# Comparative analyses of perceived role of Content Schema and use of appropriate classroom techniques in Improving Reading

عيضه عبدالله عبدالرحيم المالكي

قسم اللغات الأجنبية كلية الاداب – جامعه الطائف المملكة العربية السعودية

## Abstract

The study in hand attempted to investigate Saudi male and female EFL university teachers to record their responses towards the role of content schemata and appropriate classroom techniques in increasing learners' reading comprehension. Two hundred one participants (n = 201) were given a self-developed strongly-agree to strongly-disagree Likert-scale questionnaire to generate data. Relevant studies were thoroughly reviewed to develop the questionnaire for this empirical study. The standard procedures were adopted to achieve content validity and reliability of the instrument. The final version of the questionnaire was administered to one hundred twenty-eight female (n = 128) and seventy-three male (n = 73) EFL university teachers. Independent-samples T-test was run to analyze data to generate descriptive statistics and comparative analyses along gender lines. Extremely high mean values indicate that both groups of the participants consider content schemata extremely important in enhancing reading comprehension. It is found that highlighting thesis statement, main idea, signal words, important phrases, titles and subtitles to the learners are the most important schemata developing techniques. The comparative analyses revealed that the male cohort of the study has assigned comparatively higher mean values to the majority items. The comparative results partially accepted all three hypotheses set for this investigation indicating that there does not exist statistically significant gender-based differences in the perceived preferences towards the role of content schemata, schemata developing strategies and classroom challenges in this regard.

Key words: schemata; reading skills; strategies; challenges; comprehension

## INTRODUCTION

The significant role of effective reading cannot be underestimated not only for better language learning possibilities but also to benefit from rich resource available online and in print. Qanwal & Karim (2014) state that reading is a complex skill which includes decoding through active cognitive process. Efficient readers do not simply interact with the written text but they need to exploit their acquired knowledge including background knowledge, lexical knowledge, syntactic knowledge and use of appropriate reading strategies (Cho & Ma, 2020). A growing mass

of research was conducted to investigate various factors which enhance EFL learners' reading comprehension. These factors include learners' pleasure reading habits, syntactic knowledge, lexical knowledge, background knowledge, reading strategies, cognitive processes, motivational orientations etc. (Grabe, 2006; Malcolm, 2009; Javid & Khairi, 2011; Pei, 2014; Qanwal & Karim, 2014; Al-asmari and Javid, 2018, Huang, 2019; Cho & Ma, 2020; Khalifa, 2023).

**Literature Review**

Reading skills is considered an active skill and is defined as "an interactive process between the reader and the text in a sociocultural context where the reader reconstructs the text information based on the knowledge drawn from both the text and the prior knowledge available to the reader" (Khalifa, 2023, p. 8). He further explains that reading includes an active process of interaction of several component skills simultaneously which enable the cognitive skills to enhance reading understanding. Al-Khatayabeh and Al-Masri (2008) report that "reading is a language activity that includes a variety of skills" and it has been noticed that "some learners who are good at language are not good readers" (p. 370). Gilakjani and Ahmadi (2011) state that reading is an all-encompassing skill including low-level skill of identification of lexical items and sentences and high-level skill of understanding and interpretation. A growing mass of research offers valuable insights into the fact that EFL learners face host of difficulties in reading skills which includes insufficient schemata, lack of grammatical knowledge, problems with lexical and syntactic knowledge, poor reading habits and language inaccessibility (Davoudi & Yousefi, 2015; Fitriani, 2014; Samad, Jannah & Fitriani, 2017; Khalifa, 2023).

It is reported that for better reading comprehension, the readers need to actively interact with the target text and attempt to elicit meaning by using their previous knowledge (Alyousef, 2006). It is also reported that "the readers' background knowledge (schema) interacts with the content of the passage they are reading" (Khalifa, 2023, p. 3). He further state that to decode messages in a reading text, it is necessary that efficient readers use not only their lexical and syntactic knowledge but also their background knowledge and their analysing and synthesizing skills. Research reports that schemata is the readers' cognitive ability based on their prior knowledge accumulated through real life experiences (Al Salmi, 2011). Khalifa (2023) states that "schemata (plural of schema) are packets of information stored in memory representing general knowledge about objects, situations, events or actions" (p. 5). Alshammari (2017) posits that schemata are not random pieces of knowledge stored in readers' minds but they are well-organised

and the efficient readers guess the target content in reading texts and trigger the cues to activate and recall relevant background information.

Research reports that various models of teaching reading skills support use of schemata for better reading speed and reading comprehension.  This phenomenon is supported by models such as 'reading as a psycholinguistic guessing game' (Goodman 1967), 'reading as information processing' (Smith, 1975), 'reading as a generative process', 'reading as strategy utilization' (van Dijk & Kintsch 1983) and 'reading based on schema theory' (Al-Issa, 2006; Macizo & Bajo, 2007; Al-Jahwari & Humaidi, 2015). It is claimed that foundation of schemata theory lies in the fact that the target reading texts themselves do not carry meaning, rather it directs the efficient readers to infer meaning with the help of their previously acquired experiences and knowledge (Al-Jahwari & Al-Humaidi, 2015). They also suggest that the readers' schemata determine "why students may fail or succeed in comprehending text content" (p. 170).

Linguistic schemata, formal schemata and cultural schemata are three main kinds of reading schemata. Xiao-hui, Jun, and Wei-hua (2007) consider linguistic schemata as the foundation for other kinds and they define it as readers' existing proficiency in lexical, syntactic and idiomatic aspect of the target texts. Formal schemata is defined as the knowledge related to the rhetorical and organisational forms of the target reading texts as well as understanding different genres and text types along with knowledge of lexical items, grammar and formality level etc (Zhao & Zhu, 2012). Agwu (2012) informs that cultural schemata enables the readers to connect the reading texts with their socio-cultural underpinning and is defined as the readers' acquired knowledge related to the topic and content of the target reading texts which help them to understand the text better.

A growing mass of research informs that if the readers are familiar with the content of the target reading text, their understanding increases significantly (Khalifa, 2023). Dayze (2004) posits that familiarity of the culture of the target text increases the possibilities of understanding the text better. Effective reading skills pedagogy "demands that the teachers activate the students' schema during the prereading phase by helping students recognize the knowledge that they already have about the topic of a text" (Abraham, 2002, p. 6). Al-Asmari and Javid (2018) declare that background knowledge of readers helps them "effectively exploit schemata-activation strategies like brainstorming of key vocabulary and ideas, accumulation of text-related information, making predictions and narrowing down the purpose of reading" (p. 98). Thus, it is imperative for teachers

that they should do their level best to know the background knowledge of their students and attempt to activate the relevant schemata to enhance their reading comprehension (Al-Issa, 2006). Al Asmari and Javid (2018) conclude that it is unavoidable for reading skills pedagogy that the teachers should understand the importance of schemata, its pedagogical implications and effective strategies to activate it for better results.

**Research Questions**

The study in hand attempts to answer the following research questions:

    a.  What are the perceptions of male and female ELT university teachers related to the significance of content schemata in understanding reading texts among Saudi university undergraduates?

    b.  What are different teaching strategies exploited by male and female ELT university teachers to activate content schemata among Saudi university undergraduates?

    c.  What difficulties do male and female ELT university teachers face in activating content schemata among Saudi university undergraduates?

**Null Hypotheses**

The following null hypotheses were set for this comparative study:

    a.  There does not exist any statistically significant difference in the perceptions of male and female ELT university teachers regarding the role of content schemata in reading comprehension among Saudi university undergraduates.

    b.  There does not exist any statistically significant difference in the perceptions of male and female ELT university teachers towards various classroom strategies to activate content schemata among Saudi university undergraduates.

    c.  There does not exist any statistically significant difference in the perceptions of male and female ELT university teachers towards the difficulties faced in activating content schemata among Saudi university undergraduates.

**Research Design**

      This empirical study used a mixed-method survey to generate data and exploited a semi-structured strongly-agree to strongly-disagree questionnaire to elicit responses from male and female ELT university teachers regarding the role of content schemata and the role of selected teaching strategies in enhancing reading comprehension. It further sought the participants'

perceptions related to the difficulties faced in this regard. The instrument included three open-ended items to record any other factors in relation to the above three factors under investigation.

## Instrumentation

The instrument for this survey research was developed after reviewing host of similar studies in the field (See for example Al-Jahwari & Al-Humaidi, 2015; Alhoisoni, 2017; Al-Asmari & Javid, 2018). The initial version of the instrument adapted questionnaire items from the above-mentioned studies, and they were incorporated into three sections to generate data related to three research questions and hypotheses set for this survey research. The instrument was shared with three experts in the field along with research topic, research questions and research hypotheses to seek their expert opinion to achieve content validity. The final version of the questionnaire was drafted after incorporating feedback of the experts which contained 24 items.

## Validity and Reliability

Determination of reliability and validity of instruments is significant to generate authentic data for any scientific study. The questionnaire along with research questions were sent to three experts in the field and were requested to evaluate the instrument. The feedback received from the experts was incorporated in the final version of the questionnaire. It is reported that validity "is used to judge whether the research accurately describes the phenomenon that it is intended to describe" (Bush, 2007, p. 81). The researcher piloted the final version of the questionnaire with twenty (n=20) participants from the same context and Cronbach's alpha was run to determine reliability of the instrument. The test generated the following results (Appendix # 1).

Table 1: Reliability Coefficient

|  |  |
| --- | --- |
| Number of Cases | 20 |
| Number of Items | 24 |
| Alpha | .851 |

The reliability coefficient remained at .851 which indicates high level of reliability to generate authentic data.

## Data Collection

The final version of the instrument contained 24 items with strongly-agree to strongly-disagree Likert-scale and three open ended questions to register any missing factor. The researcher administered the final version of the questionnaire to randomly selected male and female EFL

university teachers serving in the preparatory year deanship of Taif University. The participants were briefed regarding the research objectives and informed consent was sought.

**Data Analysis**

The researcher entered the data manually and comparative analyses were calculated. Independent-samples T-test was run to generate comparative analyses of data along gender lines. The data were tabulated, and results and discussion were presented with the help of the descriptive statistics, standard deviation, and P values.

**Results**

The independent-samples test run for this survey generated the following data which are presented in the following tables for presentation of results and discussion.

Table (2): Comparative analyses of items related to the significance of content schemata

| Students with sufficient reading schemata about text topic can: | | Group | n | M | SD | T | df | p value | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | comprehending reading text better. | Male | 73 | 4.6438 | .48218 | -.592 | 199 | .554 | p > 0.05 |
| | | Female | 128 | 4.6953 | .64672 | -.641 | 185.07 | .522 | |
| 2 | recalling the relevant information easily. | Male | 73 | 4.6164 | .48962 | 1.507 | 199 | .134 | p > 0.05 |
| | | Female | 128 | 4.5000 | .54700 | 1.553 | 163.90 | .122 | |
| 3 | reading the target text quickly. | Male | 73 | 4.5890 | .54862 | 3.267 | 199 | .001 | p < 0.05 |
| | | Female | 128 | 4.2656 | .73693 | 3.536 | 185.22 | .001 | |
| 4 | Easily connecting the ideas in the target text. | Male | 73 | 4.4110 | .59711 | 1.328 | 199 | .186 | p > 0.05 |
| | | Female | 128 | 4.2891 | .64175 | 1.354 | 158.99 | .178 | |
| 5 | focusing on main ideas of the target text. | Male | 73 | 4.2329 | .85830 | -1.017 | 199 | .310 | p > 0.05 |
| | | Female | 128 | 4.3438 | .66920 | -.951 | 122.24 | .343 | |
| 6 | overcoming narrow linguistic knowledge. | Male | 73 | 3.9863 | .75449 | .990 | 199 | .323 | p > 0.05 |
| | | Female | 128 | 3.8438 | 1.0899 | 1.091 | 191.54 | .277 | |
| 7 | relate text to their own prior knowledge. | Male | 73 | 4.1370 | .73248 | -2.279 | 199 | .024 | p < 0.05 |
| | | Female | 128 | 4.3594 | .62411 | -2.181 | 131.21 | .031 | |
| 8 | relate text to their own prior knowledge. | Male | 73 | 4.3014 | .63868 | .636 | 199 | .525 | p > 0.05 |
| | | Female | 128 | 4.2266 | .88036 | .693 | 187.65 | .489 | |
| 9 | confirming predictions related to the reading text. | Male | 73 | 4.0822 | .77734 | -2.014 | 199 | .045 | p < 0.05 |
| | | Female | 128 | 4.3125 | .78118 | -2.016 | 150.51 | .046 | |

Nine items were included in the instrument to elicit the participants' responses towards the role of reading schemata in increasing reading comprehension. Extremely high mean values are assigned to all the items of this category. Eight items are allotted means of more than 4 with exemption of only one item which state that students' reading schemata help them overcome their

narrow linguistic knowledge. The highest mean is reported for the first three items of this questionnaire section related to the role of reading schemata in 'comprehending reading text better', 'recalling the relevant information easily' and 'reading the target text quickly' respectively. Extremely average mean values ranging from 4.67 to 4.43 indicate that the participants believe that schemata play an important role in increasing reading comprehension with the help of the above-mentioned three factors. The remaining items are also favored by the participants and are considered important in increasing EFL learners' reading understanding. The least preferred items remain the significance of schemata in 'overcoming narrow linguistic knowledge', 'confirming predictions related to the reading text' and 'relating text to their own prior knowledge' respectively. Though these items are the least preferred, comparatively high mean values to even these items seem to suggest that they also play an important role in enhancing reading comprehension.

Mixed trends have been witnessed as suggested by the comparative analyses regarding the gender based mean values assigned to the items of this section. The female cohort assigns higher mean to 4 whereas their male counterparts allocate higher mean to the remaining 5 items related to the role of reading schemata in increasing reading comprehension. Another significant finding is that there are insignificant inter-rater differences in the perceptions of the male and female participants as indicated by low standard deviation allocated to the items of this section. The comparative results of the independent-samples T-test partially accept the first hypothesis as there are only three items of this section which report statistically significant gender-based differences.

Table (3): Analyses for questionnaire items 1-15

| *To enhance reading comprehension with learners' reading schemata, teachers need to:* | | Group | N | M | SD | T | df | p value | |
|---|---|---|---|---|---|---|---|---|---|
| 10 | brainstorm the topic of the reading texts in classroom. | Male | 73 | 4.5616 | .49962 | 1.136 | 199 | .257 | p > 0.05 |
| | | Female | 128 | 4.4688 | .58777 | 1.188 | 170.35 | .237 | |
| 11 | discuss the topic of the reading texts in classroom. | Male | 73 | 4.3836 | .86007 | -1.672 | 199 | .096 | p > 0.05 |
| | | Female | 128 | 4.5547 | .58604 | -1.512 | 110.77 | .133 | |
| 12 | draw mind map of the ideas to highlight relationships of different aspects. | Male | 73 | 4.3562 | .75222 | 1.773 | 199 | .078 | p > 0.05 |
| | | Female | 128 | 4.1094 | 1.0441 | 1.935 | 188.28 | .055 | |
| 13 | highlight thesis statement, main idea, signal words, important phrases, titles and subtitles to the learners. | Male | 73 | 4.5616 | .49962 | .893 | 199 | .373 | p > 0.05 |
| | | Female | 128 | 4.4922 | .54695 | .915 | 161.32 | .361 | |
| 14 | write some relevant sentences related to the reading text. | Male | 73 | 4.1918 | .73895 | -.346 | 199 | .730 | p > 0.05 |
| | | Female | 128 | 4.2266 | .65466 | -.334 | 135.49 | .739 | |
| 15 | use visual material. | Male | 73 | 4.4795 | .50303 | 3.242 | 199 | .001 | p < 0.05 |
| | | Female | 128 | 4.1797 | .69229 | 3.530 | 187.51 | .001 | |
| 16 | use relevant materials to connect learners' acquired knowledge with reading text. | Male | 73 | 4.3973 | .75901 | 1.057 | 199 | .292 | p > 0.05 |
| | | Female | 128 | 4.2734 | .82017 | 1.080 | 159.67 | .282 | |
| 17 | Ask questions related to the reading text to initiate a motive for reading. | Male | 73 | 4.6712 | .60219 | 6.168 | 199 | .000 | p < 0.05 |
| | | Female | 128 | 3.9688 | .85975 | 6.778 | 190.64 | .000 | |
| 18 | Highlight important words from the reading text to activate learners' schemata related to reading topic. | Male | 73 | 4.3151 | .74306 | -.139 | 199 | .890 | p > 0.05 |
| | | Female | 128 | 4.3281 | .57657 | -.130 | 121.79 | .897 | |
| 19 | Connect leaners' past experiences and culture to reading text. | Male | 73 | 4.5479 | .74612 | .460 | 199 | .646 | p > 0.05 |
| | | Female | 128 | 4.4922 | .86939 | .479 | 169.16 | .632 | |

Table 3 contains descriptive and comparative analyses of the ten questionnaire items which are meant to elicit the participants responses towards teaching techniques used by EFL teachers to enhance reading comprehension through reading schemata. An interesting finding is that the respondents assign extremely high preferences to almost all items of this important component of this survey. Furthermore, the male participants have assigned higher preferences to seven items as compared to their female counterparts. Three items receive higher preferences from the female participants. It is reported that teachers need to 'highlight thesis statement, main idea, signal words, important phrases, titles and subtitles to the learners' to enhance their reading comprehension. This indicates that these reading text components act as memory hooks to link the target reading text

with their schemata and increase possibilities of better understating of the reading text. It is also important to mention that both male and female cohorts assign the highest mean value to this questionnaire item. The 2nd most preferred teaching technique is to 'connect leaners' past experiences and culture to reading text' to facilitate reading process and better comprehension of the target reading texts. This finding is also in line with the previous item which also highlight the significance of activating the learners' schemata in this respect. The female participants allocate same highest value to this item as well. The role of brainstorming the topic of the reading texts in classroom as a pre-reading activity receives the 3rd highest preference by both male and female cohort of this survey. All these most preferred items strongly suggest that EFL teachers need to exercise all these techniques in their reading skills classrooms to activate their learners' schemata and link the reading text in hand with their previously achieved knowledge to maximize reading comprehension. All items of this category receive extremely high mean values of more than 4 from the male cohort of this survey, whereas the female participants also allocate extremely high mean values of more than 4 to all items except one which is about 'asking questions related to the reading text to initiate a motive for reading' which receive mean of 3.97. An interesting finding is that their male counterparts of the study ranked it the highest with extremely high mean value of 4.67. This finding calls for some deliberation of this wide difference in perceived importance of this factor. It seems that the female participants of this study might have had some less productive classroom experiences or some other constraints.

As mentioned above that the participants favour all the items of this category and the ones with the least mean values also carry reasonably high values indicating their important role in enhancing reading comprehension among Saudi EFL learners. The least preferred item of this category remained is the technique of 'writing some relevant sentences related to the reading text' to activate the learners' reading schemata. The 2nd least preferred teaching technique as reported by comparatively lower mean values is to 'draw mind map of the ideas to highlight relationships of different aspects'. The participants of the survey also allot comparatively lower preference to the technique of 'highlighting important words from the reading text to activate learners' schemata related to reading topic' and it is ranked on 3rd position on the scale of the least preferred items. The comparative results of the independent-samples T-test almost accept the second hypothesis as there are only 2 items of this section out of the total 10 items which report statistically significant gender-based differences.

Table (4): Comparative analyses of items related to challenges in activating learners' schemata

| Challenges in activating learners' reading schemata | | Group | n | m | SD | T | Df | p value | |
|---|---|---|---|---|---|---|---|---|---|
| 20 | Teachers' unawareness about the significance of reading schemata | Male | 73 | 3.2740 | 1.1815 | -4.911 | 199 | .000 | p < 0.05 |
| | | Female | 128 | 4.0234 | .95129 | -4.631 | 125.36 | .000 | |
| 21 | Teachers' unawareness about the teaching implications of reading schemata | Male | 73 | 2.9589 | 1.1479 | -6.508 | 199 | .000 | p < 0.05 |
| | | Female | 128 | 3.9688 | 1.0034 | -6.273 | 133.99 | .000 | |
| 22 | Teachers' lack of training on enhancing reading schemata | Male | 73 | 3.1507 | 1.2210 | -5.092 | 199 | .000 | p < 0.05 |
| | | Female | 128 | 3.9375 | .94536 | -4.753 | 121.58 | .000 | |
| 23 | Unavailability of required audio visual aids in classroom | Male | 73 | 3.3288 | 1.3129 | -3.086 | 199 | .002 | p < 0.05 |
| | | Female | 128 | 3.8594 | 1.0848 | -2.929 | 127.98 | .004 | |
| 24 | Learners' low proficiency in the target language | Male | 73 | 3.8356 | 1.3643 | -1.302 | 199 | .194 | p > 0.05 |
| | | Female | 128 | 4.0703 | 1.1445 | -1.242 | 129.56 | .217 | |

The data generated through comparative analyses indicate that the participants report that the learners' low English language proficiency and unavailability of the required audio-visual aids are the major difficulties in activating schemata as indicated by the highest mean values allocated to these items respectively. The 3rd highest mean is allotted to item which states that unawareness of the faculty members about the significance of reading schemata is another major challenge in this regard. The least mean values are allotted to the items which are related to the faculty members' unawareness about the teaching implications of reading schemata and their lack of training on enhancing reading schemata. The participants of this survey allocate nearly similar mean values to items 21 and 22 because both these items attempt to investigate a closely related factor. Another important finding is that the female participants allocate higher mean values to all items of this category as compared to their male counterparts indicating that female faculty members feel rather higher challenges in activating learners' schemata. The results show another significant factor that inter-rater differences are quite high among the male and female cohort of this survey as standard deviation values are extremely high for nearly all items of this category. The comparative results of this section accept the third hypothesis set for this study as four items indicated extremely significant difference along gender lines.

**Discussion**

The questionnaire used in this empirical study has one open-ended question in each section along with Likert-scale closed-ended questionnaire items. Along with providing Likert-scale responses to the closed-ended questionnaire items, the participants were encouraged to record their

responses in terms of subjective answers to the open-ended question of this section. The data generated through these open-ended questions is presented in this section to provide rich insights to the quantitative data. The open-ended question set for the first section sought the participants' responses related to the significance of prior knowledge related to the target reading text. It is reported that prior knowledge enables the students 'interact successfully' and enhance their 'motivation to read and write'. Another participant writes that students can 'predict meaning of new vocabulary better' and 'will be able to make sense what is being read'. Another benefit is their enhanced ability 'to relate to other texts with the similar meaning' which improve their reading comprehension significantly. Another major benefit of content schemata is reported as assimilation of the target knowledge better. The respondents write that it helps the students to 'easily acquire new knowledge based on prior knowledge' and 'be able to write their own thoughts'. It is also suggested that 'prior knowledge obtained weather through the teacher or from outside the class can facilitate building upon knowledge easily'. It is also proclaimed that prior knowledge is significant, and it helps the students to 'be creative and able probe into the things more easily'.

Responding to the second category, one participant writes that it is important that the teachers should 'plan the lessons effectively and appropriately' well before time to maximize learning possibilities. It is also recorded that for better reading comprehension, it is recommended that EFL teachers should 'pre-teach complex vocabulary and lexical items' to acquaint their students with needed lexicon to comprehend the target reading text effectively and efficiently. Another response suggests that it is rather important to 'teach reading skills, e.g., gist, scanning' before the students should start reading the target reading texts. This will enhance their motivation and enable them to concentrate more on these reading-related teaching techniques which will ultimately help them become efficient readers. It is also mentioned that for better reading comprehension, it is also fruitful that the teachers 'should elicit from students' before and while reading exercises. The point is reinforced by another participant who writes that EFL teachers 'should use comprehension questions to link background knowledge'. It transpires that the participants want to highlight the significance of linking their learners' previous knowledge with that of the target reading texts through different schemata activation activities to increase their reading comprehension. One response suggests that 'use of models and realia also increase text comprehension'. While talking about while reading classroom activities, it is recommended that

the teachers should *'ask students to read aloud, as it helps with more comprehension'*. In the same line, one response is to *'ask students to read last paragraph / summary as it provides better understanding of the reading text'*. In conclusion, it is strongly suggested by the male and female participants of this survey through their responses towards closed-ended and open-ended questions that the role of schemata is extremely important in increasing reading comprehension among Saudi EFL learners.

The open-ended question of the third category generates lots of insightful comments related to the difficulties and challenges faced by EFL teachers in activating Saudi EFL learners. One respondent mentions that *'poor general knowledge and lack of breadth in vocabulary'* of the students is a major challenge in activating schemata. It is also highlighted that Saudi EFL learners generally do not have enough general knowledge and there is *'mismatches between the level of students' knowledge and content of the book'* that creates problems in activation of schemata during reading skills classes. Three other major factors have been identified in this respect which include *'demotivated learners', 'lack of motivation', number of students in classes / large groups'*, and *'difference of levels among the students'*. There are some other factors which have been reported in this regard as well such as *'curriculum requirements', 'mismatch between the textbooks not the students' needs'* and *'the amount of time each activity may consume'*. These factors highlight that the teachers must complete the syllabus within the specified time, and it is difficult to indulge in other pedagogical techniques including schemata activating activities during their classes.

The results generally report that schemata play an important role in enhancing reading comprehension which is in line with growing mass of research which strongly suggests the same in various contexts (Nassaji, 2002; Dayze, 2004; Al-Issa, 2006; Macizo & Bajo, 2007; Al-Jahwari & Humaidi, 2015; Al-Asmari & Javid, 2018). Several studies report that activation of reading schemata through measures like asking comprehension enable EFL learners comprehend reading texts better (of Che (2014), Mohammed (2018), Lailiyah, Wediyantoro and Yustisia (2019) and Cho and Ma (2020). The study conducted by Al-Khairi and Javid (2011) has also indicated that enhanced schemata developed through extensive reading enabled EFL learners to read with better speed and understanding. This finding is in line with Khalifa (2023) who reported that Arab EFL learners "showed significant improvement in all inferential reading skills: Inferring meaning of unknown words, inferring reference of pronouns, identifying cause and effect relationship,

comparing and contrasting ideas, and predicting outcomes" (p. 16). The results also reveal that schemata helps in comprehending reading text better, recalling the relevant information easily and reading the target text quickly as these items are assigned the highest mean values. The study of Alhaisoni (2017) also confirm these findings who investigated EFL teachers of a Saudi university. Another important factor which is highlighted by the results of this empirical survey is that based on the previous knowledge, EFL learners make calculated predictions which help them increase their reading comprehension as "prediction brings potential meaning to texts, reducing ambiguity and eliminating in advance irrelevant alternatives" (Smith 1994, p. 18). The results offer deep insights into the fact that Saudi EFL teachers report that most effective techniques of activating reading schemata of Saudi EFL learners is to highlight thesis statement, main idea, signal words, important phrases, titles and subtitles to the learners, connect leaners' past experiences and culture to reading text and brainstorm the topic of the reading texts in classroom. Similar findings are reported by Al-asmari and Javid (2018) who investigated university faculty about the effective techniques to activate schemata of EFL learners. Likewise, Khanam, Zahid and Mondol (2014) state that for effective reading comprehension, the learners needs to "make connections to their reading by keying into associations, feelings, attitudes, and ideas providing the deepest interaction between reader and text" (p. 85). Javid and Khairi (2011) also report that reading comprehension increases if students are exposed to the reading material which connects their past experiences or belongs to their culture. The results also closely resemble with the findings of Alhaisoni (2017). Similarity in results of several studies strongly indicate that EFL faculty believe that techniques of brainstorming and class discussions are extremely effective in activating schemata among Saudi EFL learners and helps in increasing reading comprehension. The results reveal that Saudi EFL learners' low English language proficiency is a major challenge in implementing content schemata and a growing mass of research conducted in the KSA reports the same findings. Al-Seghayer, 2011) reports that even English-major university graduates are "…neither competent in English nor in the affair of teaching it" (p. 23). The finding is in line with AlZahrani (2008) and Rababah (2003) who examined relevant research conducted at various Arab universities. Research also reveals that Saudi EFL learners scored extremely low scores in different international English language proficiency tests indicating their low proficiency (Educational Testing Services, 2003 to 2009). Javid, Farooq and Gulzar (2012) report similar lacking among Saudi English-major university undergraduates. Low proficiency of Saudi EFL learners in reading skills is reported by

Al-Qahtani (2016) who interviewed English language teachers from Saudi universities in this regard and found Saudi EFL learners 'unmotivated', 'struggling' and 'in constant need of help' in reading skills classes. The findings of Al-Najaidi (2003) also support this study that Saudi learners are unable to exploit suitable reading strategies and suffer from low English language proficiency and reading comprehension. English language teachers' unawareness of the significance of teaching schemata and lack of training in exploiting it another major finding of this research supported by the studies of Javid (2010 & 2016) conducted in the same academic context and reveal that English language teachers in Saudi Arabia lack the required professional skills and training to execute schemata activating activities effectively.

### Findings and Conclusions

The results of this empirical investigation reveal that both male and female cohort believe that content schemata play an extremely important role in increasing readers' reading skills. The participants of this study assign extremely high mean values to all nine (n = 9) items of the first section of the questionnaire which is related to the role of reading schemata in enhancing readers' performance through different reading strategies. The most preferred items reveal that the readers who have sufficient reading schemata related to the target topic have higher understanding of the reading text, can easily and conveniently recall the relevant information, and read the target text with higher speed respectively. Furthermore, it is also evident from the comparative descriptive analyses of the first section of the questionnaire that the male cohort of the study assign comparatively higher mean values to most of the items indicating their perceived significance of content schemata in enhancing reading skills through various reading strategies. The second section of the questionnaire is related to the perceived role of the effective strategies in enhancing content schemata among Saudi EFL learners. Following the trend in the previous section of the results, both male and female participants assign extremely high mean values to all the questionnaire items of this section indicating their preference about the role of various schemata developing strategies in enhancing reading schemata among their students. Results also reveal a mixed trend of assigning preferences for the items of this section because results do not show clear higher preference as indicated by higher mean values by any group of the participants. The comparative descriptive results indicate that the participants believe that highlighting thesis statement, main idea, signal words, important phrases, titles and subtitles to the learners are the most important schemata developing techniques followed by brainstorming the topic of the reading

texts in classrooms, connecting the leaners' past experiences and culture to the reading text and ask questions related to the reading text to initiate a motive for reading respectively. The last section of the questionnaire is meant to elicit the participants' responses towards the challenges in activating learners' reading schemata and the results reveal that quite low mean values are assigned to nearly all items of this section. This shows a very positive indicator that the participants of this empirical study state that Saudi EFL learners are reasonably efficient in reading skills and they exploit content schemata to facilitate their reading performance. The results indicate that the learners' low proficiency in the target language, the teachers' unawareness about the significance of reading schemata and the unavailability of required audio-visual aids in classroom respectively as the most important challenges in activating Saudi EFL learners' reading schemata in the context of the study.

Independent-samples T-test is run to test 3 hypotheses set for this investigation. The comparative results partially accept the first hypothesis as there are only 3 items out of the total 9 of this section which report statistically significant gender-based differences. The comparative results of the independent-samples T-test almost accept the second hypothesis as there are only 2 items of this section out of the total 10 items which report statistically significant gender-based differences. The comparative results of this section accept the third hypothesis set for this study as 4 items indicate extremely significant difference in the responses of male and female participants.

# References

Abraham, P. (2002). Skilled Reading: Top-down, bottom-up. *Field Notes*, *10*(2). SABES/World Education, Boston, MA.

Alhaisoni, E. (2017). Prior Knowledge in EFL Reading Comprehension: Native and Nonnative EFL Teachers' Perceptions, Classroom Strategies and Difficulties Encountered. *International Journal on Studies in English Language and Literature, 5*(1), 30-41.

Agwu, S.N. (2011). Effect of accuracy level and text type on secondary school students' use of syntactic and semantic cues in reading comprehension. *EBSU Journal of Society*. Ebonyi State University: Abakaliki.

Al-Asmari, A. & Javid, C.Z. (2018). Role of Content Schema in Reading Comprehension Among Saudi EFL Students: EFL Teachers' Perspective and Use of Appropriate Classroom Strategies. *International Journal of English Linguistics*, *8*(4), 96-105 https://doi.org/10.5539/ijel.v8n4p96

Al-Issa, A. (2006). Schema theory and reading comprehension: implications for teaching. *Journal of College Teaching & Learning*, *3*(7), 41-47.

Al-Jahwari, Y. & Al-Humaidi, S. (2015). Prior Knowledge in EFL Reading Comprehension: Omani Teachers' Perspective & Classroom Strategies. *International Journal of Applied Linguistics & English Literature, 4*(1), 169-181.

Al-Khataybeh, M. & Al-Masri, A.A. (2008). The readability level of English textbooks of the tenth grade and its relationship to students' gender and area of residence. *European Journal of Social Sciences*, *6*(3), 368-374.

Al-Malki, Javid, C. Z., Farooq, M. U., Algethami, G. F., & Al-Harthi, A. A. (2022). Analysis of the English Language Needs of the Saudi Tourism Workforce: A First Step into Designing ESP Teaching Materials. *International Journal of Learning, Teaching and Educational Research. 21*(20), 72-88. *https://doi.org/10.26803/ijlter.21.2.5*

Al-Nujaidi, A. (2003). *The relationship between vocabulary size, reading strategies, and reading comprehension of EFL learners in Saudi Arabia*. Unpublished doctoral dissertation, Oklahoma State University, Oklahoma.

Al-Qahtani, A. (2016). Why Do Saudi EFL Readers Exhibit Poor Reading Abilities? *English Language and Literature Studies*, *6*(1), 1-15.

Al Salmi, M. (2011). Schemata (background knowledge) and reading comprehension for EFL students. *Research Journal Specific Education*, Faculty of Specific Education, Mansoura University, *22*, 695-708.

Al-Seghayer, K. (2011). *English Teaching in Saudi Arabia: Status, Issues, and Challenges*. Hala Print Co. Riyadh, Saudi Arabia.

Alshammari, F. (2017). Developing Saudi EFL student's reading skills through schema-based techniques. *Culture & Development, 112*, 1-38.

Alyousef, H.S. (2006). Teaching reading comprehension to ESL/EFL learners. *The Reading Matrix, 5*(2), 143-154. http://www.readingmatrix.com/articles/alyousef/article.pdf

Al-Zahrani, M. (2008). Saudi secondary school made students' attitudes toward English: an exploratory study. *Journal of King Saud University (Language and Translation), 20*, 25-39.

Bush, T. (2007). Authenticity in Research: Reliability, Validity and Triangulation. In R. J. Ann, Briggs, M. Coleman, M. Morrison (Eds.), *Research Methods in Educational Leadership & Management* (pp. 75-89). Sage: Washington DC.

Che, Y. (2014). A study on the application of schema theory to English newspaper reading. *Theory and Practice in Language Studies, 4*(2), 441-445.

Cho, Y.A. & Ma, J.H. (2020). The effects of schema activation and reading strategy use on L2 reading comprehension. *English Teaching, 75*(3), 49-68. DOI: https://doi.org/10.15858/engtea.75.3.202009.49 Available online http://journal.kate.or.kr

Davoudi, M. & Yousefi, D. (2015). Comprehension breakdown: A review of research on EFL learners' reading difficulty and problems. *International Journal of Language and Applied Linguistics*, *1*, 58-72.

Dayze, F. (2004). *The role of prior background knowledge in the reading comprehension of EFL Brazilian college students and American college students*. Unpublished PhD dissertation, The Pennsylvania State University.

Educational Testing Services. (2009). Test and score data summary for TOEFL internet based and paper-based tests. Available online http://www.ets.org.

Fitriani, S.S. (2014). An investigation into reading comprehension strategies in academic texts in Aceh Province of Indonesia. *The Third International Conference on Language Education 2013 (ICOLE 3)*, 95-126.

Gilakjani, A.P. & Ahmadi, S.M. (2011). The relationship between L2 reading comprehension and schema theory: A matter of text familiarity. *International Journal of Information and Education Technology, 1*(2), 142-149.

Goodman, K.S. (1967) Reading: A psycholinguistic guessing game. *Journal of the Reading Specialis*t, *6*, 126-135.

Grabe, W. (2006). Areas of research that influence L2 reading. In E. Usóo-Juan & A. Martíinez-Flor (Eds.), *Current trends in the development and teaching of the four skills* (pp. 279-302). Berlin: Mouton de Gruyter

Huang, Q. (2019). Background knowledge and reading teaching. *Asian Social Science, 5*(5), 138-142.

Khalifa, R.M. (2023). Enhancing EFL Secondary School Students' Reading Comprehension Through Schema-building Activities. *College of Arts Journal, Tanta University, 89*(3), 123-146. Doi 10.21608/MKMGT.2022.152498.1298

Khanam, S., Zahid, S.H., & Mondol, S. (2014). The Role of Schema for Effective EFL Reading Comprehension. *ASA University Review, 8*(1), 83-93.

Lailiyah, M., Wediyantoro, P.L., & Yustisia, K.K. (2019). Pre-reading strategies on reading comprehension of EFL students. *EnJourMe (English Journal of Merdeka): Culture, Language, and Teaching of English*, *4*(2), 82-87.

Macizo, P., & Bajo, M.T. (2007). Comprehension processes in translation. In Alamargot, D., Terrier, P. & Cellier, J. (Eds.). *Improving the production and understanding of written documents in the workplace*, (pp. 193-204). Elseviere.

Javid, C. Z. (2018). A gender-based investigation of the perception of English language teachers at Saudi universities regarding the factors influencing learner autonomy. *Arab World English Journal, 9*(4), 310-323.  DOI: https://dx.doi.org/10.24093/awej/vol9no4.23

Javid, C. Z., & Khairi, M. H. (2011*).* The role of pleasure reading in enhancing reading speed and reading comprehension. *Arab World English Journal*, 2*(4)*, 219-256. Available online http://www.awej.org/awejfiles/_77_6_8.pdf

Javid, C. Z., Farooq, U., & Gulzar, M.A. (2012). Saudi English-major undergraduates and English Teachers' perceptions regarding effective ELT in the KSA: A Comparative Study. *European Journal of Scientific Research*, *85*(1), 55-70.

Malcolm, D. (2009). Reading strategy awareness of Arabic-speaking medical students studying in English. *System, 37*(4), 640-651.

Mohammed, W. (2018). The impact of schema activation strategy through Quranic stories on improving EFL secondary stage Al-Azhar students' reading comprehension skills. *Megalat Quliat Attarbiah. Journal of Faculty of Education.* Mansoura University, *102*(3), 39-52.

Nassaji, H. (2002). Schema theory and knowledge-based processes in second language reading comprehension: a need for alternative perspectives. *Language Learning*, *52*, 439-481.

Pei, L. (2014). Does metacognitive strategy instruction indeed improve Chinese EFL learners' reading comprehension performance and metacognitive awareness? *Journal of Language Teaching and Research, 5*(5), 1147-1152.

Qanwal, S., & Karim, S. (2014). Identifying correlation between reading strategies instruction and L2 text comprehension. *Journal of Language Teaching and Research, 5*(5), 1019-1032.

Rababah, G. (2003). Communication Problems Facing Arab Learners of English: A Personal Perspective. *TEFL Web Journal*, *2*(1). Available online http://faculty.ksu.edu.sa/mdajani/Pages/ArabLearners.aspx

Samad, I. A., Jannah, M., & Fitriani, S. S. (2017). EFL students' strategies dealing with common difficulties in TOEFL reading comprehension section. *International Journal of Language Education, 1*(1), 29-36. Available online https://doi.org/10.26858/ijole.v1i1.2869

Smith, F. (1994). *Understanding Reading.* 5th ed. Hillsdale, NJ: Lawrence Erlbaum.

Smith, F. (1975). *Comprehension and learning. A conceptual framework for teachers*. Holt, Rinehart and Winston.

Xiao-hui, L., Jun, W., & Wei-hua, W. (2007). Analysis of schema theory and its influence on reading. *US-China Foreign Language*, *5*(11), 18-21. https://api.semanticscholar.org/CorpusID:17752577

Zhao, X. & Zhu, L. (2012). Schema theory and college English reading teaching. *English Language Teaching, 5*(11).

Appendix#1
# Reliability

## Case Processing Summary

|       |                        | N  | %     |
|-------|------------------------|----|-------|
| Cases | Valid                  | 20 | 100.0 |
|       | Excluded<sup>a</sup>   | 0  | .0    |
|       | Total                  | 20 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

## Reliability Statistics

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .851             | 24         |

## Item-Total Statistics

|          | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|----------|---------|---------|-------|------|
| VAR00001 | 95.4375 | 94.129  | .367  | .847 |
| VAR00002 | 95.6875 | 93.696  | .486  | .845 |
| VAR00003 | 95.8750 | 89.583  | .675  | .838 |
| VAR00004 | 95.9375 | 93.529  | .471  | .845 |
| VAR00005 | 95.9375 | 91.129  | .495  | .843 |
| VAR00006 | 96.3125 | 87.563  | .517  | .841 |
| VAR00007 | 95.9375 | 92.329  | .589  | .842 |
| VAR00008 | 96.0625 | 88.329  | .467  | .843 |
| VAR00009 | 95.9375 | 89.263  | .560  | .840 |
| VAR00010 | 95.6875 | 97.563  | .066  | .854 |
| VAR00011 | 95.6250 | 92.783  | .460  | .845 |
| VAR00012 | 96.1250 | 88.517  | .440  | .844 |
| VAR00013 | 95.8125 | 98.296  | .010  | .855 |
| VAR00014 | 95.9375 | 94.729  | .284  | .849 |
| VAR00015 | 96.0625 | 92.196  | .404  | .845 |
| VAR00016 | 95.8125 | 93.229  | .447  | .845 |
| VAR00017 | 96.3750 | 95.450  | .155  | .854 |
| VAR00018 | 95.9375 | 102.863 | -.339 | .864 |
| VAR00019 | 95.8750 | 89.983  | .330  | .850 |
| VAR00020 | 96.0000 | 84.533  | .653  | .835 |
| VAR00021 | 96.1875 | 79.363  | .773  | .827 |
| VAR00022 | 96.1875 | 83.896  | .662  | .834 |
| VAR00023 | 96.1250 | 92.117  | .342  | .848 |
| VAR00024 | 96.0000 | 86.400  | .417  | .847 |

**Appendix 2**

## The Questionnaire

Dear EFL practitioner,

The researcher intends to investigate the "Comparative analyses of perceived role of Content Schema and use of appropriate classroom techniques in Improving Reading Comprehension among Saudi EFL Students along Gender Lines". You are requested to complete this survey with appropriate responses.

Thanks a lot

Dr. Eidhah Al-Malki


Name: …………………………….……….. Qualification : …………………………………..

Nationality: ………………………………….          Experience: …………. Years

| No | Questionnaire Statement | Strongly agree | Agree | Neutral | Strongly Disagree | Disagree |
|----|------------------------|----------------|-------|---------|-------------------|----------|
| *Students with sufficient prior knowledge about text topic can:* | | | | | | |
| 2 | understand text better. | | | | | |
| 3 | recall information easily. | | | | | |
| 4 | read text quickly. | | | | | |
| 5 | link the ideas in the text easily. | | | | | |
| 6 | focus on main ideas. | | | | | |
| 7 | overcome limited linguistic knowledge. | | | | | |
| 8 | relate text to their own prior knowledge. | | | | | |
| 9 | predict text content easily. | | | | | |
| 10 | confirm predictions based on prior knowledge. | | | | | |
| Other: *Please specify* | | | | | | |
| • | | | | | | |
| • | | | | | | |
| *To increase text comprehension with the use of students' prior knowledge, teachers should:* | Strongly agree | Agree | Neutral | Strongly Disagree | Disagree | |

| 11 | brainstorm the text topic. | | | | | |
|---|---|---|---|---|---|---|
| 12 | have class discussion about text topic. | | | | | |
| 13 | organize the ideas on the board under headings to create relationships. | | | | | |
| 14 | call students' attention to specific signal words, main idea, sentences, highlighted phrases, headings and subtitles. | | | | | |
| 15 | list some statements on the board that are related to the reading topic to guide students' reading. | | | | | |
| 16 | use visual-based questions. | | | | | |
| 17 | use supporting materials to display prior knowledge. | | | | | |
| 18 | develop inquiries about the text to create a purpose of reading. | | | | | |
| 19 | select key words from the text that require the students to infer text topic. | | | | | |
| 20 | link the topic to students' culture and previous experience. | | | | | |

Other: *Please specify*
- 
- 
- 

| *Factors/Difficulties that prevent you from activating students' prior knowledge.* | Strongly agree | Agree | Neutral | Strongly Disagree | Disagree |
|---|---|---|---|---|---|
| 21 | Lack of knowledge about the **role** of prior knowledge | | | | | |
| 22 | Lack of knowledge about its instructional **implications** | | | | | |
| 23 | Lack of **training** on a variety of techniques | | | | | |
| | *Other difficulties: Please specify* <br> • <br> • <br> • | | | | | |

## Thanks a lot