Utilizing Metacognitive Strategies with Culturally Familiar Text in Improving Reading Comprehension of EFL Pre-service Teachers

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Abstract. Since English has become increasingly global, more researchers in English teaching have seen the importance of combining teaching methods with cultural materials that are familiar and connected to the learners. In teaching reading comprehension, researchers in Iran, the Middle East, and some parts of Asia have been using Metacognitive Strategies with culturally familiar text to develop learners’ reading skills and comprehension. However, not many were conducted in Indonesia. Building on a preliminary study into the effectiveness of teaching Metacognitive Strategies with culturally familiar text in West Kalimantan, Indonesia, a mixed methods study was conducted to examine the impact of Metacognitive strategy and culturally familiar text on university pre-service teachers’ reading comprehension and interest in the text. Seventy-four lower-intermediate pre-service teachers were involved in the study as participants, where they read fifteen nativized or denativized texts that contained culturally familiar or unfamiliar proper nouns. Pre- and post-tests were used to examine the effectiveness of the experiment. The results revealed that students who had a combination of Metacognitive Strategies and culturally familiar text on their reading comprehension outperformed those with no Metacognitive Strategies and unfamiliar cultural text. Finally, it is reported that the students have good interest and engagement with the text that contains familiar culture.

Keywords: Metacognitive Strategies · culturally familiar text · reading comprehension · nativized and denativized text · student interest

1 Introduction

Mastering English skills might be complex for English language learners in Asia or many other parts of the globe where English is considered a foreign language. Concerning reading comprehension, for instance, the issues may stem from a lack of cultural and background knowledge, unfamiliar language or grammar of the text, and a minimum reading strategies awareness [33, 48]. These different aspects are examples of students’ difficulties while reading and comprehending their reading. Because of these constraints,
educators, researchers, and instructors attempted to perform studies searching for innovative pedagogical approaches and instructional media that might support students in overcoming difficulties and improving their reading comprehension.

In general, the information sent from the writer to the reader determines whether or not the reader can comprehend what they are reading. This information is the core of the text. Some scholars [14, 18, 35, 58, 59, 63] suggest that the readers’ understanding of the text relates to their prior knowledge of the subject matter discussed. In other words, the readers comprehend the text when they are acquainted with the subject matter of the text. This claim connects to some research on Schema.

Several prominent academics explained the meaning of Schemata. Schemata are the construct of higher-level knowledge that links new experience and knowledge with the past memorization of awareness, speech, and experience [45]. Based on the schema theory, the reader’s prior experience is the essential factor in determining whether the reader can extract or generate meaning from the content of any text she or he reads [11]. In addition, [5] argues that the study of schemata may reveal profound insights into whether or not a reader is successful in grasping the material they are reading.

There are two categories of Schema: formal and content Schema. [14] states, “a formal schema is knowledge about the formal, rhetorical organizing patterns of various texts.” “A content schema, on the other hand, is the background information a reader brings to a text” (p. 461). The details of the text, the readers’ cultural familiarity, and their past knowledge provide the foundation for a content schema. According to [14], each aspect contributes to a reader’s understanding of the text’s information.

Some scholars claim that content schema correlates with cultural Schema in reading comprehension [5, 6, 60]. Thus, students’ levels of understanding and comprehension will considerably improve if they are already acquainted with the cultural background of the text [24, 66]. In addition, [24] believes that a reader with a solid grasp of the culture associated with a piece of work would have an easier time comprehending the text. The result of this is an improvement in reading speed and comprehension simultaneously.

It is hypothesized that the content schema changes along with the cognitive development of the reader, such as when the reader picks up new skills during his or her life and continues to educate themselves [3, 37, 49]. The Schema of the readers is connected to the cultural and social background information they have, according to the constructivism theory developed by [64]. The readers’ cultural and social awareness grew due to their exposure to diverse texts, which improved their comprehension of the texts they read. The experience, on the other hand, is distinct for each reader, which results in various levels of understanding despite reading the same paragraph.

In some studies, using various teaching-learning strategies and teaching media in reading comprehension classes proved effective in activating students’ background knowledge. These researchers’ experiments showed positive results [1, 2, 4, 12, 17, 25, 28, 32, 40, 41, 53, 61, 62, 67, 68].

Some additional studies have focused explicitly on the notion of Cultural Schema in which prior knowledge is activated by utilizing familiar cultural elements. Some other studies contend that culturally relevant reading material helps improve reading comprehension [7, 8, 10, 18, 21, 22, 29, 34, 38, 43, 50, 51, 55–59, 63]. The learners’ ability to understand the context and culture of the text is another factor that, according to
these academics, increases students’ ability to comprehend and interact with the material. This skill may also assist them in finding solutions to challenges they are having with the grammatical structure or vocabulary of the text.

Most studies reviewed up to this point have concluded that improving readers’ reading comprehension can be attributed to either the activation of the content schema (background knowledge) or the utilization of cultural schema materials. Other researchers were looking into the possibility of combining the two schemata, such as [22, 29, 38, 55], who deliberately linked Content schema (using pre-reading activities or reading strategies) along with cultural Schema (using culturally familiar text). Their research revealed that reading activities and culturally familiar text affect learners’ ability to comprehend what is read. Specifically, the study claims that reading skills supported by culturally relevant content are helpful for students who are just starting or are at a lower level.

Even though many researchers have conducted studies emphasizing the influence of content schemata and cultural Schema on reading comprehension, investigating the influence of both these schemata on reading comprehension still needs to be researched and investigated. In addition, exploring the level of interest in culturally familiar text is also worth researching as it will provide the insightful result on the function of cultural schemata on comprehension achievement. This present study aims to enhance our understanding of the matter by answering research questions as follows:

1. Are Metacognitive Strategies and culturally familiar text effective in improving the students’ reading comprehension?
2. Do the students show a higher interest in reading texts that are culturally familiar or unfamiliar to them?

2 Method

2.1 Participant

The study participants were seventy-four lower-intermediate EFL students who enrolled in the English Education Study Program at West Kalimantan state university. The participants were all first-year students.

2.2 Material

2.2.1 Metacognitive Strategy

The Metacognitive Strategies employed in the study have three stages. Firstly, the planning stage, where the students were asked to see some pictures and to think about what they were about. Then, with the guidance of their teacher, the students discussed their ideas about the pictures and linked the ideas with the topic of the text. In this stage, the students also discussed the planning strategy questions of Metacognitive Strategies in pairs. Then, the students were asked to read their text. The teacher also guided the students to see and understand some difficult words and explanations underneath the text. Secondly, the students started to monitor their learning. In this phase, the teacher guided the students to discuss their understanding of the text in pairs. The student’s thoughts
Table 1. Examples of Textual Cues

<table>
<thead>
<tr>
<th>Original text</th>
<th>Nativized text</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.A.</td>
<td>Indonesia</td>
</tr>
<tr>
<td>Florida</td>
<td>Jakarta</td>
</tr>
<tr>
<td>At Stoneman Douglas High School</td>
<td>At Penjaringan, North Jakarta</td>
</tr>
<tr>
<td>In the U.S. capital, Washington DC</td>
<td>In the Indonesian capital, Jakarta</td>
</tr>
<tr>
<td>U.S. Senator Elizabeth Warren</td>
<td>The President spoke person Johan Budi</td>
</tr>
<tr>
<td>President Donald Trump</td>
<td>President Jokowi</td>
</tr>
</tbody>
</table>

Table 2. Examples of Contextual Cues

<table>
<thead>
<tr>
<th>Original Text</th>
<th>Nativized Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>the White House</td>
<td>Monas</td>
</tr>
<tr>
<td>the building</td>
<td>the National Monument</td>
</tr>
<tr>
<td>the Capitol building</td>
<td>The National Monument</td>
</tr>
</tbody>
</table>

about the details of the text related to their purpose were also discussed in this stage. Finally, the teacher guided the students to complete their understanding of the text by assessing and concluding. In this final stage, the teacher guides the students to discuss the metacognitive strategy questions in pairs.

2.2.2 Culturally Familiar Text

The study followed Alptekin’s procedure of rewriting a culturally unfamiliar text into familiar text with Nativization [10]. First, the study compiled authentic texts from online newspaper articles (https://breakingnewsenglish.com) and identified the proper nouns, such as people’s names, professions, places, or any foreign things from British, American, or International culture, in the texts. These words were the textual cues replaced with proper nouns that reflected Indonesian culture (see Table 1 for examples).

The next step was changing the contextual cues containing cultural elements based on the sociological, semantic, and pragmatic dimensions [10], such as the description of religious activities, money, time, space, food, and drink (see Table 2 for the example).

2.2.3 TOEFL Test

The TOEFL test is reliable and valid for measuring EFL students’ reading mastery [18]. The study administered only the reading section of the test, which consisted of 50 questions.
### Table 3. The Study Planning Summary

<table>
<thead>
<tr>
<th>Groups</th>
<th>Weeks</th>
<th>Sessions</th>
</tr>
</thead>
</table>
| G-1    | 1     | • MS modelling  
|        |       | • CFT introduction  
| 2–16   |       | • Teaching Sessions with MS and CFT  
|        |       | • Interest Questionnaire  
| 17     |       | • TOEFL test  
| G-2    | 1     | • Regular teaching introduction  
| 2–16   |       | • Teaching Sessions with regular strategy & CUT  
|        |       | • Interest Questionnaire  
| 17     |       | • TOEFL test  

Note:
MS = Metacognitive Strategies; CFT = Culturally Familiar Text; CUT = Culturally Unfamiliar Text.

#### 2.2.4 Interest Questionnaire

The researcher designed a questionnaire to measure the students’ interest in culturally familiar texts. The questionnaire had one question with five responses: (1) I am not very interested in the text; (2) I am not interested in the text; (3) I am 50% interested/not interested in the text; (4) I am interested in the text; and (5) I am very interested in the text.

#### 2.3 Procedure

The study used a quasi-experimental design. The participants were divided into two groups. Group 1 was treated with Metacognitive Strategies and culturally familiar text. Group 2 was taught with general teaching strategy and culturally unfamiliar text. Table 3 concludes the whole study procedure.

### 3 Results and Discussions

#### 3.1 Research Question 1

#### 3.1.1 Result

This research question measures the effectiveness of combining Metacognitive strategies and culturally familiar text in improving the students’ reading comprehension. To answer this research question, the researcher tested the study hypothesis: students taught with Metacognitive strategies and culturally familiar text get higher reading comprehension scores than those taught with general reading strategies and culturally unfamiliar text.

The study used ANOVA to analyze the differences among the groups. There were two independent variables in two levels, Metacognitive strategies/general teaching strategies...
and culturally familiar or unfamiliar text. There was only one dependent variable: the reading comprehension score.

Before proceeding with ANOVA, the homogeneity of variances was measured using Levene’s test of Equality Error Variances (Levene, 1961). The variances were found to be homogeneous, as shown in Table 4.

After assessing the homogeneity, ANOVA was performed in SPSS to compare the effects of the first with the second group on the students’ reading comprehension achievement. From the analysis, it was revealed that there were effects of both groups on the students’ reading comprehension. The result shows that students treated with Metacognitive strategies and culturally familiar text outperformed those treated with general strategies and culturally unfamiliar text. Their average Mean in reading comprehension was 3.39 compared to the group with general Strategy and culturally unfamiliar text with only 1.42. Table 5 provides a summary of the descriptive statistics.

The data analysis of research question 1 suggests that combining metacognitive Strategy and culturally familiar text improves the students’ reading comprehension achievement. As shown in Table 5, the combination of Metacognitive strategies and culturally familiar text were significant with p-values < 0.05. The main effect yielded an F ratio of 3.389. As a result, the hypothesis was accepted.

3.1.2 Discussion

The study result showed interesting findings concerning the effectiveness of Metacognitive strategies and culturally familiar text in improving the students’ reading comprehension achievement. The study revealed that novice pre-service teachers who participated improved their reading comprehension after being taught the combination of Metacognitive strategies and culturally familiar text.

The study specifically found that the students under the study benefitted the most from the combination of Metacognitive strategies and culturally familiar text with the increase in scores higher than their pre-test. Both strategies and text combinations activate the students’ background knowledge and improve their comprehension of the reading text. This
finding agrees with [38], who suggest that activating the students’ background knowledge and facilitating them with culturally familiar text support their comprehension of the reading text.

The finding also confirms several scholars’ findings that Metacognitive strategies advance reading comprehension [19, 20, 30, 34, 39, 41, 46, 47, 52, 62, 68]. In addition, the finding affirms [15] that Metacognitive strategies enable learners to understand their reading better. The strategies, as [15] further contends, have significant supportive functions such as: helping the learners to stay focused on the purposes of reading, supporting them to concentrate on important content of the text; enabling the learners to monitor ongoing activities; facilitating the learners in self-evaluation of the progress in reading; providing support on reflection results on the reading; and help the learners to make necessary improvements based on the reflection results.

This present study’s finding also agrees with [26, 31] who postulate that Metacognitive strategies help to enhance the learners’ comprehension of a text. Specifically, these scholars claim that Metacognitive strategies develop five awareness in the readers: firstly, on the comprehension of the text; secondly, on the reading task which the readers need to accomplish; thirdly, on the difficulties, they need to overcome from the text; fourthly, on the strategies, they need to utilize in solving complex tasks or constraints; and lastly, on the ability to think about their thinking. In conclusion, Metacognitive strategies support the readers in managing their understanding of the reading progress and evaluation; and allow them to self-analyze the achievement of their comprehension and the planned goals.

Next, the finding confirms several other research studies about the positive support of culturally familiar text in stimulating students’ background knowledge and leading to better reading comprehension achievement [7, 8, 21, 22, 29, 35, 38, 51, 55, 59, 63]. Moreover, scholars such as [59, 63] inferred that the information shared in the text, which is familiar to the reader and the writer, develops a better understanding and comprehension of the text is achieved. In addition, the finding agrees with [65] that culturally familiar text is essential for participants at lower proficiency levels to support them in comprehending reading text and vocabulary achievement.

The study also agrees with the findings of other studies by [22, 29, 55, 61], which conclude that the combination of schemata (both content and cultural schemata) supports reading comprehension achievement better. Additionally, this current research agrees with their conclusion that familiar cultural texts should accompany reading strategies to strengthen the activation of students’ background knowledge and eventually improve reading achievement. [13] mainly explains five goals that can be achieved by utilizing familiar cultural text the learners: developing communication skills; helping the understanding of the linguistic patterns of the text; improving the knowledge of cultural understanding; advancing the perception of reality; providing enjoyable learning processes; enhancing the knowledge/awareness about problems during reading, improving the interpretation of the text, and helping in comprehending the meaning of the text.

In summary, the combination of Metacognitive strategies and culturally familiar text utilized in the treatment of this present study has provided paired supports to the student’s reading comprehension, both activating the students’ background knowledge and assisting the learners’ development of reading strategies and awareness.
### Table 6. Summarized Levene’s Test Results

<table>
<thead>
<tr>
<th>Group</th>
<th>X̄</th>
<th>s</th>
<th>h</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exp.</td>
<td>67.61</td>
<td>2.441</td>
<td>36</td>
<td>0.021</td>
<td>0.886</td>
</tr>
<tr>
<td>Control</td>
<td>47.92</td>
<td>2.387</td>
<td>38</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 7. The Interest in Cultural Text

<table>
<thead>
<tr>
<th>Group</th>
<th>X̄</th>
<th>s</th>
<th>h</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exp.</td>
<td>67.61</td>
<td>2.441</td>
<td>36</td>
<td>35.081</td>
<td>0.000 (&lt;0.05)</td>
</tr>
<tr>
<td>Control</td>
<td>47.92</td>
<td>2.387</td>
<td>38</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 3.2 Research Question 2

#### 3.2.1 Result

In this research question, the researcher examines whether the students are more interested in reading culturally familiar or unfamiliar texts. ANOVA was used to analyze the data of the questionnaire from 15 meetings of the study. There are two independent variables, the cultural context of the article and familiar and unfamiliar cultural texts. The dependent variable is the interest scores of the students.

Before proceeding with ANOVA, the homogeneity of variances was assessed using Levene’s test of Equality Error Variance [42]. The variances were homogeneous, as shown in Table 6.

After assessing the homogeneity, ANOVA was performed in SPSS to compare the main effects of the independent variables: interest in culturally familiar text and interest in the culturally unfamiliar text. The finding revealed that both groups were interested in the texts, with a higher interest in the group reading culturally familiar texts. Their average Mean of interest was 67.61, while the group with culturally unfamiliar text was only 47.92. Table 7 further summarizes the descriptive statistics.

As shown in Table 7, the group’s interest in the culturally familiar text was significant, with p-values < 0.05. The main effect for culturally familiar text yielded an F ratio of F = 35.081. This result supported the hypothesis that the students were interested in texts with familiar cultural contexts.

Another interesting finding relates to the reading comprehension score of students interested in culturally familiar texts. From Table 8, it was clear that the group with culturally familiar text (CFT) had a high interest (average mean score of 67.61) and also a high reading comprehension score (3.39). In contrast, the group with culturally unfamiliar text (CUT) had a lower interest (47.92) and also a lower reading comprehension score (1.42). These findings suggested a correlation between the student’s interest in the text and reading comprehension—the more interest, the higher the reading achievement.
3.2.2 Discussion
The study’s results revealed a greater mean of interest from students with culturally familiar text in their reading practice. The finding agrees with several research findings, such as [57, 59]. From their studies, these scholars found that the students’ reasons for favoring the familiar culture text over the unfamiliar culture text were because they believed the content of the familiar culture text was easier to understand and familiar. With the findings, the hypothesis was accepted.

In contrast, this current study’s finding opposes the study of [54], who found that the students were more interested in foreign cultural texts. Furthermore, these scholars asserted that the local texts were unfavorable for the students because their topics were already familiar, making them less enjoyable to read. This present study’s finding also negates the result of a study [63]. Most participants in their study preferred the foreign culture text to the culturally familiar text because they believed the foreign text was accurate and helped them learn and familiarize themselves with a new culture. [51] also found that students in his study preferred foreign cultural texts over culturally familiar ones because they believed they were exciting and allowed them to learn new things. Furthermore, the participants claimed that the foreign culture texts broadened their knowledge of English-speaking cultures.

The findings also suggest a positive connection between the interest in culturally familiar text and reading comprehension. Scholars such as [57 and 59] support this finding by stating that the student’s interest in the familiar culture text activates their background knowledge and facilitates these students to comprehend the text better.

Next, the findings support the research of other scholars, which demonstrated that familiar cultural text improved reading comprehension [21, 23, 29, 38, 43, 51, 55, 57, 59, 63, 65]. Some scholars also contend that the student’s familiarity with the culture of the text might help reduce the problem in understanding the linguistic complexity, the syntactic elements, and the problematic vocabulary in the text. [8, 18, 56, 65]. The current study’s findings also agree with [44], who postulated that culturally familiar context linked the students’ world knowledge and resulted in greater comprehension, interest, and enjoyment. Then this current study also affirms [23] that teachers must apply culturally familiar text in reading comprehension classes as it supports and enhances the students’ reading performance. Finally, [23] contended that curriculum designers should create and select the reading text that matches the students’ cultural background to stipulate a scaffolding aid to accomplish higher reading results.

In contrast, the findings showed that the participants treated with culturally unfamiliar text had a significantly lower mean of interest than those treated with culturally familiar text (see Tables 7 and 8). This result indicates that some of the students in this study did not find the foreign text interesting. Some research studies support this conclusion. [9,
argued that when students were given reading text with an unfamiliar cultural context, they lacked background knowledge to understand the text, decreasing their interest in reading it. Next, their studies confirmed that unfamiliar cultural contexts, often in the form of proper nouns like names and locations, are challenging for the students to comprehend, and these often lead to disengagement of interest in the student to reading the reading further.

4 Conclusion

The study delivers findings about teaching Metacognitive strategies and culturally familiar text, focusing on two research questions. Firstly, the study measures the effectiveness of combining Metacognitive strategies and culturally familiar text in improving the students’ reading comprehension. The finding revealed that students treated with Metacognitive strategies and culturally familiar text outperformed those treated with general strategies and culturally unfamiliar text. This finding suggests that combining Metacognitive strategy and culturally familiar text improves students’ reading comprehension. The study also revealed that novice pre-service teachers who participated benefitted the most from the treatment, with a higher post-test result than their pre-test. On the second research question, the study examines whether the students were more interested in reading culturally familiar or unfamiliar texts. The finding revealed that all students who participated in this study were interested in both texts, with a higher interest in the group reading culturally familiar texts. Another interesting finding suggested a correlation between the student’s interest in the text and their achievement in reading comprehension. The students taught with culturally familiar texts had a higher interest and reading comprehension score. In contrast, the students taught with culturally unfamiliar text had a lower interest and slightly lower reading comprehension scores.

The study has a limitation on the number of its participants. Although the participants are sufficient enough for this study, having a larger sample, for example, from some universities in other regions of Indonesia, would provide more robust data and richer details to describe the effectiveness of the combination of Metacognitive strategies and familiar cultural text in improving reading comprehension achievement of students in Indonesia.

This study offers some implications for teaching Metacognitive strategies and culturally familiar text in reading comprehension classes. Firstly, the study provides a detailed procedure on how to teach the combination of Metacognitive strategies and culturally familiar text in reading comprehension class. The study also implies that teachers must provide explicit modeling and step-by-step procedures of Metacognitive strategies to the students during formal classroom meetings.

Finally, the study recommends that teachers produce rich, culturally familiar text through Nativization. There is a need for texts with various cultural contexts in Indonesia to support students from many local cultures to develop or improve their reading comprehension. In addition, to create moderation in support of cultural context, it is also suggested that the teachers commit to providing other cultural contexts (national, Asian culture, and international culture) in developing text to read for the learners.
References


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