

# GENDER AND ITS ROLE IN CRITICAL THINKING AND CRITICAL THINKING STRATEGIES USED BY EFL LEARNERS

## EL GÉNERO Y SU PAPEL EN EL PENSAMIENTO CRÍTICO Y LAS ESTRATEGIAS DE PENSAMIENTO CRÍTICO UTILIZADAS POR LOS ALUMNOS DE EFL

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### ABSTRACT

Among many aspects of reading that were under investigation rightfully and thoroughly, the effect of gender on critical thinking in general and critical thinking strategy use, in particular, seemed to be neglected. The aim of this study is to investigate the possible role of gender in the critical thinking and critical thinking strategy use of EFL learners. To do so, a qualitative case study consisting of four participants was conducted. Two of them were male and the other two were female students at the University of Mazandaran. Analysis of participants' recorded think-aloud protocols reveals that first, gender had no role to play in the critical thinking and critical thinking strategy use; Second, both male and female participants of the study used the same variety of strategies. In this way, there was no difference in male and female strategy use and nothing particular emerged as feminine strategies.

**Keywords:** Critical thinking; critical thinking strategies; gender-based reading; EFL learners.

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## RESUMEN

Entre muchos aspectos de la lectura que estaban siendo investigados correctamente y a fondo, el efecto del género en el pensamiento crítico en general y el uso de estrategias de pensamiento crítico, en particular, parecían ser descuidados. El objetivo de este estudio es investigar el posible papel del género en el pensamiento crítico y el uso de estrategias de pensamiento crítico de los estudiantes de inglés como lengua extranjera. Para ello, se llevó a cabo un estudio de caso cualitativo formado por cuatro participantes. Dos de ellos eran hombres y las otras dos mujeres estudiantes de la Universidad de Mazandaran. El análisis de los protocolos de pensamiento en voz alta grabados por los participantes revela que, en primer lugar, el género no tenía ningún papel que desempeñar en el pensamiento crítico y el uso de estrategias de pensamiento crítico; En segundo lugar, tanto los participantes masculinos como femeninos del estudio utilizaron la misma variedad de estrategias. De esta forma, no hubo diferencia en el uso de estrategias masculinas y femeninas y nada en particular surgió como estrategias femeninas.

**Palabras clave:** Pensamiento crítico; estrategias de pensamiento crítico; lectura basada en el género; estudiantes de inglés como lengua extranjera.

## INTRODUCTION

Reading ability as one of the skills of learning English is of utmost importance for teachers and students alike. Recent research on reading shows that reading is a complex cognitive ability that is indispensable for the purpose of developing English as a foreign language (Khonamri et al., 2021; Shang, 2010). Chastain asserts that “reading is the activation of relevant knowledge and related language skills in order to accomplish an exchange of information from one person to another” (Chastain, 1998). In Iran where access to English native speakers is limited, reading becomes more important. But sometimes the process of reading becomes insufficient and ineffective; due to the factors that influence it. Critical thinking is one of the factors that can influence the quality of reading.

According to Ennis, learners need to think clearly and rationally. They must engage themselves in reflective thinking which is the ability to decide what to believe (Ennis, 2011). Nasrollahi et al. (2015) argue that, critical thinking is an interactive process. Critical readers are the ones who constantly ask questions about the text they are reading.

Raising students who are critical thinkers must be the fundamental goal of learning. Nourmohammadi asserts that critical thinking is significant in higher education and profession. Several authors addressed this issue during the Covid 19 pandemic (Hašková et al., 2020; Petrikovičová et al., 2021). It is the core of higher education and students who reach those levels of qualification must be critical thinkers (Nourmohammadi et al., 2012).

Tovani believes that, for the purpose of empowering critical thinking sense in students, they must be able to analyse and understand deep layers of text. For this reason, a critical reader is the one who can develop personal thinking strategies in order to comprehend the text better (Tovani, 2000). Based on these facts the following critical thinking strategies are suggested to help those readers who want to be critical thinkers. These strategies are annotating, previewing, scanning and skimming, facts versus opinion, drawing a conclusion, monitoring, summarizing, paraphrasing, synthesizing and questioning.

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It is worth mentioning that, equipping learners with these strategies may still be insufficient. During the process of reading, there may be some factors that can influence the use of strategies and ultimately understanding the text. These factors are self-efficacy, motivation, learning styles and of course gender. Gender is an underestimated factor that can either disable or enable learners in comprehending the text.

According to Douvan, gender differences have implications in all aspects of life including the way in which people comprehend texts. She asserts that female readers have certain inborn strategies that assist them to think and read critically (Douvan, 1975). The following four items are the inherent strategies used by females.

- Females are more concerned than males with the inner world of feeling, emotion and fancy. This inward turn is the main source of creativity. The raw material for reaching the deep layers of text is of course creativity. In this way, creative readers are the ones who are more prone to develop critical thinking skills.
- The moments of deep night, the quiet contemplation of nature and the solitary walk on the moor are all associated with the so-called passive nature of females. This passivity is in direct opposition with the everyday activity of men, which makes them less prone to develop critical thinking skills.
- Females live a significant part of their lives in fancy and internal storytelling. It sounds paradoxical that males create an internal map to guide their external world, while females use their external life realities to develop an internal story. Such capabilities to feel a storyline and complete a sequence of events are central in reaching deep layers of text.
- The most common component of the female style is empathy. Empathy makes use of the self as an instrument for understanding the text. In the sociological sense of the word, empathy is the product of marginalization. The ones who live in the margin between two different genders tend to develop the capacity for interpreting texts through the use of their own experiences. The connection between reader and text will ultimately lead to critical thinking.

Shang explored the three most common strategies used by Taiwanese EFL learners, including cognitive, metacognitive and compensation strategies. He assessed 53 participants with the reading comprehension section of the TOEFL test to check participants' reading comprehension ability. The results revealed that the most common strategy used by Taiwanese learners is the metacognitive strategy, followed by compensation one, then followed by cognitive one. Moreover, he found a significant positive relationship between self-efficacy and the use of reading strategies (Shang, 2010).

Fahim, Kazemi and Alemi conducted research concerning the relationship between participants' critical thinking ability and their performance on the reading section of TOEFL. The reading section of PBT (paper-based TOEFL) and the Critical Thinking Appraisal were administered to 83 advanced female EFL learners who were studying English at a private institute in Iran. The results showed a significant positive correlation between critical thinking skills and participants' performance on the above-mentioned instruments. In this regard, those learners with greater critical thinking ability performed better in answering the reading comprehension questions (Fahim et al., 2010).

In a similar study conducted by Kamali and Fahim, in order to explore the association between critical thinking and reading comprehension of texts containing unknown vocabularies, 63 intermediate EFL participants were assessed. A critical thinking questionnaire, a vocabulary checklist and a battery of four reading tests were the instruments. Results showed that the participants' level of critical thinking

ability and their score on the reading section of paper-based TOEFL are highly correlated (Kamali and Fahim, 2011).

Nikolova tried to determine the effects of gender on vocabulary retention and reading comprehension in a foreign language. The experimental group consisted of 181 men and women who were asked to read a Spanish passage on a computer and create notes for the unknown words they encounter. The control group was asked to read the annotated passage. Results showed a complex relationship between gender, reading comprehension ability and vocabulary retention. The study failed to achieve statistical significance. However, analysis of attitude questions revealed a significant association of gender with the way participants comprehend texts (Nikolova, 2011).

In a study conducted by Bray and Barron, the association of participants' interest in the text and their comprehension of the text were investigated. In addition, experts explored whether or not the comprehension-interest relationship operated differently for males and females. A total of 98 passages was administered to participants. Each passage was followed by 6 to 19 comprehension questions. One-third of the questions tested literal comprehension and two-thirds of the questions demanded participants to make inferences and higher-order judgments. Moreover, the content of the passages was classified as being male-focused, female-focused or neither. If a passage's protagonist was male or female, it would be classified as male or female-focused. If a passage contained a balance of both genders, it would be classified as neither. Among 98 passages, 26 were male-focused, 9 were female-focused and 63 others were neither male nor female-focused. Results showed that participants know a great deal about the topics that interest them. In this regard, they comprehend their favourite texts better. Nevertheless, the relationship between interest and comprehension is different for males and females. Since male participants are mostly interested in male-focused passages and female participants are mostly interested in female-focused passages (Bray and Barron, 2011).

As it is obvious research concerning reading, reading strategies and critical thinking are not rare. All of these issues are of utmost importance in the area of teaching English as a foreign language. The importance becomes more significant in situations where the way to access a foreign language is through reading. In this way, the issues concerning reading have more potential to be investigated. Among many aspects of reading that were under investigation rightfully and thoroughly, the relationship between gender and reading in general and reading strategies, in particular, was neglected. To the best of our knowledge, no previous study has investigated the strategies that are common among females. Feminine reading strategies have been overlooked especially in a patriarchal society like the Iranian one. Moreover, there is not any study conducted around the possibility of teaching the so-called feminine strategies to male students. Therefore, the aim of this study is to investigate the possible relationship between gender and the use of reading strategies, the most common strategies among females and the possibility of teaching the so-called feminine critical reading strategies to Iranian male EFL learners for the purpose of improving their critical reading.

As there are limitations imposed upon Iranian EFL learners concerning natural encounters with native English speakers, reading is the main source of input. It plays a significant role in the success or failure among second or foreign language learners. Khonamri and Roosta'ee maintain that the ability to read and ultimately learn from reading is of utmost importance. Among different factors that may affect the quality of reading, gender, critical thinking and strategy use were investigated in these studies (Khonamri and Roosta'ee, 2014). There has been some research concerning the relationship between learners' critical thinking and the use of strategies. However, research investigating the relationship

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between gender and the strategies used by learners for the purpose of improving critical thinking is limited. The problem is the unexplored relationship between Iranian EFL learners' critical thinking ability, their gender and use of strategies.

Many studies were conducted concerning reading, critical thinking and the strategies used by learners, including Shang (2010), Ennis (2011), Nourmohammadi et al. (2012). These strategies are the ways through which readers maintain a connection with the written text. Applying these strategies means the improvement of reading. It can provide readers with a deep understanding and a more sophisticated comprehension of the text (Khonamri et al., 2021).

On the other hand, reading alone is not sufficient; understanding ideas from texts and reaching deep layers of comprehending a text requires different strategies and thinking skills. Critical thinking as one of these skills is necessary for learners to gain academic success. Since many scholars emphasize the importance of critical thinking and the role it plays in the success or failure of learners, it is important to explore the concept of critical thinking, the strategies learners use to achieve this ability and the factors that can affect it. One of the factors that can influence critical thinking is gender (Nourmohammadi et al., 2012). To the best of the researcher's knowledge, no attempt was made to explore the relationship between Iranian EFL learners' gender and their use of critical reading strategies. This study tries to fill this gap and also tries to investigate the possible differences between the strategies that are common among EFL Iranian male and female learners and draw out the strategies that are commonly used by females. Moreover, the present study aims to explore whether or not the strategies commonly used by females help them to be better critical thinkers than men. The final step is to investigate whether the strategies commonly used by females are teachable to males or not.

## **LITERATURE REVIEW**

### **Gender as one of the factors that can influence critical thinking**

It should be noted that equipping learners with the power of critical thinking may still be insufficient. Apart from critical thinking, there are other factors that have the potential to influence the quality of reading. Gender is one of these factors. It is an underestimated factor that has implications in all aspects of life including reading (Douvan, 1975). To explore the possible gender differences in reading, Hawke, Olson, Willcut, Wadsworth, and Defries used the information gathered from 1133 twin pairs in which one member of each pair had reading difficulty and 684 twin pairs with no history of reading difficulty. The results of the study revealed that reading difficulties are more prevalent in men than women. Prevalent reading difficulties are only one side of gender-based reading as a multi-faceted concept (Hawke et al., 2009). After decades of inquiry, gender-based reading is still of utmost importance in the area of teaching. In spite of its importance, there is not enough substantive rigorous research into the effects of gender on reading. One of the few studies conducted in the area of gender-based reading is done (Bortolusic et al., 2010). They made a systematic empirical investigation and examined the effects of protagonist gender on reader evaluation of the novels. Researchers hypothesized that there is a gender-match effect within which females prefer stories with female protagonist and males prefer stories with male protagonists. In order to test such a hypothesis, researchers created extracts in which male protagonists were changed to female protagonists and vice versa. Readers evaluated the texts in areas of story world and discourse. Results showed that both male and female readers voted for the story world within which there is a male protagonist. This is incongruent with the gender-match hypothesis. Martinez conducted another study on the effect



of gender stereotyping on learners worldview, including reading. The researcher asks the girls to describe what they like about being female and then what they find most difficult. The lists of things they like often include having greater access to their emotions, close friendships, and the capacity for pregnancy and childbirth. The lists of difficulties often include their feelings of being judged on looks alone; not "fitting in" with media stereotypes; and a sense that they can never be thin enough, pretty enough, or happy enough. The next day, the researcher did the same exercise with the boys. The boys typically report that they always have to be tough; watch themselves, lest they appear too smart; and be careful not to do anything that could be construed as "gay" or "girlie". Girls sometimes talk about living with a fear of rape and violence that rarely affects boys. Boys may talk about how guilty and trapped they feel when they succumb to the pressure to objectify girls, who are often their friends. In same-sex groups, they experience another forum for talking and listening to one another. In these groups, girls may feel safe enough to talk about being sexually harassed and not knowing how to handle it, about feeling trapped by a double standard of conduct but feeling powerless to do anything about it, or about feeling controlled by media images of female sexuality. In the all-male group, boys may open up about the effects of homophobia or their confusion about pornography. These students begin to see how gender stereotypes can limit their view about individuality, affect their worldview and change their comprehension of texts in gender-based readings (Martinez, 2014).

### **The effect of gender on strategy use**

It should be highlighted that only sound empirical systematic investments will lead to the development of knowledge related to gender-based reading. Thus, there is a need to have a closer look at gender and systematic strategy use in second language reading. Phakiti takes a closer look at this concept and examines gender differences in cognitive and metacognitive strategy use. Participants of this study were 384 Thai university students who took a multiple-choice reading comprehension test. Then, they filled out a questionnaire concerning strategy use. Through multivariate analysis of variance, gender differences were drawn out. Males and females had no significant difference in their reading comprehension and use of strategies. Surprisingly, males reported higher use of metacognitive strategies than females (Phakiti, 2003).

Having these issues in mind, the study focused on answering the following questions:

1. Does participants' gender affect their critical thinking strategy use?
2. Is there any difference between the critical thinking strategies that are used by male and female Iranian EFL learners? If yes, what are the most common strategies used by Iranian female EFL learners?

## **METHODOLOGY**

### **Research design**

A qualitative case study was conducted in order to shed light on the role of gender in strategy use, to seek the possible difference between the strategies that are common among male and female Iranian EFL learners, and to investigate the strategies that are common among female learners. The case study design was chosen because of two reasons. First, due to the nature of this study that is qualitative, the researcher needed to examine the quality of participants' thinking procedure. A case study with a limited number of participants was the best choice, providing enough time and space to analyse each

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participant critically. Second, a case study is the best design that can make this research practicable. Moreover, this study shares some similarities with time-series design because it follows a single group of participants over a period of time. In this way, participants serve as their own control group. The condition is especially used in the third research question where only the male participants are under investigation.

## **Participants**

The participants of the following study were two males and two females Iranian EFL learning students at the University of Mazandaran. They were examined while they were passing their reading course. Although participants' cultural background and their family conditions that are under the influence of gender stereotyping and have the potential to change the results are not distinguishable, the researcher tried her best to select the participants who share the same level of background knowledge of English. The best way to achieve such equality in participants' level of background knowledge of English was consultation with their professor and based on the result of a proficiency test. In this way, for answering the first research question two male and two female Iranian EFL learners were chosen. The two male participants were investigated for answering the third research question, too. It is worth mentioning that before starting the study, consent of the participants was granted in order to take care of the ethical issues of the research.

## **Instruments**

Two types of instruments were chosen for the purpose of this study. First, participants were required to read an edited version of a reading book. The book was compiled by their professor who has years of experience in the area of teaching how to read. She has a number of researches conducted around the subject of reading, too. Therefore, this book was one of the best possible sources to elicit participants' reading strategies. Consequently, the researcher did not try to change the text that was meant to tangle participants' minds.

Three texts were chosen to check participants' critical strategy use. The first one is an extract from the novel "Awakening by Chopin". The two other texts are short stories; namely "The yellow wallpaper" by Charlotte Perkins Gilman and "The story of an hour" by Chopin. The genre of all pieces is fiction. The rationale behind choosing this genre is the purpose of the study. It is worth mentioning that, the purpose of this study is to analyse participants' critical strategy use. According to James, fiction is the best genre since it can provide enough space for participants and activate their thought processes. It goes without saying that all participants have read the full text before. Therefore, reading pieces of text cannot harm their comprehension and critical strategy uses.

Second, there is the think-aloud protocol which reveals participants' internal thought processes. Among many possible instruments to achieve participants' mental activity including scenario analysis, brainstorming, mind mapping, spider scribe, x mind, free mind, text 2 mind map, the think-aloud protocol was chosen because of several reasons. First, unlike other instruments which are done online, think-aloud protocol can be done offline. Secondly, all instruments, except think-aloud protocol, use technological tools such as computers and laptops. Think-aloud protocol needs a single pen and paper. This advantage of think aloud is especially highlighted in a situation like Iran where apart from the Internet, the least technological tools are not available. Third, Iranian EFL learners of Mazandaran University, whether male or female, are more or less familiar with the tips and tricks of

think-aloud protocol. Partly because their professor used think-aloud protocol in her instruction. This advantage lessens the pressure on the part of participants and the researcher alike.

### **Data collection procedure**

Phase one includes a separate session before starting the study within which the researcher submitted a consent form to the participants so that the ethical issues of the study were considered right from the onset. The chosen participants were taught the knots and bolts of the think-aloud protocol just to make sure that the results will not be affected by their lack of knowledge of the instrument. As limiting participants' knowledge about the aims of the study will result in extracting more typical behaviours on the part of the participants, the researcher deliberately misinformed them about what was going on. In this case, participants would think that the purpose of the study was to check their comprehension of the text.

The research data in this study were drawn from three texts. In case of answering the first research question that centres on the effects of gender on critical thinking strategy use, the submitted texts were all the same. In the second phase, participants read the text once. Then in the second round of reading the same text and through think-aloud protocol, participants recorded their voices so that the researcher can analyze them. In the third phase, the participants' strategies were critically analysed through listening to the recorded voices and reading the notes taken through observation by the researcher, so that the effect of gender on critical thinking strategy use becomes apparent. If there existed any effects, those strategies that were most common among female learners were supposed to be drawn out for further investigation. In the fourth phase, only the male participants were supposed to be examined. Those types of strategies that were common among EFL female learners would be explicitly taught to male learners.

The researchers took care of two considerations in order to improve the validity of the research. First, the time lapse between treatment and testing was seven days that is neither too soon nor too late and in this way, the practice effect was controlled. Second, the researcher planned to submit two different sets of text (each one including five pieces of text) to the male participants of the third research question. In the fourth session, after seven days, the male participants were asked to read the texts once. In the second round of reading and through think-aloud protocol, recording participants' voices, observing and taking notes, the researcher could check whether participants' critical reading strategies have improved after explicit teaching of the strategies that are common among females.

As most qualitative research was conducted in the field of teaching English as a foreign language, the researcher's recording and observation formed the basis for data analysis. Due to the fact that the observer and researcher of this study is the same person, there is no need for instruments like checklists to identify participants' types of strategy use. Furthermore, there was a second-rater to ensure that the coded strategies were correctly recognized.

In the second session, the participants read the assigned text twice. In the second round of reading, they revealed their inner thoughts through think-aloud protocol, recorded their voices and sent them to the researcher. The researcher took notes of participants' critical thinking strategies that came to the surface. The next step was analyzing the gathered data to check whether or not gender affects participants' critical strategy use.



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In the fourth session, each male participant receives a new set of texts. In the second round of reading and through think-aloud protocol, participants revealed their inner thoughts, recorded their voice and sent it to the researcher. The researcher took notes to investigate whether the strategies commonly used by females are teachable or not.

## **RESULTS**

### **Analysis of the critical thinking strategies used by participants**

As it was mentioned earlier, participants of this study were two males and two female Iranian EFL students at the University of Mazandaran. It is worth mentioning that participants' cultural background and family conditions were not investigated. But the researcher tried her best to choose the participants who shared the same level of English proficiency. Two males and two females were engaged in 3 texts. The first one was an excerpt from the novel "Awakening" by Chopin. The second one was a short story; "The Story of an Hour" by Chopin. The third one was a short story; "The Yellow Wallpaper" written by Charlotte Perkins Gillman. In the following paragraphs, participants' critical strategy use is presented. The researcher tried to codify participants' protocols and their analysis of each text in a way that best suits readers' understanding.

In this way, the first participant, who is a male, is coded as participant 1. The second participant who is a male is coded as participant 2. The third participant who is a female is coded participant 3. The fourth participant who is a female is coded participant 4. Analysis of each participant's critical strategy use is provided, respectively.

#### **Analysis of critical strategy use by participant 1**

Listening to this participant's recorded voice for text 1 revealed that he is indeed a critical reader; because he used a variety of critical strategies to analyse the text. Analysing his voice which was in the form of think-aloud presented the types of strategies he used and the number of times he used each one of these strategies. In this way, he used annotation 10 times during the text. The forms of annotation that he used mainly were paying attention to the key words and commenting on the crucial sentences. Contextualizing was the other strategy that he used. The way he shared his personal experience of the same context was so interesting. He used this strategy two times during the reading of the text.

He made no use of summarizing or outlining. But his voice contained several examples of paraphrasing. In other words, he described each and every crucial sentence so that its understanding becomes easier. He made 12 uses of paraphrasing. Although the figurative language of this text is not rare, his use of this strategy is almost rare. He could find only one figurative word. Furthermore, participant 2 mentioned some of the protagonists' behaviours as taboo and against the beliefs and values of most men including him. At last, he mentioned that the most crucial sentence is a try to heighten readers' feelings. Therefore, he could successfully recognize the emotional manipulation of the text. Other strategies including evaluating authors' arguments, judging writers credibility, analysing the text in other disciplines, looking for patterns of opposition and values were not used at all.

### **Analysis of critical strategy use by participant 2**

Listening to these participants' recorded voice for text 1 showed that he used three types of strategies. However, this participant used this limited number of strategies in almost every paragraph. Although text 1 is an excerpt and shorter than the other two texts, but the number of times he applied the strategies is surprising. Annotating was the most widely used strategy in his recorded voice. His use of annotation was mainly in the form of commenting or questioning ambiguous sentences and emphasizing the key words. While reading annotation he used annotation for over 22 times. The other strategy that he used is paraphrasing. Every single ambiguous sentence that was questioned through annotation had a paraphrased version. In other words, he marked the ambiguous sentences with annotation and then decoded them with paraphrasing. He used paraphrasing for 10 times while reading the text.

The last strategy used by this participant was summarizing. He applied this strategy right at the end of each paragraph. Thus, participant 2 used paraphrasing 7 times while reading the text. It seems that summarizing was the key strategy that helped him to make sure everything is clearly understood, although he used a limited number of strategies; namely annotation. Paraphrasing and summarizing, his total number of critical strategy use was far larger than the other participants'. Moreover, his understanding of the text was so deep and thoughtful. The other strategies namely; contextualizing, reflecting on challenges to readers beliefs and values, outlining, evaluating the logic of authors' arguments, looking for patterns of opposition, exploring the figurative language, recognizing emotional manipulation, judging the authors' credibility and analyzing the text in other disciplines were not used at all.

### **Analysis of critical strategy use by participant 3**

Quite different from the other participants, this one did not analyse the text line-by-line or paragraph-by-paragraph. Her way to analyse the text was holistic. Moreover, it seemed that she had a good command of critical strategies. As she mentioned her points in a listed format, the researcher tried to present the strategies in the same order. The first point that she mentioned was related to the most crucial sentence of the excerpt. She emphasized the key word of that sentence through annotation. Then, she commented on the key words and finally came to the conclusion that Chopin gave the gist of the novel through this single sentence.

It is worth mentioning that, participant three believed the authors' choice of words was so harsh as if someone is begging for attention. Recognizing authors' emotional manipulation was done in the best possible way by participant 3. In this way, participant 3 applied two strategies, annotation and recognition of emotional manipulation, in a single sentence. The second point that she mentioned was the figurative language of the text. She could successfully identify the symbols through the text. The third point that she mentioned was the contrast that existed in between the mainstream society's women and the protagonist of the excerpt. Participant 3 believed that protagonists' behaviour was taboo. Hence, she will be outcasted. Just like what happens to our society's women if they practice a taboo. This was the best use of contextualization.

The fourth point that she mentioned was the summary of the excerpt with the description of all the crucial points. In this way, she used annotation 12 times, recognition of emotional manipulation 1 time, exploring the figurative language 8 times, contextualization 1 time and summarization 1 time.

The other strategies; namely, paraphrasing, outlining, reflecting on the challenges to readers' beliefs and values, evaluating the logic of an argument, looking for patterns of opposition, judging the writers credibility and analysing the text in other disciplines were not used at all.

#### Analyzing critical strategy use by participant 4

Evaluating the participants recorded voices revealed that the more critical strategy readers use, the better will be their understanding. Just like the other participants, annotation was the most used strategy. However, unlike others, she did not use commenting, questioning or mentioning key words as the only forms. This participant divided each paragraph into main ideas and supporting sentences, which is quite unusual in reading fiction. She used annotation 22 times while reading the text. The interesting point is that after emphasizing the main idea and supporting sentences, she rephrased all that she could understand. Therefore, she applied paraphrasing, too. This participant used paraphrasing 8 times through the text. Moreover, she paid careful attention to the context of the story and tried to analyze the protagonists' behaviours in relation to the stereotypical role of women in that context. Hence, she used contextualization two times.

This participant was also cautious about the key sentence. Although she could not recognize the emotional manipulation hidden in the key sentence, nearly all the figurative words through this sentence were identified. In this way, she mentioned 8 words as figurative. It was surprising, but this participant was the only one who analyzed the text in other disciplines. Talking about the authors' other stories revealed this fact. In continuation, she mentioned the authors' mindset based on the date that she lived, her other stories and of course the stereotypical role of women at that time. In this case, participant 4 analysed the text in other disciplines and judged her credibility based on the results of the analysis. The other strategies, namely; outlining, summarizing, reflecting on challenges to readers beliefs and values, evaluating the logic of authors' argument and judging the writers' credibility were not used at all.

As it was mentioned before, the first research question tried to check whether there existed a relationship between gender and strategy use. In other words, this study tried to shed light on whether there were some strategies common among female learners or not. As it was mentioned before, the researchers' purpose was to extract the types and number of strategies each participant used. After analysing participants' recorded voice, the following results were found. On one hand, participants 1 and 2 who are male used annotation, paraphrasing, summarization, contextualization, evaluating the logic of an argument, looking for patterns of opposition, exploring the figurative language, outlining, recognizing the emotional manipulation, analysing the text in other disciplines, judging the authors' credibility and reflecting the challenges on readers' beliefs and values.

Participants 1 and 2's critical strategy use is illustrated in the table 1, so that the readers can easily grasp the finding and results of the first research question.

Table 1. Table of critical strategies used by participants 1 and 2

| <b>PARTICIPANTS STRATEGIES</b> | <b>PARTICIPANT 1</b> | <b>PARTICIPANT 2</b> | <b>TOTAL</b> |
|--------------------------------|----------------------|----------------------|--------------|
| ANNOTATION                     | 36                   | 52                   | 88           |
| PARAPHRASING                   | 21                   | 20                   | 41           |
| SUMMARIZING                    | 0                    | 9                    | 9            |
| CONTEXTUALIZATION              | 4                    | 2                    | 6            |

| <b>PARTICIPANTS STRATEGIES</b>                         | <b>PARTICIPANT 1</b> | <b>PARTICIPANT 2</b> | <b>TOTAL</b> |
|--|----------------------|----------------------|--------------|
| EVALUATING THE LOGIC OF AN ARGUMENT                    | 1                    | 0                    | 1            |
| LOOKING FOR PATTERNS OF OPPOSITION                     | 0                    | 1                    | 1            |
| EXPLORING THE FIGURATIVE LANGUAGE                      | 13                   | 16                   | 29           |
| OUTLINING  | 0                    | 1                    | 1            |
| RECOGNIZING THE EMOTIONAL MANIPULATION                 | 1                    | 1                    | 2            |
| ANALYSING THE TEXT IN OTHER DISCIPLINES                | 0                    | 1                    | 1            |
| JUDGING THE AUTHOR'S CREDIBILITY                       | 0                    | 1                    | 1            |
| REFLECTING TO CHALLENGES ON READERS BELIEFS AND VALUES | 1                    | 0                    | 1            |

Moreover, participants 3 and 4 who are female, used annotation, paraphrasing, summarization, contextualization, outlining, reflecting the challenges on readers' beliefs and values, exploring the figurative language, judging the authors' credibility and analysing the text in other disciplines.

Participants 3 and 4's critical strategy use is illustrated in the table 2, so that the readers can easily grasp the finding and results of the first research question.

Table 2. Table of critical strategies used by participant 3 and 4

| <b>PARTICIPANTS STRATEGIES</b>                         | <b>PARTICIPANT 3</b> | <b>PARTICIPANT 4</b> | <b>TOTAL</b> |
|--|----------------------|----------------------|--------------|
| ANNOTATION   | 12                   | 38                   | 50           |
| PARAPHRASING   | 13                   | 11                   | 24           |
| SUMMARIZING  | 1                    | 0                    | 1            |
| CONTEXTUALIZATION                                      | 9                    | 3                    | 12           |
| EVALUATING THE LOGIC OF AN ARGUMENT                    | 0                    | 1                    | 1            |
| LOOKING FOR PATTERNS OF OPPOSITION                     | 2                    | 0                    | 2            |
| EXPLORING THE FIGURATIVE LANGUAGE                      | 28                   | 16                   | 44           |
| OUTLINING  | 0                    | 9                    | 9            |
| RECOGNIZING THE EMOTIONAL MANIPULATION                 | 2                    | 3                    | 5            |
| ANALYSING THE TEXT IN OTHER DISCIPLINES                | 0                    | 3                    | 3            |
| JUDGING THE AUTHOR'S CREDIBILITY                       | 8                    | 3                    | 11           |
| REFLECTING TO CHALLENGES ON READERS BELIEFS AND VALUES | 1                    | 1                    | 2            |

According to tables 1 and 2, male participants used the same types of strategies that the female ones used. In this way, participants' gender has no effect on strategy use. As it is obvious no matter what participants' gender is, they applied a variety of strategies to reach the deep layers of text.

### The results of the second research question

As it was mentioned before, the second research question centres on the differences between the strategies that are common among male and female EFL learners. According to table 1 and 2

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participants' gender has nothing to do with their strategy use. In other words, these participants, no matter male or female, applied a variety of strategies to comprehend the text. Consequently, there are no strategies specifically used by female or male participants. Although Douvan claimed that, women are equipped with certain inborn strategies which can make them better critical thinkers, this study proves that gender has no effect on strategy use and there are no strategies commonly used by females that can make them better critical thinkers (Douvan, 1975). Hence, there are not any critical reading strategies known as the so-called feminine reading strategies. In this way, the second research question remains inconclusive.

## DISCUSSION

As mentioned before, the analysis of participants' recorded voice considering texts 1, 2 and 3 showed that no matter what their gender is, they used the same types of strategies. Hence, participants' gender has no effect on their strategy use. Consequently, there is not any difference in male /female strategy use, no feminine critical thinking strategy and nothing to teach to the male participants of the study. On one hand, the results of the present study are in agreement with the findings of Kamali and Fahim (2011) and Fahim and Komijani (2010). On the other hand, the results of the current study are in sharp opposition with Nourmohammadi et al. (2012), Douvan (1975). The following paragraphs are dedicated to the discussion of the results and its' connection with the literature.

In their study, Kamali and Fahim reported that EFL learners' critical thinking level have a significant effect on their reading comprehension ability when faced with an unknown vocabulary (Kamali and Fahim, 2011). Hence, improvement in critical thinking ability is parallel with reading comprehension. The results of the present study support this fact since participants of the current study tried to figure out the hidden meaning of words by applying critical thinking strategies. The more they figured out such words, the better their critical thinking and reading comprehension abilities were.

Similarly, Fahim and Komijani (2010), Khonamri et al. (2020) found a significant positive relationship between participants' critical thinking ability, L2 vocabulary knowledge and critical thinking strategy use. In other words, they found that critical thinking positively influences learners' breadth and depth of EFL vocabulary repertoire. According to Fahim and Komijani, critical thinking improves the way participants analyse the text and learn the meaning of words. The current study also supports Fahim and Komijani, since participants applied critical thinking strategies to unveil the figurative, deep meaning of the words in texts.

On the other hand, Nourmohammadi et al. analysed the relationship between critical thinking ability and reading strategies used by Iranian EFL learners. He found a significant positive relationship between learners' critical thinking ability and their use of reading strategies. Moreover, an independent-samples t-test was employed to examine the difference between males and females critical thinking strategy use. Results revealed a significant difference between males and females in their critical thinking strategy use: males' critical thinking strategy use was higher than that of females'. The present study's findings are not in agreement with Nourmohammadi et al., since the researcher found out that gender has no effect on strategy use: males' and females' used the same types of critical thinking strategies (Nourmohammadi et. al, 2012). Of course, it should be mentioned that the small number of participants may be one of the reasons why this result was obtained. In this sense, the results of the present study cannot be generalized to the wider population unless the study is replicated with a larger sample size and complementary data analysis approaches.



The finding of the current study is also in sharp opposition with Douvan (1975). According to Douvan, gender differences have implications in all aspects of life including the way in which people comprehend texts. She asserts that female readers have certain inborn strategies that assist them to think and read critically (Douvan, 1975). In other words, females are equipped with the inherent strategies that make them good critical thinkers. Feminine critical thinking has a gendered lens. It emphasizes the importance of class, sexual orientation and marginalized status in understanding text.

Similarly, the present study is not in agreement with Nikolov and Djigunović (2011). They tried to determine the effects of gender on vocabulary retention and reading comprehension in a foreign language. The experimental group consisted of 181 men and women who were asked to read a Spanish passage on a computer and create notes for the unknown words they encounter. The control group was asked to read the annotated passage. Results showed a complex relationship between gender, reading comprehension ability and vocabulary retention. The study failed to achieve statistical significance. Nevertheless, analysis of attitude questions revealed a significant association of gender to the way participants comprehend texts.

Consequently, what is obviously important based on the results of the present study and previous literature is that critical thinking strategy use has a crucial role in promoting reading comprehension. Therefore, it must be emphasized among language learners and teachers alike. Furthermore, the effect of gender on strategy use remains inconclusive and definitely further investigation on the complex relationship between gender and critical thinking strategy use is deemed necessary.

## **CONCLUSION**

This study was conducted to answer three research questions. The first research question is to unveil the effect of gender on critical strategy use. The second research question is to present the probable difference between male and female strategy use. The third research question is to extract the possible strategies that are common among female learners and teach them to the male participants of the study in order to empower their critical thinking ability.

Analysing the results revealed that first of all, two male participants of the study used annotation, paraphrasing, summarization, contextualization, evaluating the logic of an argument, exploring the figurative language, recognizing emotional manipulation, judging the author's credibility and analysing the text in other disciplines.

Secondly, two female participants of the study used annotation, paraphrasing, contextualization, summarization, evaluating the logic of an argument, exploring the figurative language, recognizing emotional manipulation, judging the author's credibility and analysing the text in other disciplines.

As it is obvious, both male and female participants of the study used the same types of strategies, therefore gender has no effect on critical strategy use. Furthermore, since gender has no effect on strategy use and there is no difference in male and female strategy use, there are not any strategies commonly known as feminine critical reading strategies and nothing to teach to the male participants. In this way, the answer to the first research question is that gender has no effect on strategy use, but the second and third research questions remain inconclusive.

Based on the results of the present study, it can be concluded that critical thinking is not limited to a

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specific subject but it is the capacity of a student to think in a more rational and clear way (Baghana 2020). Thus, it is important for students as it gives them the ability to think in the right way and solve problems in a more efficient and methodical way. Therefore, fostering critical thinking strategies through explicit or implicit teaching of them would be a useful way of helping learners to express their ideas efficiently.

Additionally, the evidence about no difference in male and female strategy use (i.e., when nothing particular emerged as feminine strategies) lead us to agree with Pavlíková et al. findings. Experts point out the positive correlation between the education of learners and motivation (Pavlíková et. al., 2021), as well as between education and attraction of education (Tkáčová, 2021). Raising students who are critical thinkers must be the fundamental goal of learning, thus education must equal encourage an educational character of both genders (learning skills of critical thinking). On the other hand, education must be attractive in order to motivate learners to think in the right way and solve problems efficiently, as well as influence learners to the use of our researched strategies and ultimately understanding the text (Tkáčová et. al., 2021, Baghana 2020).

Finally, instead of complete dependence on classroom learning and teachers for complete guidance and instructions, critical thinking allows students to become more self-reliant and independent learners. (Gadušová et. al., 2020ab). It also helps the students to evaluate their learning style and recognize their areas of strength and flaws. By achieving this ability, they can focus on the solution in a better way and set goals accordingly.

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