students	Yes	No	A lot	A little	None	
Grp 1	10		7	3		
Grp 2	10		7	3		
Grp 3	10		8	2		
CT	√		√			
Advisor	√		√			

**Table 6.** Student predictions about 'The Man, the Boy and the Donkey'

If used			Usefulness			
Students	Yes	No	A lot	A little	None	
Grp 1	10		9	1		
Grp 2	10		9	1		
Grp 3	10		8	2		
CT	√		√			
Advisor	1		1			

The effectiveness of making predictions was also linked to additional reading strategies of discussion, teacher questions, visual content support, modeling, and creative language use. Four students in group 1 liked making predictions with my guide questions in the first reading lesson because it gave them an opportunity to work together by discussing possible answers and listening to their classmates' opinions, while students in group 3 preferred more general predictions. In addition, a few students from groups 1 and 3 reported that they especially

liked to make predictions with pictures because it helped them to understand the text better. Using pictures for prediction has been identified as a good reading strategy by McKown & Barnett (2007) for middle-school L1 learners, and Omaggio (1993) for L2 learners. The PA also thought that modeling predictions while using pictures, which is a strategy recommended by Chamot, Barnhardt, El-Dinary, & Robbins (1999), motivated students to become more engaged and to share their ideas:

I noticed that you modeled thinking about the pictures, repeated what students said, and wrote it on the board. I think that all the students were engaged and many of them had a chance to share their ideas with the class (Rating checklist). Furthermore, the CT perceived that students enjoyed making predictions and creating interesting stories: "It is fascinating! Students enjoy it a lot. They create wonderful stories. (Personal communication)

Notwithstanding these positive perceptions, a few students (two from group 1 and one from group 3) reported that they did not like to make predictions and questioned its usefulness. In the first reading lesson, one student from group 1 commented that this had been a routine activity for many classes, and the other student wrote that the text was easy enough to understand without using this strategy. The group 3 student did not provide any comment related to their response for the second reading. Likewise, two students (one from both groups 1 and 2) reported that they preferred not to make predictions with pictures without any explanation. The student from group 2 explained her position by writing that she was not focused and did not understand what she had to do: "Because I get [sic] distracted".

### Activating Students' Previous Knowledge

A second important strategy for participants was the exploration of students' previous knowledge before reading. On the rating checklist, most students perceived having used this strategy in both readings as very useful (See tables 7 and 8).

**Table 7.** Student background knowledge of 'The Story of Jeans'

If used			Usefulness			
Students	Yes	No	A lot	A little	None	
Grp 1	10		10			
Grp 2	10		10			
Grp 3	10		9	1		
CT	√		√			
Advisor	√		√			

**Table 8.** Student background knowledge of 'The Man, the Boy and the Donkey'

If used			Usefulness			
Students	Yes	No	A lot	A little	None	
Grp 1	10		9	1		
Grp 2	10		9	1		
Grp 3	10		9	1		
CT	√		√			
Advisor	√		√			

Many students gave diverse reasons why this strategy helped them understand what they read better. Two students from group 2 explicitly referred as follows to their previous knowledge as a contributing factor for reading comprehension: "Many times, I knew the topic"; "When we answer questions, we can use what we think before reading". Both groups 1 and 2 students reported on the first

reading rating checklist that this strategy enabled them to think more about the topic, to generate more ideas, and to promote their curiosity: "It makes us think and to open up our imagination to do the activity". In the first reading lesson, some students from group 2 reported that their background knowledge helped them identify the main idea of the reading: "Because we have an idea what the text is about". In addition, students in group 1 also reported that this strategy was useful for focusing their attention and letting them share their ideas. This supports an important feature of instructional activities "to discuss ideas, drawing out students" thoughts and linking them to the text (Echevarría et al., 2008, p. 56). According to the U.K. Department for Education and Skills Standards -Understanding Reading Comprehension 2- (2005, p. 1), "Activation of prior knowledge can develop children's understanding by helping them to see links between what they already know and new information they are encountering".

I also thought that having my students think about the topic by drawing on what they knew was very useful for understanding the readings better. The CT agreed that this strategy was useful before reading: "For them, it is very pleasing to check their previous knowledge" (personal communication). I also perceived that it gave me the chance to build their knowledge:

The activities developed to check students' previous knowledge were helpful for students because they increased their background knowledge before reading; students could share their opinions, and they were familiarized with some words and information related to the content. (Teacher journal, October 23, 2008)

Christen & Murphy (1991, as cited in Echevarría et al., 2008) recommended that teachers introduce new vocabulary and concepts when students lack prior knowledge.

However, this strategy was perceived as not very useful by a few students across all groups. They commented that they did not have any prior knowledge to contribute, and that sometimes they did not understand the language. Echevarría et al. (2008) recognize that students have different background knowledge, and failure to activate and/ or build on this can lead to poor comprehension.

#### **Completing Graphic Organizers**

Some students from all groups reported that they liked this strategy during the first reading lesson on the feedback cards as it helped them to learn more and to understand better. They thought it was enjoyable, interesting, important and useful. Fewer students from groups 1 and 2 reported this perception for the second reading lesson, although one student from group 1 commented as follows: "I like the graphic organizer because it is easy to complete it, and it helps me to understand".

Regarding the usefulness of graphic organizers, many students expressed having used them on the rating checklist, and that this strategy was very helpful in organizing prior knowledge about the topic before reading (Tables 9 and 10).

**Table 9.** Graphic organizer before reading 'The Story of Jeans'

If used			Usefulness			
Students	Yes	No	A lot	A little	None	
Grp 1	9	1	9			
Grp 2	9	1	7	1	1	
Grp 3	8	2	6	2		
CT	1		√			
Advisor	√		√			

Table 10. Graphic organizer before reading	
'The Man, the Boy, and the Donkey'	

If used			Usefulness			
Students	Yes	No	A lot	A little	None	
Grp 1	10		8	2		
Grp 2	10		10		1	
Grp 3	10		9	1		
CT	√		√			
Advisor	√		√			

Students reported different reasons to justify the usefulness of this strategy. In both reading lessons, students believed that completing a graphic organizer before reading was a helpful strategy to prepare them to read and to understand the text better at the moment of reading it. They were able to form ideas and organize them about the topic, to clarify doubts, to develop their thinking and imagination, and to learn more. Other authors have referred to these benefits when using graphic organizers for reading comprehension (Ben-David, 2002) and Gil-García & Villega (2003). One student from group 2 perceived using graphic organizers with predictions as a creative activity: "You can create, and you inspire your imagination". Moreover, groups 1 and 2 students in the first reading lesson believed that it helped them remember information about the topic as well as check the accuracy of their prior knowledge and predictions: "Because this strategy helps us to remember the topic and to understand it better at the moment of reading it". Three other students from group 2 perceived benefits from this strategy related to taking into account a student's opinion, preparing students to answer comprehension questions after reading and reaching conclusions.

As for my personal point of view, I reflected on the usefulness of graphic organizers in helping students to associate their predictions with prior knowledge, and to remember and use information in writing, which has also been cited by Alvermann & Boothby (1986, as cited in Ben-David, 2002):

Students completed the graphic organizer with their previous knowledge about the topic, and what they learned from the predictions component... I think the graphic organizer can be useful to help students to remember information since they have it in a written way [sic], and can use it during and after reading. (Teacher journal, September 18, 2008)

Moreover, the CT linked the use of graphic organizers with the development of the thinking skills of comprehension and application: "The use of the graphic organizers has led to the achievement of the development of some thinking skills, especially comprehension and application" (personal communication, September 9, 2008). The PA perceived contributions related to enhanced student participation and engagement during the reading lesson: "... I saw them very engaged completing this tool..."; "I saw that students were very motivated and focused doing this activity" (rating checklist).

However, a small number of students across all groups reported on the feedback cards that they did not like to complete the graphic organizers and equally questioned the usefulness of the strategy on the rating checklists. Their difficulties completing the graphic organizers related to a lack of understanding as to how to complete them, the individual nature of the activity without the help of a classmate, and a lack of some words in English as well as interest in completing them. A small number of students across all groups reported not having used this strategy in the first reading lesson and believed that this strategy would have been better after reading.

#### **Answering Questions**

Most students reported on the rating checklists that they used the strategy of writing answers to questions after reading, and that they perceived this as useful (Tables 11 and 12). Only one student did not check the usefulness item for the first reading, and two students likewise did not for the second reading.

Table 11. Answering Questions after first reading

If used			Usefulness		
Students	Yes	No	A lot	A little	None
Grp 1	9	1	9		
Grp 2	10		10		
Grp 3	10		10		
CT	1		√		
Advisor	1		√		

Table 12. Answering Questions after second reading

If used			Usefulness		
Students	Yes	No	A lot	A little	None
Grp 1	10		9	1	
Grp 2	9	1	7	2	
Grp 3	9	1	9		
CT	√		√		
Advisor	√		√		

Most students reported that answering questions helped them to learn more. One student of group 3 reported that: "When I answer the questions and do the activities, I learn more". More importantly, students reported that answering questions while they were reading was helpful to have clarity about the text, and to understand it better after reading, which has been cited by Hendricks et

al. (1996). In addition, students expressed that the strategy was useful to show their comprehension, to demonstrate that they learned how to predict, identify and make comparisons, to remember information about the topic, and to increase their knowledge. One student from group 3 reported that the strategy helped him to go deeper into the topics and to facilitate development of the target language: "Because it was to improve my English and to deepen my understanding of the topics".

Concerning my point of view, I considered that students' performances on the reading worksheets were affected by the different types of questions associated with the thinking skills. Most group 1 students demonstrated their understanding of the text by answering accurately the four types of questions ('right there', 'think and search', 'on my own, 'author and me') in both reading lessons. Some group 2 and 3 students had a few problems demonstrating their understanding for 'think and search' or 'comprehension' questions because they wrote simple answers that were not accurate enough. Group 2 students' answers to 'on my own' and 'author and me' questions were clear, while group 3 students' answers to these questions were simple and some a little ambiguous.

Regarding 'on my own', and 'author and me' questions, I reflected on students' performances in my journal as follows:

Students answered those questions easily because students read the text; they understood the main idea, and then, they expressed their opinions, and they connected the topic of the text to their own lives. (September 30, October 30, 2008)

Students from group 2 who considered the strategy a little useful explained that they understood the text without having to answer the questions. In addition, one student from group 1 expressed that although she enjoyed answering questions to demonstrate her understanding, she preferred to imagine and predict content. On the feedback card in the first reading lesson, only a few students wrote that they did not like to answer the questions on the worksheet. One Group 3 student wrote that it was difficult to answer them: "I did not like the worksheet because sometimes I am not good at it, and it is difficult to answer it".

# Other Strategies for Reading Comprehension

Participants reported strategies related to roles of the reading teacher and students, and an interactive reading material to help students understand what they read better.

### Role of the Reading Teacher and Students

Reading comprehension was associated with a reading teacher who dramatizes and discusses content while reading aloud in class, and who motivates students to read (Echevarría, et al., 2008). On the rating checklists, students and the CT commented how I had helped students to understand content better by talking about it, and using gestures to convey concepts and information. The CT reported: "Another strategy was the gestures and actions Luz Marina did [sic] while she was reading aloud". One group 2 student reported during the first reading lesson that he liked the way I read: "Because she explains more and better". One group 3 student reported in the second reading lesson that she liked to listen to me when I read aloud: "Because she explains what characters want to say". Motivating students to read with visual aids and questions, and encouraging active student participation during reading activities was also an important role that has been raised by Cummins (2009). The PA reported during the second reading lesson that my materials and questions motivated students to participate in class:

You showed students six beautifully drawn, colored pictures... I heard students making comments as soon as you put the first picture on the board. You also motivated them by asking, 'Now, Do you want to read the story?' Students said, 'Yes', and made noise by applauding in class. Perhaps your question focused students' direction in reading, and helped create an initial enthusiasm in students to read and find out specific information. (Rating checklist)

## The CT expressed the importance of students as active classroom readers:

Reading activities let students participate in their learning process because they share their ideas, opinions, and experiences. In this way, the class is a space for reflection and contrast of thoughts and opinions. (Personal communication, September 9, 2008)

#### Interactive Reading Material

Participants perceived that the use of interactive reading material in the second lesson was instrumental in enabling students to read more independently, when accompanied by teacher modeling and the support of a classmate and the teacher during paired reading. After reading, students answered 'on my own' and 'author and you' questions, enabling them to relate and apply what they read to their lives.

A few students from groups 1 and 2 reported on the feedback card that they liked reading with this material in the second reading lesson, and that it was a strategy for comprehension. Students from group 1 reported that they could reread the text, ask themselves questions and work in pairs, which helped students become more independent readers. The PA reported that letting students read in pairs improved comprehension: "I think that

letting students read the text and questions in pairs and discuss their answers helped them". She also commented on the importance of the teacher's role in monitoring and supporting guided student reading: "I noticed that you and your CT monitored during the activity, answered students' questions, reviewed their answers and praised, which was a support for them too".

I reflected in my journal that students benefited from my modeling on how to work with the reading material first, and later from their classmates' support to help them to understand. The PA considered that promoting reading with this kind of worksheet was an effective strategy for facilitating students' understanding: "Students responded very favorably to reading with the worksheets used in the class today". After she spoke to a few students, she concluded that they thought reading was easier and that they understood the content of the fable better with this material. She further added, "I believe that you have helped your students to read more independently and successfully in the EFL class" (rating checklist).

## Using English for Reading Comprehension

Even though students were able to use both languages to demonstrate their comprehension, I noticed that most students chose to write their answers in English on the reading comprehension worksheets: "Only a few students wrote something in Spanish. The rest of the students made an effort to write their answers in English (teacher journal, July 24, August 5, September 4, 30; October 2, 30, 2008). On the graphic organizers, my advisor also observed students' efforts to use English when answering the comprehension questions on the worksheet: "I noticed that most students were

writing in English...only 8 students were writing their answers in Spanish" (rating checklist).

It is also significant to take into account that students perceived that the reading strategies and activities helped them to improve their English. One group 1 student reported on the rating checklist as follows: "Reading using the strategies helps me to learn English better". One group 2 student reported on the feedback card in the first reading lesson that "I like the reading because I am learning how to write in English". A few students also reported on the rating checklists from both reading lessons that the reading strategies were helpful to improve their English related to vocabulary, grammar, and pronunciation. One group 2 student reported that "It is general culture, and I learned new words in English".

Yet, a few students across all groups reported problems with their reading comprehension on the feedback cards due to their lack of familiarity with English (See Tables 13 and 14). According to Fielding and Pearson (1994, as cited in O'Malley & Valdez Pierce, 1996, p. 94), "reading comprehension depends heavily on knowledge of language and print".

**Table 13.** Student Comprehension of 'The story of Jeans'

Did you understand the reading today?					
Students	Yes	No			
Grp 1	10				
Grp 2	10				
Grp 3	9	1			

**Table 14.** Student Comprehension of 'The Man, the Boy, and the Donkey'

Did you understand the reading today?					
Students	Yes	No			
Grp 1	9	1			
Grp 2	8	1			
Grp 3	7	2			

Likewise, on the rating checklist for the first reading lesson, two students from groups 2 and 3 reported that the strategy of checking their background knowledge helped them just a little because sometimes they did not understand the language. Also, completing the graphic organizer in the second reading lesson was difficult for one student from group 3 as he did not know some words in English.

After analyzing students' work, I concluded that students across all groups showed differences using English to answer the different types of questions on the worksheets. Groups 1 and 2 students used English to answer knowledge or 'right there' questions as well as comprehension or 'think and search' questions. These two groups of students used English to answer most application or 'on my own' and 'author and you' questions, and Spanish for only a few questions. Group 3 students differed from these two groups by combining English with some words in Spanish to answer the first two question types. Concerning application questions, group 3 students initially tried to use English in the first reading lesson, but their answers were not clear. During the second reading lesson, only a small number of these students answered the application questions in Spanish. I believe that group 3 students needed more time to read the new material.

# Developing Comprehension and Application Skills

In general, participants believed that the reading selections, strategies, and material helped students to begin developing the thinking skills of comprehension and application. The CT thought that my reading lessons were planned with this purpose: "The reading materials you present to students are not only motivating them, but also

they are guiding the reading process developing the levels of comprehension and application" (personal communication, September 9, 2008).

Some students reported in both reading lessons that the strategies and materials used in class helped them to improve their comprehension. Students perceived that they understood the readings better, were inspired, and had developed their thinking. One group 3 student reported in the first reading lesson that "I develop my thinking and I inspire my imagination". One group 1 student reported in the second reading lesson that "We can grow mentally everyday in the language that dominates the world".

Some students also reported that they could apply what they read to their lives, which included learned information related to the topics, general culture, and the moral of the texts. My advisor also perceived the following: "Students have read for knowledge, comprehension, and in some way, for a chance to apply what they know about the topic and the reading. In other words, they have had the opportunity to reflect on the topic and reading material and relate it to their lives (rating checklist)".

Regarding my personal point of view, I considered that reading strategies were useful to promote these thinking skills: "Through the reading strategies, students have the opportunity to show that they understand what they read and that they apply what they learn from the text to their own lives" (teacher journal, August 19, 2008).

#### **Discussion and Conclusion**

English as a foreign language teachers in public high schools can design and teach different reading strategies, determine which strategies students find useful, and give students opportunities to use the strategies to develop the skills of comprehension and application. The findings of this study indicated that using the reading strategies of activating background knowledge, making predictions, completing graphic organizers, and answering questions with the DRTA and with interactive material, led students to be motivated to read, learn more, and understand better.

In classrooms, teachers can bring interesting readings based on students' interests and language ability. They can prepare their students to read and develop their thinking by showing attractive visual aids related to the topic and content, modeling predictions, asking students' questions to guide their prediction, and encouraging student discussion. It is equally important that teachers activate students' background knowledge with visual aids, questions, and class discussion (Cummins, 2009) to help them focus their attention, think more and generate ideas about the topic and main ideas as well as link what they know with the new content and share with classmates. When students have little prior knowledge about the topic or have low language abilities, teachers can build up background knowledge by introducing key concepts and vocabulary needed prior to reading (Cummins, 2009). Teachers can introduce graphic organizers and help students write, organize and compare their prior knowledge, ideas, and predictions to the reading, increase their knowledge, remember information, develop language, and understand the reading better. Teachers can model using an organizer (Robertson, 2008), let students work together with this strategy, and extend the time for the activity so that it is more useful for students with limited English. These strategies combined with reading comprehension questions after the readings, help students to recognize that they are understanding better, learning more, developing language, and being able to show this.

Teachers can use interactive reading material to help students move from a DRTA to more independent reading when accompanied with teacher modeling and student paired reading. This interactive material directs students' reading process and gives them the opportunity to practice predicting, highlighting, asking themselves questions, reading and rereading with a peer along with seeking help from others. Robertson (2008) highlights these strategies for increased comprehension. Combining all these strategies, teachers can encourage students to stay interested and engaged with the reading by asking them to say something about the reading aloud. This can be directed towards their interest in the topic, or simply towards giving a personal response to the text (Zimmerman & Hutchins, 2009).

With interesting readings, strategies, and material, teachers can help EFL students to start developing the thinking skills of comprehension and application. While students may be motivated to demonstrate their reading comprehension in English, a low level of English can compromise students' ability to demonstrate application. Thus, teachers can remind students to use their native language when needed in order to maintain their engagement with the reading.

Through the development of this project, I learned that the way strategies are integrated into the reading lesson has an important influence on students' level of understanding. Implementing multiple reading strategies is effective for public high school EFL students' comprehension. I hope that the results of this study will provide ideas for other EFL teachers who are interested in improving their students' reading comprehension.

#### References

Ben-David, R. (2002). *Enhancing comprehension through graphic organizers*. Access ERIC: FullText (040 Dissertations/Theses; 143 Reports--Research). New Jersey.

- Bowman, L. A., Carpenter, J., & Paone, R. A. (1998). Using graphic organizers, cooperative learning groups, and higher order thinking skills to improve reading comprehension. Chicago: M. A. (ERIC Document Reproduction Service No. ED420842).
- Burns, A. (1999). *Collaborative action research for English language learners*. Cambridge: Cambridge University Press.
- Chamot, A., Barnhardt, S., El-Dinary, R. B., & Robbins, J. (1999). *The learning strategies handbook*. New York: Addison Wesley Longman.
- Creswell, J. (1998). *Qualitative inquiry and research design*.
  Thousand Oaks, CA: SAGE Publications.
- Crookes, G. (2003). A practicum in TESOL: Professional development through teaching practice. Cambridge: Cambridge University Press.
- Cummins, J. (2009). Supporting ESL students in learning the language of science. Retrieved May 9, 2009 from http://www.pearsonschool.com/live/assets/200728/SciAuto404585MonoCummins\_844\_1.pdf
- Echevarría, J., Vogt, M., & Short, D. (2008). *Making content comprehensible for English learners*. Boston, MA: Pearson Education, Inc.
- Echeverría Acosta, L. M. (2008). Reading strategies for higher order thinking skills to improve EFL grade 8 students' reading comprehension (Unpublished undergraduate thesis). Universidad de Antioquia, Medellin, Antioquia, Colombia.
- Freeman, D. (1998). *Doing teacher-research: From inquiry to understanding*. NY: Heinle & Heinle Publishers.
- Gil-García, A., & Villegas, J. (2003). Engaging minds, enhancing comprehension and constructing knowledge through visual representations. Retrieved from ERIC database. (ED480131)
- Hendricks, K., Newman, L., & Stropnik, D. (1996). *Using higher order thinking skills to improve reading comprehension* (Master's thesis). Saint Xavier University, Retrieved from ERIC database. (ED398538)
- Holt, Rinehart, & Winston (n.d.). *The Holt Reader*. Orlando, FL: Holt, Rinehart and Winston.

- Johnson, A. (2005). *A short guide to action research*. Boston, MA: Pearson Education, Inc.
- Kelty, C. (1999). *Using questioning techniques and the cloze* procedure in a second grade classroom to increase reading comprehension (Master's thesis). Nova Southeastern University, Retrieved from ERIC database. (ED447456)
- Martin, D. (1991). *How to be a successful student*. Retrieved August 30, 2008 from http://www.marin.cc.ca.us/~don/study/7read.html
- Marzano, R., Pickering, D., & Pollock, J. (2001). Classroom instruction that works: Research-based strategies for increasing students' achievement. Alexandria, VA: Association for Supervision and Curriculum Development.
- McKown, B. A., & Barnett, C. L. (2007). *Improving reading comprehension through higher order thinking skills* (Master'sthesis, Saint Xavier University). Retrieved from http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content\_storage\_01/0000019b/80/28/09/00.pdf
- Norato, A., & Cañon, J. (2008). Developing cognitive processes in teenagers through the reading of short stories. *PROFILE*, *Issues in Teachers' Professional Development*, 9, 9-22.
- Omaggio, A. (1993). *Teaching language in context*. (2<sup>nd</sup> ed.). Boston, MA: Heinle and Heinle Publishers.
- O'Malley, J. M., & Valdez Pierce, L. (1996). Authentic assessment for English language learners: Practical approaches for teachers. NY: Addison-Wesley Publishing Company.
- Pesa, N., & Somers, S. (2007). Improving reading comprehension through application and transfer of reading strategies (Master's thesis, Saint Xavier University). Retrieved from http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content\_storage\_01/0000019b/80/28/oc/59.pdf
- Ríos, S. R., & Valcárcel, A. M. (2005). Reading: A meaningful way to promote learning English in high school. *PROFILE, Issues in Teachers' Professional Development, 6,* 59-72.
- Robertson, K. (2008). *Increasing ELL student reading com*prehension with non-fiction text. Retrieved October 15, 2008 from http://www.colorincolorado.org/article 29035
- Sasson, D. (2007). Six tips for teaching lower level junior high school ESL students. *The Internet TESL Journal*, 8, 7.

- Retrieved May 8, 2009 from http://iteslj.org/Techniques/ Sasson-LowerLevelJHS.html
- Spivey, J. (2000). *An investigation of reading comprehension at the primary level* (Master's thesis). Saint Xavier University, Retrieved from ERIC database. (ED449492)
- Taylor, E. K. (2000). *Using Folktales*. Cambridge: Cambridge University Press.
- Wallace, C. (2001). Reading. In R. Carter, & D. Nunan (Eds.), Teaching English to speakers of other languages (pp. 21-27). Cambridge: Cambridge University Press.

- Wong, H. K., & Wong, R. T. (1998). *The first days of school*. Mountain View, CA: Harry K. Wong Publications, Inc.
- Zimmerman, S., & Hutchins, C. (2009). Seven keys to comprehension: How to help your kids to read it and get it! Retrieved October 13, 2008 from http://www.readinglady.com/mosaic/tools/7%20Keys%20 Parent%20Handout%20from%20Sandi.pdf

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