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Spotting the Differences in Learning Styles Preferences among 3rd Year EFL Learners at the Department of English - Khenchela University: A Gender-based Approach

Dissertation Submitted to the Department of English in Fulfillment of the Requirements for the Degree of Master in Language and Culture

Candidates:

Aridj LITIM

Nour El Houda HAKKAR

Supervisor:

Dr. Abd El-ghafour BEDDIAF

Board of Examiners

President	Mr. Omar GUERZA	University of Khenchela
Supervisor	Dr. Abd El-ghafour BEDDIAF	University of Khenchela
Examiner	Dr. Faycel SAOUDI	University of Khenchela

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DEDECATION 1

{وَآخِرُ دَعْوَاهُمْ أَنِ الْحَمْدُ لِلَّهِ رَبِّ الْعَالَمِينَ}

I dedicate this work to:

My Loving Parents ***Adel, Warda.*** *Thank you for your endless support, profound wisdom and everlasting love. Your sacrifices and encouragement have been the foundation upon which I have built my dreams and aspirations. This dissertation is as much a reflection of your efforts as it is of my own. I am forever indebted to you, my guiding lights, for shaping me into the person I am today.*

My Dearest Siblings ***Marwa, Ouaisse, Adem*** *and* ***Obey****. My constant companions, my confidents and my sources of strength.*

My Precious Grandparents, thanks for being by my side. May God grant you more years of life and happiness.

To all my family and friends.

Aridj

DEDICATION 2

I dedicate this work to:

My pure angel, my time after God, my first and eternal supporter, my father, ***Ibrahim****. I dedicate to you this dedication that owes its existence to your sacrifices. Grateful because God chose you for me from among people.*

The one who supported me endlessly and gave me without expecting anything in return, my mother ***Saliha****.*

Whom it was said about. (سنشد عضدك بأخيك). To the one who reached out tirelessly during my weakness, my brother, ***Amine*** *and* ***Rami****, may God keep you.*

The one who believed in my abilities and the safety of my days, my elder sister ***Asma****, Without forgetting my sister's son* ***Joud AçiL****.*

Our family members for their love, advice and faith in us.

All my friends, colleagues, family members, neighbors and all those closest to my heart.

Nour El Houda

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Abstract

This research sheds light on the learning styles preferences among English as a foreign language (EFL) learners at the department of English based on their gender. More specifically, the study seeks to identify the differences in the language learning styles among male and female students. In order to meet the research objectives, a mixed-method research (combining both quantitative and qualitative data) has been adopted. Using convenience sampling, data was collected from 3rd Year groups of EFL students representing both genders. Quantitative data was gathered using Reid's (1987) Perceptual Learning Style Preference Questionnaire (PLSPQ), which then was analyzed through the independence samples t-test for comparing the means. Likewise, qualitative data was collected by means of a devised in-depth interview, which ulitimately was analyzed by means of qualitative content analysis (QCA). The results of the study indicated that both genders exhibit slight differences towards visual and auditory learning techniques, while males, rather than females, showed a preference for kinesthetic and tactile learning methods. Besides, the study also revealed that both genders exhibited a similar inclination towards individual learning styles. The findings of this study yielded several salient pedagogical implications and application. Paramount among these is that learners are encouraged to pinpoint their major learning styles and match them to learning processes for optimal academic attainment. Further, teachers are recommended to identify the diverse learning styles of their students in order to maximize the efficacy of their pedagogical objectives within the language learning domain.

Keywords: *EFL Learners, gender, learning styles, PLSPQ, preferences.*

List of Tables

List of Abbreviations and Acronyms

EFL: English as A Foreign Language

LS: Learning Styles.

QCA: Qualitative Content Analysis

SPSS: Statistical Package for Social Sciences

PLSPQ: Perceptual Learning Styles Preferences

SD: Standard Deviation

DF: Degrees of Freedom

P- Value: Probability Value

T- Test: Independent Samples T- Test

Mn1: Mean of Males

Mn2: Mean of Females

%: Percentage

LMD: License, Master, Doctorat

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General Introduction

1. Background of the Study

Learning is a process of acquiring new knowledge, skills, behaviors or modifying the existing one (Mayer, 2001, p. 86). This process is often influenced by various factors, including learning styles which are defined as "the particular way in which a learner tries to learn something" (Richards, Platt and Platt, 1997, p. 61; cited in Ababnech, 2015). However, it is crucial to recognize that learning styles differ significantly from a person to another. Consequently, in recent years, the study of individual learning style preferences has become increasingly important in the field of English as a foreign language (EFL) education. Learning styles vary significantly among individuals due to a range of factors, including age, motivation, learning strategies, cognitive abilities, cultural backgrounds, and gender. Gender, in particular, has gained a great interest in educational research, as it may influence the differences observed in learning style preferences.

There are several types of learning styles: (visual, auditory, tactile, kinesthetic, group and individual) each of which with distinct characteristics. Visual learners prefer to use images, diagrams, and spatial understanding to learn and remember information. (Abu-Asba and Mostaffa, 2012). Auditory learners prefer to hear information and benefit most from lectures, discussions, and listening activities (Park, 2001). While tactile learners prefer to use touch and hands-on activities to learn and remember information (Janakarman, 2018), kinesthetic learners prefer to learn through movement and hands-on activities, engaging in physical activities to grasp information (Hernandez and Varsan, 2013). Another type is the group learning style where group learners prefer to work with others, benefiting from group discussions, collaborative projects, and interactivity (Vasaghi and Besjtesh, 2013). Moving to the last learning style which is individual learning style, individual learners prefer to work alone, focusing on self-paced study, individual projects, and personalresearch (Park, 2000). In addition, group preferences learners are sociable and interest to work together by sharing

ideas which can enhance understanding through collective effort. However, individual preferring learners where learners study independently (Emdadul, 2013).

Gender plays a significant role in shaping learning style preferences, influencing how individuals process and retain information. Educational research has explored how males and females often gravitate towards different methods of learning based on their gender. This divergence can be observed in preferences for visual, auditory, tactile, kinesthetic, group, or individual learning styles (Slater et al., 2007). Understanding these gender-related tendencies is crucial for educators, as it allows them to develop more inclusive and effective teaching strategies that cater to the diverse needs of their students. By acknowledging and addressing these differences, educators can enhance student engagement, motivation, and overall academic success (Wehrwein et al., 2006).

Being the first ones to conduct this study in Algeria limited the scope and findings of previous studies done in the country. This suggests that:

1. The current study was the pioneering effort in this area of research within the Algerian context.
2. The limited nature of prior studies in Algeria constrained the depth and breadth of knowledge available on the topic before this new research was undertaken.
3. By being the first to explore this subject matter in the Algerian setting, the current study was able to provide novel insights that were not captured in the earlier, more limited investigations conducted in the country.

2. Problem Statement

In the field of English as a Foreign Language (EFL) education, understanding and addressing the diverse learning styles of students is critical for optimizing teaching strategies

and enhancing language acquisition. Despite the extensive research on learning styles in general, there remains a significant gap in the literature regarding the specific preferences of EFL students, particularly from a gender-based perspective.

Existing studies have largely focused on broad categorizations of learning styles, such as visual, auditory, and kinesthetic preferences, without adequately exploring how these preferences might differ between male and female students. Moreover, while some research has addressed cultural and contextual factors influencing learning styles, the gender-based differences among EFL learners have not been thoroughly examined. This oversight is crucial, as gender may play a significant role in shaping how students approach and engage with language learning materials.

The gap in the current body of knowledge raises important issues, leading to question whether there are significant differences in the learning style preferences between male and female EFL students, and more importantly, if such differences exist, it is quite reasonable to quest how these potential differences impact their learning outcomes and engagement with EFL curricula. Addressing these issues is essential for developing more tailored and effective teaching methods that can accommodate the diverse needs of EFL learners.

This study aims to fill this gap by investigating the learning style preferences of male and female EFL students. By adopting a gender-based approach, this research will provide insights into whether and how learning style preferences differ between genders, and what implications these differences have for EFL instruction. The findings are expected to contribute to a more nuanced understanding of learner diversity and inform the design of more inclusive and effective educational practices in EFL contexts.

3.Research Questions and Hypotheses

Considering what has been mentioned above, the study tries to identify, investigate and explore the different learning styles at Khenchela University. Most importantly, it studies the different learning styles preferences among English as a foreign language. To examine the research objectives, the study attempts to answer the following research questions:

RQ1. What are the major, minor, negligible perceptual learning style preferences of the students?

RQ2. Is there any statistically significant relationship between students' learning styles and their respective gender?

RQ3. Are there any statistically significant differences in language learning styles among male and female students?

To predict the responses, it is worth putting in advance the following hypotheses:

H1- There is a statistically significant relationship between gender and learning style preferences among EFL learners.

H2- There are statistically significant gender differences in learning style preferences among male and female EFL learners.

4.Aims and Significance of the Study

This research is significant for students. On the one hand, this study will be beneficial for students because it will enlighten them about the different learning styles. Additionally, it helps students understand their own learning styles and gives them opportunity to discover their preferred and most suitable methods of learning.

This study seeks to investigate the different learning styles preferences among EFL learners, and it contains three main objectives:

• To identify the relationship between gender and learning styles preferences among EFL learners.

• To explore if there is a difference in the language learning styles among males and females students.

5. Methodology

The present work tends to investigate the student's differences in learning styles preferences for EFL. Thus, to collect the information needed for our research, we have adopted the mixed methods research which defined by Creswell (2007) "Mixed methods research designing which the researcher collects, analyzes and mixes (integrates or connects) both quantitative and qualitative data in a single study or a multiphase program for inquiry". (Burke, n.d, p. 119). To gather data from the participants, a questionnaire and interview for students. For data analysis, we relied on two techniques which are the statistical data analysis (SPSS) for the quantitative data and the quantitative content analysis (QCA) for the qualitative one.

6. Structure of the Dissertation

The dissertation comprises two main chapters, in addition to a general introduction and a general conclusion. In the general introduction, the problem aims and significance of the research are expressed, the research questions and hypotheses are identified, and the method of the research is introduced. Chapter one provided an overview about learning styles in three sections. In the first section, the definition of learning styles and gender. The second section addresses the historical background of learning styles and categorization. The last section examines which gender, males or females utilizes more learning styles effectively. Chapter two explores the methodology and research techniques used in the study. It also describes the method used for data analysis and presents the findings, including results from the analysis of

student's questionnaires and interviews. Additionally, it discusses these results to draw conclusions and determine if they align with the hypotheses. Finally, some suggestions and recommendations are provided after the general conclusion.

Chapter One: A Review of Literature

Introduction

Gender and learning style are long-standing study subjects. Some research emphasizes the significance of learning styles in learning. In terms of gender, it has been demonstrated that students differ in how they adopt learning approaches during the learning process. The learning style of pupils influences the success of the learning process. Students can use learning styles that are appropriate for their personality and select a comfortable approach to help them absorb the topic. Learning is a process of perceiving, observing, and comprehending something, which leads to knowing knowledge. Students will go through the acceptance and information management processes as part of their study. In this scenario, the outcome of learning is perhaps the most important aspect of learning. Numerous researchers have investigated how gender impacts learning patterns. Males are more visual, inspired by their colleagues, and learn less by listening than females. Females, on the other hand, are more auditory and learn best in silence. (Tatarinceva, 2009).

I.1. Definition of Learning Styles and Gender

Learning styles are defined as "the particular way in which a learner tries to learn something. Moreover, in foreign language learning, different learners may prefer different solutions to learning problems. For example: some may want explanations or grammatical rules, others may not need explanations. Some may feel writing down words or sentences helps them to remember them. Others may find they remember things better if they are associated with pictures." (Richardsand Platt, 1997; Ababnech 2015). Similarly, O'Connor defines learning styles as individual filters that people used to determine how they are related to the world. (1997, as cited in Kia et al 2009). Furthermore, according to Kirby the concept of "learning style" came into usage when researchers started searching for methods to mix the

course presentation and content to each student's needs. Considering this viewpoint, the term of cognitive style is regarded as being include in the concept of learning styles.

According to Oxford Dictionary, gender refers to "the fact of being male or female, especially when considered with reference to social and cultural differences, rather than differences in biology"; members of a particular gender as a group. Similarly, **John Money** presented the idea of "gender" in a discourse intended to justify sex change in the 1940s. From the late of 1960s, the notion has been utilized in the social sciences. On the other hand, the concept of gender itself really began to take shape during the second wave of feminism, which emphasized the patterns of social difference and inequality that appeared as well as the gender divisions in society (Hameed and Shukri, 2014). In this context gender and sex are taken synonymous and interchangeably.

I.2. Historical Background of Learning Styles and their Categorization

Reid divides learning styles into three categories: cognitive learning styles, sensory learning styles, and personality learning styles.

I.2.1. Cognitive Learning Styles

Cognitive learning styles refer to the different ways individuals perceive and process information. It includes three strands: field independent vs field dependent. Analytic vs global. Reflective vs impulsive.

a. Field-independent Vs. Field dependent: According to Swanson (1995), one model that has significantly influenced the field of learning styles is Herman Witkin's (1976) construct of field dependence and field independence. Field-independent learners means that they can recognize figures within their surroundings, and are able to organize circumstances more independently due to their relying on internal referents. However, field dependent or people who are field reliant or sensitive that is unable to distinguish between figures, are more

affected by and perceptive to their surroundings, including other people. They process information by utilizing their whole environment.

b. Analytic Vs. Global: According to studies on the hemispheres of the brain, humans process information in two different ways: global (spatial, relational), rightly hemisphere, and analytic (linear, step by step) on the left hemisphere. Global learners need a board overview. On the other hand, analytical learners put the pieces together to establish a shared understanding. The global learners, separate information into parts. However, the analytical learners move from one point to another bit by bit.

c. Reflective Vs Impulsive: reflective learners learn more effective when they have time weigh their alternatives, while Impulsive learners are able to respond right away and take chances.

I.2.2. Sensory Learning Styles

Oxford suggests that there are four basic categories into which sensory preferences may be divided: visual, auditory, kinesthetic and tactile. Scarcella (1990) illustrates that visual learners enjoy reading and obtain significant benefits from visual stimulus. Visual students will choose written instructions, since they can remember what they see. These learners like to read silently as well as are sight readers. They will learn via observing as they work with computer, maps diagrams, charts or text. On the contrary, auditory learners are agreeable without visual feedback therefore find value and enjoyment in plain talks, lectures and spoken directions. This type of learners will evoke what they hear and will favor spoken instructions. They learn by listening and speaking. These learners enjoy conversation and interviewing. Kinesthetic and tactile learners prefer to work with physical materials and flashcards, they also like to move a lot. Additionally, kinesthetic learners acquire knowledge by manipulating objects. They must use their entire body when they are learning.

I.2.3. Personality Learning Styles

Personality type also called psychological type, which consists of three strands: extroverted vs introverted; intuitive -random vs sensing- sequential; thinking vs feeling.

a. Extrovert Vs. Introverted: extroverts get the most of their energy from the outside world. They desire social engagement and have several friendships close and superficial. On the other hand, introverts obtain their energy from inside world, wanting to be alone and usually having a small number of close connections.

b. Intuitive -Random Vs. Sensing-Sequential: The Oxford Dictionary differentiates intuitive-random and sensing-sequential styles. Intuitive-random learners utilize large scale, non sequential, futuristic methods of thinking. They enjoy formulating hypotheses and novel possibilities. Conversely, sensing-sequential learners are established in the present moment. They favor facts instead of theories, and expect teachers to provide them with direction. Both sensing- sequential and intuitive-random learners provide options and diversity which are essential for instructing.

c.Thinking Vs. Feeling: thinking learners are focused on the reality, despite the fact that it may offend certain individuals. They want to be seen as proficient because they tend to provide praise. In the other hand, feeling learners value others in deeply personal ways. They speak whatever is necessary to diffuse tough circumstances and demonstrate empathy and compassion with words as well as actions (Emdadual, 2013).

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I.3. Females Utilized Learning Styles more Effectively than Males

According to Maccoby and Jacklin (1974) females are more effective in both receptive tasks like listening comprehension activities or reading comprehension activities and productive tasks like speaking activities, and in both higher- level activities and lower-level tasks. Additionally, Sherman (1978) stated that girls have a linguistic advantage over boys, and that females excel across all facets of the verbal domain, demonstrating proficiency in communication and language skills including verbal reasoning and vocabulary (Boyle, 1987).

It was remarkable that, during the analysis of the National Foundation for Educational Research study that female's opinions towards foreign language were more beneficial than males. For example, an increased number of girls compared to boys have maintained a desire to learn more languages, go to France, connect with French people, and further their French studies. Substantially French should be taught to all children in junior school, according to a much large number of females than boys, who also trusted that learning the language would be helpful to them in the future. Moreover, females were more confident than the boys. Significantly more males than females noted that studying French was unproductive and that there were essential issues that should be focused. In contrast to the girls, males cannot accept that understanding French would help them after they were out of school. Different research outcomes indicate that the females generally more positive perspectives. Robinson has indicated that being superior at language might be considered as unmanly for males but admirable for females. The idea that studying a foreign language is a superior aim for females than for males is still prevalent in our community, supported by the fact that understanding a foreign language has clear and evident use (Burstall, 1975).

I.4. Males Utilized Learning Styles more Effectively than Females

In a study made in University of Indonesia named Muhammadiah Malang (2021), that seeks to find answers to certain questions related to the relationship between gender and learning styles preferences, employing a descriptive research, and data was gathered through questionnaire. According to Tannen (1992), male students prefer public speaking challenges for learning purposes.

While, female students prioritize private conversations as a means of maintaining ties. According to Viriya and Sapsirin (2014), females outperform males in language acquisition tasks such as recalling verbal information, faces, names, and object locations. Wehrwein, Lujan, and DiCarlo (2007) found that male students favored multimodal instruction, namely the four model of visual, auditory, read/write, kinesthetic (VARK), while female students chose single-mode instruction, particularly the kinesthetic form. The study revealed diverse learning methods among students (Andini and Prastiyowati, 2021).

Conclusion

This chapter focuses on important notions related to the present research and it is divided into three sections, each one of them shedding light on the concept of learning styles. The first section investigates the essential concepts related to learning styles, including various definitions. The second section has tackled the historical background of learning styles and categorization. The last section presents an overview of the differences in learning style utilization between males and females.

Chapter Two: Methods, Results and Discussion

Introduction

This chapter deals with the research design used to investigate the differences in learning styles preferences among EFL learners for both genders in the university of Khenchela. The procedures for data collection and data analysis are important to answer the research questions set in the general introduction. The chapter provides information about the participants and describes the two data collection tools: the questionnaire and the interview. In addition, this chapter describes the data analysis tools to analyze the information gathered from the questionnaire and the interview, also the mixed-methods approach which includes both qualitative and quantitative methods, is adopted.

II.1. Research methods

II.1.1. The Mixed methods

One of the key steps in carrying out a research study is choosing a research approach method. Thus, this research methodology opens the door to investigating and illuminating various aspects of the topic under study. A mixed-method which integrates qualitative and quantitative data collection and analysis, was deemed suitable for this study since variation in data collection process enables the researcher to obtain more effective information and to gain a deeper understanding in order to accurately depict the facts. According to Mackey & Gass (2005, pp.164, 165) utilizing a variety of research methods and data sources increases the investigation's credibility.

II.2. Participants

The participants of this study were EFL students from both genders enrolled in Third year Licence (L3) at the University of Khenchela. The sample size was 60 undergraduate English students. There were 45 female participants while male participants were marely 15. The selection of participants was facilitated through convenience sampling. Subsequently, a

subset of 10 participants was chosen for in-depth interviews, consisting of 3 male and 6 female individuals.

II.3. Data Collection Tools

II.3.1. Questionnaire

A Questionnaire is a data collection instrument that consists of series of questions for the purpose of gathering information from respondents. According to Anderson (1990 :207), the questionnaire "allows the gathering of reliable and valid data, relatively in a short time." When conducting research, using a questionnaire is a helpful choice. Moreover, the PLSPQ is a questionnaire made by John M Reid in 1987. It has 30 Likert-type questions, each with 5 options: strongly agree, agree, neutral, disagree, and strongly disagree.

II.4.2. Interview

Interviews, according to Harrell and Bradley (2009), are discussions, usually one-on-one between an interviewer and an individual, meant to gather information on a specific set of topics. Also, they can be conducted in person or over the phone, and may differ on the level of structure placed on the interaction.

II.4. Data collection procedures

II.4.1. Questionnaire Data

This part involves the procedures of data analysis. We use the quantitative approach to analyze the data gathered from the questions in the survey given to the students. This latter, will be calculated with the help of the computer program named the Statistical Package for social Sciences (SPSS).

II.4.2. Interview Data

There is a total of 10 participants, including 3 males and 7 females. Male participants are marked as PM1, PM2, PM3. While females participants named PF1, PF2, PF3, PF4, PF5, PF6, PF7. A transcription was used to transcribe what was said in the interviews to written words. This included recording the interviews and then writing down exactly what was said. Transcription helped in the analysis of the responses in detail, ensuring data integrity and maintaining a record of participants responses for precise analysis.

II.5. Data Analysis

II.5.1. Questionnaire Data Analysis

Table 1 *Statistics for gender-based preferences differences regarding auditory style*

Items	*Males(N=15)*		*Females(N=45)*		*Statistics*		
	Mn1	**Sd**	**Mn2**	**Sd**	**df**	**t**	**p**
I1(Q1)	2,20	0,67	1,74	0,72	63	2,19	0,03
I2(Q7)	2,06	1,10	2,18	1,04	63	-0,36	0,71
I3(Q9)	2,66	1,39	2,48	1,24	63	0,49	0,62
I4(Q17)	2,33	0,97	2,68	1,22	63	-1,00	0,31
I5(Q20)	2,53	1,30	2,38	1,10	63	0,45	0,65
Total	11,80	2,78	11,46	2,74	63	0,42	0,67

The results in Table 1 show differentiating values between males and females across the range of the item questions. Examining item 1 which signifies that *"I understand better when the teacher explains the instructions"*, it is noted that there is a difference in the mean values between both genders, the mean value for males (Mn1 = 2.20) is higher than that for females (Mn2 = 1.74). The statistical analysis reveals a statistically significant difference, with a t-value of 2.19 which is higher than critical value (2) and a p-value of 0.03, which is below the significance level of 0.05. This suggests that there is a significant difference in performance between genders for this item.

Item 2 which states *I' learn better in class when someone explains how to do something to me,"* it is observed that there is a difference in mean values between the two genders, the mean value for males (Mn1 = 2.06) is lower than that for females (Mn2 = 2.18). However, the

statistical analysis shows that this difference is not statistically significant, with a t-value of -0.36<2 and a p-value of 0.71, which is above the significance level of 0.05. Therefore, there is no statistically significant difference in performance between both genders.

Similarly, the results show differing numbers for item 3 which signifies *"I retain information heard in class better than information I have read"*, between the two genders, it is noted that the mean value for males (Mn1 = 2.66) is higher than that for females (Mn2= 2.48). However, the statistical analysis indicates that this difference is not significant, with a t-value of 0.49(t <2) and a p-value of 0.62, which is above the significance level of (a= 0.05) . Thus, there is no statistically significant difference in performance between males and females.

Now, for item 4 signifies *"I learn better in class when the teacher delivers a lecture",* it is also noted that there is a difference in mean values between both genders, with the mean value for males (Mn1 = 2.33) is lower than that for females (Mn2 = 2.68). The statistical analysis indicates that this difference is not statistically significant, with a t-value of -1(t<2) and a p-value of 0.31. The p-value of 0.31 by passing the level of significance (a= 0.05). Such statistics suggest that there is no significant difference in performance between males and females.

Lastly, for item 5 *I' learn better in class when I listen to someone explain"* the mean value for males (Mn1 = 2.53) is higher than that for females (Mn2 = 2.38). However, the statistical analysis shows that this difference is not statistically significant, with a t-value of 0.45 <2 and a p-value of 0.65, which is above the significance level of 0.05. Therefore, there is no significant difference in performance between genders for this item.

Overall, when considering the total scores for the auditory learning style, the mean for males (Mn1 = 11.80) is higher than that for females (Mn2 = 11.46). The statistical analysis

reveals that this difference is not statistically significant, with a t-value of 0.42<2 and a p-value of 0.67, which is above the significance level of 0.05. This suggests that there is no significant difference in overall performance between males and females in the auditory learning style.

Table 2 *Statistics for gender-based preferences differences regarding visual style*

Items	*Males(N=15)*		*Females(N=45)*		*Statistics*		
	Mn1	**Sd**	**Mn2**	**Sd**	**df**	**t**	**p**
I1(Q6)	2,26	1,28	1,88	0,96	63	1,36	0,17
I2(Q10)	2,06	1,1	2,1	0,86	63	-1,23	0,9
I3(Q12)	2,13	1,18	2,22	0,76	63	-0,33	0,73
I4(Q24)	2,86	1,30	2,76	1,49	63	0,48	0,63
I5(Q29)	2,66	1,1	2,5	1,32	63	0,23	0,81
Total	12	3,18	11,44	2,98	63	0,62	0,53

The results in Table 2 show that when examining item 1, it is observed that the mean value for males (Mn1=2.26) is higher than that for females (Mn2=1.88), indicating a difference in means between genders. However, statistical analysis reveals that this difference is not statistically significant. With degrees of freedom (df) at 63, the calculated t-value of 1.36 falls below the critical value of 2, and the p-value exceeds 0.05, indicating that the observed difference in the means is likely due to random variation rather than a true difference between genders.

For item 2 that signifies *I' remember instructions better when I read them*," the mean values differ significantly between both genders, with a notably higher mean for females

(Mn2 = 2.10) compared to the males (Mn1= 2,06). However, statistical analysis indicates that this difference is not statistically significant, with df=63 as the calculated t-value (t= - 1,23) is lower than the critical value (2), and the p > 0.05.

Moving on to item 3 that signifies *I" comprehend instructions better when I read them"* there is a clear disparity in the mean values between the two genders, with females exhibiting a slightly higher mean (Mn2=2,22) than the males (Mn1= 2,13). Despite this observed difference, statistical analysis reveals that the results are not statistically significant, as evidenced by the t-test value (t= - 0,33) falling below the critical threshold (2) and the p > 0.05.

Now, for item 4 that indicates *I" learn more effectively through reading than through listening to someone"*the mean values for the different groups show a significant discrepancy, with one group having a markedly higher mean compared to the other group. However, statistical testing indicates that this difference is not statistically significant, as the calculated t-value is lower than the critical value, and the p-value is greater than 0.05.

Lastly, for item 5 which points out *I" absorb more information from reading textbooks than from listening to lectures"* there is a slight difference in the mean values between both genders, with males displaying a higher mean (Mn1= 2,66) than the females (Mn2=2,58). Despite this observed difference, statistical analysis suggests that the results are not statistically significant, given that the t-value (0,23) is below the critical threshold (t<2) and the p-value exceeds 0.05.

Overall, when considering the total scores for the visual learning style, the mean for males (Mn1=12) is slightly higher than that for females (Mn2= 11,44). However, statistical analysis indicates that this difference is not statistically significant, as t-value= 0,62 is lower than the critical value (2), also as the p>0.05

Table 3 *Statistics for gender-based preferences differences regarding tactile style*

Items	*Males(N=15)*		*Females(N=45)*		*Statistics*		
	Mn1	**Sd**	**Mn2**	**Sd**	**DF**	**t**	**p**
I1(Q11)	2,86	0,99	2,20	0,85	63	2,54	0,01
I2(Q14)	2,66	1,44	2,04	0,98	63	1,92	0,05
I3(Q16)	2,80	1,47	1,84	0,97	63	2,94	0,004
I4(Q22)	2,33	1,34	2,02	0,91	63	1,03	0,30
I5(Q25)	2,80	1,56	2,6	1,3	63	0,49	0,62
Total	13,46	4,47	10,70	2,73	63	2,93	0,005

The results in Table3 show that for item 1, there is a difference in the mean values between both genders. The mean value for males (Mn1 = 2.86) is notably higher than that for females (Mn2 = 2.20). The statistical analysis, with degrees of freedom (df) at 63, indicates a statistically significant difference, as the t-value of 2.54 exceeds the critical value of 2, and the p-value of 0.01 is below the significance level of 0.05. This suggests that there is a significant difference between genders for this item.

Moving to item 2 that signifies *I' learn better when I create something for a class project*," there is a difference in the mean values between males and females. The mean value for males (Mn1 = 2.66) is higher than that for females (Mn2 = 2.04). The statistical analysis reveals a significant difference, with df=63 a t-value of 1.92<2 and a p-value of 0.05, which is below the significance level of 0.05. This suggests that there is a significant difference between genders for this item.

For item 3 that indicates *I' learn better when I incorporate drawing into my studying process",* there is a difference in the mean values between both genders. The mean value for males (Mn1 = 2.80) is higher than that for females (Mn2 = 2.60). The statistical analysis reveals a significant difference, at df=63 a t-value of 2.94 (t>2) and a p-value of 0.004, which is below the significance level of 0.05. This indicates a significant difference between males and females for this item.

When examining item 4 which mentions *'building something helps me remember what I've learned better,"* the mean value for males (Mn1 = 2.33) is higher than that for females (Mn2 = 2.02). However, the statistical analysis shows that this difference is not statistically significant, at df=63 with a t-value of 1.03 <2 and a p-value of 0.30, which is above the significance level of 0.05. Therefore, there is no significant difference between genders for this item.

Lastly, for item 5 that indicates *I' find pleasure in creating something for a class project",* the mean value for males (Mn1 = 2.80) is higher than that for females (Mn2 = 2.60). The statistical analysis indicates that this difference is not statistically significant, at df=63 a t-value of 0.47<2 and a p-value of 0.62, which is above the significance level of 0.05. Thus, there is no significant difference between males and females for this item.

When considering the total scores for the tactile learning style, the mean for males (Mn1 = 13.46) is higher than that for females (Mn2 = 10.70). The statistical analysis reveals a significant difference, with a t-value of 2.93 which is higher than critical value (2) and a p-value of 0.005, which is below the significance level of 0.05. This suggests a significant difference in overall preference between males and females in the tactile learning style.

Table 4 *Statistics for gender-based preferences differences regarding individual style*

Items	*Males(N=15)*		*Females(N=45)*		*Statistics*		
	Mn1	**Sd**	**Mn2**	**Sd**	**df**	**t**	**p**
I1(Q13)	1,86	1,12	1,82	1,08	63	0,14	0,88
I2(Q18)	1,93	1,10	2,14	1,24	63	-0,57	0,5
I3(Q27)	2,33	0,97	2,72	1,31	63	-1,05	0,2
I4(Q28)	2,40	1,18	2,64	1,42	63	-0,59	0,55
I5(Q30)	2,60	1,35	2,28	1,34	63	0,80	0,4
Total	11,13	4,58	11,60	4,66	63	0,34	0,73

The result of Table 4 shows that for item 1, there is a difference in the mean values between both genders. The mean value for males (Mn1 = 1.86) is notably higher than that for females (Mn2 = 1.82). On the other hand, the statistical analysis shows that this difference is not statistically significant, with a t- value of 0.14 (t<2) and a p- value 0.88, which is above the significance level of 0.05. Therefore, there is no statistically significant difference in performance for both genders.

Regarding item 2 that signifies *I" learn better when I work independently"*, the results show that there is a difference in the mean values between both genders, with superior mean for females (Mn2 = 2,14) as compared to males (Mn1 = 1,93). However, the statistical analysis indicates that the difference is not significant, with t- value of -0.57 (t<2) and a p-value -0.57, which is above the significance level (a= 0.05). Thus, there is no statistically significant difference in performance between males and females.

Moving into item 3 which signifies *I" work more effectively in class when I work independently"*the results indicate that there is a difference in the mean values between both genders, with higher means for females (Mn2 = 2,72) in contrast to males (Mn1 = 2,33). However, statistical analysis indicates that this difference is not statistically significant, with df= 63 as the calculated t- value (t=-1.05) is lower than the critical value (2), and the 0.29 > 0.05.

Concerning item 4 which mentions *I" favor working on projects independently "*the results show that there is a difference in the means values between both genders, with higher means for females (Mn2 = 2,64) as compared to males (Mn1= 2.33). However, statistical analysis indicates that this difference is not statistically significant, with df= 63 as the calculated t- value (t=-0.59) is lower than the critical value (2), and 0.55 > 0.05

Now, for item 5 that indicates *I" prefer working alone",*"the findings indicate that there is a difference in the mean values between both genders, with higher means for males (Mn1 = 2,60) as compared to females (Mn2 = 2,28). However, statistical analysis indicates that this difference is not statistically significant, with df= 63 as the calculated t- value (t=0.80) is lower than the critical values (2), and 0.42 > 0.05.

In total the results shows that there is a difference in mean values between both genders, with higher means for females (Mn2 = 11,60) in contrast to males (Mn1 = 11,13). However, the analysis indicates that this difference is not statistically significant, with df= 63 as the calculated t- value (t=-0.34) is lower than the critical values (2), and 0.73 >0.05.

Table 5 *Statistics for gender-based preferences differences regarding group style*

Items	*Males(N=15)*		*Females(N=45)*		*Statistics*		
	Mn1	**Sd**	**Mn2**	**Sd**	**df**	**t**	**p**
I1(Q3)	2,26	1,16	2,64	1,25	63	-1,02	0,30
I2(Q4)	2,26	1,16	2,66	1,33	63	-1,02	0,30
I3(Q5)	2,53	1,24	2,70	0,99	63	-0,53	0,59
I4(Q21)	2,73	1,22	2,70	1,28	63	0,08	0,92
I5(Q23)	2,60	1,29	3,1	1,46	63	-1,19	0,23
Total	12,40	4,65	13,80	4,80	63	-0,99	0,32

The result of Table 5 shows that when examining item 1 that there is a difference in the mean values between both genders, with higher means for females (Mn2 = 2,64) as compared to males (Mn1= 2,26). However, statistical analysis indicates that this difference is not statistically significant, with df= 63 as the calculated t- value (t=-1.02) is lower than the critical values (2), and 0.30 >0.05.

Regarding item 2 that signifies *I" absorb more information when I study in a group,"* the results show that there is a difference in the means calculated between both genders, with superior means for females (Mn2 = 2,66) as compared to males (Mn1 = 2,26). However, statistical analysis indicates that this difference is not statistically significant, with df= 63 as the calculated t- value (t=-1.02) is lower than the critical values (2), and 0.30 >0.05.

Concerning item 3 which signifies *I" excel in learning when I collaborate with others in class,"* the results imply that there is a difference in the mean values between both genders with superior means for females (Mn2 = 2,70) as compared to males (Mn1 = 2,53). However,

statistical analysis indicates that this difference is not statistically significant, with df= 63 as the calculated t- value (t=-0.53) is lower than the critical values (2), and 0.59 >0.05.

Now, for item 4 which signifies *"I find pleasure in collaborating on an assignment with two or three classmates,"* the findings indicate that there is a difference in the mean values between both genders with higher means for males (Mn1 = 2,73) as compared to females (Mn2 = 2,70). However, statistical analysis indicates that this difference is not statistically significant, with df= 63 as the calculated t- value (t=-0.08) is lower than the critical values (2), and 0.92 >0.05.

Lastly, for item 5 that signifies *"I favor studying in a group"* the data suggests that there is a difference in the means values between both genders, with higher means for females (Mn2 = 3,1) as compared to males (Mn1 = 2,60). However, statistical analysis indicates that this difference is not statistically significant, with df= 63 as the calculated t- value (t=-1.19) is lower than the critical values (2), and 0.23 >0.05.

As a whole the total results show that there is a difference in the means values between both genders, with higher means for females (Mn2 = 13,80) in contrast to males (Mn1 = 12,40). However, statistical analysis indicates that this difference is not statistically significant, with df= 63 as the calculated t- value (t=0.99) is lower than the critical values (2), and 0.32 >0.05.

Table 6 *Statistics for gender-based preferences differences regarding kinesthetic style*

Items	*Males(N=15)*		*Females(N=45)*		*Statistics*		
	Mn1	**Sd**	**Mn2**	**Sd**	**df**	**t**	**S**
I1(Q2)	2,93	0,79	2,24	0,98	63	2,49	0,01
I2(Q8)	1,86	0,91	2,18	0,96	63	-1,11	0,26
I3(Q15)	2,33	1,17	1,74	0,85	63	2,15	0,7
I4(Q19)	2,40	0,73	1,82	0,91	63	2,23	0,02
I5(26)	2,66	1,11	2,58	1,32	63	1,37	0,17
Total	12,06	2,98	10,08	2,94	63	2,25	0,02

The results in Table 6 show that when examining item 1 the findings reveal that there is a difference in mean values between both genders, with superior means for males (Mn1 = 2,93) as compared to females (Mn2 = 2,24). However, statistical analysis indicates that this difference is statistically significant, with df= 63 as the calculated t- value (t=2.49) is higher than the critical values (2), and 0.01 <0.05.

Regarding item 2 that mentions *"When I actively engage in activities in class, I learn better,"* the results indicate that there is a difference in means values between both genders, with higher means for females (Mn2 = 2,18) in contrast to males (Mn1 = 1,86). In addition, statistical analysis indicates that this difference is not statistically significant, with df= 63 as the calculated t- value (t=-1.11) is lower than the critical values (2), and 0.26 >0.05.

Moving to item 3 which states *"I find enjoyment in learning through experiments in class,"* the data suggests that there is a difference in means values between both genders, with higher means for males (Mn1 = 2,33) as compared to females (Mn2 = 1,74). However,

statistical analysis indicates that this difference is statistically significant, with df= 63 as the calculated t- value (t=2.15) is higher than the critical values (2), and 0.03 <0.05.

Now, for item 4 which signifies " I comprehend things better in class when I engage in role-playing" , the results shows that there's a difference in means values between both genders, with higher means for males (Mn1 = 2,40) in contrast to females (Mn2 = 2,58) . In addition, statistical analysis indicates that this difference is statistically significant, with df= 63 as the calculated t- value (t=2.23) is higher than the critical values (2), and 0.02 <0.05.

Lastly, for item 5 that states *I" excel in learning in class when I can engage in relevant activities*," the findings shows that there is a difference in means values between both genders, with superior means for males (Mn1 = 2,66) as compared to females (Mn2 = 2,58). In addition, statistical analysis indicates that this difference is not statistically significant, with df= 63 as the calculated t- value (t=1.37) is lower than the critical values (2), and 0.17 >0.05.

Collectively the total results show that there is a difference in the mean values between both genders, with superior means for males (Mn1 = 12,06) as compared to females (Mn2 = 10,08). In addition, statistical analysis indicates that this difference is statistically significant, with df= 63 as the calculated t- value (t=2.28) is higher than the critical values (2), and 0.02 <0.05.

Table 7 *Learning style preferences means according to gender*

Variables	Visual	Auditory	Kinesthetic	Tactile	Group	Individual
Male	12	11,80	12,06	13,46	12,40	11,13
Female	11,44	11,46	10,08	10,70	13,80	11,60

The learning style preferences of individuals can differ based on various factors, including gender. Table 7 presents the means of learning style preferences for both males and females. The following analysis examines the differences in learning style preferences

between the two genders, highlighting the major, minor, and negative preferences for each learning style

Visual Learning Style

Both males and females show a minor preference for visual learning style. The mean score for males is 12, indicating a minor learning style preference, while the mean score for females is 11.44, also indicating a minor learning style preference. While there is a fairly more tendency by males towards this style, this is not the dominant learning style for both genders. This suggests that both genders tend to learn effectively through visual aids, such as diagrams, charts, and images.

Auditory Learning Style

The analysis of the auditory learning style reveals that both males and females exhibit a minor preference for this learning modality. With quite a slightly differential between both genders in favor males regarding the mean value, the mean score for males is 11.80, and for females, it is 11.46, both falling within the range of minor learning style preferences. This implies that both genders can benefit from learning through lectures, discussions, and audio-based materials, but this is not their primary learning preference.

Kinesthetic Learning Style

The results for the kinesthetic learning style show a distinct difference between males and females. Males have a minor preference for this learning style, with a mean score of 12.06, indicating that they can learn effectively through hands-on activities, physical experiences, and movement. In contrast, females have a negative preference for kinesthetic learning, with a mean score of 10.08, suggesting that they do not find this learning style as effective for their learning needs.

Tactile Learning Style

The analysis of the tactile learning style reveals a significant difference between males and females. Males have a major preference for this learning style, with a mean score of 13.46, indicating that they learn best through touch, manipulation, and hands-on experiences. Females, on the other hand, have a minor preference for tactile learning, with a mean score of 10.70, suggesting that they do not rely on this learning modality as much as males.

Group Learning Style

The group learning style shows a contrasting preference between males and females. Males exhibit a minor preference for group learning, with a mean score of 12.40, suggesting that while it is not their most influential, they still can benefit from collaborative activities and learning in a group setting. Females, however, have a major preference for group learning, with a mean score of 13.80, indicating that they thrive in learning environments that involve interaction, discussion, and teamwork.

Individual Learning Style

The analysis of the individual learning style reveals a negative preference for males, with a mean score of 11.13, suggesting that they do not prefer to learn independently or in isolation. Females, on the other hand, have a minor preference for individual learning, with a mean score of 11.60, indicating that they can also benefit from independent learning activities.

II.5.2. Interview analysis

a. **Preferred Learning Style**

Males: The male participants prefer a mixture of viewing and listening as their primary learning style. They find that audio-visual content, such as short videos or movies with subtitles, helps them consume and retain more knowledge. Two respondents (PM1 and PM3)

also mention that they like to mix things up with audiobooks and online resources to keep learning engaging. In the same direction, the third participant puts it as "I prefer a mixture of viewing and listening because I consume more knowledge when audio-visual content is on hand."

Females: The female participants have a variety of preferred learning styles. PF1 identifies as a kinesthetic learner, preferring to learn through touch and movement. PF2 and PF5 are visual learners, favoring the creation of mental images and mind maps. PF3 and PF7 adapt their learning styles depending on the subject, using a mixture of listening, viewing, reading, and discussing. Using PF3's words "My learning style depends on the subject/topic that I am going to learn. In general, I attend the course (listening), I like to discuss with my teachers and colleagues, then I watch YouTube documentaries (listening and watching), and then I read articles." PF4 and PF6 prefer viewing and watching as their primary learning styles.

b. Impact of learning style on English Language Class Performance

Males: The male participants believe that their learning styles help them perform well in English language classes, particularly with grammar and language skills. They find that watching and listening make it easier to understand the material.

Females: The female participants also agree that their learning styles impact their performance in English language classes. PF1 attributes her ease of speaking in front of the class to her kinesthetic learning style. PF2 mentions that learning styles can affect academic performance, especially in modules with a practical component. PM1 adds "My way of learning helps me do well in English class. Watching and listening make it easier to understand grammar and improve my language skills." While PF3 and PF7 feel that their diverse learning styles help them gather maximum knowledge

c. Influence of learning styles preferences on the interaction with course materials

Males: The male participants enjoy using online resources with animation and pictures, as they find them more interesting and engaging. They appreciate the visual and auditory components that enhance their learning experience.

Females: The female participants also interact with course materials in different ways. PF1 mentions that kinesthetic learners explore and discover new ways of thinking and problem-solving. PF3 and PF7 adapt to different learning styles and resources, such as videos, readings, and discussions. Using PF7's words "I believe my learning style influences me to interact with materials in a flexible manner. Being open to different learning styles is an absolute blessing because it is easier to grasp knowledge, the more, the better." PF4 and PF6 find viewing and watching effective, while PF5 relies on visual materials like mind maps.

d. Impact of learning style on Future Career or Academic Pursuit

Males: The male participants believe that their listening and visual skills will be beneficial in future careers where they need to share information, such as teaching. They feel that their learning styles will help them explain things clearly to others.

Females: The female participants also foresee their learning styles impacting their future pursuits. PF1 mentions that kinesthetic learning can lead to increased information retention. PF3 and PF5 believe their learning styles will guide their future careers, with PF3 seeing herself as a teacher and a future writer " I think that my learning style would be the guideline for my future career, for example, learning through reading would make me a good writer." And PF5 as a visual teacher. PF2 and PF4 emphasize the importance of aligning learning styles with future pursuits for better performance and motivation.

e. Adjusting Learning Style for a New Subject or Task

Males: The male participants had to adjust their learning styles when facing challenges in certain modules. For example, PM1 and PM2 shared that they improved their written expression by incorporating more writing exercises into their routine

Females: The female participants also experienced situations where they adapted their learning styles. A number of females (PF1, PF3, PF5, and PF7) mentioned making adjustments for specific subjects or tasks. To illustrate, a female participant (PF3) declared that "I had to adjust my learning style to accommodate a new subject or task. In exams, I feel like I am doing extra effort, focusing not only on the lesson but also on the new style of revising.". PF4 shared an instance where she had to revisit a video with captions to understand the content better.

f. The Influence of Gender on Learning English as a Foreign Language

Males: The male participants believe that gender does not play a significant role in learning English as a foreign language. They study with both genders and feel that everyone has their unique learning style regardless of gender. Using PM1 words "Being a boy or a girl may not change how I learn English. I study with both genders, and there's no difference. It's important to make sure that everyone can learn in their own way."

Females: The female participants have varying perspectives on the influence of gender. Three participants (PF1, PF3, and PF6) believe that gender does not impact language learning as PF3 added "I think that learning languages has no relation to genders, as human beings, we have the abilities when it comes to language learning or acquiring." However, PF4 and PF5 think that females might learn English as a foreign language faster due to factors such as stronger memory and preference for language over statistical elements. PF2 and PF7

acknowledge that gender differences can influence learning styles, with females tending to be stronger in auditory learning.

g. Situation of Learning Through Preferred Style

Males: The male participants provided examples of how they learn through their preferred styles. One participant PM2 shared that they learn languages effectively by watching movies and listening to music in that language. "Personally, I like watching movies and listening to music in a new language. It helps me learn the language better and also understand the culture, and that happened with English" PM1 also mentioned using maps, keywords, diagrams, during literature sessions to aid memory.

Females: The female participants also shared examples of learning through their preferred styles. One participant (PF1) draws charts or diagrams to revise her lessons. She mentioned "An example of a kinesthetic learning experience is when I revise my lessons; I usually draw charts or diagrams." PF2 collects data and updates information through visualization. Another participant PF3 learned cooking by viewing and then doing. Two participants (PF4 and PF7) provided examples of how they utilized a combination of learning styles during their civilization session. PF5 learned idioms through reading novels.

h. Preference for Group Learning vs. Individual Study

Males: The male participants have varying preferences for group learning versus individual study. PM1 and PM3 prefer group learning as it allows them to grasp a maximum amount of knowledge and benefit from different perspectives. Using PM1 words "I do prefer working in a group to grasp the maximum amount of knowledge." PM2 values both methods, recognizing the advantages of collaboration in group activities and the ability to focus on specific areas at one's own pace in individual study.

Females: The female participants also have diverse preferences. Five respondents (PF1, PF3, PF4, PF5, and PF7) lean towards individual study, as it provides a calm environment to focus, develop self-motivation, and discover personal strengths and interests. As PF4 mentioned "Personally, I want to study in a calm environment to order my ideas and focus more. So, I prefer individual study.". While PF2 and PF6 prefer group learning, emphasizing the benefits of collaboration, learning from peers, and gaining diverse perspectives.

II.6. Discussion

Data analysis from the study of the examination of learning style preferences between males and females EFL students has revealed various distinctions. Both genders exhibit slight biases towards visual and auditory learning techniques, suggesting a commonality in benefiting from specific modalities. However, notable differences emerge in kinesthetic and tactile learning methods. Males tend to favor hands-on and tactile learning, whereas females show less inclination towards these approaches. Moreover, the study highlights variations in group and individual learning preferences. While males exhibit a slight preference for group learning, females display a significant inclination towards collaborative learning environments. Additionally, females demonstrate a modest bias towards individual learning, contrasting with males who exhibit a negative preference for this style. In brief, both male and female participants recognize the importance of learning styles and their impact on performance, interaction with course materials, and future pursuits. While the male participants tend to favor a mixture of viewing and listening, the female participants exhibit a broader range of preferred learning styles, including kinesthetic, visual, and adaptive approaches. The influence of gender on learning English as a foreign language is debated, with some participants believing it has no impact, while others see subtle differences in learning styles between genders. Both groups value the benefits of group learning and individual study, with preferences varying among individuals. In other words, the analysis

suggests that there are wide differences in learning style preferences between males and females. While both genders share minor preferences for visual and auditory learning styles, they exhibit contrasting preferences for kinesthetic, tactile, group, and individual learning styles.

Comparing these findings with previous research in the field, particularly the works of Reid (1987) and Shareena (1995), and studies on Malay ESL students, several similarities and dissimilarities can be observed. Reid and Shareena's research have shown parallels in terms of gender-based learning style preferences, potentially supporting this research findings on visual and auditory biases among male and female EFL students. However, dissimilarities arise concerning kinesthetic and tactile learning methods, where this study indicates contrasting preferences between genders.

In the context of research on Malay ESL students, similarities are found in the general trends of learning style preferences across different cultural and linguistic backgrounds. Both studies reveal commonalities in the importance of visual and auditory modalities for effective learning, also that learners prefer hands-on and tactile learning methods. In addition, students from both genders have a strong preference for visual learning styles. Nevertheless, dissimilarities emerge in the specific nuances of learning preferences, especially regarding group and individual learning styles, where cultural factors may play a role in shaping these differences. While The Malay ESL students study found that male students prefer auditory learning styles (LS), Khenchela University findings found that males prefer hands-on and tactile learning methods. Moreover, unlike the latter University findings which found that females prefer a broader range of LS including kinesthetic and visual. Furthermore, this study findings do not aline with the Malay ESL student's results which stated that there was no significant difference between both genders in term of learning styles preferences, whereas

Abbas Laghrour University found the opposite. And here is a brief comparison with Reid's(1987) and Shareena's(1995) findings:

• ***Visual and auditory learning***: Both this research and the studies by Reid (1987) and Shareena (1995) indicate that both genders exhibit slight biases towards visual and auditory learning techniques, suggesting a commonality in benefiting from specific modalities.

• ***Kinesthetic and Tactile Learning***: this study result shows that males prefer hands-on and tactile learning, whereas females show less inclination towards these approaches. Reid and Shareena's studies did not specifically but generally explore gender differences in kinesthetic and tactile learning preferences. Reid's and Shareena findings showed different trends in this area.

• **Group and Individual Learning**: This research highlights variations in group and individual learning preferences, with males exhibiting a slight preference for group learning and females displaying a significant inclination towards collaborative learning environments. Reid and Shareena's studies didn't explore gender differences preferences towards group and individual learning.

By conducting detailed comparisons with Reid's (1987) and Shareena's (1995) findings, as well as research on Malay ESL students, we gained valuable insights into the nuances of learning style preferences across different studies and potentially identify areas of convergence or divergence that contribute to the broader understanding of learning preferences in diverse educational settings.

Conclusion

This chapter has interpreted and analyzed the data gathered in this research. The discussion has demonstrated that the two research instruments provided valid support for the hypotheses posed in the general introduction. These results have effectively addressed the research questions. The findings indicate that students at the University of Abbess Laghrour tend to favor a mixture of viewing and listening. Specifically, male participants prefer a combination of visual and auditory learning methods. In contrast, female participants exhibit a broader spectrum of preferred learning styles. These include kinesthetic approaches, where learning is achieved through hands-on activities and physical movement, visual methods, which rely on seeing and observing to understand information, and adaptive approaches, which involve a flexible use of multiple techniques tailored to their learning needs and the specific context. This variety in learning preferences among female participants shows the need to use different teaching methods to meet everyone's learning needs effectively.

General Conclusion

This dissertation has explored the differences in learning styles preferences among both genders EFL students. Dealing with such a topic provided knowledge of valuable insights into the role of gender in shaping language learning preferences and highlighted the importance of accommodating diverse LS in acquiring English language between both genders. Then a conclusion done aiming to answer the research questions of this study. In addition, stating limitations and recommendations and implications for learners, teachers and future researchers. This work has included two chapters: the first chapter started with a general introduction, then the review of literature consisting of the definition of the key concepts. Additionally, mentioning a historical background of learning styles and categorization. The second chapter has concerned itself with the practical part, describing the research instruments, the data collection and its procedure in addition to data analysis and discussion of the findings of the study dealing with the new insights and knowledge besides interpreting the main results. The dissertation has been conducted with both genders from third year students EFL students in Khenchela University and has been based on the learning style's model suggested by Reid (1987).

It has aimed at whether confirming or rejecting the hypotheses that if there is a statistically significant relationship between gender and learning style preferences among EFL learners. Also, if there is a statistically significant difference in learning styles preferences among male and female EFL students.

The analysis of student's questionnaires has revealed that there are distinct differences in learning style preferences between both genders. While both of them share minor preferences for visual and auditory learning styles, they exhibit contrasting preferences for kinesthetic, tactile, group, and individual learning styles. Therfore, depending on this conclusion it is attempted to confirm the first and the second hypothesis which says that there is a statistically significant relationship between gender and learning style preferences among

EFL learners, and there is a statistically significant differences in learning styles among males and females EFL students.

In brief, it can be said that hypotheses are valid and reliable because the results has revealed the positive results of the questionnaire as well as the interview about the relationship between gender and learning style preferences between males and females. Therfore, we think that we have reached the aim of this research, because the research questions have been set at the beginning which are: what are the major, minor, negligible perceptual learning styles of the students? and the second one: Is there any statistically significant relationship between students learning styles and their respective gender? And finally: are there any statistically significant differences in the language learning styles preferences among male and female students?

Shows clearly that there are minor, major and negligible perceptual learning styles of the students. Also, there is a significant relationship between students learning style between males and females, and both genders differ in the language learning styles preferences .

Finally, from this work, It is concluded that males and females exhibit distinct learning styles, each with its unique preferences. This understanding underscores the importance of recognizing and accommodating these differences in educational settings to optimize learning outcomes for all individuals. By tailoring teaching methods and approaches to align with these diverse learning styles, educators can create more inclusive and effective learning environments that cater to the needs of both male and female learners. Embracing this diversity in learning styles not only enhances educational experiences but also promotes equity and equality in education.

- **Limitations of the study**

To the best knowledge of the researchers, despite being the first ones in Algeria to conduct a study examining

gender-based differences in EFL students' learning style preferences using Reid's model, the present investigation encountered several limitations:

• Some participants declined to answer the questionnaire or participate in the interviews.

• The study's focus on a specific population limits the generalizability of the findings to other cultural and linguistic contexts, as differences in educational systems, teaching methodologies, and sociocultural factors across regions may influence the manifestation of gender-based differences in learning style preferences.

• The scope of the study was limited to the examination of gender-based differences in learning style preferences, without considering other potentially influential factors such as age, academic level, or prior educational experiences.

Despite these limitations, the present study contributes valuable insights into the field of gender-based differences in EFL learning style preferences within the specific context of Algeria. The findings serve as a foundation for future research to build upon, addressing the limitations and expanding the scope of investigation to further elucidate the relationship between gender and learning styles in language education.

- **Recommandations and Implications of the study:**

This work can only be considered as significant and of value if some of the recommendation and suggestions are implemented and results in improvements in the educational practices.

For Teachers

- To implement diverse teaching strategies that cater to different learning styles to accommodate the varied preferences of students.
- To encourage active student participation in class to enhance engagement and learning outcomes.
- To provide opportunities for self-assessment and reflection to help students identify their preferred learning styles.
- To offer support and guidance to students in understanding and adapting their learning styles to optimize their academic performance.

• To create a supportive and inclusive classroom environment that values and respects the diversity of learning styles among students.

For Students

• To take initiative in identifying their own learning style preferences and communicate them to teachers for personalized learning experiences.

• To experiment with different study techniques and approaches to determine what works best for them,

• To seek feedback from teachers and peers to gain insights into how their learning style influences their academic progress.

• To be open to trying new learning styles and feedback and self-reflection.

• To take advantage of resources and support services available to help them enhance their understanding of learning preferences and improve study habits.

For Future Researchers

• To conduct studies with larger and more diverse samples to enhance the generalizability of findings across different populations and contexts.

• To explore the intersectionality of factors influencing learning styles, such as age, cultural background, and prior educational experiences.

• To collaborate with educators and students to ensure that research findings are relevant, practical, and beneficial to the educational community.

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Appendices

Appendix A: The PLSPQ Questionnaire

Dear respondents, your participation in this questionnaire is greatly appreciated. Your responses will be kept strictly confidential and will only be used for the purpose of our Master's dissertation. Thank you for your time and cooperation.

Gender :

Male

Female

	Strongly Agree	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
• When the teacher tells me the instructions I understand better.					
• I prefer to learn by doing something in class.					
• I get more work done when I work with others.					
• I learn more when I study with a group.					
• In class, I learn best when I work with others.					
• I learn better by reading what the teacher writes on the chalkboard.					
• When someone tells me how to do something in class, I learn it better.					

• When I do things in class, I learn better.					
• I remember things I have heard in class better than things I have read.					
• When I read instructions, I remember them better.					
• I learn more when I can make a model of something.					
• I understand better when I read instructions.					
• When I study alone, I remember things better.					
• I learn more when I make something for a class project.					
• I enjoy learning in class by doing experiments.					
• I learn better when I make drawings as I study.					
• I learn better in class when the teacher gives a lecture.					
• When I work alone, I learn better					
• I understand things better in class when I participate in role-playing					
• I learn better in class when I listen to someone.					
• I enjoy working on an assignment with two or three classmates.					

• When I build something, I remember what I have learned better.					
• I prefer to study with others.					
• I learn better by reading than by listening to someone.					
• I enjoy making something for a class project.					
• I learn best in class when I can participate in related activities.					
• In class, I work better when I work alone.					
• I prefer working on projects by myself.					
• I learn more by reading textbooks than by listening to lectures.					
• I prefer to work by myself.					

Appendix B: The interview Questions

1 – Can you describe your preferred learning style?

2 – How do you think your learning styles affects your performance in english language classes?

3-How do you believe your learning style may influence the way you interact with course materials, such as textbooks, online resources, or multimedia content?

4-In what ways do you think your learning style may impact your future career or academic pursuits, especially in relation to the use of English language skills?

5- Can you describe a time when u had to adjust your learning style to accommodate a new subject or task?

6- In what ways do you think your gender may influence your approach to learning English as a foreign language?

7- Could you provide an exemplary situation where you learned something by using your learning style (by listening/viewing/body movement/touching/or a mixture of two or more of these styles)?

8-How do you feel about group learning activities versus individual study, and which do you find more beneficial for your learning style?

ملخص

يسلط هذا البحث الضوء على تفضيلات أساليب التعلم لدى متعلمي اللغة الإنجليزية كلغة أجنبية في قسم جامعة خنشلة بناءً على جنسهم. بشكل أكثر تحديدًا، تسعى الدراسة إلى تحديد الفروقات في أساليب تعلم اللغة بين الطلاب الذكور والإناث. من أجل تحقيق أهداف البحث، تم تبني منهج بحثي مختلط يجمع بين البيانات الكمية والنوعية. باستخدام عينة، تم جمع البيانات من مجموعات السنة الثالثة من طلاب اللغة الإنجليزية كلغة أجنبية، ممثلين كلا الجنسين. تم جمع البيانات الكمية باستخدام استبيان أنماط التعلم الإدراكي لريد (1987)، الذي تم تحليله بعد ذلك باستخدام اختبار للعينات المستقلة لمقارنة المتوسطات. وبالمثل، تم جمع البيانات النوعية من خلال مقابلة معمقة تم تحليلها في النهاية بواسطة تحليل المحتوى النوعي. أشارت نتائج الدراسة إلى أن كلا الجنسين يظهران تحيزات طفيفة نحو التقنيات البصرية والسمعية في التعلم، بينما أظهر الذكور، أكثر من الإناث، تفضيلًا لأساليب التعلم الحركية واللمسية. بالإضافة إلى ذلك، كشفت الدراسة أن كلا الجنسين أظهرا ميلًا مشابهًا نحو أساليب التعلم الفردية. أسفرت نتائج هذه الدراسة عن عدة تداعيات وتطبيقات تربوية بارزة. من المهم أن يتم تشجيع المتعلمين على تحديد أساليب التعلم الرئيسية لديهم ومطابقتها مع عمليات التعلم لتحقيق أفضل تحصيل أكاديمي. علاوة على ذلك، يُوصى المعلمون بتحديد أساليب التعلم المتنوعة لطلابهم من أجل زيادة فعالية *أهدافهم التربوية* ضمن مجال تعلم اللغة.

الكلمات المفتاحية: متعلمو اللغة الإنجليزية كلغة أجنبية، الجنس، أساليب التعلم، استبيان أنماط التعلم الإدراكي،التفضيلات.