PEDAGOGICAL IMPLICATIONS OF SCHEMATA IN READING COMPREHENSION IN THE ENGLISH LANGUAGE

AGNES WANJA KIBUI

University of Nairobi, Kenya

ABSTRACT

Reading is a psycholinguistic process involving a transaction between the mind of the reader and the language of the text. It is also a social psycholinguistic process because the reader- text transaction occurs within situational and social contexts. Each learner is an individual who brings different experiences to the task of learning to read, but all learners need interesting, motivating and real reading materials which will help them to develop the necessary skills of reading. The causes of reading problems can be very complex and do not always originate within the reader. Some reading difficulties can arise from problems external to the reader. These include a lack of background knowledge, the way texts are written and organized, the style and complexity of the language, an impoverished reading culture and environment, and inadequate experience and exposure to the manifold contexts in which reading occurs.

KEYWORDS: Pedagogical, Reading, Schemata

INTRODUCTION

The ability to read with understanding is a skill that is essential in all societies as there is a lot of material that needs to be read and understood. That means that learners' proficiency in reading is necessary since most of their learning of all subjects is available to them in written text and is processed to them through reading. For learners who are learning English as a second language, the reading skills are of great importance since in most cases, it is the only reading available exposure to the target language which might not be spoken outside the classroom where mother tongue or the national language is used for communication. That means that most second language learners do not interact with books outside the classroom.

Reading is interactive in nature. It is viewed as an interaction with the reader, the author and the text. The schema theory states that the knowledge people have acquired interacts with new information and helps in the construction of meaning. Schemata are broad concepts which we store in our memories. The concepts are the categories which are formed in order to organize reality and are shaped by the culture in which we live, while schemata are structures for reproducing concept that are stored in memory. They guide the reader's misinterpretations, inferences, expectations, and attention. They are not merely memories of events but are organized, structured set of summaries of the parts, attributes, and relationships that occur in specific things or events in our world.

Schema and Perception

Schemata are dependent on the experiences the reader may have and this becomes private and personal interpretations of reality. This has great implications for the meaning the reader will find in the material she is reading for schema will guide both thinking and understanding. People do not have a schema for every event, scene, or experience.

It is not likely that two events will be identical. The human mind takes the knowledge of one set of events and uses this knowledge to cover other similar events. Even in situations where events look similar, the interpretation might be different depending on the reader's experience and interpretation.

In an attempt to obtain meaning from what the author is expressed in the text during the reading process, the reader is helped by his purpose for reading, interest in the text, language and strategy use, knowledge and experiences. Also, the text with its features, such as organization, type of text, content, general and main ideas, sentence structure and vocabulary, leads itself to understanding by the reader who engages himself with the author in the reading process by trying to understand the text. The interaction involves an exchange of ideas between the reader and the author that is represented in the text. The author attempts to make sense of the content of the text, while the reader tries to understand what the author is trying to communicate. In order for the reader and the author to understand each other, the text should be comprehensible to the reader. According to Rosenblatt (1978), reading is a transaction between the author and the reader in which the writer interacts with the reader by trying to anticipate how an imagined reader may interpret his text. When the text is eventually read, the reader has to negotiate the meaning of the text by trying to reconstruct the writer's ideas as they are intended.

The meaning of the text can arise from this transaction. The reader is the person seeking to make meaning by transacting with a text of whatever kind. The author of a text is making meaning through that text, and in this sense, meaning resides in the text. The reader and the text interact in the creation of meaning. When the author and the reader share a lot of the same knowledge and experience, there will be a lot of overlap between their schemata. When they have had very different experiences, there will be less or no overlap. As a result, this makes the transaction of meaning more difficult as the reader has to work extremely hard to alter his existing schemata, so as to include and experiences and ideas from the text make meaningful sense of those ideas.

SCHEMATA AND THE READING PROCESS

Researchers have become increasingly aware of the complexities of comprehension itself and have realized that the reading process needs to address the syntax and semantic issues as well (Block, 2004 & Rodgers, 2011). The foundation of all education lies in the ability of the child to read and interpret what he has read. This ability requires more than stringing together the meaning of words; it requires word recognition; the reader's general schemata or general knowledge structures extending beyond the text; the reader's familiarity with the overall content of the text; semantic information provided in the paragraph within which the lexical item appears; semantic information in the same sentence; and structural constraints within the sentence (Weaver, 2002 && Richards and Rodgers, 2014).

Psycholinguistic models have placed special emphasis on the reader being able to combine personal knowledge (top-down processing) with textual information (bottom-up processing) in order to get the meaning of the written text. Readers, guess the meaning of unfamiliar words by using clues from the text, thus minimizing the use of dictionaries.

As a result, they increase their decoding speed while reading. That means that second language readers can be good guessers only when the content provides them with immediate clues for guessing. Insufficient context and a low proficiency level on the part of the learner may lead to mismatches in word analysis and recognition that cause confusion and misinterpretation of the target text.

THE SCHEMA THEORY MODEL OF READING

According to schema theory, comprehending a text is an interactive process between the reader's background knowledge and the text. Efficient comprehension requires the ability to relate the textual material to one's own knowledge. The process of interpretation is guided by the principle that every input is mapped against some existing schema and that all aspects of that schema must be compatible with the input information (Carrell and Eisterhold, 1987). Cognitive psychologists and psycholinguists have planned models of reading in an attempt to explain how the reader obtains meaning from print. Most of these models may be placed in one of the following categories: Bottom-up, Top-down and Interactive.

La Berge and Samuels (1976) formulated their model on the basis of automaticity in fluent reading, postulating a theory of 'automatic information processing.' This model takes the bottom-up view of reading. Their model involves four processing mechanisms: phonological, orthographic, meaning and context. As the visual image of a string of letters is being processed, excitatory stimulation is sent to corresponding units in the phonological processes. If the letter string is pronounceable, the phonological processes will then send excitatory stimulation back to the orthographic processor. Thus, the activation of a word's meaning results in the excitation of the phonological units underlying its pronunciation. Consequently, the activation of its pronunciation arouses its meaning. These connections make reading and learning to read possible.

Top-down approaches which were formulated by Goodman (1976) views reading as a 'sampling, predicting, guessing game.' In this psycholinguistic guessing game, three types of information are used: graphic-phonic information, syntactic, and semantic information. Graphic-phonic information includes: graphic information which consists of letters, spelling patterns, and patterns created by the white spaces and punctuation. For example, a word or suffix is a graphic pattern, while a phrase or sentence is a pattern of patterns; phonological information which consists of sounds, sound, patterns, and patterns created through intonation; phonic information which comprises the complex set of relationships between the graphic and the phonological representations of language. Syntactic information includes: sentence patterns; pattern markers which outline patterns such as function words; inflections which give grammatical information such as in, Ed, s; punctuation – intonation which is the system of markings and spare distribution and the related patterns; transformation rules which are not present but are supplied by the reader in response to what he perceives as its surface structure. These carry him to the deep structure. If he is to recognize and derive meaning from graphic pattern, he must bring these grammatical rules into the process. Semantic information includes: prior experiences which the reader brings to play in response to the graphic input; concepts the reader organizes the meaning he is constructing, according to his existing concepts as he reads; vocabulary which helps the reader to sort out his experiences and concepts in relation to words and phrases in the context of what he is reaching. All this information is available to the reader at the same time and is used simultaneously in the reading process.

According to Carrell and Eisterhold (1987), Bottom-up processing is evoked by the incoming data. The features of the data enter the system through the best fitting, bottom-level schemata. Schemata are hierarchically organized, from most general at the top to most specific at the bottom. As these bottom-level schemata converge into higher level, more general schemata, these too became activated. Bottom-up processing is, therefore, called data-driven.

Top-down processing occurs as the system makes general predictions based on higher level general schemata and then searches the input for information to fit into these partially satisfied, higher order schemata. Top-down processing is therefore said to be conceptually driven.

Since reading involves bottom-up and top-down processing, a model that synthesizes the two is required, which is interactive (Rumehart, 1977). The data that are needed to fill out the schemata become available through bottom-up processing; top-down processing facilitates their assimilation if they are anticipated by or consistent with the reader's conceptual expectation (Carrel, Eisterhold, 1987) in the interactive model, every component in the reading process can interact with any other component be it 'higher-up' or 'lower-down.' This model incorporates feedback mechanisms that allow knowledge to interact with visual input. For skilled readers, top-down and bottom-up processing occurs simultaneously with comprehension, depending on both graphic information in the reader's mind (Kibui, 2012). That is, Bottom-up processing ensures that the reader will be sensitive to information that is novel or that does not fit their ongoing hypotheses about the content or structure of the text. Top-down processing helps the reader to resolve ambiguities or to select between alternative possible interpretations of the incoming data.

These models do not explain the complexity of the human mind. There is no model that fully explains the reader and his concept, emotions and feelings, his views and attitudes to reading. There is no model that explains the kind of experiences a reader brings to the text and how meaningful it is for him.

A reader faced with a written text usually goes through a quick sequence of mental questions about the text. During the reader's processing of the text, he moves along a decision making continuum that is basically seeking answers to the questions in his mind. When reading comprehension is effective, there is usually a close match between the reader's expectations and the actual text. Sometimes there are serious mismatches that may lead to difficulty in processing information, in such cases, the effective reader makes constant adjustments to the text by recruiting background knowledge for top-down processing and by changing strategies to fit bottom-up decoding of the particular text. Such a reader combines top-down and bottom-up techniques in the most efficient way in order to understand the text.

PEDAGOGICAL IMPLICATIONS FOR TEACHERS

Reading is a way of dealing with everyday problems where printed language is a feasible solution. The largest part of our reading is not recreational but school and work related. Reading always involves two parties, the printed text and the reader. Whenever the teaching of reading occurs, a third party is added to the scene - teacher. Depending on which party is dominant and which parties are subordinate, three basic teaching learning can occur. Sadoski (2004) proposes the following approaches for teaching/learning and suggests that teachers need to apply all of them at different times when necessary;

Program Controlled Teaching

This program is dominant and the teacher and the reader are subordinate. The approach is associated with dividing reading into a set of skills to be separately taught and then assembled into the complete reading act. This is done in accordance with the three fundamental competencies: decoding, comprehension, and response. Decoding is divided into a set of skills, including phonic skills, structural analysis skills, sight vocabulary skills, content skills, and dictionary or reference skills, comprehension is divided into literal skills, inferential or interpretive skills, and critical applied or

appreciative comprehension skills. The response is usually treated as the final level of comprehension. In this program, teachers should have a human concern for their learners' individual differences and problems so that their teaching does not become remote and technical.

Teacher Controlled Teaching

In this approach, the teacher is dominant and the program and the reader are subordinate. Teachers determine the reading and conditions according to their professional training, experience and judgement. Teachers usually selectively combine different methods and materials in their own individual ways. For example, the teacher may instruct learners in phonics, structural analysis, context clues and so on. On other days the learners may read self-selected books in order to build fluency, increase appreciation, pursue interests, solve problems, and interpret reading skills. In other cases, teachers may invent methods and materials of their own. This may include selecting or even writing texts across content areas and inventing projects to ensure comprehension of those texts.

Reader Controlled Teaching

In reader-controlled teaching the reader is dominant and the teacher and the program are subordinate. Here, the learners take the lead and teachers and text programs are used as resources for the reader's learning requirements. The teacher gives the guidance, direction, and assistance. Knowledge and skill have developed more from within. Examples include individualized reading, where learners' self-select books with the teacher's guidance based on interest, ability, and other factors. Learners confer regularly with the teacher to answer questions, clarity, misunderstandings, summarize and read orally to check decoding progress.

CONCLUSIONS

Reading the printed word is a powerful means of sharing ideas and information and communicating through narrative. Therefore, learners need to become good at working with that information in order to construct their own new knowledge. They should learn how to derive meaning from writing, language so that they can become independent learners who interact with information adequately and creatively. They need to become proficient readers in order to participate fully in school work and in life after school. On the other hand, teachers should train learners in reading sessions to make obvious connections between texts and their own experiences and extend the ideas in the text by making inferences. They should be taught how to judge texts critically and give thorough answers that indicate careful thought. They should learn to use prior knowledge and information from the text to make predictions and construct hypotheses about larger patterns and possible future events in the text, synthesizing information to create larger patterns of understanding; questioning, the text and the author's intentions, and planned structure of the text, and making metacognitive decisions about new purposes and strategies to use as they read further.

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