The Significance of Schemata and Cultural Familiarity in Second Language Reading: A Systematic Review

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ABSTRACT—This paper aims to highlight on three main objectives. Firstly, the discussion describes on the role of schemata (background knowledge) in encouraging ESL learners’ reading comprehension in the second language classroom. Secondly, this systematic review will also emphasize on the significance of selecting culturally familiar texts as the reading materials for the second language learners. Besides, it is also the goal of this paper to describe on the pedagogical implications that can be applied by the second language teachers in order to enhance reading comprehension among learners. In particular, this study is conducted through a thematic analysis of 17 journal articles related to the second language reading. From the main focus is on the aspect of cultural familiarity in the text selection for ESL students. Specifically, most research findings highlight that culturally familiar elements enhance students’ reading comprehension of the texts as it provides them with a platform to contextualize the content of the reading materials. In addition, previous research also proves that the incorporation of culturally familiar teaching resources helps to create less threatening learning environment and higher classroom participation among students.

Index Terms: Cultural Familiarity, Schema, ESL Reading Comprehension.

I. INTRODUCTION

Specifically, the main focus of this paper is to describe on the aspect of reading skills, reading comprehension, as well as the importance of schemata as well as cultural familiarity to support learners’ understanding of texts in the second language classroom. In order to elaborate further on these aspects, the current review will investigate on the following research questions:

1. What are the roles of schemata and background knowledge in encouraging ESL learners’ reading comprehension?
2. What are the significance of selecting culturally familiar texts as the reading materials for second language learners?
3. What are the pedagogical implications that can be applied by the second language teachers in order to enhance reading comprehension among students?

First of all, it is important to discuss and elaborate on the notion of reading in a specific dimension. According to Pei-Shi (2012), reading is one of the language skills that have caught the attention of linguist, educators as well as psychologist for decades. In addition, there are also theorists who have come out with reading processes models which are the top down (Goodman, 1967; Eskey, 1986; Coady 1979) as well as bottom up approach (Goodman, 1967; Carell&Eisterhold, 1983; Hayes, 1991) which suggest multiple perspectives and strategies in which readers may use in dealing with the reading materials. With reference to Hayes (1991), reading can be defined as the process of meaning constructions. Thus, it is important for readers to possess certain background information of the texts so that the message that writers are trying to convey can be successfully delivered. On the other hand, Ashrafzadeh, Don, and Meshkat, 2015 view reading as one complex process which comprises of specific different skills and it plays big role in terms of the second language acquisition. In simpler words, reading can be described as a mechanism in which readers act as the language users who are actively constructing meaning through a graphic display message which has been encoded by the writer (Malik, 1990). Other than that, reading can also be defined as a game of guessing in psycholinguistics (Goodman 1967) that consists of uncertainty reduction as well as hypothesis testing (Brewer, Bruce, & Spiro 1980; Smith, 1982). In general, it can be said that reading is a reader-text interaction that comprises of non-visual and visual information (Goodman, 1984). Not only that, the reading process is currently viewed in more advance perspectives where it involves transaction between the author as well as the reader (Piaget, 1971).

It is described that, the goal of reading processes is to achieve the optimum level of comprehension (Goodman, 1967). Therefore, reading comprehension can be considered as an important language skill to be acquired by the first as well as the second language readers and it can be influenced by many factors (Yousef, Karimi, Janfeshan, 2014). Specifically background knowledge is one of the elements that may affect learners’ understanding of the reading materials. As this paper aims to explore on the connection between background knowledge, cultural familiarity as well as ESL learners’ reading comprehension in English language classroom, it is significance to first describe on the notion of schema through its definition as well as theoretical point of view. The next section will discuss in depth about the schema theory in which this study is grounded.

II. THEORHETICAL FRAMEWORK

It is belief that, reading comprehension is not only determined by the level of complexity of the texts, since it is also depends on the readers’ recall level based on their...
available background knowledge as well as certain contextual clues on certain cultural convention that they are familiar with (Carrell, 1984; Carrell, 1987; Floyd & Carrell, 1987). Besides that, the importance of the background knowledge has also been highlighted by (Anderson, 1999; Grabe & Stoller, 2013) where they suggest that reading is associated with an active as well as interactive process in which readers utilize their schemata as well as experience in order to understand a particular text. Furthermore, it is also believed that, the activation of background knowledge may minimize cognitive overload during the process of reading (Carrell, 1988; Ellis, 2001; Nassaji, 2002; Pulido, 2004). Plus, having appropriate reading schemata needed in order to initiate the automatic processes mechanism among readersthat enablesthem to focus more on the textual analysis of the reading materials (McLaughlin, 1987). In particular, it can be said that background knowledge has been positioned in the reading process through the notion of Schema theory (Bartlett, 1932; Carrell & Eisterhold, 1983) which will be discussed comprehensively in this section.

Generally, Schema theory can be defined in several perspectives and according to Nassaji (2002), it brings the meaning of ones’ available knowledge structure which is stored in the mind. This definition agrees with Clarke and Silberstein (1977) who state that readers’ understanding of the texts depends on their ability to transform the graphic representation of the stimulus with the appropriate conceptual group within their memory system. During this active process, readers bring out formidable information, ideas, belief, perception and attitudes to deal with the texts. The combination of this ability and readers’ skills in linguistic prediction decides the expectation that will be developed by learners while reading. This situation agrees with Vocca and Vocca, (1999) who highlight that, schemata is an organization of systematic information that reflects readers’ experience, attitudes, beliefs, values, strategies as well as skill in a particular situation. Based on these definitions, it can be said that reading and schema is interrelated with one another as it requires a lot of processes which include interaction of both knowledge about the world as well as linguistic awareness (Clarke and Silberstein, 1977). According to Widdowson (1983) schema refers to the cognitive platform that serve to gather information within an individual’s long term memory. This means that, schema helps readers to connect new knowledge to the existing input and according to Rumelhart (1980) this is called the ‘building blocks of cognition’ process. In overall point of view, schema can be defined as the cluster of data consisting of general ideas that is stored in ones’ memory (Davoudi and Ramezani, 2014). Thus, this shows that, the meaning for any written or spoken discourses is not only constructed by the texts since readers will be the one interpreting the message of the reading materials according to the available schemata that they possess.

It is important to be emphasized that schemata is the structure of knowledge that has been acquired from the past. Meanwhile background knowledge is the input which has been acquired previously by an individual (Bartlett, 1932 and Rumelhart, 1980). The two notions can be considered as closely related with the schema theory. Basically, there are three types of schema which are the linguistic schema, formal schema or textual schema (Singhal, 1998), as well as content schema (Bartlett, 1932; Rumelhart et al, 1977; Rumelhart, 1980) . In particular, linguistic schema describes on learners existing knowledge on linguistic components of the target language. Generally, it includes the elements of phonetics devices, vocabulary and grammar. On the other hand, formal or textual schema focuses on the language as well as the linguistic convention in a particular text. Basically, it features the readers’ schemata on the texts organization as well as the main structureof a particular texts type or genre (Alderson, 2000; Carrell, 1987, 1988; Carrell & Eisterhold, 1983). Specifically, previous research on formal schema highlights that reading materials with familiar organization in terms of its rhetoric structure supports learners’ reading comprehension better than the unfamiliar ones (Carrell, 1987). Next, the discussion will elaborate on the aspect of content schema. This schema type focuses on readers’ familiarity towards the texts’ content (Carrell, 1983) and their background knowledge as well as awareness on the subject matter or topic familiarity (Alderson, 2000). In simpler words, this schema type highlights on how readers’ adapt their background knowledge about the issues or topic in the reading materials to the texts (Carrell, 1983; Carrell and Eisterhold, 1983; Carrell, 1987; Alptekin, 1993, 2002, 2003; Singhal, 1998; Stott, 2001). Specifically, the issues in this context may also include an individual’s available beliefs, feelings, experiences or ideas.

In relation with the discussion on the content schema, Alderson (2000) proposes that the knowledge of the world is characterized through its idiosyncratic element which means that individuals are different with respect to ideas, emotion and feelings, experience as well as personal history. This situation describes cultural specificity that has been described by Alptekin (2008), who suggests that variations in cultural contexts lead to differences among readers. Thus, people portray different interpretation of a particular phenomenon based on the available input that they have in mind. Therefore, it can be summarize that content schema highlights on readers’ knowledge of the world. Basically, one of the subordinates for this schema categorization is the cultural knowledge where this study is grounded. It is really important to stress that the process of learning languages should include the comprehension of the target culture (Kramsch, 1995). Besides that, language is also acquired together with the culture in the acquisition process since each of the elements correlates with one another (Mitchell and Myles, 2004). Moreover, according to Trivedi (1978), language is a component which culture resides, thus it seems impossible to learn one without sympathetic awareness on the cultural background. In other words, it can be said that, in second language reading, cultural schema goes beyond the linguistic structure within a particular texts as the more important element to be focused on is about the understanding of the content and context of the reading materials (Alptekin, 2006). Furthermore, Steffenson et al (1979) also highlights that, the aspect of culture is very important in language learning since lack of sensitivity in the cultural differences leads to inefficient
comprehension of reading texts. In short, culture represents a holistic point of view of attitudes, behaviour, norms and belief in particular social settings which shape ones values as well as experiences (Rivers and Temperly, 1978). Therefore, incorporating cultural representation in the language classroom may be one of the ways to enhance reading ability and comprehension among ESL learners.

III. METHODOLOGY

This research applies the use of systematic review in order to answer all three research questions of the study. The use of this approach proves to be appropriate and effective since it provides a platform for systematic synthesis of information that can be acquired from previous academic literature (Van Laar, Van Deursen, Van Dijk & Jos de Haan, 2017). Not only that, this method also provides organized and reliable data organization that allows analytical criticism within the discussion (Hart, 1999). Specifically, this study adapts the research procedure framework by Chalkiadaki (2018). The framework is chosen as it provides arranged techniques of conducting and organizing data for systematic review. First of all, the framework will look at the inclusion and exclusion criteria of the articles that will be reviewed. The selection criteria of this study are presented in Table 1.

Table 1: Inclusion and exclusion criteria of the article sources

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<th>Type of publication</th>
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<td>1980-2018</td>
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Basically, the items within the table are determined before potential articles were searched within the database. Besides that, these criteria were also used during the screening process of the abstracts, the research titles as well as the full articles. Specifically, the search for articles is conducted by the means of 3 major academic databases which are the Wiley online library, Google Scholar as well as Elsevier. These platforms are used as the main of research source based on its reputation of providing vast number of reliable and informative articles related to the topic being studied. As for this study, the core search items that have been used to search for relevant materials are ‘schema’, ‘schemata’, ‘culturally familiar texts’ ESL reading as well as reading comprehension. Basically, numerous related articles are acquired through the search action. However, only 17 of them are selected because they provide specific criteria which suit the theme of the current review. As for additional references and information, the process of snowballing is also done on the reference sections of the acquired articles in order to search for relevant related sources which may provide more insights to the wealth of the knowledge that is being studied.

A. Sample Analysis

As mentioned in the previous section, the sample of this study consists of 17 journal articles, where 9 of them were published in Scopus indexed journals, 7 from websites of various academic institutions, and one of them is published as proceeding paper. The distribution of articles by the type of publication is presented in Table 2.

Table 2: Categorization of texts by the type of publication

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Basically, the inclusion criteria for the article search action are allowed from the year of 1980 to 2018 because of several reasons. First of all, the issues on schemata and background knowledge have been broadly discussed in linguistic studies based on the theoretical as well as empirical point of view during the 80s. This situation can be clearly highlighted from the research conducted by Carell (1984); Carell, 1987; Floyd & Carrell, 1987; Carrell and Eisterhold (1983); Alvermann and Readence (1985) and the list goes on. The previous research in the area was beneficial especially in terms of mapping the concept as well as describing the theory of schema itself. Thus, the studies in the past act as the ground for the development and variability of the current research. Therefore, including it in the inclusion criteria of the texts sample is important since it helps to establish the relationship between the past and present studies. The distribution of texts based on the year of publication is presented in Table 3. Basically, all of the texts were gathered from all educational sources worldwide. Plus, the articles also come from multiple origins for example, The United States of America (7), Turkey (3), Iran (2), Taiwan (2), Japan (1), Malaysia (1) and Palestine (1). Based on this distribution, it can be said that, the texts with the strongest presence is majorly from the United States of America and followed by other countries respectively.

Table 3: Text distribution based on the year of publication

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IV. FINDINGS AND DISCUSSIONS

As mentioned in section 1.0, this study was conducted to address three research questions. The first one touches on the roles of schemata and background knowledge in encouraging ESL learners’ reading comprehension. Based on the previous studies that have been conducted, it can be said that most findings agree that background knowledge does affect ESL learners’ reading comprehension in the classroom (Yousef, Karimi, Janfeshan, 2014). Besides, it is also stated that background knowledge is crucial among learners in terms of the reading comprehension since it provides a platform to bridge acquired knowledge to the new one. In short, it shows that this situation is consistent with the studies on the topic of schema theory by (Droop & Verhoeven, 1996; Bernhardt, 2005; Pulido, 2004; Salmani-Nodoushan, 2006; Sharp, 2002; Perego & Boyle, 2000; Bensoussan, 1998; Carrell 1984; Foo 1989; Johnson, 1981, 1982) who suggest that receptive skills such as reading requires schema to enhance learners’ understanding of a particular texts. In addition, Gilakjani and Ahmadi (2011) also suggest that the consistency that exists between learners’ schema and the texts allows more comprehension of reading materials in language classroom.

Furthermore, the role of background knowledge in reading comprehension has also been elaborated by Carrell&Eisterhold, 1983; Williams, 1987; Cook, 1997; Harmer, 2001; Nunan, 2015). In their research, the findings show that in the process of reading specific texts, readers will activate their prior knowledge or schemata in order to get clearer picture of the authors’ messages. Moreover, the positive role of background knowledge in second language reading is also highlighted by (Carrell 1984; Foo 1989; Bensoussan, 1998; as well as Perego and Boyle, 2000) who propose that the insufficient of appropriate schemata that is compatible with learners’ context will lead the students towards failure in making sense of the reading materials.

Malik (1990) also highlights that, schemata plays a role in determining important ideas within the texts and this process helps the readers to interpret and categorize important information while reading. In short, background knowledge allows learners to predict the content of the texts where it will then be corrected or confirmed based on their own expectation of the reading content. Indirectly, this situation helps learners in enhancing their reading comprehension of the texts as according to Carrell, 1988; Ellis, 2001; Nassaji, 2002; and Pulido, 2004, the background knowledge helps readers to reduce anxiety as well as cognitive load during the process of reading. Not only that, schemata is very useful in order to enhance reader-text engagement in reading lessons. This is because, prior knowledge which is relevant to the content of the texts cognitively provides more attentional space for readers to analyse and comprehend the texts (Erten and Razı, 2009). Furthermore, background knowledge activation in the reading process also boosts students’ motivation in learning which may results in better performance in the language classroom (Dörnyei, 2003, 2005; Williams & Burden, 1997). In summary, it can be said that, schemata and background knowledge play vital roles in enhancing second language students’ reading comprehension Li, Wu & Wang (2007).

The second research question highlights on the significance of selecting culturally familiar texts as the reading materials for second language learners. Generally, culturally familiar texts lead to easier reading comprehension among learners (Bernhardt, 2005). To be specific, a number of previous research prove that culturally relevant texts help to support reading comprehension in the second language classroom (Droop & Verhoeven, 1996; Pulido, 2004; Salmani-Nodoushan, 2003; Sharp, 2002; Perego & Boyle, 2000; Bensoussan, 1998; Carrell 1984; Foo 1989; Johnson, 1981, 1982). In addition, studies from some other researchers also highlight that culturally familiar reading materials lead to positive reading recall as it acts as a platform to bridge cultural knowledge into the text contexts (Anderson, Joag-dev, & Steffensen, 1979; Anderson, Reynolds, Shirley, Steffensen & Taylor, 1982; Carrell, 1984; Parrish, 1987; Singer & Zagarrà, 1982). Particularly, text with specific cultural representation is easier to be understood since learners may reflect on the rhetorical patterns of the texts because of its culture-unique properties which are exclusive for second language learners’ specific norms(Xiao, 2006). Besides, culturally familiar texts are significant for second language learners as it helps to reduce the feeling of intimidated and anxiety due to the unusual stylistic devices while reading (Gwin, 1990). It is also important to include elements which are related to the cultural schema in the ESL classroom as it encourages reading comprehension among learners as according to Subramaniam, Hamdan, and Koo (2003) unfamiliar cultural convention in some of the texts presented for the learners make it hard to achieve effective reading in second language settings. This situation is supported by Blockside (2000) who proposes that texts should be comprised of students’ emotional, intellectual, as well as cultural assumptions.

Furthermore, culturally friendly texts has more significance in terms of being a tool in aiding learners to acquire better second language input because of the schema structure as well as prior knowledge principles (Carrell,1987). In addition the importance of culturally familiar reading materials will also lower the vocabulary deficiencies among students as they usually depend on their schemata as the main reference during the reading process (Stanovich, 2000).The significance of culturally familiar reading materials in second language classroom can also be highlighted through its ability to be regarded as a proxy for language enrichment among second language learners (Vethamani, 2003). This condition happens since according to Clarke and Silberstein (1977), students will digest information and input of the reading materials based on the graphic representation that they have in mind. This means that, their working memory works better to make sense of the culturally familiar elements within the texts and somehow they gather more of the knowledge of the second language.

Specifically, the discussion is now moved to the third research question which focuses on the pedagogical
implications that can be applied by the second language teachers in order to enhance reading comprehension among learners. First of all, it is important for the teachersto reflect that applying culturally unfamiliar texts in reading lesson may have impacts on learners’ reading comprehension. Thus, selecting appropriate reading texts is important as according to Abu-Rabia (1996) and Bensoussan (1998) numerous studies suggest that background knowledge as well as culturally familiar texts positively support and enhance reading performance among learners.

In addition, the curriculum designers should also create and select appropriate reading texts to be prescribed in the school syllabus as the main focus to be looked at is the compatibility of the text types towards learners’ cultural background. According to Liu (2015), the curriculum specification must incorporate culturally friendly materials as well as it needs to suit students’ language competence. This statement agrees with McCullough (2013) who proposed that culturally related knowledge sources provide a scaffolding platform for students to achieve better language accomplishments.

The next implication that is going to be highlighted is on the role and awareness among the instructors as well as educators in implementing cultural based materials in the lessons to widen learner’s global perspectives (Liu, 2015). Only through this implementation process, successful reading comprehension can be achieved by both teachers and students since reading is considered as the most vital skill in determining academic achievement (Levine, Ferenz and Reves, 2000; McNamara, 2004). According to Greenberg et al (2006), language teachers are also advised to use extensive reading in order to develop learners’ prior knowledge. This is because, background knowledge and cultural familiarity have always been the factors of effective reading in English language classroom (Droop and Verhoeven, 1998; and Lin, 2002). Furthermore, it is also crucial to motivate students to select material which suits their interest as well as proficiency level so that the background knowledge they have can be activated and it may help them in the comprehension of the texts (Greenberg, 2006). Yousef, Karimi, and Janfeshan (2014) in their article suggest that applying multiple types of reading activities in the classroom might encourage the development of prior knowledge among students which indirectly eases the reading process. By applying all of the pedagogical implications that have been stated, it is hoped that, teachers will be able to help learners in providing better reading materials in ESL classroom.

Although majority of the previous studies agree that culturally familiar texts enhance ESL learners reading comprehension, research by Stott (2004) proves otherwise. It is said that, culturally familiar texts do not guarantee reading recall which results in reading comprehension. At certain times, disruptions may happen during the reading process which leads to the absence of schemata. Besides, the inactivated background knowledge also causes failure in the meaning construction process among students (Carrell, 1988). Besides, there is also an issue of biasness in terms of the teachers’ beliefs. Specifically, teachers were given an impression that texts which are related to the readers’ culture are more comprehensible as compared to the culturally unfamiliar ones (Post &Rathet, 1996). Thus, it makes the process of selecting appropriate texts for the students even harder since culturally diverse reading resources may also increase learners’ knowledge of the world. In reality, this situation agrees with the research findings of Carrell&Eisterhold (1987) as well as David&Norazit (2000) which highlight that students should be allowed to explore new culture to prepare them to higher level of reading as well as to widen their knowledge about the world. As a conclusion, there are many factors that may affect the process reading comprehension. Thus, it is important for the teachers to have assumptions on learners’ attitude towards the selected texts, so that, the most suitable texts type can be used as the teaching and learning resources in ESL classroom.

V. CONCLUSION

In summary, it can be said that this review look at the three main issues of the second language reading classroom which are the roles of schemata and background knowledge in encouraging learners’ reading comprehension, the significance of culturally familiar text as the reading materials for second language learners, and the pedagogical implications that can be taken by the teachers to enhance reading performance among learners. Based on the findings, it can be said that, schemata and background knowledge is vital in terms of encouraging learners’ comprehension of the reading texts(Alptekin, 2006; Steffensen, Joag-Dev, & Anderson, 1979) and (Pulido, 2003, 2004). In a way, this statement agrees with Brock (1990) who highlights that prior knowledge helps the students to contextualize the texts to their own experience. Not only that, in linguistic point of view, it can be said that, learners’ available schemata determines the linguistic complexity of certain discourse as their knowledge on the language shapes their attitudes towards the texts. Besides, it needs to be highlighted that, culturally familiar texts help to encourage ESL learners’ reading comprehension. This is because, according to Floyd and Carrell (1987), localized materials allow learners to relate their experience with the content and contexts of the reading resources. This means that, learners are able to make inferences on the content of the texts (Alptekin, 2006). In terms of the pedagogical implications, it is suggested that, teachers as well as curriculum designers must select the most appropriate texts for reading lessons in order to enhance ESL learners’ reading comprehension.

VI. REFERENCES


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