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# The impacts of the reading environment on EFL reading comprehension: Insights from university student and teacher perceptions

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**Abstract.** This study investigated the impacts of reading environment on EFL students' reading comprehension. The study involved 129 English-majored students and 19 English teachers who participated voluntarily by completing questionnaires and interviews. The findings reveal that reading environment plays a significant role in shaping learners' comprehension. Specifically, EFL students report experiencing greater difficulty in comprehension when situated in unorganized or uncontrolled environments regardless of their comfort level in those settings. In contrast, students achieve higher comprehension when reading in quiet, structured, and distraction-free environments such as classrooms, libraries, and examination settings. Interestingly, even students with a high interest in reading are more negatively affected by poor reading environments, suggesting that motivation alone does not mitigate environmental distractions. The study also found a misalignment between teaching practices and students' environmental preferences, with many teachers encouraging group or pair reading, which can inadvertently increase noise and reduce focus. While teachers generally maintain a quiet atmosphere during reading activities, the need for more designated quiet reading spaces remains critical. These results underscore the importance of environmental design in EFL instruction to provide students with optimal conditions for reading comprehension. The study recommends that teachers prioritize individual reading in quiet settings.

**Keywords.** impacts, reading environment, reading comprehension, EFL teaching, perception

## 1. Introduction

According to Samovar et al. (2017), communication is a dynamic and interactive process in which a speaker or writer encodes thoughts, feelings, or ideas into verbal or nonverbal messages, which are then transmitted to a listener or reader. The recipient, in turn, is required to decode these messages to derive intended meanings. Within this framework, reading is understood as a receptive communicative act that involves the interpretation and decoding of written messages. However, as Samovar et al. (2017) further note, the decoding process is often subject to disruption by various types of "noise"—both internal (e.g., anxiety, low motivation, cognitive overload) and external (e.g., environmental distractions, unsuitable learning settings). Such noise can result in partial or complete failure in communication, often due to misunderstanding or incomplete comprehension. Among the external noises, the reading

environment—defined broadly to include physical, social, and technological conditions under which reading occurs—has been increasingly recognized as a potentially significant factor affecting comprehension outcomes. It is often observed that even EFL learners with a relatively large vocabulary size, solid grammatical knowledge, and appropriate use of reading strategies may still struggle with reading comprehension when placed in unfavorable reading conditions. Distractions such as noise, poor lighting, digital interruptions, or discomfort in reading settings can severely limit EFL learners' ability to focus, decode, and interpret texts effectively. While this phenomenon is acknowledged anecdotally and pedagogically, it has received limited empirical attention in the growing body of EFL reading research, which tends to concentrate more on instructional techniques, technological applications, and cognitive-affective factors.

As a matter of fact, there has been a noticeable increase in studies focusing on the use of innovative instructional approaches to enhance reading comprehension in EFL contexts. For instance, Ebadi and Ashrafabadi (2022) explored the use of Augmented Reality (AR) in EFL classrooms and found that learners in the experimental group demonstrated significantly higher comprehension scores than those in the control group, suggesting that immersive technologies can enhance textual understanding and learner motivation. Similarly, Liu et al. (2023) demonstrated that employing article-structure strategy-based spherical video virtual reality (SVVR) improved learners' reading efficiency, comprehension, and motivation. These findings are supported by Namaziandost et al. (2021), who reported that authentic materials not only enhanced reading comprehension but also reduced anxiety among Iranian EFL learners. Alongside technology-based interventions, other pedagogical strategies such as task-based instruction (Ismail et al., 2023), jigsaw techniques (Namaziandost et al., 2020), and collaborative learning (Ibrahim et al., 2023) have been shown to significantly influence learners' comprehension abilities. Furthermore, meta-analytic studies like Li et al. (2021) have concluded that scaffolded instruction, interactive reading tasks, and leveled questioning are effective in promoting comprehension when applied strategically and consistently. Yet, despite these important contributions, the focus has predominantly remained on methods of instruction, cognitive strategy use, and emotional-affective variables like motivation and anxiety. Although the psychological dimension of reading—such as the link between anxiety and comprehension—has been highlighted in studies like Al-Obaydi et al. (2024) and Maghsoudi et al. (2020), very few have explored how the broader environmental context in which reading takes place mediates or moderates these psychological and cognitive variables. For instance, Solati et al. (2024) found that reading anxiety was lower among students in online learning settings compared to those in face-to-face environments, indirectly pointing to the possible role of the learning context or setting. Similarly, Wei (2025) highlighted how online reading circles promoted better comprehension and critical thinking skills compared to traditional instruction, suggesting that the design and atmosphere of the learning environment can influence outcomes. Nonetheless, a more targeted investigation into the reading environment itself—independent of instructional techniques—remains lacking.

While the design of reading interventions has rightfully received scholarly attention, there is still a need to isolate and empirically examine the effect of the immediate physical and situational context in which reading occurs. This includes factors such as noise level, room temperature, seating arrangement, lighting conditions, and presence or absence of digital distractions. Given that comprehension is a cognitively demanding process, even minor disruptions in the environment may lead to a cognitive overload, reduce attention span, or impair memory retrieval during reading tasks. In light of these considerations, the present study seeks to fill this research gap by investigating the extent to which EFL learners' reading

comprehension is influenced by the reading environment. Specifically, it aims to answer the question: “Is EFL learners’ reading comprehension influenced by the reading environment?” The outcomes of this study are expected to contribute to a more comprehensive understanding of the extralinguistic factors affecting reading comprehension and to provide practical insights for language teachers and curriculum designers. By identifying the environmental conditions that either hinder or enhance reading performance, educators can develop more effective instructional settings and strategies tailored to maximize learners’ comprehension potential. Ultimately, this study aspires to inform classroom practice by offering evidence-based recommendations for creating optimal reading environments that support deep engagement with texts and improved learning outcomes.

## **2. Theoretical framework**

### **2.1. Reading and reading comprehension**

Reading is an activity, using the eyes to recognize graphic symbols and letters and using the mind to think and keep contents. According to Grabe and Stoller (2002), reading is a process of getting the meaning of something written by the interpretation of used symbols. It is also defined as a process of grasping full linguistic meaning in the written language (Grabe, 2009). Moreover, Harris (1962) defined that “reading is the meaningful interpretation of printed or written verbal symbols which involves sensing, perceiving, achieving meaning, learning and reacting in a variety of ways” (p. 60).

In keeping with these definitions, reading involves at least two people: the writer and the reader. The reader has to decode the writer’s words to understand his/her message and construct meaning from text. Thus, it can be said that definitions of reading often go with the concept of understanding or comprehension. A number of researchers such as Lipka and Siegel (2012), Russell (2013), and McLean (2014) emphasized that the main goal of reading is comprehension. Reading without comprehension is pointless. Grabe (2009) stated that “reading is centrally a comprehending process” (p.14). Readers read to understand what is intended to be conveyed in writing.

According to Yogurtcu (2013), “the process of reading comprehension requires a link between thinking, textual content, and the reader’s level of readiness, expectations and objectives of reading” (p. 376). Reading comprehension from a psychological viewpoint as mentioned by Rivers (2000) is “a problem-solving behavior that actively involves the reader in the process of deriving and assigning meaning, drawing on contextual information” (p. 70).

Thus, based on the definitions of reading and reading comprehension as described above, a conclusion can be drawn that reading is an activity of recognizing the written words in the reading text, requiring the understanding or comprehension of what the writer tries to convey in those words. In other words, reading comprehension is an activity involving decoding the reading text and getting the intended meanings of the writer.

### **2.2. Factors affecting reading comprehension skills**

As mentioned at the beginning, reading, the process of decoding used symbols to get meaning (Dennis, 2008; Block, 2004; Graves et al., 1998), is often influenced by internal and external factors, namely noise (Samovar et al., 2017), including: complexity of the reading text, environmental influences, anxiety during reading comprehension, interest and motivation, and decoding or word recognition speed. In terms of classification, anxiety during reading comprehension, interest and motivation, and decoding or word recognition speed are internal factors whereas complexity of the reading text and environmental influences are external ones.

In terms of the complexity of the reading text, Dennis (2008) pointed out that the readers' strength and fluency in language affect their comprehending of the reading text. The reason why Dennis (2008) links the complexity of the reading text to the readers' strength and fluency in language is that if the readers know all of the vocabulary as well as grammatical points in the text, it becomes easier for them to understand the reading text. In this explanation, the complexity of the text is low.

Dennis (2008) found out that the environmental conditions also have a considerable impact on the learners who try to read a passage. In particular, the readers may have a lot more problems understanding a text in an unorganized environment than those who read in a calm and controlled place. If learners are in an unsafe place, they find it difficult to focus on their reading. When they are in safe environments, their reading comprehension ability will be better. Additionally, readers will lose their concentration in understanding a text when there are noises like televisions or radios.

The third factor affecting reading comprehension that Dennis (2008) found out in his research project is related to the readers' anxiety while reading. In particular, readers have more pressure on reading if they read in examinations, class work, or homework situations while they get more excited if they read for enjoyment. Even worse, some learners react positively to examinations while others are overwhelmed by the pressure to carry out a reading activity. As a result, readers who experience anxiety while reading may not completely understand the reading text.

Similarly, the readers' interest and motivation are very important in developing their reading comprehension skill (Dennis, 2008). If readers find the reading material uninteresting, they will have a lot of problems concentrating on their comprehension. This can lead to a lowering of reading comprehension among readers. If the reading material is interesting for the readers, they can easily understand it and can remember it clearly. Hence, EFL teachers should motivate their learners through providing interesting reading materials during their class time.

More importantly, decoding or word recognition speed was acknowledged to be one of the causes of poor reading comprehension (Dennis, 2008). This means that readers who have problems in decoding and recognizing words read slowly and find it more difficult to understand the meaning of passages than those without decoding problems. This factor is related to lexical processing which is a sequence of processes in which the readers recognize and access the meanings of word forms in a text (Tily et al., 2010). In order to gain automatic access to words and their meanings, processing has to be practiced to a point that the lexical information contained in words takes less cognitive attention as it is easily recognized at surface (Hill, 2011). Therefore, many researchers support training learners to become automatic in word recognition to increase fluency (Chang, 2010), as automatic word recognition is crucial to fluent L2 reading comprehension (Grabe, 2010).

### **2.3. Reading environment**

As a matter of definition, reading environment refers to the space in which reading activities take place. It can be a classroom setting, an examination, a bedroom, a living room, a library, a coffee shop, a park, or a bus/train/plane. In terms of classification, reading environment can be classified into some categories, including: controlled (e.g., in an examination) or uncontrolled (e.g., at home) reading environment, organized (e.g., in a classroom) or unorganized (e.g., in a park) reading environment, quiet (e.g., in a library) or noisy (e.g., in a coffee shop) reading environment, comfortable (e.g., in bedroom) or uncomfortable (e.g., on a bus) reading environment. Therefore, reading environment is determined to be one of the influential factors, on the one hand, causing readers' distractions in

reading comprehension and, on the other hand, supporting and fostering their reading comprehension. In this respect, teaching activities are also considered as environmental influential factors because they not only engage but also disengage readers in and from effective reading, respectively.

### 3. Methodology

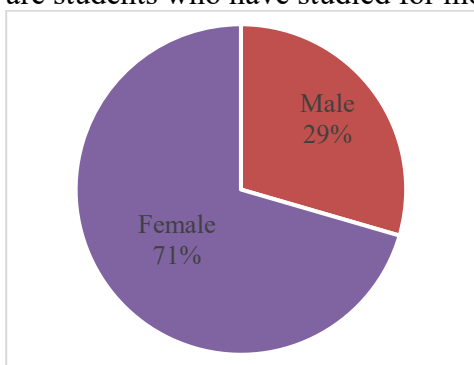
#### 3.1. Research design

To get the data to prove the answer to the research question, the researchers conducted a survey through questionnaires for students and teachers to find out and generalize the impacts of the reading environment on reading comprehension that English majors at a university in Vietnam report. In addition, the researchers interviewed students and teachers to get more insights into the issue under investigation. Questionnaires were considered the appropriate method for this research because they help generalize the research problem being studied by numeric data collected from a large group of population (Dörnyei, 2007; Snape & Spencer, 2003). In this regard, through questionnaires, the findings of the current research are expected to be reliable in terms of research methodology. Moreover, the interview data gives more convincing value to the data from the questionnaires.

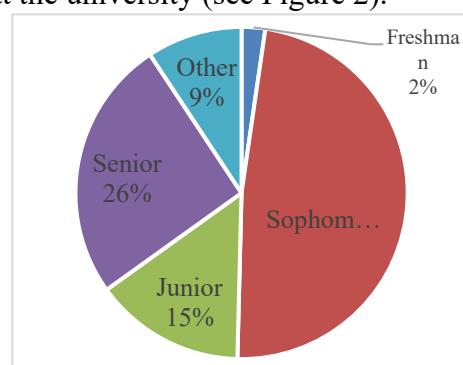
#### 3.2. Participants

##### 3.2.1. Students

To ensure validity and reliability of the study, all of the English majors at the university were invited to answer the student questionnaire. After 20 days of questionnaire distribution, 206 questionnaires were returned, but 77 of them were invalid because the answers to the questions of the same meaning (purposed-designed) are inconsistent. Therefore, the data from 129 valid questionnaires were used and analyzed for the current study. Out of the total number of students who returned valid questionnaires, 29% are males and 71% are females (see Figure 1). The reason why there is such a difference in participants' gender is that the number of female English majors is much higher than male ones. In addition, out of the total number of 129 participants, 2% are freshmen, 48% are sophomores, 15% are juniors, 26% are seniors, and 9% are students who have studied for more than 4 years at the university (see Figure 2).



**Figure 1** Students' gender



**Figure 2** Students' academic levels

##### 3.2.2. Teachers

Similarly, all of the 22 lecturers of English in the Faculty of Foreign Languages at the university were invited to take part in the survey. After 14 days of data collection, all 22 lecturers answered the questionnaires, but three of them were invalid because the answers to the questions of the same meaning (purposed-designed) are inconsistent. Therefore, the data from 19 valid questionnaires were used and analyzed for the current study.

### ***3.3. Data collection instruments***

The instruments used to collect data for this research were questionnaires and interviews for both students and teachers.

**Questionnaires:** The student questionnaire was divided into three parts. Part One seeks some demographic data about students including: their gender, academic levels and favorite language skills. Part Two (2 Likert-type items) tries to find out students' problems in reading comprehension due to the reading environment. Part Three (10 multiple-choice items) is to examine relation between students' favorite reading environment and their comprehension. Similarly, the teacher questionnaire was also divided into two parts. The first section contains questions to gain the teachers' personal information. The second section deals with how the teachers organize reading teaching and learning activities. For Likert-type items in the questionnaire, they have a five-point scale, ranging from (1) "strongly disagree" to (5) "strongly agree" for the respondents to choose from. For multiple-choice items, the respondents can choose one or more than one option.

**Interviews:** The open-ended questions in the student interview were designed in two parts asking students to share their opinion about the impacts of reading environment on their reading comprehension and their favorite reading environment. Similarly, the open-ended questions in the teacher interview were designed to explore teachers' teaching methods in terms of organizing reading teaching and learning activities.

### ***3.4. Data collection procedure***

After designing the questionnaires to collect data from the students and teachers, the links of the questionnaires were distributed to the respondents (both students and teachers) through Zalo groups and emails. It took 20 days to collect data from the students and 14 days from the teachers. This period was long enough to ensure that the respondents took the questionnaire items into consideration so as to give their valuable answers. In addition to the research purposes, explanations, as well as "thank you" presented in the questionnaires, the participants were also provided with this kind of information in Zalo groups and emails. This was to expect that the respondents would take time to send their valuable answers to the questionnaires. After the time of questionnaire-based data collection, a total of 10 students and 5 lecturers were selected for the interview on a voluntary basis. After choosing participants for the interviews, the researchers made discussions with students to set up the appropriate time to meet them. For the convenience, for each student, the researchers made a Zalo video call to interview him/her. It took three days to interview all of ten students. However, for each teacher, the researchers met him/her in person because the researchers and the teachers all work at the university. Because of the teachers' busy jobs, it took the researchers two weeks to interview them. As a basis for data analysis, the interviews were recorded with all interviewees' agreement using an audio recorder.

### ***3.5. Data analysis procedures***

After eliminating invalid questionnaires and coding, data were entered into SPSS Statistics 22 software to make necessary descriptive statistics, such as the mean, SD (standard deviation), the range, variance, maximum and minimum values, correlation coefficient, compare mean (one-way ANOVA), etc., for summarizing, presenting, and analyzing the findings. For the interview data, the researchers listened to the recordings and transcribed all of the interviewee's words. After transcribed, all interview data were organized according to the interview questions for the purpose of generalization. Then, the researchers identified pertinent themes for the analysis.

#### 4. Findings

According to Dennis (2008), the environmental conditions and anxiety have a considerable impact on the readers' comprehension. In particular, the readers may have many more problems understanding a text in an unorganized environment than those who read in a calm and controlled place. If the readers are in an unsafe place, they find it difficult to focus on their reading. When they are in safe environments, their reading comprehension ability will be better. Additionally, readers will lose their concentration in understanding a text when there are noises like televisions or radios. In this regard, do EFL learners have any problems in reading comprehension due to the reading environment?

**Table 1** Students' problems in reading comprehension due to reading environment

	Strongly disagree	Disagree	Not decided	Agree	Strongly agree
4. I will lose my concentration in understanding the text when there are noises.	2 (1.6%)	6 (4.7%)	27 (20.9%)	54 (41.9%)	40 (31.0%)
5. It's easier to lose my concentration in understanding the text when I read for enjoyment than for examination.	1 (0.8%)	12 (9.3%)	31 (24.0%)	46 (35.7%)	39 (30.2%)

Through the survey, the answer to the question does not come out as expected because the majority of respondents reported having problems in reading comprehension due to reading environment. In particular, up to 73% of the respondents agreed that they lose their concentration in understanding the text when there are noises while only about 6% disagreed (see item 4 in Table 1). Moreover, up to 66% of the respondents reported that it's easier to lose their concentration in understanding the text when they read for enjoyment than for examination while only about 10% reported their disagreement (see item 5 in Table 1). Generally, Table 1 shows that the majority of the EFL learners have problems in reading comprehension due to reading environment of being noisy and less controlled. As a matter of hypothesis, however, the researchers wondered that the EFL learners who are interested in reading could have fewer problems in reading comprehension due to reading environment than other EFL learners because the reading environment are not valued when they get self-motivated. Therefore, the researchers made a One-Way Anova test to test this hypothesis.

**Table 2** Problems in reading comprehension due to reading environment according to students' favorite skills

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval		Min	Max	
					Lower	Upper			
4. I will lose my concentration in understanding the text when there are noises.	listening	74	3.878	.9356	.1088	3.662	4.095	1.0	5.0
	in reading	22	<b>4.136</b>	.7102	.1514	3.821	4.451	3.0	5.0
	writing	8	3.750	1.0351	.3660	2.885	4.615	2.0	5.0
	speaking	25	4.120	1.0132	.2026	3.702	4.538	1.0	5.0
	Total	129	3.961	.9220	.0812	3.801	4.122	1.0	5.0
listening	74	3.946	1.0054	.1169	3.713	4.179	1.0	5.0	

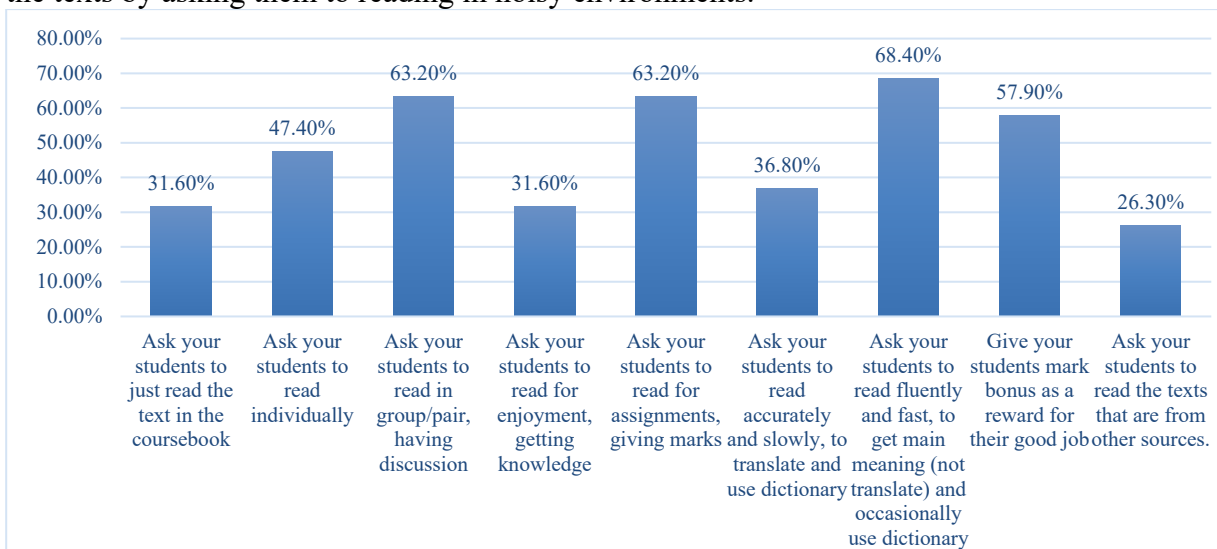


5. It's easier to lose my concentration in understanding the text when I read for enjoyment than for examination.	reading in writing speaking	22 8 25	<b>4.182</b> 3.375 3.440	.8528 1.0607 .8699	.1818 .3750 .1740	3.804 2.488 3.081	4.560 4.262 3.799	2.0 2.0 2.0	5.0 5.0 5.0
	Total	129	3.853	.9851	.0867	3.681	4.024	1.0	5.0

*Scale: 1. Strongly disagree 2. Disagree 3. Not decided 4. Agree 5. Strongly agree*

Surprisingly, the result did not come out as hypothesized. This means that the learners with high interest in reading have more problems in reading comprehension due to reading environment of being noisy and less controlled than other learners. Let us take a look at the average scores (mean) of questions from 4 to 5 that were marked by the respondents with high interest in reading (see Table 2). It is definitely clear that these average scores are all the highest. This indicates that there is a significant difference in their problems in reading comprehension due to such reading environment in terms of their favorite skills.

From the above discussion, the EFL learners are identified as currently facing problems in reading comprehension due to reading environment which are noisy and less controlled. More importantly, the learners with high interest in reading have more problems in reading comprehension due to such reading environment than those who are interested in listening, speaking, and writing. Simultaneously, the findings from the survey on teachers' reading teaching activities (see Figure 3) also show that a little attention has been paid to the impacts of noise on students' reading comprehension in teachers' teaching activities. In particular, up to 63.2% of teachers ask students to read in group/pair with discussion, an unfavorable reading environment, more than to read individually (47.4%). However, many teachers (63.2%) let students read in controlled environments where students can get concentrated the most in understanding the text while several teachers (31.6%) ask their students to read for enjoyment to get knowledge. Hence, what has been discussed so far urges the researchers to make a conclusion that the reading environment have big influences on EFL learners' reading comprehension; especially, on students with high interest in reading. However, teachers do not actually pay great attention to this aspect. Instead, they make students feel hard to understand the texts by asking them to reading in noisy environments.



**Figure 3.** Teachers' reading teaching activities

For now, it can be said that reading environment, especially noisy and uncontrolled ones, influence the readers' comprehension considerably. However, in which reading environment the EFL learners read the most, love reading the most, feel the most comfortable, feel the most uncomfortable, and read with the highest comprehension is a big question which needs to be answered to uncover more about the impacts of the reading environment on the EFL learners' reading comprehension.

**Table 3.** Relation between students' favorite reading environment and their comprehension

Reading environments	You read the most.	You love reading the most.	You feel the most comfortable while reading.	You feel the most uncomfortable while reading.	You read with the highest comprehension.
(1)	(2)	(3)	(4)	(5)	(6)
6. In class (individual work)	38 (29.5%)	18 (14%)	45 (34.9%)	19 (14.7%)	22 (17.1%)
7. In class (group work)	26 (20.2%)	19 (14.7%)	46 (35.7%)	29 (22.5%)	19 (14.7%)
8. In examination	28 (21.7%)	15 (11.6%)	30 (23.3%)	33 (25.6%)	37 (28.7%)
9. In bed for relaxing	21 (16.3%)	35 (27.1%)	49 (38%)	21 (16.3%)	9 (7%)
10. At home (in your own room)	20 (15.5%)	36 (27.9%)	60 (46.5%)	19 (14.7%)	12 (9.3%)
11. At home (in the living room where TV is on or others are talking, laughing, eating, or playing)	16 (12.4%)	23 (17.8%)	27 (20.9%)	60 (46.5%)	8 (6.2%)
12. In library where it's quite quiet	26 (20.2%)	32 (24.8%)	44 (34.1%)	20 (15.5%)	24 (18.6%)
13. In coffee shop where others are drinking and chatting	14 (10.9%)	18 (14%)	42 (32.6%)	44 (34.1%)	19 (14.7%)
14. In the park where it's quite quiet	19 (14.7%)	25 (19.4%)	49 (38%)	33 (25.6%)	16 (12.4%)
15. On the bus/train/plane with a lot of noise	11 (8.5%)	21 (16.3%)	22 (17.1%)	73 (56.6%)	10 (7.8%)

As clearly shown in Table 3 (column 2), the reading environment in which most students reported that they read the most include: individually in class (29.5% of the respondents reported), in examination (21.7%), in-class group work (20.2%), in library where it's quite quiet (20.2%), and in bed for relaxing (16.3%). Also, the result shows that very few students read in noisy environments, including: on the bus/train/plane with a lot of noise (8.5%), in coffee shop where others are drinking and chatting (10.9%), and at home (in the living room where TV is on or others are talking, laughing, eating, or playing) (12.4%). These findings indicate that the respondents read in controlled and quiet environments more often than in unorganized and noisy ones.

In terms of the favorite place to read, the statistics (see Table 3, column 3) show that students prefer reading in quiet places, including: at home (in their own room) (27.9% of the

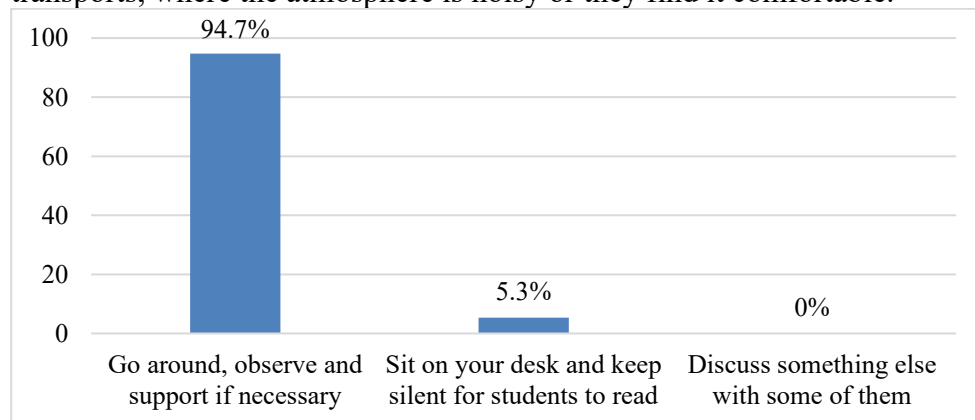
respondents reported), in bed for relaxing (27.1%), and in library where it's quite quiet (24.8%). On the contrary, very few students (11.6%) prefer reading in examinations and in class (both individual work (14%) and group work (14.7%)). These findings indicate that many respondents love reading in a quiet and uncontrolled environment rather than in a noisy and controlled one. When interviewing students, the researchers also found the same results. In particular, when asked "Do you like reading in quiet or noisy places? Why?", all (100%) of the interviewed students clearly stated "quiet places" because most of them explained that in quiet places, they can focus or concentrate on their reading and read more comprehensively. For example, Student 9 said "For me, I like 'quiet' because I can concentrate and think of the best answers" and Student 10 shared "I prefer to read in a quieter place because I can concentrate and read more effectively".

With regard to the comfort while reading, the statistics (see Table 3, column 4) show that a large number of respondents feel the most comfortable when reading in quiet places, including: at home (in their own room) (46.5%), in bed for relaxing and in the park where it's quite quiet (38%), and in library where it's quite quiet (34.1%). Although many students do not love reading in class (individual and group work), they feel comfortable when reading there. For example, 34.9% of the respondents feel the most comfortable when reading in class (individual work), and 35.7% feel the most comfortable when reading in class (group work). On the contrary, a large number of students feel the most uncomfortable when reading in noisy places (see Table 3, column 5). For example, 56.6% of the respondents said that they feel the most uncomfortable when reading on the bus/train/plane with a lot of noise, and 46.5% students reported that they feel the most uncomfortable when reading at home (in the living room where TV is on or others are talking, laughing, eating, or playing). Hence, these findings can explain the reasons why many students love reading in quiet environments or hate reading in noisy ones.

What has been discussed above shows that many respondents love reading in quiet places because they feel comfortable when reading in such places. However, the main purpose of conducting a survey on reading environment is that the researchers wanted to explore in which reading environment the students read with the highest comprehension because the purpose of reading is comprehension. As a matter of result, as remarkably shown in Table 3 (column 6), 28.7% (highest) of the respondents read with the highest comprehension when they read in examination, despite the fact that up to 25.6% of the respondents find it uncomfortable when reading in examination. Moreover, from teachers' perspective, many teachers think that their students have high comprehension if they read in examinations. In particular, when interviewing teachers, the research found that three out of five interviewed teachers think that their students reading in examinations will have high comprehension because they explained that it is quiet in examinations which most students prefer, and students can concentrate completely. For example, when asked "Do you think that students reading in examinations will have high comprehension? Why?", Teacher 1 said "I'm not sure but I think yes because it's quiet in exams, so students often have high concentration" and Teacher 2 said "Yes, because I see they stay concentrated all the time". However, some teachers are not so sure that reading in examinations, students can have high comprehension. In particular, when interviewing five teachers, the research found that two teachers do not think that their students reading in examinations will have high comprehension because their students often feel nervous or stressed and time-limited. For example, Teacher 3 said "No, because they often feel nervous or stressed" and Teacher 4 said "Maybe not because it's stressful and time-limited". At the same time, 18.6% of the student respondents reported that they read with the highest comprehension when they read in a library where it's quite quiet (see Table 3, column 6). Also, 17.1% reported

they read with the highest comprehension when they read individually in class (see Table 3, column 6). These findings indicate that in academic environments where the atmosphere is quiet like an examination, class, or library, the EFL learners read with the highest comprehension. In contrast, the survey found out that very few learners read with the high comprehension if they read in noisy places like at home (in the living room where TV is on or others are talking, laughing, eating, or playing) (6.2% of the respondents reported) and on the bus/train/plane with a lot of noise (7.8%); or if they read uncontrolled environments like in bed for relaxing (7%) and at home (in their own room) (9.3%).

In brief, from the findings from the student survey, it can be concluded that most EFL learners read comprehensively if they read in quiet or controlled environments, e.g., in classes, in examinations, or in libraries. On the contrary, they will have problems about comprehension if they read in unorganized or uncontrolled environments, e.g., at home, in bed room, on public transports, where the atmosphere is noisy or they find it comfortable.



**Figure 4.** Teachers' roles while students read

However, what do teachers often do in their reading classes? Do their teaching activities affect their students' comprehension? Unfortunately, the findings from the teacher survey show that most teachers ask their students to read in the controlled but noisy environments. For example, as shown in Figure 3, up to 63.2% of the teachers ask their students to read for assignments and give marks. Also, 47.4% of the teachers ask their students to read individually. Especially, very few teachers (31.6%) ask their students to read for enjoyment. However, up to 63.2% of the teachers ask their students to read in group/pair having discussion. Hence, to get more insights into the issue being studied, the researchers surveyed teachers' roles while students read. The result (see Figure 4) is that teachers hardly make any noise while their students read. In particular, the survey found that no teacher makes conversation with students while they read. Instead, teachers just go around, observe and support if necessary (94.7%) or sit on their desks and keep silent for students to read (5.3%). Therefore, in terms of reading environment, teachers' teaching activities do not currently affect their students' reading comprehension. This is because most teachers let their students read in controlled environments where, as reported, the students read with the highest comprehension. Furthermore, they never do anything that may distract their students while they read. Additionally, in the interview, when asked "In class, do you usually arrange your class to read individually or in group? Why?", one teacher (Teacher 5) shared that "I often ask them to read individually because when they work in a group they chat rather than reading". This finding is absolutely valuable because, from the researchers' observation, when Vietnamese students work in groups, they often start their

personal conversation rather than doing the assigned tasks. Therefore, that is why up to 47.4% of the teachers ask their students to read individually (see Figure 3).

In the end, as stated early in this section, in order to conclude the extent to which students' reading comprehension are influenced by reading environment, it is necessary to compare the results from student and teacher surveys. As found from the teacher survey, very few teachers (31.6%, see Figure 3) ask their students to read for enjoyment, which is considered less effective from students' perspective in enhancing comprehension. Instead, most teachers let their students read in controlled environments where, as reported, the students read with the highest comprehension. Furthermore, they never do anything that may distract their students while they read.

Therefore, it can be concluded that EFL learners hardly encounter problems with reading comprehension due to the reading environment that teachers create in class. However, if the students read in the unorganized or uncontrolled environments, e.g., at home, in bed room, on public transports, or where the atmosphere is noisy or they find it comfortable, they will have problems about comprehension. Hence, here are valuable findings that teachers should take advantage of when they design reading activities for their students.

## **5. Discussion**

The findings of this study contribute to the growing body of literature on reading comprehension in EFL contexts by highlighting the role of the reading environment—a relatively underexplored yet crucial factor. While extensive research has focused on instructional strategies (Li et al., 2021; Namaziandost et al., 2020), affective variables such as motivation and anxiety (Maghsoudi et al., 2020; Al-Obaydi et al., 2024), and the integration of technology (Ebadi & Ashrafabadi, 2022; Liu et al., 2023), the impact of physical and situational contexts in which reading occurs remains limited. This study addressed this gap by investigating how Vietnamese EFL students perceive and are affected by their reading environments.

According to Dennis (2008), readers' comprehension is significantly influenced by their surroundings. In particular, calm and safe environments support better comprehension, while disorganized and noisy settings increase cognitive load and distract attention. This was confirmed in the current study, where 73% of EFL students reported losing concentration due to environmental noise. Moreover, 66% acknowledged that they are more easily distracted when reading for enjoyment than for exams. These results align with findings from Solati et al. (2024), who reported that noisy, uncontrolled environments contributed to heightened reading anxiety among medical students, further impairing their comprehension. Interestingly, the hypothesis that highly motivated readers would be less affected by poor reading environments was not supported. Instead, students who expressed high interest in reading showed even greater sensitivity to noisy or uncontrolled surroundings. This counterintuitive result may be explained by the fact that motivated learners set higher expectations for their own comprehension and engagement. As a result, they may be more disrupted by environmental distractions that interfere with their reading flow. Similar dynamics have been observed in other domains: Maghsoudi et al. (2020) found that students with higher reading motivation also experienced greater performance fluctuations when reading environments failed to support concentration.

From a behavioral perspective, survey data revealed that most EFL students preferred reading in quiet, controlled spaces such as the library (20.2%), in class (29.5%), or during exams (21.7%), and very few reported reading in noisy areas like buses (8.5%) or coffee shops (10.9%). This finding echoes Liu et al. (2024), who argued that high cognitive load impedes reading performance, and that noise or visual distractions in multimedia environments can

exacerbate this load. Similarly, students in the current study preferred reading at home in their own rooms (27.9%) or in bed (27.1%)—locations associated with comfort and solitude. While comfort does not automatically equate to high comprehension, it seems that learners associate quiet spaces with enhanced focus and deeper engagement, consistent with observations made in Tsegaw et al. (2024), where tool mediation and learning environments significantly affected reading outcomes. Importantly, many students reported that they achieved the highest levels of comprehension in formal academic settings—especially during examinations (28.7%), despite reporting discomfort due to pressure and time constraints. Teachers echoed this belief during interviews, suggesting that a quiet exam setting is conducive to concentration and comprehension. However, a minority of teachers cautioned that exam-related anxiety could reduce comprehension, aligning with Al-Obaydi et al. (2024), who found that anxiety has a negative correlation with reading performance. Thus, while controlled environments support comprehension, emotional states (e.g., stress or motivation) remain influential moderators.

When comparing student experiences and teacher practices, another gap emerged. Although students overwhelmingly expressed a preference for reading individually and in quiet environments, 63.2% of teachers asked students to read in groups or pairs during class. While group reading may offer benefits like peer collaboration and idea exchange, it can also lead to off-task behavior—especially when students engage in unrelated conversations, as observed by both teachers and researchers in this study. Namaziandost et al. (2020) demonstrated that cooperative learning (e.g., jigsaw technique) significantly improved comprehension; however, such success depends on structured task design and student accountability—conditions that may not always be met in informal group settings. Moreover, several recent studies support the notion that learning contexts—including digital and virtual environments—play a critical role in comprehension. Ebadi and Ashrafabadi (2022) showed that learners using Augmented Reality (AR) reported higher interest, better comprehension, and more favorable attitudes toward reading. Similarly, Liu et al. (2023) introduced an article-structure strategy-based virtual reality approach (ASS-SVVR), which improved comprehension and motivation. These studies imply that immersive, well-structured, and distraction-free environments can significantly enhance reading outcomes, even in digital formats. However, not all digital formats guarantee improvement. Liman Kaban and Karadeniz (2021) found that while gamified e-reading increased motivation, it did not significantly improve comprehension, likely due to distractions inherent in such environments. This supports the present study's finding that reading in uncontrolled or stimulating environments—no matter how comfortable or enjoyable—does not necessarily support comprehension. Even in the comfort of one's own bedroom, only 9.3% of students reported reading with the highest comprehension, and just 7% did so while reading in bed.

The current study also aligns with research on instructional design and its relationship to environmental control. For example, Wei (2025) found that online reading circles fostered both critical thinking and comprehension, particularly when learners were actively engaged in structured, distraction-minimized virtual classrooms. Likewise, Ostovar-Namaghi et al. (2024) demonstrated that interactive reading games improved comprehension only when the learning context remained focused and organized. These studies reinforce the idea that how and where reading takes place matters just as much as what is being read or how reading is being taught. Furthermore, Ibrahim et al. (2023) emphasized that learners who received collaborative learning, scaffolding, and self-assessment performed better in reading comprehension and experienced less anxiety. However, such gains depended on the design of the learning environment. When group settings were chaotic or insufficiently supported by the teacher,

anxiety and distraction increased. This suggests that teachers must carefully manage environmental conditions to ensure that collaborative methods do not undermine comprehension. It is also worth noting that while reading in exams or libraries was associated with high comprehension, some students still felt uncomfortable in these settings. For example, 25.6% of students reported discomfort during exams despite their high comprehension. This duality highlights the complex interplay between physical environment, psychological state, and cognitive performance, an issue echoed by Namaziandost et al. (2021), who showed that authentic materials reduced reading anxiety and improved comprehension, demonstrating how materials and contexts must be aligned to support learner outcomes. Lastly, the present findings reveal a valuable insight: teachers often underestimate or overlook the influence of reading environments. Though many teachers avoided distracting behaviors during reading sessions (e.g., no talking, minimal interruption), their instructional design (e.g., favoring group reading) often conflicted with student preferences for quiet, individualized reading. While 47.4% of teachers did allow individual reading, only 31.6% encouraged reading for enjoyment—a condition shown in prior studies (e.g., Suk, 2016) to foster reading fluency and comprehension when conducted in suitable environments.

## **6. Conclusion**

Based on the discussion above, a conclusion is made that EFL learners' reading comprehension is significantly influenced by the reading environment. If they read in the unorganized or uncontrolled environments, e.g., at home, in bed room, on public transports, where the atmosphere is noisy or they find it comfortable, they will have problems about comprehension while reading. Therefore, the role of teachers in improving their students' reading comprehension is that they should avoid letting students read the unorganized or uncontrolled environments where the atmosphere is noisy or they find it comfortable because they will have problems about comprehension if they read in those environments. In addition, more quiet reading spaces should be built for EFL learners because most of them love reading in quiet places and they can have high comprehension when they read in such places.

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## **Ethical considerations**

This research adhered to ethical principles to ensure the integrity, confidentiality, and well-being of all participants. Prior to collecting data, participants were informed and gave their consent, ensuring that they understood the study's purpose, procedures, and potential risks. Participants' privacy and confidentiality were protected by anonymizing responses and securely storing data. Additionally, the research strived for objectivity, avoiding biases in data collection, analysis, and reporting.

## **Conflict of interest**

The authors declare no conflicts of interest.

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