SCHEMA THEORY IN READING CLASS

Fahriany
(fahriany@ymail.com)
UIN Syarif Hidayatullah Jakarta

ABSTRACT

Comprehension is making a sense out of text. It is a process of using reader's existing knowledge (schemata) to interpret texts in order to construct meaning. Many reading experts agree that the schema theory is one of the reasonable theories of human information processing. Schemata, the plural of schema, are believed to be the building blocks of cognition. This paper discusses the role of readers' preexisting knowledge on linguistics code as well as readers' knowledge of the world (schema), which for the case of reading has similar importance of the printed words in the text. It is argued that the more non visual information the reader posses, the less visual information is needed. For teaching and learning, teachers are expected to use different strategies in order to deal with different students' preexisting knowledge and schema to maximize students' learning.

Key Words: schema theory, reading class

INTRODUCTION

Schema theory is a theory about knowledge. It is a theory about how knowledge is represented and about how the representation facilitates the use of the knowledge in particular ways. According to the schema theory, all knowledge is packed into units, called schemata. In addition to knowledge itself, these packets of knowledge embedded information about how this knowledge is to be used. Therefore, schemata are used by readers to make sense of text; the printed work evokes the reader's experiences, as well as past and potential relationships.

A schema has some characteristics (Rummelhart, 1980,

P.25). First, it has variables. These variables can be associated with different environment instantiations of schema. In a schema theory, variable constraints serve two important functions. They help the identification of various aspects of situations with the variable of the schema. They also help by serving as "default values" or initial guesses for variable whose values he/she has not yet observed. For example, if he/she observes a transaction to be one of *buying* but does not notice the money, he/she can infer that there is money. In this way, the schema can help making inferences about unobserved aspects of a situation.

Second, a schema needs to be instantiated. A schema is an instantiated whenever a particular configuration of values is to a bound to a particular moment in time. Interpreting a situation to be an instance of some concepts involves that instantiation of an appropriate schema by associating various variables of the schema with various aspects of situation.

Such a schema is called an instantiated schema. It is believed that the irises of instantiated schemata serve as the basis of recollections.

Third, a schema is not a complete specification of every detail of situations. A schema allows room for irrelevant variation and creative interpretation. A schema is not so rigidly applied that no variation is allowed. The schema only provides the skeleton around which the situations is interpreted.

Fourth, a schema is much more abstract than the real situation. The *buy* schema is much more abstract that the actual buying event, and is applicable to any case of buying. A schema should be viewed as consisting of a configuration of sub-schema corresponding to the constituents of the concept being represented.

Fifth, schemata are like theories. Schemata contain theories about the nature of reality that exist in mind. These theories are supposed to serve in the

construction of the interpretation of situation during the process of comprehending, which is viewed as hypothesis testing. In reading, the reader constantly evaluates hypothesis about the most possible interpretation of texts.

Sixth, schemata are active processes. Schemata are like procedures. A schema should be viewed as a procedure the function of which is to determine whether and to what degree it accounts for the pattern of observation. This is because schemata underlies concepts, and hence a schema theory is both a prototype and procedural theory of meaning. Finally, schemata are like parser. A parser is a device that determines whether a sequence of symbols forms the legal sentence, according to the rule of grammars, and if it does, determines the constituent structure of sentence. This means the parser determines which symbols in the sequence correspond to which constituents of the sentence. The process of finding and verifying appropriate

schemata is a kind of parsing process that works with conceptual elements finding constituents and sub-constituents among the data being the processed.

THE SCHEMA THEORY IN READING CLASS

Most teaching as we know takes place in a classroom with thirty to forty or even more students. They have different abilities, interests, attitudes, and socio economic conditions. It adds up to the so called "background," and "the background that each student brings to school constitutes a hidden curriculum of the student's person, personal experience, and spirit" (Harris & Sipay, 1984, p.25). All these are not superficial differences, as every teacher knows. In conjunction with the students' differences, teachers when teaching English reading are not trying to determine how to teach a student one-by-one. Rather, they look for the most effective approach and strategies to use to meet the needs of students in

majority and create activities that can make the students become active-participant in the classroom.

Reading is a complex act requiring certain skills. Several recognizable stages must be met and mastered along the way from the level of pre-reading to the level of purposeful reading. The learner must have many opportunities to pay attention, to listen, to perceive and discriminate forms and sounds, to understand directions, to move her eyes and her hands in a left-to-right direction, to add to her spoken vocabulary, and to experience success in the pre-reading activities, before a formal introduction to print (Thonis, 1990). These basic skills must be revised and maintained in order to provide foundation for the building of the basic reading skills. The basic reading skills include the skill of developing vocabulary and the skill of comprehending what is read.

Developing vocabulary begins when the students are aware that the unfamiliar written symbols of print stand for the familiar oral symbols of speech and that these sounds, in term, represent objects, persons, or events about which he knows. She must learn to make many associations between these two sets of language symbols.

Some words are made up of letter, which represent consistently the sounds of the learner's. Many words in many languages do not have a regular sound-symbol correspondence. These words are usually called the sight words of a language because they are best learned through the memorizing of their visual appearance. Some words are learned because the students are able to put two or more smaller words together to make the new word. This practice calls attention to the structures of words.

Developing vocabularies is also built through the use of meaning clues which may be applied to unknown words and which may help pupils discover a word in a specific context. Pictures may give students clues to the discovery of

new words. One of the most useful techniques for recognizing words is the application of phonics skills. In theory, phonics skills help students sound out and pronounce words which are known to them in speech, but unknown or unfamiliar in print. Each learner should be encouraged to build his/her reading vocabulary by applying the techniques, which work best for him./her

Comprehension or understanding in every reading activity is an important part of each skill learning. However, additional comprehension skills must be added to the abilities to organize and to gain meaning from words or group of words if the reader is to grasp fully the significance of what a paragraph consisting of many sentences and select the one main idea to which all the sentences refer.

After the reader is able to comprehend the most important thought is that he/she needs to be able to identify the details which support the main idea. He/she

must also recognize the details of persons, places, events, and time of what he reads. He/she enriches his reading by becoming aware of the general feeling, mood, or emotional tone of stories. He/she must learn to appreciate motives and traits of people, to see the relationships between circumstances and actions, and gain greater insight into people and events. He/she must think about what he reads in order to interpret meaning as well as to get the factual information.

In reading activity, it is not always necessary to read every word of a passage. Too much time spent on individual words or corpuses can destroy ones' understanding of a passage. The purpose for reading sometimes determines how closely we should read. According to Grellet (1990), the reading techniques includes, skimming, scanning, intensive and extensive reading. Skimming is a specific reading technique which is necessary for quick and efficient reading. Once we know what our purpose is, skimming is a valuable

procedure. Skimming through a passage involves reading very fast in order to recognize main ideas and supporting details. Although skimming should never replace careful reading, it can save time in deciding what or what not to read, in getting the general content of a passage, and in finding the authors' main point without having to deal with details.

Skimming is therefore a more through activity which requires an overall view of the text and implies a definite reading competence. Some strategies to skim include: (1) making sure that you know what information you are looking for. Ask yourself a question and look for a key word; (2) moving your eyes quickly from line to line and from sentence to sentence; (3) when you think you have found what you are looking for, stop; (4) read slowly the part of the line or sentence that tells you what you want to know; (5) think about the question you were trying to answer; (6) does the information you find answer the question? If not quickly read the passage again to look for the information you need and (7) read the answer to the question you have asked (Wise, 1984).

Skimming which is aimed to find a specific piece of information such as a number or the answer of a question is called scanning. When scanning, we only try to locate specific information and often we do not even follow the linearity of the passage to do so. We simply let our eyes wonder over the text until we find what we are looking for, whether it is a name, a data, or less specific piece of information. Scanning only means retrieving what information is relevant to our purpose.

In reading shorter texts to extract specific information, the technique of intensive reading is needed. Intensive reading usually involves approaching a certain text under the guidance of the teacher, or under the guidance of a task which forces the student to pay great attention to the text. The aim of this reading technique is to

arrive at a profound and detailed understanding of the text not only of what it means, but also of how the meaning is produced. According to Nutall (1985), intensive reading should be done in the classroom. The text should be placed in front of the students and teacher assigns tasks that will help the students to understand the text, and then stand out of the way while the students get to grip with the text.

Extensive reading is reading longer texts, usually for ones' own pleasure. This is a fluency activity, mainly involving global understanding. Extensive reading is needed to activate reading out of class**.** Nuttall (1985) also stated that extensive reading is an out of school work. Class time is always in short supply and the amount of reading needed to achieve fluency and efficiency is very great, much greater than most students will undertake it left to them.

In addition, Nuttall (1985) considered that the materials for extensive reading should be appealing, easy, short and varied. Extensive reading can be provided to students who have not acquired the reading habit and often daunted by books. Moreover, as there is no absolute divide between intensive and extensive reading, the same text can usefully be employed for training in both, key passage from it being used for intensive study and in turn illuminating the book as a whole.

In line with the perspective on the teaching, in this case, the teaching of English reading as mastering sets of skills or as involving students in a holistic process, it can be traced to the theories (models) of reading discussed above. The view of learning to read by mastering and integrating a series of word recognition and comprehension sub skills is based on the bottom up belief. On the other hand, the view of teaching reading as creating opportunities for the students to be involved in whole language is based on the top-down and strong interactive beliefs that students

learn to read through meaningful activities.

Dealing with the beliefs about reading and the theory of reading, the trend of teaching language, especially of teaching English in our country is compatible with top-down and interactive models of reading. This condition brings about the great impact on the application of the approach in the classroom, the so-called Communicative Approach. This approach stresses the involvement of students in the teaching and learning activities. To activate the students, teacher must create suitable circumstances and apply strategies that can contribute the students to actively get involved in the activities. Thus, the use of suitable approach and strategies will facilitate students in learning to read in the classroom.

The heart of the instructional programs is the quality of the teaching. This implies that the success of instructional programs may much depend on the teachers' ability to master and use suitable approach and strategies in implementing the teaching and learning activities in the classroom.

Rumelhart, Mc Neil, Nuttal, and Vacca (1987) indicates the strategies are the key to the teaching of reading; they are the hour-by-hour, day-by-day evidence of what is really happening in the classroom. This statement implies that strategies play a very important role in the teaching and learning process. The effective teachers should master a variety of strategies and techniques that they will adapt to fit the needs of their students. Strategies and techniques are essential for every reading teacher especially of English reading. The mastery of strategies and techniques on the part of the teacher will make them easier conduct their instruction that in turn it will facilitate the students in learning to read.

The teachers' knowledge of strategies and techniques may reflect their beliefs about the teaching of reading. The teachers' beliefs will influence their

strategies and activities in the classroom. It is in line with Rumelhart, et al. (1987) who indicate that "beliefs about the teaching of reading are reflected in teachers' strategies and actions in the classroom" (p.19). If teachers advocate students to talk as an important aspect of comprehensi - on, because it brings the students' background into what they are reading, his teaching activities will then reflect the top-down or interactive theory of reading.

In the teaching of reading, especially of English reading, teachers can apply the bottom-up strategies as the basis of teaching strategies to beginning learners. In the case, teachers can begin by showing and introducing students the names and shapes of the letter of the alphabets. Then, the students are introduced the combination of the letters in syllables and continued to words, phrases, and sentences. In teaching reading as such, the students are taught the sub-kills of reading in stages. The teaching of reading by these strategies is started "from the simple to the complex". In the other words, the teaching of reading by applying bottom-up strategies triggers from identifying and decoding features of letters to comprehending the whole text.

Furthermore, the top-down strategies can also be applied as the basis of strategies to the teaching of reading. In using these strategies, teachers start by telling the students the story and asking them to memorize the whole story and later learn to deal with individual words. Sub-skills are not taught because they are considered to fragmenting the process and making learning to read more abstract and difficult (Goodman, 1992, P.13). The use of the top-down strategies as the underlying strategy for teaching reading appears in the teaching which applying pre-reading activities, during/whilst reading activities, and post-reading activities. In the case, teachers start by activating the students' schemata and moving to see the words to check and confirm

their prediction and hypothesis made before.

In the teaching of reading nowadays, especially of English reading, it is much more influenced by interactive strategies. In teaching reading, teachers teach skills directly, especially in the beginning, but they do not over do it. In the teaching-learning activities, teachers provide plenty of opportunities for the students to experience the holistic nature of reading activities by having them read whole books. Giving more chances to the learners in reading activities is based on the principle of teaching reading that indicates reading should be thought in a way that allows each learner to the experience success. In other words, the success of teaching reading the learners must be given more opportunities to participate in reading activities.

CONCLUSION

In conclusion, the success of instructional programs depends on the teaching-learning process in the classroom. In teaching of reading the teachers' beliefs about reading are very essential. The mastery of strategies and techniques will facilitate teachers to implement their programs. In executing the teaching in the classroom, teachers can apply bottom-up, top-down and interactive strategies in order that the students can understand the text read.

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Fahriany