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Exploring Content Schemata Influence on L2 learners' Comprehension of Zuraidah Omar's, *Twelve and Not Stupid*

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Abstract

The interest in the influence of content schemata on reading among diploma level students who were undergoing the course, i.e. ELC150 Integrated Language Skills: Reading in Universiti Teknologi MARA (Perlis) motivated the researcher to conduct a qualitative case study. A short story entitled, *Twelve and Not Stupid* by Zuraidah Omar was selected for this study. The 150-word entry response from each participant and the interview data gathered from the in-depth interviews were analyzed to determine whether content schemata had influenced the learners' understanding of the text. This study revealed that content schemata had influenced the learners' understanding of the text as learners' comprehension was facilitated by their background knowledge of the content area of the text.

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1. Introduction

This study which is guided by schema theory, emphasizes the function of content schemata as a major support in reading comprehension. Schema theory has contributed a lot to ESL teaching (Carrell, 1988; Devine, 1988; Eskey, 1988). During a reading process, the readers' schemata act as a bridge, connecting their prior knowledge on a particular subject matter to the content of the reading passage. Second language learners, lacking background

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knowledge on the content area of a text will stumble upon texts with content area that they are not familiar with. This becomes a hindrance to a smooth understanding of the reading text. Carrell (1988) states that a reader will have to acquire prior knowledge on the text's content area in order to understand a reading text.

In order to study this particular phenomenon, the researcher conducted a qualitative case study, looking at the influence of content schemata on learners' comprehension of a short story. The following research questions had guided this study:

- How do language learners process content-familiar text?
- What are the factors that contribute to the learners' understanding of the text?

The significance of the study is that the findings from this research will provide basic theoretical grounds for further research on reading in relation to the role of content schemata involving ESP diploma level students. It is hoped that the findings from this study, with regard to content schemata can shed some light in facilitating L2 learners to utilize their background knowledge to better understand the text.

2. Literature review

2.1. Concepts in schema theory

Schema theory emphasizes the function of background knowledge as a primary support in reading in a second language. The background knowledge this study focuses on is the readers' knowledge that they tap on in helping them relate to the context of the texts. This knowledge is referred to as content schema, which is the readers' prior knowledge of the content area of the reading passage (Carrell, 1983). The aspect of comprehension that is focused in this study is how the readers' schemata play their role in "the process of interpreting new information and allowing it to enter and become part of the knowledge store" (Anderson & Pearson, 1988, p. 37).

Bartlett (1932), Rumelhart (1980) and Rumelhart and Ortony (1977) state that the function of prior knowledge in language comprehension is formalized as schema theory. From schema theory's perspective, any spoken or written text does not provide meaning on its own but only presents guidelines to how readers should recall or create meaning from the knowledge that they have previously acquired (Carrell & Eisterhold, 1983). The learners themselves have to depend on their prior knowledge to comprehend the reading text.

Schank and Abelson's (1977) study discusses about schemata as structures of knowledge used to comprehend a reading text. In addition, Anderson (1977) considers these structures as ideational scaffolding. Ortony (1980) explains that "schemata have variables, the same schemata can be used as an interpretive framework for a variety of different instances of the same phenomenon" (p. 359). Van Dijk (1981) further elaborates that schemata are complex structures of knowledge that are of a higher-level.

With regard to the meaning of schemata, Nuttal (1982) further explicates that mental structures are constructed from learners' prior and new experiences, which includes the ones resulting from reading, that reconstruct one's present schemata. A schema keeps growing as well as changing throughout one's life providing that the learner keeps learning. McAnally, Rose and Quigley (1999) explain that schemata are processes of how one manages and records information in one's memory. The development of human memory is structured in relation to meaning that can be compared to a thesaurus, in categories of synonymous words as opposed to individual word meaning, which is similar to a dictionary. Schemata involve vast experiences, ranging from objects that are simple, to abstract units, and also extend to complex events.

2.2. Content familiarity in L2 reading

As stated by Nunan (1985), schema theory suggests that the understanding of a text depends on "the degree to which the experiential world of a given written text is represented in the schemata of the reader" (p. 44). He continues to emphasize that language learners whose schemata are inadequately developed in the content area of the text will experience greater difficulty to comprehend the text as compared to language learners whose relevant schemata are sufficiently developed. Fowler (1991) also emphasises that readers are actively and creatively deploying mental schemata in the process of making sense of the text content while reading.

3. Methodology

This qualitative case study with the contextual condition, i.e. the participants' familiarity with the content area of the text is the most fundamental element in this study. The type of sampling for this study is purposive sampling where three Part 2, Diploma of Accountancy, Universiti Teknologi MARA (Perlis) students who were undergoing ELC150 Integrated Language Skills: Reading course were selected as participants.

3.1. Data collection

The participants were asked to write a personal reading log, i.e. an entry response of 150 words on the short story, *Twelve and Not Stupid* by Zuraidah Omar (2006). They were required to reflect on the characters in the short story as well as on the issue discussed in the short story. The short story is one of the eight short stories prescribed by the Academy of Language Studies, UiTM for Part Two diploma level students undergoing ELC150 course at all Universiti Teknologi MARA campuses.

The researcher conducted one-on-one interviewing, i.e. in-depth interviews on the participants in order to triangulate the data collected. Eight open-ended questions were constructed based on the framework of schema theory to explore the participants' reading experience on the text chosen. The in-depth interviews were audio taped and transcribed verbatimly using NVivo 10 software.

3.2. Data analysis

The researcher analysed each personal reading log and the interview transcriptions to determine whether content schemata had influenced the learners' understanding of the text. The analysis of the three participants' entry responses was done using a grading criteria, a rubric scale ranging from one to five marks as illustrated in the table below.

Table 1. Personal reading log (PRL) grading criteria, Universiti Teknologi MARA (2013)

| 5 | 4 | 3 | 2 | 1 |
|---|--|---|---|--|
| Responses are very insightful, showing an excellent comprehension of the reading. All responses refer to specific text details. | Responses are adequately insightful, showing adequate comprehension of the reading. Numerous responses refer to specific text details. | Responses seldom insightful, showing below average comprehension of the reading. Several responses are vague –refer to few details. | Responses offer NO insight into the reading. Responses DIDN'T demonstrate comprehension of the reading. Responses DON'T refer to specific details. | Responses are NOT complete. Responses show no indication of having read the material. Responses are incomplete or incoherent. |

Whereas, the interview transcriptions were analysed for themes.

4. Findings

4.1. Analysis of the participants' personal reading log entry responses

The grading criteria above was used to assess the participants' level of comprehension of the short story. All three participants' entry responses scored 4.5 marks, which fell under the criteria of being insightful, which exhibited an excellent comprehension of the reading text. Their responses seemed to refer to specific details in the short story. Below are samples of the participants' personal reading log entry responses.

[Although she was just a 12 year-old kid, she can think rationally before doing something. For example, whenever she feels like telling her mother about Auntie May, she will think first about her father's instruction.]

(Participant1)

[Sasha is only 12 years old but her personality is far beyond her age. She is so courteous for her age...Even though she doesn't know who Auntie May is and she is very curious about her, Sasha did not show it. She respects Auntie May as her father's friend.]

(Participant 2)

[She (Sasha) was wondering and thinking too much about her mother's feeling as she had to lie to her mother. In this short story, the part that shows she was very worried is when she kept quiet during dinner. Sasha did not like having to lie to her mother and this must be followed by other children.]

(Participant 3)

4.2. Analysis of the in-depth interviews

The interview responses were analyzed for themes, which were indicative of the role of content schemata that could facilitate understanding. Sample quotes to illustrate the points are stated as follows.

Interview Question 1: How do you describe your reading experience of this text?

The theme that emerged from question one is 'interesting or very interesting'. The participants found the short story to be interesting. Participant 1 said:

From my opinion, the short story is very interesting. Because from the title itself, it says "Twelve and Not Stupid", after reading the story, then I know that the child whose age is just 12, can think...her way of thinking is very matured.

Participant 2 said:

I think it is interesting because it shows that the situation in the short story relates to our lives because I think it's normal to us because there are many situations like this in our lives.

Interview Question 2: Do you look for cues in the short story to infer to certain background knowledge?

The theme from question two that emerged is 'using cues to find the meaning of words'. Participant 1 and 3 stated that they looked for cues from the words in the text itself. Participant 1 said:

Of course I do that. I refer to the meaning of the words in the short story and relate them to my background knowledge.

Participant 3 said:

Yes. I look for cues in the words or the sentences. I do have some background knowledge about family issues.

Interview Question 3: Is the theme of the short story predictable?

The theme which emerged is 'unpredictability'. Participant 1 and 2 mentioned that they found the theme of the short story to be unpredictable. Participant 1 said:

I actually could not guess the theme because I think the guess that I thought in the beginning is not the same. At first, I thought may be Auntie May is her father's (Sasha's father's) second wife. But in the end, it was about something else.

Participant 2 said:

At first I predicted the story is about something else ... but the ending is different from my expectation. At first I predicted that Auntie May has a scandal with Sasha's father...expecially from their conversation in the car.

Interview Question 4: How do you activate your background knowledge on the topic?

The theme that emerged from question four is ‘triggered memory’. Participant 1 stated that the content in the text brought back memory from her past. She said:

After her father brought Aunt May, to pick up Sasha from school, and then her father asked not to tell her mom about Aunt May, it triggered something. Usually when someone, when guys don't want the child to tell the mother about some woman, there must be something, right? It actually happend in my family itself. It brought back that memory. It came to my mind.

Participant 2 said:

All the knowledge of scandal came to my mind. And at the end of the story, I realized that my expectation is wrong.

Participant 3 said:

All knowledge about family crisis or family issues...family problems come to my mind.

Interview Question 5: While reading the short story, do you constantly look for information to verify or substantiate your background knowledge? If yes, can you explain how.

The theme which emerged from question five is ‘keep searching for familiar information’. Participant 1 stated that she was always aware that she kept looking for information in the text to substantiate her background knowledge on the issue. This is illustrated in the quotation below. Participant 1 said:

Yes, I start checking about what I thought in the beginning, that is about this man probably is having another woman. I keep looking for other information in the short story to verify that.

Participant 2 said:

Yes..I read more and more to find more information about the scandal.

All three participants stated that they checked or matched the information in the text against their background knowledge and experience. Participant 1 said:

Like I had mentioned earlier, it happened in my family. So, I matched it with the situation in my family.

Participant 2 said:

At first yes, but in the middle of the short story, it's different.

Participant 3 said:

Sasha simply followed her father's instructions, even when her father asked her to lie to her mother. She simply obeyed because she doesn't want to hurt her mother's feelings. I matched her actions with myself.

Interview Question 6: How do you connect the short story to your background knowledge?

The theme that emerged is “forming association”. Participants 1 and 2 stated that their previous knowledge helped them to understand the content area of the short story. Participant 1 said:

This incidence happens to my uncle's family. Everything that my mother tell me, the stories about my uncle's second wife, I think there are many things that happen in the same way as the story. I think by remembering those stories that my mother told me, it helps me a lot to understand the story. I associate the knowledge (about family conflict) that I have with the short story.

Participant 2 said:

The background knowledge that I have, accommodated my understanding. When I think it was about the scandal, I want to read more and more so I try to understand the short story more. I made some associations on scandals with the context of the short story.

However, it is important to note that participants 1 and 2 ignored certain information from their background knowledge when they found that the information from their background knowledge contradicted with the information in the short story. Participant 1 said:

After Aunt May said that her husband abandoned her, then I stop matching the story with my uncle's family, because it's different. From that point I just stop.

Participant 2 said:

After I realised that it is not about scandal, I read again...I refer again to the previous pages. I try to think more logically.

Interview question 7: Do you associate the character/characters in the short story with your personal experience?

The theme “association with personal experience” has also emerged. All three participants had associated the characters in the short story with their personal experience. Participant 1 said:

I associate it with my uncle's family.

Participant 2 said:

I think yes. About how Sasha interacts with her parents and she always obeys her father not to tell her mother about what is the real situation, I think for me in my life, I will not tell my mother about something that will worry her.

Participant 3 said:

About Sasha obeying her father, I associate her character with my own personal experience.

Interview question 8: In your opinion, is background knowledge important to understand a text?

The theme that emerged is “background knowledge as the basis of inference”. All three participants mentioned that their background knowledge became the basis of inference on the topic of the short story. Participant 1 said:

Owh, yes. I base on that to understand the short story. It helps me a lot because I already know... that men who got married to his second wife, a'aa...how he wants to keep the marriage a secret, especially from his first wife, why he wants to keep it a secret... when Sasha's father was trying to tell her not to tell the mother, then I start thinking that may be Aunt May is the second wife because my uncle did something like that before, he did tell his child not to tell the mother.

Participant 2 said:

Yes it is so important because if we read the short story and we have no base, no basic knowledge about the short story, we cannot understand so much and we might expect about the other thing.

Participant 3 said:

Yes, because our background knowledge will help us to understand better, especially what the author is trying to convey in the story.

5. Discussion

Based on the findings of this study, it can be concluded that the second language learners without any prior knowledge or experience on the content area of the text encountered difficulties to understand what they were reading. Content schemata can be regarded as essential as they play a very important role in reading comprehension. All three participants agreed that background knowledge on the content area of the text was necessary for them to understand the text.

The participants also looked for cues from the words in the short story by referring to the meaning of the words and relating them to their prior knowledge of the content area of the text. The participants admitted that the content in the text had triggered memory from their past in activating their background knowledge on the issue discussed in the short story. They expressed that they were constantly looking for information in the text to verify their background knowledge while reading the short story. Nuttall (1982) states that an alert reader who actively processes the ideas in the reading passage, is able to activate the relevant schemata.

The participants mentioned that they had associated their previous knowledge with the characters in the short story. Their prior knowledge on the content area of the text had verified their understanding. The participants also claimed that they had ignored certain information from their background knowledge when they found that the information was inconsistent with the content of the text. They had even associated the characters in the short story with their personal experience. Anderson, Reynolds, Schallert and Goetz's (1976) study as cited in Xie (2005) suggest that the experience of the reader influences which schemata to be chosen.

6. Conclusion

This study explored how content schemata could influence the learners' understanding of the text. The two data collection techniques, i.e. personal reading log, entry response and the in-depth interviews had provided insights into the second language learners' cognitive processes that were involved in reading. It can be inferred from the analysis of the participants' 150-word entry responses and the in-depth interview data that content schemata play an important role in the learners' understanding of the text where content schemata facilitate learners' comprehension of the content area of the short story.

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