

The Importance of Background Knowledge in the Comprehension of Medical Texts'

DJAILEB Farida
(Université d'Oran)

Résumé:

Cet article met l'accent sur l'importance de la connaissance schématique dans la compréhension de textes authentiques médicaux. Les problèmes de compréhension ne sont pas seulement liés au manque de connaissance de fond, mais parce que leur 'schemata' ne sont pas actives. Dans le cas de l'anglais médicale, il est nécessaire d'employer des activités afin d'activer le plan de connaissance des étudiants par de différentes activités comme jeux de rôle, le vocabulaire clé et des aides visuelles.

Key-words :ESP-EMP-schema-authentic

Introduction:

In this paper, we shall try to shed light on the schematic knowledge (previous knowledge) in the comprehension of authentic medical texts. All human beings possess rules or scripts that they use to interpret the world, and predict situations occurring in our environment. This process is important not only in interpreting information, but also in decoding how that information is presented. Thus, the most crucial implication of the schema theory is the role of prior knowledge in the processing phase.

1. Schema Theory: definition

We shall take the concept of schema theory as what one already knows about a specific topic. According to Ronald Carter (1993 p.61-62) 'schema theory studies the relationship between background knowledge, language and comprehension.'[1] Therefore, the comprehension is based on the relationship that exists between past and novel experiences.

2. The Role of Prior Knowledge in reading Comprehension:

For Anderson & al. in Carrell & Eisterhold, (1983.p.73) 'Every act of comprehension involves one's knowledge of the world as well'. [2] Readers may develop an interpretation of text through the interactive process of 'Combining textual information with the information a reader brings to a text. Therefore, the reading process involves identification of genre, structures and topic which activate schemata. Relevant background knowledge may be constructed, including visuals, real-life experience, role-play and key-vocabulary. We can assert that reading problems are not related to lack of background knowledge, or deficiencies in reading medical texts, but because their schemata are not activated during the process of comprehension. In EMP, it is interesting to employ activities and tasks that may activate the previous knowledge of the students. Moreover, the previous knowledge is related to top-down processing. This approach emphasizes readers bring meaning to texts based on their experiential background knowledge. In this view, the process of reading must be seen in its social context as opposed to the bottom-up approach in which the meaning of the text must be decoded by the reader. It emphasizes the abilities to decode or put into sound what is seen in a text. It deals with teaching key vocabulary items, items of grammar and various cohesive devices. On the other hand, top-down processing may be easier for the poor reader who may be bad at word recognition but has knowledge of the text topic. As schema theory research has attempted to make clear, efficient and effective reading requires both top-down and bottom-up strategies. Carrell (1988.p.1-4) asserts that 'both top-down and bottom-up processes, functioning interactively, are necessary to an adequate understanding of second language reading and reading comprehension' [3]. According to Neddar (2004.p.15), 'the knowledge we acquire can have meaning only when we refer it to a previous one.' [4] Therefore, the role of the teacher is to show

the students how to rely on their background knowledge in the interpretation of the text. Consider the following passage:

‘The Down Syndrome’

Down syndrome is easily recognized by these characteristics: short stature; an eyelid fold; stubby fingers; a wide gap between the first and second toes; a large fissured tongue; a round head; a palm crease; the so called simian line; and, unfortunately, mental retardation, which can sometimes be severe.[5]

Human Biology (1998:381)

The reader has to take bearings on his linguistic knowledge and background in order to interpret this piece of discourse. There are clues that may help the reader to understand, such as the high medical terms found in this passage. Medical students know these terms, so they will not find difficulty in guessing the general meaning of the text. In addition the grammatical elements such as the use of the adjectives are very helpful. Thus, the student will understand that this passage is describing a disease known as ‘the down syndrom’. As teachers, we have to bear in mind that medical students and GP know well these terms and topics. In fact what they don’t know is English. Yet, even schemata are not enough in the generation of meaning since comprehension is never complete. The students must know that they may encounter unfamiliar texts. In this case, grammar may be very useful. The interpretation of discourse may be successful when the readers rely both on grammar and their background knowledge.

3. Strategies for building prior knowledge in text’s comprehension

Reading means to grasp the meaning of any text. There are objectives for reading, such as reading for extracting information

(medical information). This may depend on a grammatical knowledge and a previous knowledge. 'If teachers understand the nature of reading comprehension and learning from a text, they will have the basis for evaluating and improving learning environment'. [6] Tierney and Pierson (1994p.496). The task of the teacher is to build both formal and content schemata for his/her students in order to facilitate the act of comprehension; in addition, they should use authentic texts for reading

Instructions, and point out features which can be incorporated into exercises since in EMP, the reading skill is of primary significance. The choice of genuine texts activates the students' previous knowledge. Introductory materials (previewing) before students read specific texts are very motivating since they may include important background information, such as definitions of difficult vocabulary (carcinoma-lumbar puncture-left lower lob-varicose vein-vena cava), translations of foreign phrases, and explanations of different concepts. One of the main tactics for helping students activate background knowledge is to write down what they know. Moreover, asking students questions such as "what do you know about the topic?" seems to be a good tactic of comprehension. Through an analysis of the students' responses to questions before reading the text suggested that the students were able to activate their background knowledge. The following are some of the tactics used to activate prior knowledge in reading comprehension:

-Brainstorming:

Students are asked to examine the title of the passage. The teacher lists on the board all the necessary information that the students will use to further recall.

-Discussions:

Teachers may create debates, and ask the students to what extent they know about the topic.

-Diagrams:

The teacher draw a diagram that represents the information elicited from the students. Each time there is a new idea, the students include it in the diagram.

-Questions:

Questions addressed to the students provide purposeful reading. Questions asked by teachers may be a guide for the readers as they complete their reading.

-Visual aids:

Charts, pictures are interesting for the activation of the student's prior knowledge. Pictures may serve to retrieve knowledge.

-Real-life experiences:

Real objects or real situations may be crucial for effective learning. In EMP, teaching students with real objects (instruments used in laboratories). This is very motivating in teaching vocabulary through demonstrations.

Conclusion

Research studies demonstrated the importance of background knowledge to reading comprehension. Instructional strategies cited in this paper are crucial for the activation of prior knowledge. We need knowledge of the rules of the system of language, the context and the previous knowledge in order to communicate effectively. Therefore, the linguistic competences of the readers as well as the personal background knowledge to understand the content are of paramount importance. The prior knowledge of learners in an EMP context of the subject matter may activate their motivation for reading.

References

- Carrell, Devine & Eskey (1988). 'Interactive Approaches to Second Language Reading. Cambridge: cup
- Neddar, B.A (2004) Applied Linguistics. Schema, Discourse and Foreign Language Teaching: An Introducton.Oran: Edik
- Goodman, K. (1988). The Teaching Process. in Carrell, Devine and Eskey. 1988, 50-70
- Ronald, C. (1993). Introducing Applied Linguistics.Harmondsworth.England: Penguin Books LTD
- Stevens, k.c. (1980).The effect of Background Knowledge on the Reading Comprehension of Ninth Graders. Journal of Reading Behaviour, 120 (2), 151-154)
- Tierney, R.J & P.D.Pearson. (1994). Learning to Learn from a Text: A Framework for Improving Classroom Practice. in Rudell, and Singer 1994, 496-513.