NON-ENGLISH MAJORS' ATTITUDES TOWARDS MULTIMODAL TEXTS UTILIZED TO OVERCOME READING COMPREHENSION DIFFICULTIES – A CASE AT A UNIVERSITY IN THE MEKONG DELTA, VIETNAM

Hoang Gia Bao Tuong[1*], Tieu Thuy Chung[2]

Abstract – *Reading comprehension is the most challenging and essential aspect of learning a language, especially English. Nevertheless, many Vietnamese students have struggled with English reading comprehension, particularly those who are not English majors, despite the known benefits of multimodal texts. This study employed a mixed-methods design to identify the difficulties in reading comprehension that non-English majors at a university in the Mekong Delta perceive they have encountered while learning English as a foreign language, and to explore their attitudes towards multimodal texts used in English reading comprehension classes. First, 220 non-English major freshmen from this university completed a questionnaire. Then, fifteen of the mentioned participants were requested to participate in focus group interviews for extra information. The findings revealed that the students' difficulties in reading comprehension primarily came from their limited vocabulary. Besides, the challenges related to grammar, background knowledge, and reading motivation hindered their reading comprehension at the medium level. Additionally, multimodal texts facilitated the mitigation of the aforementioned challenges. There was a clear preference for multimodal texts, and the integration into English reading instruction was strongly supported. This research contributes to the existing literature on determining whether multimodal texts are effective enough to be incorporated into English classes, helping students overcome reading comprehension difficulties.*

Keywords: attitudes, multimodal text, non-English majors, reading comprehension, reading comprehension difficulties.

[1,2]Tra Vinh University, Vietnam
*Corresponding author: thgbao@vic.tvu.edu.vn

I. INTRODUCTION

Reading comprehension in English as a foreign language learning is a multifaceted process and a critical determinant of learners' overall language proficiency. The Education First's English Proficiency Index ranks Vietnam 63rd out of 116 countries and regions in 2024 for English proficiency [1]. Notably, this index reveals that Vietnamese 18–20-year-olds in the Mekong Delta, who are typically in university, exhibit poor English competence. Consequently, it is necessary to identify ways to enhance the English proficiency of Vietnamese university students living in the Mekong Delta. In improving overall English competence for students, reading is widely regarded as the most crucial and challenging skill when learning a language [2, 3]. Ur [4] claimed that reading comprehension is the fundamental aspect of reading, as reading that is devoid of comprehension cannot be deemed to be actual reading. Due to its significant role, reading comprehension needs to be emphasized throughout the process of learning a foreign or second language [5]. Recent studies have examined how multimodal texts in English reading classrooms can help students with reading comprehension difficulties and have shown that students who read multimodal texts do much better on comprehension tests than students who read texts with only written text [6–9]. On the other hand, Thongsinark et al. [10] stated that teachers

should use multimodal texts sensibly since these materials have the potential to distract students' attention because of information overload. At a university in the Mekong Delta, non-English majors have to take General English courses in the first two years. Students attending these courses have used the course book containing multimodal texts with still pictures in the reading parts. This has led to questions related to how non-English majors think about multimodal texts used in their English reading comprehension classes. However, few studies have determined the reading comprehension difficulties of non-English majors when learning English as a foreign language and their attitudes towards multimodal texts utilized in English reading comprehension classes at this university as a potential solution. Therefore, conducting this research is essential to explore students' perceived reading comprehension difficulties and their attitudes toward multimodal texts in reading comprehension classes at this Mekong Delta university.

The research addresses the following questions:

1. What difficulties in reading comprehension do non-English majors think they have confronted?

2. What are non-English majors' attitudes towards multimodal texts utilized to overcome difficulties in English reading comprehension?

II. LITERATURE REVIEW

A. Reading comprehension and its characteristics

Reading comprehension involves the integration of both reading and comprehension of the content and the author's perspective, which occurs subsequent to the reader's engagement with the text [11]. Nunan [12] claimed that individuals rely on their prior knowledge, linguistic proficiency, and the textual material itself to achieve adequate comprehension. Not only does reading comprehension provide the readers with sufficient and essential language input, but it also serves as the basis for future development in listening, speaking, and writing [13].

B. Factors causing difficulties in reading comprehension

Alderson, cited by Asani [14], highlighted that three of the factors contributing to difficulties in English reading comprehension among students are insufficient linguistic knowledge, restricted background knowledge, and poor reading motivation.

In Vietnam, the primary difficulties in reading comprehension caused by inadequate linguistic knowledge are difficulties linked to vocabulary and grammar [13]. Similarly, a lack of vocabulary and background knowledge makes it difficult for students to comprehend texts [15–18]. However, there is a significant difference between the results of the mentioned research. To et al. [15] and Le [18] revealed that grammar is one of the three primary factors causing difficulties with reading comprehension, whereas students in the other studies do not struggle with this factor [16, 17].

C. Definition of multimodal texts

There have been a lot of specialists giving their definitions of what multimodal texts actually entail. According to the definition given by Walsh [19], multimodal texts feature more than one mode, so their meaning is transmitted in more than one way. Jewitt et al., cited by Astarilla et al. [6], said that multimodal texts give information in various ways, such as through pictures, written text, design elements, and other semiotic resources. Additionally, Bearne et al. [20] explained that semiotic resources include gesture, movement, posture, and facial expression. Moreover, multimodal texts contain different types of visuals, sound, font, and typography [20]. This study only focuses on texts with images, texts with audio, and texts with videos (videos including captions).

D. Necessity of multimodal texts in the classroom

Reading instruction in the classroom needs to incorporate multimodal texts [10]. According to Serafini [21], the texts that teenagers are exposed

to today frequently include graphic elements or hypertext in addition to the traditional written text. To enhance the quality of teaching, teachers should update teaching materials based on changes in students' styles and habits [22]. One of the most effective ways to relate to students is to use multimodal texts, including not only text but also audio, videos, and pictures [23].

E. Benefits and challenges of multimodal texts related to reading comprehension

Multimodal texts are proven to help learners overcome issues they have with reading comprehension. Several studies have demonstrated that students have positive attitudes towards multimodal texts [10, 24–27]. With the aid of multiple modes included in multimodal texts, students in the research may understand the materials more clearly and overcome difficulties in reading comprehension, such as a lack of motivation to read, background knowledge of the topic, vocabulary, and grammar. Moreover, they support using multimodal texts in class.

Although multimodality helps students process information, instructors must carefully consider duplicate information when presenting multimodal texts, since it can cause overloading of channels [10]. Thongsinark et al. [10] also asserted that many pupils tend to disregard some information to avoid distraction caused by overloading channels. Similarly, Kalyuga et al. [28] said that several students experience distraction when presented with multiple modes simultaneously. They argued that students may only understand a text better when given one mode at a time because this reduces cognitive overload.

F. Theoretical frameworks

The effects of multimodal texts on reading comprehension can be explained through three theories. First, the Dual Coding Theory by Paivio, cited by Clark et al. [29], presents that receiving information is conveyed in two modes: verbal and non-verbal. The verbal mode is responsible for presenting and processing speech and writing, whereas the non-verbal mode is responsible for presenting and processing non-verbal objects such as images and videos [30]. Clark et al. [29] claimed that, according to this theory, the two modes operate independently, yet they need to collaborate to process information. Additionally, the addition of the non-verbal mode to the verbal mode has enhanced comprehension and facilitated more effective learning for pupils. Moreover, the Cognitive Theory of Multimedia Learning shows that people can learn more comprehensively from words and pictures than from words alone [31]. However, the Cognitive Load Theory by Sweller [32] suggests that individuals can only comprehend a limited number of information elements simultaneously within each channel.

In line with Leismann [33], this study suggests that the positive effects of multimodal texts on reading comprehension can be explained through the first two theories above. Additionally, the third theory can help explain the negative aspects of multimodality.

G. Justification of the present study

This study looks into both the difficulties in reading comprehension that non-English majors at a university in the Mekong Delta believe they have encountered when learning English as a foreign language and their attitudes towards multimodal texts utilized in English reading comprehension classes.

III.   RESEARCH METHODS

A. Research design

This study uses a mixed-methods design to collect data, which incorporates both quantitative and qualitative research methods into a study [34]. Dörnyei [35] showed that the reliability of data gathered by more than one instrument is ensured since the statistical information and non-numerical information may complement each other.

The quantitative data were gathered through closed-ended questions in a questionnaire. Additionally, open-ended questions in the question-

naire and focus group interviews are used to get qualitative data.

Questionnaire

Nunan [36] said that a questionnaire is a tool for gathering data and is often in written form, which has closed-ended questions and/or open-ended questions and other probes that require answers from the respondents. Besides, Fraenkel et al. [34] highlighted that a questionnaire can be utilized to gather data from a large number of individuals efficiently. Significantly, the respondents' privacy is protected throughout the questionnaire, which makes the data more reliable [37].

This questionnaire is designed based on the studies of Tran et al. [17], Phengsuai [25], Thongsinark et al. [10], as well as Nguyen [16]. Especially, this questionnaire is drawn up in both English and Vietnamese because the participants of this research are freshmen whose majors are not English. The questionnaire has five main parts with 41 items.

The first part of the questionnaire consists of two questions regarding the demographics and the frequency of reading multimodal texts in English reading classes including four levels: Never; 1–4 times a course; 5–10 times a course; More than 10 times a course.

With 12 items that are adapted from the research of Thongsinark et al. [10], the second part asks about the participants' reading habits of multimodal texts to ensure that they have read these texts. These items are used to collect data for ensuring the reliability of the participants (see III.B). There are six levels from which participants can select: 0: Never; 1: Less than once a week; 2: Once a week; 3: 2–3 times a week; 4: 4–6 times a week; and 5: Every day.

The third part consists of 14 Likert 5-point agreement scale items intended to determine the reading comprehension difficulties of the participants. The 5-point Likert scale comprises the following levels: Strongly disagree, Disagree, Neutral, Agree, and Strongly agree [38]. The items in three clusters (grammar, background knowledge, and motivation) are adapted from Nguyen [16],

while the items in the cluster called 'vocabulary' are adapted from Tran et al. [17]. Specifically, there are two items about background knowledge, and each cluster of vocabulary, grammar, and reading motivation has four items.

The fourth part, including 10 items with an agreement 5-point Likert scale, aims to survey students' attitudes towards multimodal texts utilized in English reading comprehension classes. In particular, these items are divided into six major groups. Five groups are related to the advantages of using multimodal texts, such as enhancing participants' content comprehension (02 items) and assisting in overcoming the difficulties caused by a lack of vocabulary (01 item), grammar (01 item), background knowledge (02 items), and reading motivation (03 items). One cluster is about the disadvantage of multimodal texts called 'distraction' (01 item). The items related to the positive effects of multimodal texts on activating background knowledge are adapted from the research of Phengsuai [25], while the other items are adapted from the research of Thongsinark et al. [10].

Participants can also indicate whether they prefer reading multimodal texts, whether they believe multimodal texts are more beneficial for their reading comprehension, and whether they support utilizing multimodal texts in their reading comprehension classes through three open-ended questions in the fifth part of the questionnaire, corresponding to questions 39, 40, and 41.

39. Do you like reading texts with pictures, audio, and videos? Why/Why not?

40. Do you think reading multimodal texts that have pictures, audio, and videos is better or more beneficial for reading comprehension classes? Why/Why not?

41. Do you support utilizing multimodal texts in your reading comprehension classes? Why/Why not?

Interview

Focus group interviews are conducted in this study to determine the difficulties in reading comprehension that non-English majors think they have confronted when learning English and their attitudes towards multimodal texts utilized

in English reading comprehension classes. According to Stewart et al. [39], the utilization of focus groups in conjunction with a questionnaire is beneficial as it aids in the interpretation of quantitative data and deepens the more structured responses generated by the questionnaire. A focus group interview might give information about diverse thoughts and feelings regarding specific topics and shed light on the differences in viewpoint across the group of individuals [40]. By conducting a focus group interview, the researcher has a higher chance of encouraging the involvement of students who would be hesitant to share their thoughts and experiences [41]. Burns [42] said that using a focus group interview can alleviate the pressure on individual speakers who may experience nervousness or anxiety during the interview process.

Since all the participants are first-year students whose majors are not English, the interview is conducted in Vietnamese to help them understand the questions and express their thoughts easily. This current interview consists of two main parts with seven questions.

The first part, which includes one question, requires participants to demonstrate their willingness to participate in the interview:

1. Are you willing to be interviewed?

Typically, a focus group interview involves five to six essential questions [34]. Accordingly, the second part, which is the main part of this interview, has six questions designed based on the research questions and topic:

2. What reading comprehension difficulties have you confronted?

3. Do your teachers use multimodal texts in the reading comprehension classes? If yes, what types of multimodal texts are used in your reading classes?

4. Do you think that reading multimodal texts can help you overcome the difficulties in comprehending the texts? Why/ Why not?

5. Which support in multimodal texts (picture, video, audio...) is the most effective for your reading comprehension?

6. Do you prefer reading multimodal texts to reading monomodal texts? Why/ Why not?

7. Do you think multimodal texts should be used in reading classes to improve your reading comprehension? If yes, what types of multimodal texts should be used more frequently in reading classes?

B. Participants

A total of 260 freshmen who are not majoring in English from eight different General English 2 classes at Tra Vinh University during May and June 2023 were picked to support the data gathering. Specifically, forty students from one General English 2 class joined in the pilot research, and 220 students from the seven remaining classes supported the data collection process. People who were asked to help collect the data for this study were available and easy to get in touch with. Therefore, these participants were chosen using convenience sampling. They are students of the Faculty of Southern Khmer Language, Culture, and Arts, the Faculty of Education, the Faculty of Engineering and Technology, the Faculty of Medicine and Pharmacy, the Faculty of Economics and Law, and the Faculty of Tourism, Restaurant, and Hospitality Management. After the questionnaire, focus group interviews were conducted. Fifteen students who wanted to participate in the interview were asked to answer the questions.

Reliability of participants supporting the data gathering

The data obtained from item 2 of the questionnaire shows that all participants have ever used multimodal texts when learning English.

Via the use of the third question in the interview, all of the participants who answered the interview demonstrated that they had prior experience with different types of multimodal texts in English reading comprehension classes. In fact, all interviewees (15 students) stated that their teachers of English used texts with pictures in reading classes, 11 students mentioned using texts with videos, and seven students mentioned using texts with audio files. Specifically, videos and audio files used to supplement reading texts were not included in the course book and were

downloaded by teachers from the Internet as further reading exercises. The participants reported that 'videos and audio files are from the Internet and often repeat entire reading texts to help us understand the content better' [43, 44]. These results indicate that, in addition to traditional textbooks containing just text and images, teachers at this university have allowed students to engage with various multimodal texts from other sources as supplementary reading materials to improve their reading skills.

Figure 1 demonstrates the mean scores of non-English majors' reading habits. The data was obtained by gathering responses from items numbered 3 to 14 in the questionnaire.
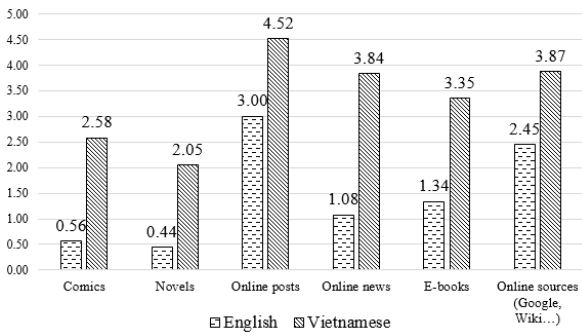

Fig. 1: Mean scores of non-English majors' reading habits

According to the data presented in Figure 1, it could be observed that the mean scores of novels in English and novels in Vietnamese were the lowest among the surveyed items. This showed that the students prefer multimodal texts to monomodal ones regarding reading.

Figure 1 also shows that although the participants frequently encountered multimodal texts in their daily lives, they tended to read multimodal texts in Vietnamese much more than in English. Indeed, the mean scores of English-language materials were lower than those of Vietnamese-language materials.

Through the interview, two interviewees shared that they also read texts with videos after class to improve their English reading. In particular, participant 04 shared, '… I read captions in the

videos on the Internet much more frequently than in class' [43]. Participant 08 also emphasized, 'In addition to videos used in class, I have found more videos with captions on social media to practice reading after school. They are all formatted as reading passages' [45]. This data also confirms that the participants in this study have been familiar with reading multimodal texts.

Based on the mentioned information, the participants' attitudes were reliable and trustworthy.

C. Data collection and analysis

220 participants completed a questionnaire in order to gather the requisite data. The questionnaire was printed and sent to participants during their break. Before the participants were allowed to answer the questions, they were told that any information they gave would be kept confidential and would only be used for the study. Furthermore, the participants were informed that their honest answers are important, so they should say what they think freely. Participants could also ask for a more detailed explanation of any question they need help understanding. After assembling the information, Microsoft Excel and the software called Statistical Package for the Social Sciences (SPSS) were used to analyze the quantitative data of the questionnaire. The mean and standard deviation of the percentage of each item in the questionnaire were calculated.

The interpretation of the mean scores, according to Oxford, cited by Galti [46], is presented in Table 1. The interpretation of the mean scores in this study is based on this scale.

Table 1: Interpretation of mean scores

Mean score	Response	Category
1.00 to 1.49	Strongly disagree	Low
1.50 to 2.49	Disagree	
2.50 to 3.49	Neutral	Medium
3.50 to 4.49	Agree	High
4.50 to 5.00	Strongly agree	

Source: Adopted from Oxford, cited by Galti [46]

Fifteen students who were willing to answer the focus group interview were chosen after completing the questionnaire. They were divided into

three groups. The interview duration for each group lasted around twenty-five minutes. Non-English majors were able to pick the time and location of the interview. The responses of the students were transcribed, translated, and compared to achieve the research aims and questions.

IV. RESULTS AND DISCUSSION

A. Research results

With reliability coefficients of .81 and .82, fourteen items concerning reading comprehension difficulties and ten items related to attitudes towards the multimodal texts employed in reading comprehension classes demonstrated a high level of reliability (Table 2). Furthermore, the Cronbach's Alpha coefficient of the 24 closed-ended items also indicated a high level of reliability, with a value of $\alpha = .80$.

Table 2: Reliability statistics of the questionnaire

	Cronbach's Alpha	N of Items
Difficulties in reading comprehension (items 15–28)	.81	14
Attitudes towards multimodal texts (items 29–38)	.82	10
All	.80	24

Non-English majors' difficulties in reading comprehension

Findings of closed-ended questionnaire items

The overall mean score of items related to non-English majors' difficulties in reading comprehension was 3.32 (SD = .53) (Table 3). According to the data, the mentioned reading comprehension difficulties, in general, impacted the participants at the medium level

Table 3: Overall mean score of closed-ended items related to non-English majors' difficulties in reading comprehension

	Mean	SD
Overall	3.32	.53

Table 4 contains the mean scores and standard deviations of the four clusters of reading comprehension difficulties. The data was collected from questionnaire items 15–28.

Table 4: Descriptive statistics of the four clusters of reading comprehension difficulties

Cluster	Mean (M)	Standard Deviation (SD)
Vocabulary (items 15–18)	3.66	.63
Grammar (items 19–22)	3.45	.68
Background knowledge (items 23, 24)	3.28	.70
Reading motivation (items 25–28)	2.89	.89

According to the data in Table 4, it was evident that the cluster of vocabulary (M = 3.66, SD = .63) was the primary factor that caused the reading comprehension difficulties faced by non-English major freshmen. The mean score of this cluster was classified as high according to the adopted scale from Oxford, cited by Galti [46]. It could be inferred that many participants experienced impediments in their reading comprehension due to insufficient vocabulary. Table 4 also reveals that grammar (M = 3.45, SD = .68), background knowledge (M = 3.28, SD = .70), and reading motivation (M = 2.89, SD = .89) impeded the reading comprehension of students at the medium level. Among these three clusters, reading motivation was believed to have caused the fewest difficulties with reading comprehension.

Findings of open-ended questions

The qualitative data related to non-English majors' reading comprehension difficulties were obtained from the second interview question, 'What reading comprehension difficulties have you confronted?'.

Regarding the data obtained from the second interview question, it was found that all the interviewees (100.00%) experienced difficulties related to vocabulary during the process of reading comprehension. At the specific level, the interviewees encountered difficulties because their vocabulary was limited and they did not know the words. Typically, participant 05 highlighted, 'Most of the time, I cannot comprehend what is being said because I do not know even the basic words' [47].

Seven interviewees (46.67%) stated that grammatical structures caused problems for them dur-

ing the reading comprehension process. Particularly, tenses and linking words were mentioned as factors that impeded students' reading comprehension by the interviewees. In detail, one student (6.67%) mentioned tenses, and one student (6.67%) mentioned linking words. Participant 01 stated, 'I cannot determine the tenses in the texts' [48] while participant 03 revealed that, 'Some linking words I have ever learned, but I forget what they mean' [49]. Only participant 11 (6.67%) reported an inability to identify grammatical structures during the interview process. He said, 'I cannot determine the grammatical structures correctly' [50]. Two respondents (13.33%) shared that they could not recall the structures' appropriate usage. One example is participant 06, who noted, 'I recognize some grammatical structures but cannot recall their usage' [51]. Moreover, participant 15 shared in the interview, 'My knowledge of grammatical structures is limited' [52].

In addition, the second interview question has shed light on an additional factor that created difficulties for students in the process of reading comprehension, namely, timing. A student (6.67%) expressed that the limited time given for reading may have a negative effect on students' reading comprehension. Participant 04 claimed, 'The time for reading a text in class is too short, which hinders my ability to comprehend the reading material fully' [43].

Non-English majors' attitudes towards multimodal texts utilized in English reading comprehension classes

Findings of closed-ended questionnaire items

The overall mean score and standard deviation of 10 Likert 5-point agreement scale items related to the participants' attitudes towards multimodal texts utilized in English reading comprehension classes (questionnaire items 29–38) are demonstrated in Table 5. The overall mean score for closed-ended items related to the attitudes of non-English majors towards multimodal texts utilized in their English reading comprehension classes was found to be high, with a mean of 3.62 and a standard deviation of 0.46 (see Table 5). It could

be concluded that the majority of respondents agreed with the statements.

Table 5: Overall mean score of closed-ended items related to non-English majors' attitudes towards multimodal texts utilized in English reading comprehension classes

	Mean	SD
Overall	3.62	.46

The mean scores and standard deviations of the six clusters of effects of multimodal texts on the reading comprehension of non-English majors, whose data were obtained from questionnaire items 29 to 38, are found in Table 6.

Table 6: Descriptive statistics of the six clusters of effects of multimodal texts on non-English majors' reading comprehension

Cluster	Mean (M)	Standard Deviation (SD)
Content comprehension (items 29, 30)	3.86	.66
Distraction (item 31)	2.33	.68
Vocabulary (item 32)	3.80	.68
Grammar (item 33)	3.53	.72
Background knowledge (items 34, 35)	4.08	.75
Reading motivation (items 36, 37, 38)	4.10	.68

Based on the data in Table 6, reading motivation was perceived to be the aspect that was significantly affected by multimodal texts, with a mean score of 4.10 and a standard deviation of 0.68. Table 6 also shows that multimodal texts assisted students in overcoming difficulties with background knowledge (M = 4.08, SD = .75), content comprehension (M = 3.86, SD = .66), vocabulary (M = 3.80, SD = .68), and grammar (M = 3.53, SD = .72). Additionally, non-English majors demonstrated they were not distracted by multimodal texts (M = 2.33, SD = .68). In general, the advantages of multimodal texts reached agreement among students, while the disadvantage, called 'distraction', was not agreed upon.

Findings of open-ended questions

These findings are based on the qualitative data from questions 39–41 of the questionnaire

and three interview questions (questions 4, 6, and 7). The order of the following clusters follows the decreasing order of the number of students who mentioned each cluster in the questionnaire's open-ended questions and interview.

Through open-ended questions, most of the participants mentioned cultivating reading motivation as a benefit of multimodal texts. Specifically, 176 responses from the questionnaire (80.00%) and 11 responses from the interview (73.33%) demonstrated that multimodal texts made students less bored and more interested in reading. For example, participant 15 mentioned, 'Reading multimodal texts reduces the boredom caused by the feeling that the text contains too many words. Thanks to this, I am interested in reading them' [52]. In addition, four of the 176 mentioned questionnaire respondents (accounting for 1.82%) said that multimodal texts made them like reading. Indeed, participant 09 answering the questionnaire believed, 'Multimodal texts with pictures, audio files, and videos increase my enjoyment of reading compared to boring monomodal texts' [53].

A total of 143 respondents who completed the questionnaire (65.00%) and ten interviewees (66.67%) mentioned that multimodal texts helped them understand the reading texts more easily and clearly. Participant 77, who answered the questionnaire, described this benefit of multimodal texts carefully. Specifically, this participant said, 'Incorporating pictures, videos, and audio files into texts facilitates my comprehension of the content' [54].

Thirty-five responses from the questionnaire (15.91%) and eleven responses from the interview (73.33%) mentioned the positive effects of multimodal texts regarding assisting students in overcoming reading comprehension difficulties related to vocabulary. In particular, seven interviewees (46.67%) and 31 respondents who completed the questionnaire (14.09%) reported that multimodal texts facilitated their ability to guess the meaning of unfamiliar words and comprehend them. Through answering the interview, participant 12 pointed out this benefit, 'I can guess the meaning of unknown words through pictures' [55]. Next, the findings indicated that students have conveyed their opinion regarding the potential improvement of their vocabulary through reading the multimodal texts. This assertion was supported by the responses of four participants in the questionnaire and four interviewees, accounting for 1.82% and 26.67%, respectively.. For instance, participant 140 of the questionnaire said, 'Multimodal texts help readers gain more vocabulary' [56].

Thirty-six students from the questionnaire (16.36%) and eight interviewees (53.33%) claimed that their background knowledge of the supports in multimodal texts aided them in guessing the topics and content. Particularly, participant 21 of the questionnaire shared, 'Multimodal texts support guessing the content of the text before reading' [57].

Four responses to the questionnaire (1.82%) and three students from the interview (20.00%) mentioned the ability of multimodal texts to support students in overcoming grammatical difficulties and enhancing their grammatical knowledge. Participant 06 stated, 'Visual and auditory supports help me guess the content and skip grammatical difficulties' [51].

Five responses to the questionnaire (2.27%) and two responses to the interview (13.33%) mentioned the distraction. Most of these respondents claimed that listening to audio files included in multimodal texts distracted them. For example, participant 14 expressed, 'Audio files can occasionally cause me to become distracted, and as a result, I am unable to pay attention to the texts' [58].

In addition to the benefits mentioned in closed-ended questionnaire items, qualitative data revealed additional effects of multimodal texts on reading comprehension, namely reducing reading time, increasing students' concentration, and reducing students' reading anxiety.

To overcome the difficulties caused by limited reading time, in the words of 32 responses from the questionnaire (14.55%), multimodal texts helped them understand the texts more quickly.

Participant 10 answering the questionnaire said, 'Multimodal texts help me understand the content more quickly' [59].

In the views of 24 questionnaire respondents (10.91%) and four interviewees (26.67%), multimodal texts not only did not cause distraction among students, but they also enhanced students' focus on reading. Notably, participant 54 and participant 64 of the questionnaire had the same idea: 'Multimodal texts force me to pay close attention to what I am reading' [60, 61].

The impacts of multimodal texts on reducing students' reading anxiety were indicated by 18 questionnaire respondents (8.18%) and two interviewees (13.33%). Participant 206 of the questionnaire mentioned, 'Using multimodal texts rather than monomodal ones in reading class makes me feel more comfortable' [62].

Non-English majors' attitudes towards the benefits of multimodal texts and their preferences and support for using these materials

The data were derived from three open-ended questionnaire items (items 39, 40, and 41) and three interview questions (questions 4, 6, and 7). Almost all the participants liked reading multimodal texts, as evidenced by their responses to questionnaire item 39 and interview question 6. Only two students answering the questionnaire (0.91%) showed their dislike.

In addition, it was found that respondents believed that reading multimodal texts provided more benefits and aided in overcoming difficulties related to reading comprehension. This conclusion was drawn from the responses to questionnaire item 40 and interview question 4. Merely four students from the questionnaire (1.82%) chose the response option 'No'.

Significantly, based on the data from questionnaire item 41 and interview question 7, most of the participants supported using multimodal texts in reading comprehension classes. Indeed, only three students responding to the questionnaire (1.36%) chose 'No'.

The reasons for selecting 'Yes' could be categorized according to the advantages of multimodal texts. The advantages included boosting reading motivation, enhancing content compre-

hension, expanding vocabulary, activating background knowledge, assisting with difficulties in grammar, and some additional advantages.

In addition, the reasons for selecting 'No' were that multimodal texts distracted their attention or were unsuitable for their learning styles (with two responses from the questionnaire, representing 0.91%).

Non-English majors' attitudes towards the different types of support in multimodal texts

The most effective support in multimodal texts according to interviewees' opinions

To determine the most effective support in multimodal texts, interviewees were asked, 'Which support in multimodal texts (picture, video, audio...) is the most effective for your reading comprehension?' The data is displayed as follows.

All the interviewees agreed that videos were the most effective support for enhancing reading comprehension. This was because students believed that video combines visual and auditory elements. Consequently, they were able to support the most effectively.

Preferred multimodal text types in reading classes

Regarding the responses to interview question 7, 'What types of multimodal texts should be used more frequently in reading classes?', fourteen interviewees (93.33%) indicated that they would like to watch more texts with videos, five students (33.33%) mentioned texts with pictures, and only two students (13.33%) mentioned texts with audio.

B. Discussion

Non-English majors' difficulties in reading comprehension

The results revealed that vocabulary was one of the primary factors that hindered students' reading comprehension. This is consistent with the four related studies' findings [15–18]. To be more detailed, similar to the studies conducted by Nguyen [16] and Tran et al. [17], the participants of this study encountered difficulties due to their restricted vocabulary and inability to infer the

meanings of unfamiliar words during reading. The significance of vocabulary in reading comprehension is noteworthy. In fact, Verhoeven et al. [63] said that within the process of comprehending a written work, it is necessary for students to initially understand the meaning of each word in order to grasp the ideas conveyed by the text. Hence, providing pupils with reading materials that allow them to infer unfamiliar vocabulary may be an effective way to enhance their reading comprehension.

Difficulties related to grammar received the second-highest mean score in this survey, supporting the findings of To et al. [15] and Le [18]. However, Nguyen [16] and Tran et al. [17] discovered the opposite. The studies by To et al. [15], Nguyen [16], and Tran et al. [17] demonstrated that despite the similarity of the participants, all of whom are English majors, there is a difference in these students' perspectives on grammatical issues. The difference may be due to the students' English proficiency and the universities' curriculum and goals. However, To et al. [15] asserted that although Vietnamese students have studied a lot of English grammar, grammatical difficulties are inevitable. Because of this, the participants in this research and those in the study of Le [18], who do not major in English encountered many difficulties with grammatical structures. As a result, it is necessary to find a way to aid the students in overcoming difficulties related to grammar during the reading comprehension process.

Regarding the difficulties related to background knowledge, the investigation by Nguyen [16] found that most participants expressed unfamiliarity with the topic of the reading texts. However, the participants in the present study exhibited a neutral attitude towards this assertion. This is because the participants in this study are non-English majors attending General English classes, which differs from the English majors participating in the research of Nguyen [16]. Significantly, during the General English classes, fundamental concepts and familiar daily life topics have been covered. Therefore, the students were familiar with many topics in class.

Non-English majors' attitudes towards multimodal texts utilized in English reading comprehension classes

The participants in this study showed positive attitudes towards multimodal texts as well as supported utilizing these materials in the classroom to help students with reading comprehension difficulties. These findings support the findings of five related studies [10, 24–27]. The Dual Coding Theory by Paivio, cited by Clark et al. [29], and the Cognitive Theory of Multimedia Learning by Mayer [31] can explain these results. According to these theories, learning using multimodal texts, which include many modes, brings more benefits than learning with monomodal texts. Perhaps as a result of this, students realized the advantages of multimodal texts used in their English reading comprehension classes. The freshmen in this study pointed out that multimodal texts containing many types of support could increase their reading motivation. This finding aligns with the findings of four related studies [10, 24, 25, 27]. Specifically, the participants in this current research expressed that multimodal texts decreased reading boredom and made reading more enjoyable. Maybe due to this, these students showed that multimodal texts made them love reading. Indeed, Anari et al. [24] found that the diverse types of support in multimodal texts increase happiness and motivate learners who learn English as a foreign language to read.

Thanks to the qualitative data obtained from open-ended questions in the questionnaire and interview, this study has identified the additional effects of multimodal texts on reading comprehension that were not mentioned in the related studies [10, 24, 26, 27]. Typically, multimodal texts were found to enhance students' concentration and alleviate reading-related anxiety. Diverse modes, including auditory and visual elements, have been incorporated into multimodal texts, which explains these advantages. Berk [64] asserted that texts that include audio, videos, and images are more effective at capturing students' attention than those that only contain written

text. Besides, the participants in this research pointed out that multimodal texts assisted pupils in reducing the stress associated with reading caused by their perception that the text has an excessive number of words.

Furthermore, this research facilitates students in demonstrating the types of support in multimodal texts they would prefer to utilize more in reading classes, an aspect that has been missed in previous studies. In particular, through the interview, most of the students conveyed their desire to incorporate more texts with videos into reading classes because they thought that videos with both visual and auditory support could assist their comprehension best. Eaton et al. [65] stated that attitude may support people as a motivating factor. Therefore, providing students with the opportunity to express their attitudes towards the materials utilized in language learning is of the importance, as it determines the efficacy of these materials in enhancing students' learning.

V. CONCLUSION AND RECOMMENDATIONS

Vocabulary-related difficulties were the most obvious. More precisely, it was observed that students possessed a limited vocabulary and faced problems guessing the meanings of unfamiliar words while engaging in reading comprehension activities. Besides, the first-year students' reading comprehension was hindered at the medium level by the difficulties related to grammar, background knowledge, and reading motivation. The interview also revealed that the limited time allowed for reading activities in class was another factor that negatively impacted students' reading comprehension at this Mekong Delta university.

In terms of non-English majors' attitudes towards multimodal texts utilized in English reading comprehension classes, the participants in this study showed positive attitudes, which confirms the Dual Coding Theory by Paivio, cited by Clark et al. [29] and the Cognitive Theory of Multimedia Learning by Mayer [31]. The primary advantages of multimodal texts in relation to enhancing English reading comprehension have been listed as follows. Students

agreed that multimodal texts assisted them in enhancing reading motivation by making reading more exciting and making them love reading, activating their background knowledge, enhancing their comprehension of the content, as well as overcoming reading comprehension difficulties related to vocabulary and grammar. Only some students expressed that multimodal texts were distracting. Distraction mainly came from the audio files added to the multimodal texts. Significantly, through the qualitative data, this study discovered the additional effects of multimodal texts on reading comprehension, such as reducing the amount of time spent on reading, enhancing students' concentration, and reducing reading-related anxiety. The majority of the participants conveyed their preference for reading multimodal texts and stated that these materials were more advantageous for enhancing reading comprehension when compared to monomodal ones. Additionally, they supported the incorporation of multimodal texts in English reading classes. According to the research findings, videos were perceived as the most effective support and were recommended to be employed more frequently in reading comprehension classes by many participants.

The majority of participants expressed a preference for multimodal texts over monomodal ones, indicating that they were more effective in supporting reading comprehension. Therefore, teachers of English need to update their teaching materials and strategize the incorporation of multimodal texts reasonably to facilitate the development of students' reading comprehension. Some students may find it easier to comprehend academic materials with the aid of visual support, whereas others may rely on auditory support to do so. This statement is related to the intelligence of the students. Given these findings, teachers should use the questionnaire to identify the intelligence of their learners at the beginning of the course. Subsequently, it is advisable to select appropriate multimodal texts based on the topics and the intelligences of the learners to avoid situations where they report that the learn-

ing materials are unsuitable for their preferred learning style or where teachers provide too much supports that distract students from the reading.

In addition, future research may compare the attitudes of students of different genders, majors, English reading proficiency levels, or multiple intelligences regarding multimodal texts utilized in English reading comprehension classes. In order to increase the participants' reliability, further research should examine the students' reading habits of both digital and printed multimodal texts. Further researchers can also compare the effects of different types of support in multimodal texts to increase the validity of the research. It is worth noting that multimodal texts impact not only students' reading comprehension but also their listening, speaking, and writing. Investigating the effects of multimodal texts on these aspects of language acquisition presents a promising opportunity for researchers to explore valuable data.

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