

## ESP STUDENTS DEALING WITH READING COMPREHENSION OR HOW TO IMPROVE YOUR READING SKILLS?

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**Abstract.** *Reading for comprehension requires special care and privilege in our lesson planning or syllabus. When our students are dealing with a content-based syllabi focusing on language goal in order to satisfy their learning needs, ESP can act as a catalyst which will eventually develop and improve their language skills and competences thus making them highly efficient and effective in their professional quest. Our ESP students need English to read and comprehend technical or scientific texts, which means that an ESP course should be based on this fact and it should also outline the reading strategies needed to gain this skill. Because reading is an intricate process that has many aspects, we will design our teaching material and focus not only on the top four strategies most frequently used by any good reader to understand a given text (predicting, questioning, clarifying, and summarizing), but also on a broader range comprising eight strategies, namely previewing, self-questioning, making connections, visualizing, knowing how words work, monitoring, summarizing and evaluating, which are highly used for teaching reading comprehension.*

**Keywords:** *ESP, reading comprehension, skimming, scanning, PANORAMA.*

### 1. Introduction

Reading and reading comprehension are two similar, yet distinct processes with the latter consisting of a more intricate nature. According to Coronel, Liendo e Diaz “it involves the usage of various strategies to build a pattern with the meaning assumed to be intended by the writer “(Coronel 2003). Reading comprehension involves reading to extract general and specific information, but inference and prediction are engaged in this skill. Moreover, when performing a reading comprehension task, students should be able to acknowledge the structure of a given text, to guess the meaning of unfamiliar words from the context, to re-express or re-formulate the content of the text, to summarize it, either orally or in writing, or to answer questions related to the text. This means that comprehension and expression are somehow interconnected (for more details see <https://www.monografias.com/trabajos14/reading/reading.shtml>).

According to Harding (Harding 7), an ESP teacher is also a course designer and a material provider. What should we, as ESP teachers, do next: probably adopt an adequate/proper methodology based on reading strategies like scanning, skimming, inference, etc. which will be used to practice and emphasize the grammatical structures most frequently used in the technical texts to improve reading comprehension. Last but not least, technical vocabulary has to be taught and practiced within the context, whereas morphology needs special attention too because technical texts are full of compound words, phrases or structures.

As an ESP student you will have to read a great deal of articles, books, magazines or texts on the Internet, so why don't you do it efficiently and effectively? Before you actually start your reading, make sure you know the purpose of your reading. Afterwards you can select the most appropriate reading method. Thus, if you are dealing with a technical excerpt and you need to find something specific, for instance a piece of information about a certain person or topic, all you need to do is to rapidly scan the excerpt until you reach the person's name or a reference to the topic.

But if you need to learn more about that particular topic, you will have to find out the main theme or ideas of the text by looking at the title, subtitles, introduction or any diagrams, pictures or charts, by writing down questions that you might want to find answers to, by watching out for words in bold or italics and by reading the first sentence of each paragraph. This is called skimming a text and it should not take you more than five minutes at the most.

Moreover, if you want to turn your reading comprehension into an enjoyable one, you need to interact with what you are reading. For instance, you can take notes about the topic, using your own words rather than copying what you are reading, you can work out how your notes relate to what you already know, because reading effectively and efficiently means using your brain wisely.

Differently stated, the main purpose of reading is to actually train students to read quickly enough to get information or meaning from that particular material and with a full understanding. As an ESP teacher, I came to realize that there are so many reasons for getting students to read English texts. Therefore, we support the ideas that reading can help them to read texts in English either for their own careers, for study purposes, or simply for pleasure and that any exposure to English- either books, magazines or the Internet provided that, the students understand it more or less - is a good method for language learning. (Rushwan 2017). It may also aim at motivating them and meeting their learning needs.

## **2. Theoretical framework for the study. Reading comprehension or how to improve your reading skills**

Most scholars argue that reading is one of the most important skills for educational and professional success (Alderson 1984). In emphasizing the importance of reading comprehension Rivers (Rivers 147) stated that “reading is the most important activity in any language class, not only as a source of information and a pleasurable activity, but also as a means of consolidating and extending one’s which are knowledge of the language”.

As a teacher at “Ovidius” University, I have been dealing with students interested in working in such varied careers from civil and mechanical engineering, to law and investigation, medicine or dentistry, and many other fields, and that motivated me to continue my research. When I started writing this article I had a few questions in my mind that kept bothering me since I started teaching ESP and after reading an article by Arias Rodriguez entitled *Reading Through ESP in an Undergraduate Law Program*, I came to realize that ESP students all over the world are facing the same problems:

- *What are the problems that ESP mechanical engineering students face when dealing with ESP reading comprehension?*
- *What other already tested strategies can teachers use to improve their students’ reading comprehension?*
- *How does reading ESP texts contribute to students’ acquisition of specialized vocabulary?* (Rodrigues 2014)

Some students can decipher words, but they may still have difficulties comprehending what they read and I have been dealing with this phenomenon from the very beginning: my ESP students that graduated from various urban or suburban high schools have problems summarizing or extracting main ideas from their reading texts. The students may perform and finish a reading task within a time limit, but they might not realize that they had problems understanding the text. Moreover, Oczkus, L. 2010 outlines the fact that ESP students as “second-language learners often find the vocabulary load overwhelming, and most students struggle when reading nonfiction texts “(Oczkus 2010).

My colleagues often complain that students have problems remembering what they read and that they are not really focusing on reading the text. Current research outlines the fact that there is a compelling need to teach comprehension strategies at all levels (Block et al. 2008; Kincade, Beach 1996; Pearson, Duke 2002).

Some ESP students might need strategies to clarify the unfamiliar words, whereas others might need our assistance and guidance to answer and ask questions and to make better predictions. When asked to summarize many students feel like they are facing a challenge because they have difficulties sorting out the main ideas of a given text.

Many researchers argue that there are two categories, namely unknown words and background knowledge which are the biggest factors hindering students' ESP reading comprehension, followed by text coverage and organization structure which also contributed to students' low ESP reading comprehension (Thao, Tham 2017). But some students sometimes might have difficulties with grammar when reading ESP texts. When dealing with the first two categories, namely unknown words and background knowledge, it is entirely true that students are unfamiliar with the mechanical engineering terminology, therefore they could not guess or decipher the meaning of unknown words or phrases and they were unable to translate the text since they did not have enough vocabularies. Moreover, participants self-reported that they sometimes did not understand much about the content of the reading texts because of [their] limited background knowledge of the topic of the reading texts – after all, they are in their first or second year.

The survey conducted by Thao and Tham in their article from 2017 outlines the fact that the top five most common difficulties ESP students encountered when reading for comprehension were that they were not familiar with the terminology used in ESP, they could not guess the meaning of unknown words or phrases, they had to check their meanings in the dictionary, they did not have much background of the topics of the reading texts, and they seemed to prefer watching something rather than reading a text in terms of ESP.

Altogether, their assumptions suggest that, on the one hand, “students should be encouraged to be self-equipped with technical vocabulary and knowledge of ESP subject matters by searching for the meaning of new technical vocabulary“ (Thao, Tham 2017) and, on the other, they should read in advance the ESP materials in order to get familiar with the technical words and concepts used during the lecture. As for ESP teachers, their advice is to carry out various pre-reading activities in order to activate students' prior knowledge by applying the interactive reading method. Alternatively, teachers should also provide ESP related reading materials to their students for a better understanding of the key concepts and terminology used.

My ESP mechanical engineering students are expected to have some background English knowledge because they will have to use a set of reading skills to perform a particular task through reading comprehension texts in the ESP courses. The majority of the Romanian ESP students are experiencing lots of problems while reading comprehension of ESP programs and their problems are getting worse when they are exposed to a set of reading texts which they are expected to read and comprehend. The problem of comprehending the reading/ written text is there because most of the teachers use texts and most likely present them on board (Bartsch, Cobern 2003).

My ESP mechanical engineering students are supposed to get information about the basic concepts of naval architecture. When exposed to the reading/ written texts and the lecturer reads or at least uses a simple whiteboard to explain the issues/ themes, students have no clues about the real objects and concepts. Based on my experience as an ESP teacher, the ESP mechanical engineering students of Ovidius University of Constanța are not eager to surf the net to find out more about related topics which can be a solution to their lack of

comprehending texts. For instance, they have no idea of what or how a bulk or a tug ship looks like and after being presented they are not willing to surf the net and see pictures of it and find more information about these structures.

A lot has been written about ESP reading comprehension and the conclusion is that good readers use comprehension strategies such as understanding vocabulary in the present context, skimming, scanning, predicting, summarizing, and evaluating, self-questioning, making connections, visualizing and monitoring etc., to facilitate the construction of meaning. Researchers came to the conclusion that by using such strategies students become meta-cognitive readers (McLaughlin, Allen).

Reading is such a long and intricate process which involves the reader into dual activations, understand the subject matters and the language at the same time. Heilman, Blair, Rupley (Heilman et al. 1) explained that reading is interacting with language that has been coded into print, reading is a language process, and the end result of reading instructions is comprehension. But for an adequate reading comprehension, it is commonly believed that vocabulary plays the most important part. To support our study and plan our lesson we started from Edwards' PANORAMA (Edwards 133), which was defined as a reading strategy consisting of a number of stages and paid attention to Purpose, Adaptability, Need to pose questions, Overview, Read and relate, Annotate, Memorize, and Assess. This reading strategy describes in details the three main stages of reading comprehension: the pre-reading stage, the whilst-reading which involves Overview, Read and relate, Annotate, and the post reading stage which includes Memorize and Assess. (for more details see <https://files.eric.ed.gov/fulltext/EJ1131724.pdf>).

The first step of PANORAMA, or the so called "purpose of reading" plays a fundamental role in the success of reading. Hudson (Hudson 9) stated that "reading is motivated by the reader's particular purpose", which means that teachers will clearly tell their students the purpose of their reading, by providing clear instructions about how to achieve it and explain how long they will do this (Harmer 286).

The second step would be adaptability, when teachers as well as students become aware that "question and questioning when with a clear purpose can serve as effective and efficient teaching strategies that can assist students to enhance their reading comprehension" (Pikulski, Templeton 1).

So, the purpose of the already mentioned stages would be to activate the student's knowledge of the subject, to provide any language preparation that might be needed for coping with the passage and, finally to stimulate the learners to read the text (Celce-Murcia). But how can you do that? These enabling activities could include various techniques such as using pictures, movies and even role-plays or we could also use pre-questions to activate the reader's knowledge about a certain topic, predictions based on the title, subheadings. All these pre-reading activities are interactive because students are active participants and they have to work with each other before they tackle the text; they also have a predictive nature because in the PAN phase, the students' discussion basically anticipates what will appear in the reading material, and they are student centered because they make use of the students' prior knowledge which means that the students have control over the process of learning.

During the next stage, the overview, the students will have a general picture or gist of the reading materials, because they were asked to discover the topic of the text by briefly looking at the text features such as titles, headings and subheadings, charts, pictorial aids or graphs, etc.

Furthermore, at the next level which is Read and relate, students will read intensively and carefully, to extract the main ideas and supportive facts, and to relate their background experience to the materials, by answering questions previously posed and by developing their

critical thinking because they will have to link up the information from the reading text with their previous knowledge or other discipline field.

During the annotate stage, as a follow-up activity, students might be asked to build up questions, convert titles or statements into questions as inquiry activities.

When asked to memorize, students might write summaries, arrange notes that are meaningful, construct outlines, use acronyms to memorize important facts or to retrieve essential information.

The final step of the PANORAMA strategy is labelled as assessment, a stage when students can test themselves by discussing and reviewing the materials they just received or the teachers can provide a reading comprehension test, which is intended to assess students' comprehension. (for more details see <https://files.eric.ed.gov/fulltext/EJ1131724.pdf>)

### 3. Lesson planning – a sample

Summarizing, when a teacher plans a lesson, he/she must bear in mind the following aspects: when planning a lesson, the teacher has clear objectives and contents which will be covered in a definite amount of time. He decides which are the main topics to be taught and should bear in mind that we cannot teach reading comprehension without teaching specialized vocabulary which needs to be outlined or emphasized by using various exercises. In terms of class management, we support the idea that students should be engaged either in individual work, group work or pair work. A real cooperative interaction between teacher and student, student/teacher, student/student, student/class is always needed, because both the teacher and the students will feel more confident. (for more details see: <https://www.monografias.com/trabajos14/reading/reading.shtml>).

#### **Types of Ships: Description of a Ship.**

#### **Warming up/ Pre-reading activities/ PAN (the purpose/adaptability/need to pose question stages)**

##### **Task 1**

Ask students to name, describe and define the various types of cargo vessels in use they know. (This involves activating prior knowledge, predicting, and setting a purpose, self-questioning by generating questions to guide their reading and by making connections, relating reading to self, text, and world). Group activity – brainstorming.

##### **Task 2**

#### **Vocabulary practice**

**Study the words in the box below using a dictionary. (You can use the following online sources: <https://exploration.marinersmuseum.org/vocabulary/>, <https://www.merriam-webster.com/dictionary/ballast> , <http://www.learnersdictionary.com>)**

|  |
|--|
| <i>hull, trim, tugboat, bulk carrier, tanker, keel, ballast, steer, draft, derrick, propeller, deadweight, reefer ships, capsize, hold, stow</i> |
|--|

#### **Reading activities/ ORA (the overview/read and relate/ annotate stages)**

**Read the texts below in order to complete the following tasks:**

A. “In 2007, there were 34,882 vessels with a gross tonnage of over one thousand tons carrying the great majority of the world’s trade. These ships come in many different shapes and sizes and are often custom built for specific tasks such as *tugboats*, cable ships and survey vessels. Among the most common types are *bulk carriers* which carry dry cargo,

*tankers* which carry liquid cargo and *container ships* which transport goods in standard sized containers. Most dry cargo is carried by container ships. Containers are a standard size and they are piled up on the decks of container vessels so that there is no waste of space.

Ships pay high charges for using docks so fast loading and unloading is often a priority. Stevedores are employed at most ports to man cranes and move cargo to and from ships and warehouses on the quayside, however loading and unloading is also done by mariners, sometimes being paid extra for this work.

A very important aspect of loading a ship is the *trim* – load must be distributed so that the ship is stable and stress on the *hull* is minimized. When cargoes are loaded codes and guidelines have to be applied and officers need knowledge of cargoes and ballasting“. (<https://studfiles.net/preview/1853818/page:10/>) (<https://en.wikipedia.org/wiki/Ship>)

B. a) “Bulk carriers transport high tonnage cargoes such as coal, grains and ores. When loading a bulk carrier it is very important to trim the cargo correctly. Wrongly distributed cargo causes instability and an unstable ship will roll. Usually water is taken into the ballast tanks to improve a ship’s trim.

b) A cargo may move during a voyage. Also the vibration of a ship can cause a cargo to liquefy. The liquid cargo will then move to one side of the hold. When a cargo moves it will make the ship list and *capsize*. Some cargoes may heat up causing hazards such as fires, explosions and toxic gasses.

c) On container ships, containers are stacked both in the holds and on the upper deck. On the upper deck cargoes are exposed to the sun, spray and rainwater and big rises and falls in temperature. Below decks it is possible to control temperature and ventilation. Containers packed with batteries, electronic equipment, tea etc are therefore stowed in the hold. Containers of glass, ceramics and machine parts are stacked on deck“. (<https://studfiles.net/preview/1853819/page:17/>)

C. “General cargo ships are prone to accidents and great importance is attached to loading cargo in such a way that a vessel is kept on an even *keel*. To do this a vessel is trimmed – that is, the weight of the cargo is evenly distributed about the ship. Apart from distributing the weight of cargo, a vessel takes on *ballast*. This is water added to the ballast tanks. Ballast increases *propeller* immersion and improves *steering*, trim and *draft*. It is taken on in the coastal waters of one place and discharged when the cargo is unloaded. Ballast water contains a variety of biological material and poses a danger to public health and the environment.

Merchant ships are described in terms of their tonnage. Their deadweight is the weight in tons of the cargo, stores and fuel when she is down to her loading marks. Many cargo ships have *derricks* which are basically cranes for handling cargo“. (<https://studfiles.net/preview/1853818/page:11/>)

## 1. Comprehension exercises:

### 1.1. Main ideas

a) Which two of the following subjects do you think the author deals within this text.

1. To build ships.
2. Hazards and risks on ships.
3. Description of the fleet.
4. A worldwide variety of transportation systems.
5. Role of ships.

b) Answer these questions.

1. How is it possible to have today worldwide transportation?

2. How are ships built?

**1.2. Questions on the text. Skim through the texts to answer the following questions**

1. How are ships classified?
2. Who is responsible for arranging pick up of the containerized cargo?
3. What kind of merchandise is stored in containers?
4. What is the purpose of the ballast?
5. When/where is the ballast taken on?
6. What does deadweight stand for?
7. Which are the causes that lead to hazards on ships?

**1.3. True/False questions. Decide whether the following statements are true or false. Correct the false ones.**

1. Ships are custom built for various purposes.
2. Tankers transport dry cargo.
3. Bulk carriers are loaded with liquid cargo.
4. The cargo unevenly distributed can lead to the capsizing of the ship.
5. Containers are stacked on the upper deck.
6. The ballast is discharged when the cargo is loaded.
7. Using the docks for loading and unloading is free of charge.
8. Containers full of bateries, electronics, tea are stored in the holds .

**1.4. Find and give the Information:**

1. The number of vessels in 2007.
2. The persons in charge of moving cargo to and from the ship.
3. The type of cargoes transported by bulk carriers.
4. The type of cargo carried by containers.
5. The role of the ballast water.

**1.5. Locating Information. Identify the exact passages the following ideas are expressed. Provide the paragraph references.**

1. Since ships pay high charges for using dock, loading and unloading becomes a priority.
2. To meet the desires of the customers, ships are built in different sizes and shapes for various purposes.
3. Maritime personel must have knowledge of handling cargoes and ballasting.
4. Environment and public health might be endangered byballast water .
5. Cranes are used to load and unload the cargo.
6. One type of ship is used for transporting liquid cargo.

**2. Vocabulary exercises. Understanding words.**

**2. 1. Synonyms vs antonyms. Find the synonyms (1-5) and antonyms (6-10) for the following words within the reading texts.**

|                        |                          |
|------------------------|--------------------------|
| 1. usual (paragraph A) | 6. liquid (paragraph A)  |
| 2. fee (paragraph A)   | 7. stable (paragraph B)  |
| 3. trip (paragraph B)  | 8. low (paragraph A)     |
| 4. cargo (paragraph C) | 9. above (paragraph B)   |
| 5. crane (line 53)     | 10. safety (paragraph C) |

**2.2. Match the terms in column A with their definitions in column B. (An exercise designed using the following online sources: <https://exploration.marinersmuseum.org/vocabulary/>, <http://www.learnersdictionary.com>, <https://www.merriam-webster.com/dictionary> )**

|                 |   |
|-----------------|---|
| 1. Hull         | a. a small, powerful boat that is used for pulling and pushing ships especially into harbors or up rivers   |
| 2. Trim         | b. A boat carrying things that are transported and sold in large amounts  |
| 3. Tugboat      | c. the main part of a ship or boat : the deck, sides, and bottom of a ship or boat  |
| 4. Bulk carrier | d. a vehicle (such as a ship, truck, or airplane) that is designed to carry liquids   |
| 5. Steer        | e. a person whose job is to load and unload ships at a port   |
| 6. Ballast      | f. the position of a ship or boat especially with reference to the horizontal   |
| 7. Keel         | g. heavy material (such as rocks or water) that is put on a ship to make it steady or on a balloon to control its height in the air                 |
| 8. Stevedore    | h. to control the direction in which something (such as a ship, car, or airplane) moves   |
| 9. Draft        | i. a device with two or more blades that turn quickly and cause a ship or aircraft to move  |
| 10. Capsize     | j. the chief structural member of a boat or ship that extends longitudinally along the center of its bottom and that often projects from the bottom |
| 11. Derrick     | k. load or load-pulling capacity  |
| 12. Propeller   | l. a tall machine with a long part like an arm that is used to move or lift heavy things especially on ships  |
| 13. Tanker      | m. to turn so that the bottom is on top   |

**2.3 Content review. Read the second text again and outline the words that mean the following ( see : <https://studfiles.net/preview/1853819/page:17/>)**

- the movement of a ship side to side
- make something better
- turn into liquid
- poisonous
- uncovered

**2.4. Complete these sentences with the terms listed in the table below:**

|                    |                  |             |                       |
|--------------------|------------------|-------------|-----------------------|
| weather conditions | steam            | overtake    | offensive             |
| electrical system  | saltwater system | fuel system | compressed air system |

ventilation system

1. No ships .....capabilities than an aircraft carrier.
2. How long can this ship .....without refueling?
3. A small boat cannot handle poor .....
4. The cruiser will ..... the enemy ship in a few minutes.
5. The engines rely on the ..... for power.
6. Torpedoes are powered by the.....
7. When the lights went out, the crewman checked the.....
8. Fresh air is circulated by the.....
9. The..... sends water to cool engines.

**3. Summary skills.**

**3.1 Text summary.**

**Go back to the reading texts and choose the three most important points from this list in order to get a summary.**

1. If the cargo is improperly distributed, the ship can be at risk.
2. Merchant ships are custom built to perform specific tasks.
3. At least three types of vessels are mentioned in the text.
4. The world needs a transportation system to ensure international trade.
5. The maritime transportation system reduces the cost of merchandise.
6. The use of vessels in today's world transportation is a must.

**3.2 Schematic representation of data. Group work activities.**

Make a table listing the types of vessels and another listing the types of hazards mentioned in the text, adding in each case relevant information (causes, effects, etc).

**3. 3. Work in pairs. Match the type of cargo in the list below with hazards on the right (extracted from *English for mariners* online at <https://studfiles.net/preview/1853819/page:17/>):**

| A                   | B                   |
|---------------------|---------------------|
| 1) Ammonium nitrate | a) Falls            |
| 2) Timber           | b) collapse of load |

|               |                    |
|---------------|--------------------|
| 3) Coal       | c) Explosions      |
| 4) LPG        | d) Fire            |
| 5) Containers | e) unsafe lashings |
|               | f) dust            |
|               | g) toxic gasses    |

#### **4. Post-reading activities/ Writing and speaking activities/ MA (the memorize/assess stages)**

**4.1. Imagine you are a port authority. A ship's captain needs information about the port facilities. (30 lines) (<https://studfiles.net/preview/1853819/page:17/>)**

**4.2. Make up a dialogue asking and explaining everything you know about transporting and stowing hazardous goods, the kinds of restrictions placed on ships, the dangers of discharging ballast, accidents involving cargoes, dangers from the weather etc. ask if they have any experience of transporting the goods. Brainstorming activity / role-play activity. (<https://studfiles.net/preview/1853818/page:10/>)**

#### **4. Conclusions**

To encourage my students to use effective reading strategies, I have proposed a set of simple exercises to elicit information through targeted strategies. These exercises can be divided in accordance with the reading stages. During the Pre-reading or PAN stage, we should include discussion of the text type, brainstorming, reviewing familiar scientific points or facts in the text, considering illustrations and titles, skimming or scanning. For the While-reading or the ORA stage I included exercises such as guessing meaning, using context clues, word formation clues, analyzing reference words to predict text content, and using the dictionary only when necessary. Finally, the Post-reading or AMA exercises suggested focus on checking the students' comprehension and lead them to a deeper analysis of the text. Group discussion and rereading a text may help students to focus on issues they do not fully or correctly understand during the first reading.

The purpose of this article was to improve my ESP students' reading comprehension using the PANORAMA comprehension strategies, to encourage them to become metacognitive, to be aware of their strategy use and to help them supervise their comprehension using those strategies. In addition, this research was a great opportunity for students to become familiar with the reading techniques that permitted them access to topics related to mechanical engineering field in English. Moreover, this article has tried to demonstrate how specialized ESP reading materials might help students gain a deeper knowledge of their own field of study, to promote students' use of English for debating mechanical topics, and to increase the students' acquisition of vocabulary in the foreign language through reading specialized texts. Furthermore, we strongly believe that acquiring a specialized vocabulary will make students feel more self-confident and motivated not only in their own learning process but also in their use of the English language.

#### **WORKS CITED**

Alderson, Charles J., A. H. Urquhart. *Reading in a foreign language*. London: Longman, 1984.

- Bartsch, R. A., K. M. Cobern. "Effectiveness of PowerPoint Presentation in Lectures." *Computers & Education* 41 (2003): 77-86.
- Block, C. C., S. R. Parris. *Comprehension instruction: Research-based best practices* 2<sup>nd</sup> ed. New York: Guilford, 2008.
- Celce-Murcia, Marianne. *Teaching English as a second or foreign language*. Massachusetts: Heinle & Heinle publishers, 1991.
- Coronel, Liendo e Diaz. *ESP Reading in the Context of Learning*, 2003. online at <https://revistas.pucsp.br/index.php/esp/article/viewFile/9407/6975>.
- Duke, N. K., P. D. Pearson. "Effective practices for developing reading comprehension." *What research has to say about reading instruction* 3rd ed. Eds. A. E. Farstrup, S. J. Samuels. Newark, DE: International Reading Association, 2002. 205–242.
- Edwards, P. "PANORAMA: A Study Technique." *Journal of Reading* 17, 2 (1973): 132-135. online <http://www.jstor.org/discover/40016545?sid=21105509648813&uid=2&uid=4>.
- Heilman, Blair, Rupley. *Principles and Practices of Teaching Reading* 5th Edition. Columbus Toronto Sidney: Charles E Merrill Publishing Company A Bell & Howell Company, 1981.
- Harding, K. *English for Specific Purposes*. Spain: Oxford University Press, 2007.
- Harmer, J. *The Practice of English Language Teaching*. Malaysia. Pearson Education, 2007.
- Hudson, T. *Teaching Second Language Reading*. New York. NY. Oxford University, 2007.
- Hutchinson, Tom, Alan Waters. *English for Specific Purposes: A learner-centered approach*. Cambridge University Press, 1987.
- Hyland, K. "Talking to students: Metadiscourse in introductory coursebooks." *English for Specific Purposes* 18 (1999): 3-26.
- Ionițiu, I. *English for Mechanical Engineering*, Editura Universitară, București, 2014.
- Jordan, R. R. *English for Academic Purposes. A Guide and resource book for teachers*. Cambridge: Cambridge University Press, 1997.
- Kincade, K. M., S. A. Beach. "Improving reading comprehension through strategy instruction (Research into Practice)." *Reading Psychology* 17, 3 (1996): 273 -281.
- Kusumawati, Eny, Utami Widiati. *The Effects of Vocabulary Instructions on Students' Reading Comprehension across Cognitive Styles in ESP*, 2017. online at <https://files.eric.ed.gov/fulltext/EJ1131724.pdf>.
- McLaughlin, M., M. B. Allen. *Guided comprehension in grades 3–8 combined* 2nd ed. Newark, DE: International Reading Association, 2009.
- Oczkus, Lori. *Reciprocal Teaching at work: Powerful Strategies and Lessons for Improving Reading Comprehension*, 2010. Online at <https://docplayer.net/22898587-It-is-no-wonder-that-reading-comprehension-continues-to-hold-a.html>.
- Pardo, L. S. *What every teacher needs to know about comprehension*. International Reading Association 2004. Retrieved from [https://ftp.learner.org/workshops/teachreading35/pdf/teachers\\_know\\_comprehension.pdf](https://ftp.learner.org/workshops/teachreading35/pdf/teachers_know_comprehension.pdf) 272-280.
- Pikulsi, J. John, Shane Templeton. *Teaching and Developing Vocabulary Key to Long-Term Reading Success*. Houghton Mifflin Reading: 2004.
- Rivers, Wilga. M. *Teaching foreign language skills in a foreign language skills*. Chicago: University of Chicago Press, 1981.
- Rodríguez, Gladis Leonor Arias. *Reading Through ESP in an Undergraduate Law Program*. 2014. Online at <http://www.scielo.org.co/pdf/prf/v16n1/v16n1a08.pdf>
- Rushwan, Ismail Mohammed Hamid. 2017. *The Role of Translation in Developing ESP Learners' Reading Comprehension Skills- A Case Study of Medical Students at Najran University-KSA*, International Journal of Applied Linguistics & English

Literature ISSN 2200-3592, online at  
<http://www.journals.aiac.org.au/index.php/IJALEL/article/download/3097/2564>  
Thao, Tran Quoc, Duong My Tham. 2017. *The Difficulties in ESP Reading Comprehension Encountered by English-Majored Students*, online at  
[https://www.researchgate.net/profile/Thao\\_Trان56/publication/325023490\\_THE\\_DIFFICULTIES\\_IN\\_ESP\\_READING\\_COMPREHENSION\\_ENCOUNTERED\\_BY\\_ENGLISH-MAJORED\\_STUDENTS/links/5ba990b292851ca9ed237771/THE-DIFFICULTIES-IN-ESP-READING-COMPREHENSION-ENCOUNTERED-BY-ENGLISH-MAJORED-STUDENTS.pdf?origin=publication\\_detail](https://www.researchgate.net/profile/Thao_Trان56/publication/325023490_THE_DIFFICULTIES_IN_ESP_READING_COMPREHENSION_ENCOUNTERED_BY_ENGLISH-MAJORED_STUDENTS/links/5ba990b292851ca9ed237771/THE-DIFFICULTIES-IN-ESP-READING-COMPREHENSION-ENCOUNTERED-BY-ENGLISH-MAJORED-STUDENTS.pdf?origin=publication_detail)  
<https://exploration.marinersmuseum.org/vocabulary/>  
<http://www.learnersdictionary.com>  
<https://studfiles.net/preview/1853819/page:17/>  
[https://abspd.appstate.edu/sites/abspd.appstate.edu/files/inst\\_pics/Reading%20in%20ASE.ppt](https://abspd.appstate.edu/sites/abspd.appstate.edu/files/inst_pics/Reading%20in%20ASE.ppt)  
<https://www.merriam-webster.com>