Mismatches in the Contents of Reading and Writing Tasks: Revisiting Schema Theory

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ABSTRACT

In writing in a second language, learners encounter two problems: generating content and finding adequate linguistic means of presenting the content. If the former is taken care of by the teacher-text duo, will the learner be able to help himself by using the necessary language structures with the appropriate vocabulary? This article tries to answer this question by proposing a suggestion for a reading-writing class. This proposal has its springboard in controlled writing, as it has been known in traditional writing instruction. Then, it proceeds to use the pedagogic principle of scaffolding so that the learner develops some degree of autonomy in writing.

Keywords: Reading and writing tasks; Schema theory in reading and writing; controlled writing and scaffolding.

Introduction

The validity of classifying reading as a receptive skill, along with listening skill, by traditional applied linguistics needs to be questioned in the wake of new awareness in the field of research and theorisation. It was in the 1970s that we were drawn to schema theory and the ways it would help us in understanding the intricacies of comprehending messages. Earlier we had been looking at reading as an act of lifting or filtering the writer's messages from the text—a simple and linear process with very little role for cognition to play. In the first quarter of the 21st century, however, we are surrounded by a great number of theories on reading, both in literary theory of reading and interpreting higher order texts and the pedagogic theories related to teaching reading at the foundation level. In either case,

reading is no longer merely a business of decoding messages; it is now viewed as complementary to writing. That is to say, writing becomes more or less complete or finite only when the reader starts negotiating with the written text. One may argue that there lies on the part of the reader a responsibility of fulfilling the intention of the writer. In the act of meaning-making, there is a flow of negotiation running among the writer, the text, and the reader. Schema provides the force for the flow of negotiation.

Schema Theory

In 1781, the German philosopher, Immanuel Kant, proposed the word "schema". He defined it as a frame, script, or background knowledge (Kramsch, 1993), which was long rooted in philosophy and psychology. Cognitive psychologists used the notion of

schema to explain the underlying psychological processes while acquiring knowledge. British Gestalt psychologist, Sir Frederic Bartlett, is regarded as the first person who used the term 'schema' in pedagogic contexts. To him, 'schema' means an active organisation of past reactions, or of past experiences, which must always be assumed to be operating in any well-adopted organic response (Bartlett, 1932).

Later, schema was introduced in reading by Anderson in 1977, and subsequently from 1978 onwards. Schema, in the general sense, refers to "background knowledge of the formal, rhetorical organisational structures of different types of texts" (Carrel and Eisterhold, 1983, p. 79). Schema, thus, functions as a macro-structure on which our newly accumulated knowledge is erected. To quote Rumelhart, schema is "a data structure for representing the generic concepts stored in memory" (1980, p. 34).

Schemata were broadly categorised, following the studies by Rivers and Temperly (1978), Carrel and Eisterhold (1983), and Urquhart and Weir (1998). Schemata are grouped on the basis of text type, content, culture, and language. The first, known as formal schemata, is defined as follows:

Different kinds of texts and discourses (e.g., stories, descriptions, letters, reports, poems) are distinguished by the ways in which the topic, propositions, and other information are linked together to form a unit. This underlying structure is known as formal schemata (An, 2013, p. 130).

The second type of schemata based on content provides the reader with the background knowledge in terms of the larger context of the topic, the specific situation, the action, participating people, time, locale, and so on. It is this aspect of reading experience that we are going to focus on later in this study.

The third category embraces the overall cultural background that links the reader with the content of the text. Our attitude to a person or event, the value we attribute to thousands of ingredients which form our experience in the world around us, all come under the sociocultural schemata.

The fourth type has its base in, as well as orientation to, language. The decoding of the writer's message depends heavily on the proximity of the reader's linguistic schemata with that of the writer. Writing is one concrete activity in which we get the concrete manifestation of schemata, whereas in other language and cognitive skills the presence is strong, but not felt clearly as in writing. Moreover, writing involves many faculties drawn from kinaesthetic, psychic, cognitive, and neuro-muscular systems. What impact the newly constructed and activated schemata has on our mental development can be deciphered to a great extent from our writing.

Linking Content Schema with Linguistic Schema

This paper proposes to pursue the intensity of the link between content and language in a given text, looking at it from a writer's point of view. The research question is whether optimal content knowledge can scaffold inadequate linguistic competence and enhance the latter to some extent for future use.

Content schema refers to the "background knowledge of the content area of the text" (Carrell and Eisterhold, 1983, p. 80). It contains conceptual knowledge or information about what usually happens within a certain topic, and how these happenings relate to each other to form a coherent whole. It is an open-ended set of typical events and entities for a specific occasion (An, 2013, p. 131).

In a second language, the writer suffers from the inadequacy of both content and linguistic schemata. It is presumed here that if the former is well taken care of by the teacher and the text, the latter is likely to get enriched. For example, in a story once made familiar to the class by the teacher, the content knowledge with the theme, plot, characters, and development of action, climax, and catastrophe has become part of the learner's schema. The conventional writing task given to the class is to reproduce the same story in the learner's "own sentences". However, what usually happens is that instead of the learners, it is the teacher's own sentences that are reproduced, as (rightly?) expected by the teacher. This activity does not contribute much to the learner's language use, because though the schema has been built, it is not activated.

Schema Activation and Construction

Activating the old schemata and constructing new ones, though mutually related, have different features. In one sense, good education must result in both. As Bransford (1985) points out, schema activation and schema construction are two different functions. While making the learner familiar with a new topic, it is possible to activate existing schemata. But, it need not necessarily follow that a learner can use this activated knowledge to develop new knowledge and skills, or apply this new knowledge to solve problems. Problem solving lessons and activities can provide learners with situations that aid in the construction of new schema, which includes critical thinking. While engaged in critical thinking, the learner can either compare and contrast available possibilities, select from alternative interpretations, dismiss others, make a decision to evaluate multiple possibilities, or accept the information as being reasonable (Alvarez and Risko, 1989).

To cite an example, the geographical location and the climate of a region near the North or South Pole in a geography class may make the learner inquisitive of the life there—whether human beings live there, how people live, what they eat, how often they see the sun, whether they catch illness because of the extreme cold climate, and so on. A descriptive or narrative paragraph in the second language class activates the schema gained from the subject class. Similarly, while reading the newspapers, parents tell their child about a theft in the neighbourhood; the child's schema starts functioning. The child develops the image of a thief: an adult male, not working or earning, but stealing others' money, working at night with tools, breaking into a house or shop, taking money and anything valuable, not loved by the society, and so on.

Schema Reversal: Suggestions for the Classroom

When the new knowledge runs counter to the earlier one, what could happen in the learner?

Of course, many possibilities are there: confusion, ambiguity, doubt, self-check, and critical thinking, too. If it is the last, then the sceptic question "How can it be?" may be countered by "Why can it not be?" as well. If the second language teacher is resourceful enough, he/she can capitalise on all these possibilities and finally lead the learner to the last one—critical thinking. Look at the following example. Here, the linear thinking process which moves in a single direction, turns into a recursive process.

"Once there was a thief in Travancore, now the southern part of Kerala. People in general were afraid of him, except the poor. Why? He used to steal money, gold, and other valuables from the rich, and with that money he used to help the poor."

While reading is in progress, there is tension in the story, as far as the child is concerned. (*Tension in poetry* is a highly celebrated critical essay by Allen Tate). The new information does not match with the schemata so far accumulated in the child. This mismatch sharpens the child's cognitive skills. The child engages in critical thinking, and for the first time a new schema is constructed: Among thieves, there are good ones, too. Now, the child too is forced to love that thief. Here ends the content schema provided by the teacher or the text. Let each learner work out in detail what that thief did one night and during subsequent nights. One night he stole; in subsequent nights he helped the poor anonymously. Here, the learner has to work on many levels of schemata simultaneously. For example, the various ways of stealing, the various things being stolen, the means of escaping uncaught,

identifying and helping the poor but not in broad daylight—all these have to be worked out.

A second language teacher can guide the young minds to come out of the fetters of stereotypes in their schema by this reverse process. There is no harm in having a wise and gentle fox or jackal, a strictly vegetarian lion, a tortoise who has some mysterious power with which she (not he) defeats the arrogant male hare in a race, a crow though not thirsty breaks an earthen pot which is full of water, just for fun, and so on. For the adult mind, these may appear silly, but the child who is assigned to weave an impressive story around these 'non-conventional' characters or anti-heroes has to work out the problem solving activities.

The added advantage of these types of tasks is that they develop critical thinking skills. There is no point in asking a young learner to write stories about those familiar characters. Their writing will be modelled on the schema inherited from past listening and reading, whereas critical thinking demands the learner move in other directions, sometimes in the exact opposite direction too. Thus, a vegetarian lion king can be approached by all the subjects in the jungle without fear of being killed; accordingly, the narration has to find new avenues to proceed smoothly. Linguistic schema consists mainly of appropriate language structures with in-built vocabulary. In the presentation of the new characters or the new versions, the learner has to look for antonyms: perhaps the *cruel* lion is to be replaced by a *kind-hearted* one, the *crooked* fox is to be replaced by a *gentle and honest* one, and so on.

Conclusion

Top-up recharge, as in the case of mobile phones, does not do much good in the case of constructing new schemata. The former is a machine, whereas the latter is the human brain. Just by accumulating schema one on top of the other is not likely to lead to knowledge; it amounts only to gathering and storing information, as in the case of entrance examinations for admission to Indian professional courses. The information so far collected needs to be processed and, when the new piece of information is added through classroom instruction, the present must be fused with the past. In this process, what works as a catalytic agent is critical thinking. Any classroom writing, with this type of challenges in the content, is likely to result in an original written product.

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