



GENDER DIFFERENCES IN LEARNING LANGUAGES

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Abstract:

Gender differences between male and female language learners have recently attracted the attention of researchers, especially in terms of how these differences impact learning achievements. Hence, this study examines gender differences in language learning without representing a specific sample area or population. It investigates previous studies by extracting the theories applied, sampling methods, data collection methods, and data analysis tools. The findings revealed that most studies employed simple random sampling techniques, and quantitative data collection methods were vastly more common than qualitative methods. Questionnaires and interviews played an important role in data collection, while SPSS was the most used data analysis tool. The findings from previous studies hold divergent views; while some studies agreed that gender does not have a significant impact on learning languages, other studies hold different views and reported that motivation, self-efficacy, cognitive load, and learning styles, among others, could be gender differences between males and females with respect to learning languages. These findings will be beneficial to language teachers and instructors regarding possible techniques to employ to enhance comprehensive and effective learning among both males and females.

Keywords: gender differences; language learning; theories; previous studies

1. Introduction

Leaving aside the ongoing debate on gender differences with respect to who learns languages better, males or females, or whether they receive the same notation, the strategies and styles adopted for learning languages have also become the centre of discussion among scholars (Viriya & Sapsirin, 2014). Research in education holds that there could be factors responsible for differences in learning and strategies, one of which has to do with gender differences adopted in learning a particular language. This factor

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has long been studied, and based on research carried out in recent times, findings show that various genders of males and females tend to apply different styles and strategies in language learning that are vastly different from each other (Sumarni & Rachmawaty, 2019). Yao and Cheng (2012) argue that using technology could be one of the immediate causes leading to gender differences. However, the difference in gender in language learning appears more likely early in the female folks than the males, and this is because females are most likely to apply the language in their relationships with others. In contrast, males mostly use language in explaining events and objects. The female gender is better off learning languages, especially at remembering verbal information related to objects, names, and locations. While the male could perform better when he has to do tasks that involve directions and sometimes travelling.

Recent studies revealed that females appear to gain more than males on various measures of language performance, such as verbal accuracy, general English mastery tests, and assumptions of accents about native speakers (Polat, 2011). Tatarinceva (2009) agrees with this fact that when it comes to gender differences in learning languages, females prove to be better in terms of vocabulary strength, verbal fluency, and quality of speech, yet when it comes to writing skills, males are better. Yet, despite these studies, there have been some inconclusive indicators and evidence related to gender differences noted (Taguchi, 2002). These factors in gender differences between males and females may come in the form of who is better off in proficiency, motivation to learn, cognitive awareness, and special personality traits among the two genders. Nonetheless, one could say that the female gender is more dominant in gender learning. Today, it is common to see more females working in interpretation and translation into other languages than their male counterparts, of whom only a few are in these areas (Collom, 2018). Even in the language field, there are fewer male teachers than females. In most cases, even among the learners, there are more female language learners than male language learners within the language class regarding participation and assessments (Mathew, Job, & Islam, 2013). However, this study becomes necessary as it provides vital information on previous studies on gender differences in learning languages. It adds to the existing literature by obtaining essential information about the gender contents of males and females in language learning while analysing the results on how the female gender performs better than the male regarding language learning. This study will review the works of other scholars who have written on gender differences in learning languages. The literature for the review shall cover the study years of 2017 to 2022. Hence, this study shall examine various taxonomies and theories from previous studies related to the topic. This study shall also answer questions related to data collection methods, data analysis, research designs used, and the findings attached to studies previously conducted.

2. Theoretical Framework

The following theories are reviewed from the previous studies. These theories reviewed include the following:

The **Social Interaction Theory** was developed by a former Soviet Union psychologist, Vygotsky, a child development psychologist. In his theory, he opines that social interaction between children and other individuals influences the child's cognitive development. In a sense, social interaction increases the child's ability to learn, further stimulated by communicating with other individuals or what he refers to as "more knowledgeable others." In turn, he stated that the children's competence in learning and acquiring languages diminishes without social interaction. He added that people's behaviour styles are grossly affected by the expectations of their social environments.

Vygotsky also developed the **Sociocultural Theory**, where he noted that all sociologists hold a single belief: that gender is an entire construct of social interaction born out of socialisation within the social cycle. In such sociocultural theory, it shows the extent of social interaction that exists within the family where the child is born and the community in which the child grows. It is the possible initial way in which children of all ages tend to develop a particular behaviour and become relevant to their environment, which becomes their cognitive development process.

Vygotsky's Sociocultural Theory shows that children learn through a social process drawn from social interactions. The child learns it from their peers, parents, and the culture in the larger society. Thus, these joint forces are crucial to the child's psychological development. The two theories of social interaction and sociocultural interaction by Vygotsky are further explained in the figure below.

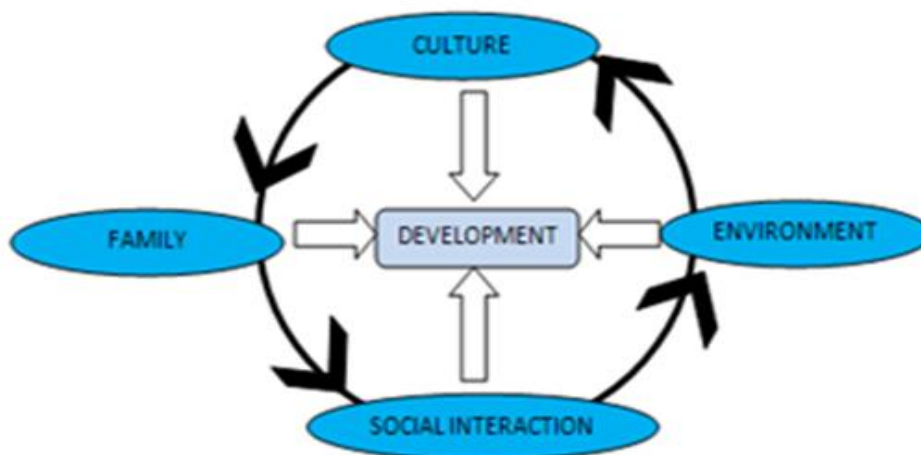


Figure 1: Socio-Cultural Theory Model (Vygotsky Model, 1987)

The figure above explains the social process that leads to a child's development through family, environment, social interaction, and culture.

The **Social Learning Theory** was developed by Bandura (2002), and here he opines that humans often learn by modelling one another or through imitation. He noted that this can only be possible through being retentive, attentive, and able to reproduce what they hear or see when there is motivation. According to this theory, learning is a cognitive phenomenon that occurs in a social setting and can be sustained primarily by immediate

instruction or observation, even without motor reproduction or direct stimulation. Bandura assumes that learning is part of the cognitive process within a social context. Such context should be characterised by observation and motivation to model or imitate another person, and this model, when performed continuously, may cause the child to pick specific skills and language acquisition as a role model in learning.

The **Cognitive Load Theory**, commonly known as "CLT," was first developed by Sweller (1988). The theory is anchored on the premise that individuals can deal with limited information within a permissible time frame. The theory holds that cognitive loads revolve around the amount of processed information that an individual requires to perform a given task. Sweller noted that cognitive loads could take three different forms. The figure below further offers insights into this theory.

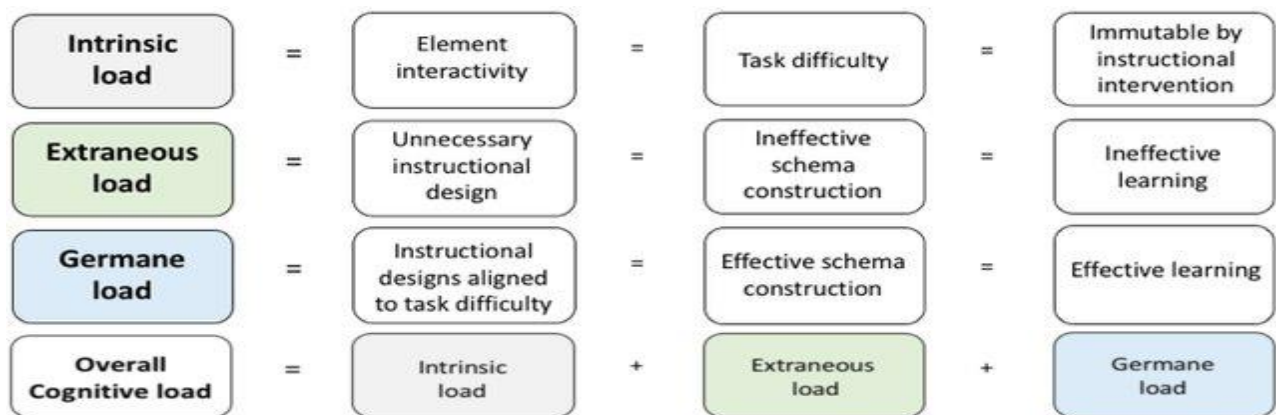


Figure 2: Cognitive Load Theory extracted from (Giuliano & Luca, 2019)

- 1) Intrinsic cognitive load describes the different types of difficulty most affected by how much you know about a subject.
- 2) Extraneous cognitive load: this explains the limitations frequently generated by materials that are not good learning aids.
- 3) Germane cognitive load explains how information is processed and its role in schema development.

The **Social Dominance Theory** was first developed by two psychologists, Sidanius and Pratto (1999). The theory that deals with intergroup relations as gender, socialisation, group status, and temperament assumes that various interrelating groups are placed under certain social hierarchies, which are not aimed at explaining the quality of life of the interrelating group but at subjugating them into a group-based social hierarchy that seeks to make them perpetuate themselves and gain stability.

Kolb's Learning Style became a part of learning style theory as it was first developed by David Kolb (1984) in his outline of learning style theory, today known as Kolb's Learning Style. The theory opines that an individual's learning styles emerge due to life experiences, genetic mutation, and the demands of the immediate environment. Kolb noted that for learning to be effective, a person must pass through four learning styles: "*Converger, Diverger, Assimilator, and Accommodator.*"

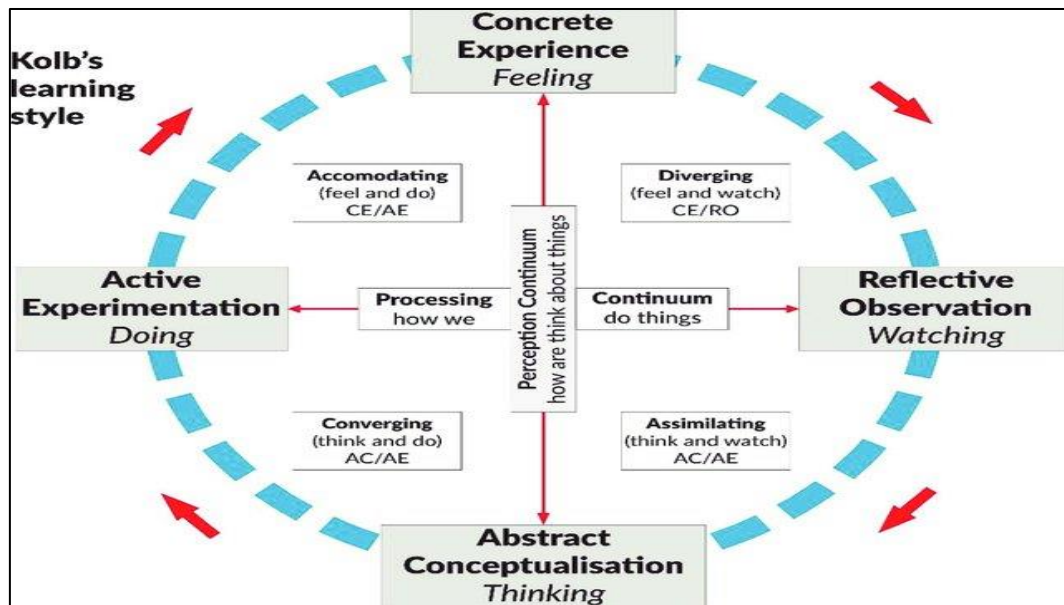


Figure 3: Kolb`s Learning Style extracted from (Fajar, Indah, & S, 2019)

Converger, this has to do with highly skilled individuals who have practical ideas for specific applications in the areas of active experimentation and abstract conceptualisation. Next is the *Diverger*, which involves individuals with learning styles seeing a "bigger picture". This group of people enjoys brainstorming and always comes up with refreshing ideas. Musicians, artists, those with excellent skills in arts, and counsellors all tend to be in this learning style. Third, the *Assimilator* is a set of individuals who are more concerned with theoretical considerations and models than with ideas that involve people having areas such as reflective observation and abstract conceptualisation. Individuals with these learning styles are mostly mathematicians and researchers in the basic sciences. Lastly, the *Accommodator* —this set of individuals develops learning styles through active experiments and concrete experience. In the real world, they enjoy performing an investigation, which gives them the zeal to be risk-takers among the other four learning styles. Individuals with this learning style are primarily found in marketing and sales, where they can use trial and error to solve problems.

Jean Piaget first developed the **Constructivism Theory**. The idea of Piaget is to inspire social constructivism through the acquisition process and knowledge creation built within interactions among humans that adapt their ideas and experiences. Piaget furthers his theory on children`s development by arguing that children aren`t cognitively inferior to adults. However, he proves that through a cognitive process of development, children tend to develop differently through accommodation and assimilation, where these two processes revolve around how the child learns rather than what influences the child to learn.

The **Behaviorism Theory** stemmed from the work of Skinner (1981). According to the theory, knowledge exists only independently and outside of the scope of people. Thus, the idea is born, and all behaviours are acquired through the possible interaction of individuals within their environment. Again, new behaviours and possible changes are learned through an association between responses and stimuli.

The **Self-efficacy Theory** was developed by Bandura (1977), and he opines that this has to do with individual beliefs that affect how he executes a given plan of action within a given situation and their ability to succeed within the given situation. Self-efficacy theory assumes that government has a responsibility to provide adequate opportunities with the ability to engage in the experience, receive social persuasion that is positive, and reinforce models that are functional with a strong sense of self-efficacy. The theory shows how critical individual capabilities and perceptions are in determining successful outcomes. Self-efficacy theory also rests on the social cognitive theory, where individuals are capable enough to carry out a given operation and succeed as long as the right opportunities are provided.

3. Empirical Studies

This section shall be concerned with summarising the individual reviewed study's findings. Hence, the summary of findings will be on an individual note and not cumulative, to review the main findings from the field assessments by applying various sampling methods and types of data collection methods.

The findings of the study conducted by Khong, Hassan, and Ramli (2017) revealed that female students were more motivated than their male counterparts to learn Spanish through instrumental motivation in the learning model. However, concerning gender, there was no significant difference in the adoption of instrumental and integrative bases in determining gender choices in foreign language learning. The study also revealed that students in the technical field were more motivated to learn Spanish as a foreign language within the study sample than the rest of the students in other majors. Furthermore, the influence of students' motivation has a broad effect in learning different foreign languages.

Findings from the study conducted by Daud, Wong, Ghani, and Ramli (2021) revealed that in Arabic language learning among new learners, there exist gender differences that intersect between female and male learners when trying to use mobile applications. The findings also showed that male learners gained significantly higher adjusted average grades on the performance tests than females who used the same curriculum. While the findings indicate that both males and females are skilled in using the mobile application to learn Arabic, the male participants have a broader impact on the language due to their optimistic learning and practice using the mobile application than the female participants. The findings further reveal that, given the suitable technological developments and advancements, foreign language learning could become possible by adopting similar educational strategies, as this effort will reduce a particular preference among genders.

Another study by Yu (2019) holds findings that certain mobile learning platforms, such as English IV, College English IV, and a host of others, aid in making language learning effective. Thus, given cognitive loads, males tend to be more responsive and have greater access to these mobile apps as college English IV students than females. This is given more significant gender differences concerning cognitive load, which aims to

enlarge memory by assigning design instructions within such platforms. Findings from the same study also hold that there tends to be a gender difference in attitudes, as male students are always confident and have self-regulation, while females are anxious in their attitudes toward learning. No doubt, the study also found that mobile technology is useful and plays a crucial role in language learning while not putting aside specific existing gender differences. Male learners in the study tend to improve their proficiency in English learning more than female learners while using mobile learning platforms.

The study by Iwaniec (2019) revealed that, in English language communication, females tend to show more interest than males, as the male students demonstrated a low vision of prospects in being successful English language users and experts. While the study revealed that there is a gender difference in the field of international orientation among both genders, females show higher strength in attaining global orientations than males in English speaking and communications. In terms of instrumentality, English self-concept, self-efficacy beliefs, and intrinsic motivation, no gender differences were found. To ascertain the impact of gender on learners' attitudes through the use of Instagram, Alzamil (2020) conducted a study indicating that both male and female genders show no significant difference in learning based on their attitudes toward Instagram as a learning tool. For this reason, the study notes that both genders show possible philosophies and learning strengths for a single language learning course using an interactive platform as a learning tool.

Abdul-Hamid (2020) conducted a study to explore gender differences in language learning, levels of literacy, and language difficulties using a qualitative research design. The findings emanating from the study showed that the cultural interest in Brunei tends to affect both genders as early as in their formative school period. However, findings showed that through various activities, females increased their literacy abilities and skills in learning English in drawing and using computer devices in completing take-home assignments. While the male students engage themselves in more physical activities, more computer games, and fewer assignment activities.

Atika (2019) conducted a correlational descriptive study to identify gender differences in learning styles, language learning strategies, and the relationships between these variables. The findings showed that various learners indicated having more than one learning preference; at this point, no learning style category could be mutually exclusive to some male and female learners. However, the study found that while other learning strategies don't show gender differences, only the compensation strategy favours female student learners. This finding is consistent with the fact that female students are characterised as field-dependent, reflective, and auditory rather than independent, impulsive, and visual like male students.

However, the study by Ajeng (2017) showed a contradiction while noting gender differences in language learning. The study found that male learners have more strategic learning styles than female learners. However, this could be attributed to their level of participation and mindset, which clearly shows that the mentality of high school students is different from that of college students. The findings also revealed that while male learners have a social and metacognitive strategy in their speaking abilities, female

learners show a more significant cognitive strategy in their language abilities, skills, and competencies.

A study by Kim (2019) created balanced findings based on the assumption that there exist gender differences in language learning. The study noted that the operation of technology in English language learning is perceived equally by both males and females in Korean schools. The study concluded its findings by finding that female students could perform outside the context of technology use in learning.

Alhaysony (2017) conducted a study to investigate the impact of gender and duration of English language study. The findings revealed that no significant differences were observed in terms of gender and time of studying English, so Saudi students were not given progressive awareness of the various strategic learning options available to them. Although the study found that female students spend more time learning English than male students, who are not well exposed to formal English reporting,

In the study conducted by Hilao and Wichadee (2017), the findings showed that gender differences do not exist between male and female students in the language learning and usage of mobile phones for learning foreign languages in Thailand. In this finding, both males and females enjoy the same level of learning performance. Thus, the study found that gender plays no part in students' attitudes toward language learning.

Chan (2018) examined the implication of gender and attitude in English varieties. The findings emanating from the study so conducted revealed that pronunciation among native speakers is more favourable among females than males; this is the reason that females tend to employ specific teaching models with adaptive learning, which improves their understanding and pronunciation of British English. Whereas male English learners were found to have a high level of acceptance of local accents,

Another study was conducted by Mutar (2019) to examine Iraqi university students' attitudes toward learning English and investigate if there are any significant differences in learning English among students based on their gender and college. According to the findings, students showed a positive attitude toward learning English, and in terms of gender and college, there was no substantial difference between the respondents of this study. As a result, males and females share a similar level of awareness regarding language learning and the global state of communication.

Findings from the study conducted by Calafato and Tang (2019) revealed that where language motivation is given for a small, sampled population, the two genders are often less committed to language learning. As a result, gender parity, or the difference between males and females, comes into play regarding who is more motivated to learn a foreign language. Thus, when a few sampled male populations receive greater motivation, they become more adaptive in learning multiple foreign languages, often leading to a good outcome.

The findings by Chen, Wang, Zuo, Lin, & Xie (2019) revealed that the caption gender interaction had a significant influence on learning achievement, with the male non-caption group outperforming the male English-caption group, whereas female students in both groups performing similarly well. The findings of this study also revealed that male learners who learned without captions were more encouraged and

focused on situational dialogues, resulting in improved learning achievement and greater motivation levels than those who learned with captions. As a result of the findings, males in the non-caption groups outperformed males in the caption English groups. This outperformance from the non-caption group of males could be attributed to the motivational and situational reference dialogues that significantly improved their learning performance. However, under a single learning condition, both male and female learners tend to perform on the same non-caption English option when given positive motivation.

A study conducted by Iqbal and Yongbing (2017) to examine gender-related differences in language learning beliefs of Pakistani ESL university students proved that gender differences in languages could have pedagogical impacts on both males and females. For this reason, the findings showed that both males and females held similar views and beliefs on motivational factors and expectations in language learning. Gender differences were observed among Pakistani ES Language students as a result of the student's beliefs. The findings support arguments made by scholars such as Bacon and Finnemann (1992), Siebert (2003), and Oz (2007) that gender plays a role in language learning beliefs.

Similarly, a study was conducted by Mehmood (2020) to examine the differences in the learning styles of both genders at the university level and to explore how language teachers use different teaching techniques to respond to such discrepancies in the language comprehension and learning of their male and female students, along with their perspectives of these learning styles. Gender differences between males and females are positively influenced by the preferred learning style, according to the findings of an active experiment style of learning. The findings added that teachers are informed about the differences that occur in gender concerning language learning based on gender, as each gender tends to adopt a learning style that can motivate such gender to learn better. Individuals' cognitive and educational backgrounds, as well as their social and cultural backgrounds, influence their learning styles.

A study by Al Bataineh (2019) shows that learners of the language, both males and females from Jordan, have fewer worries about difficulties in learning languages, as results prove that they maintain an enthusiastic spirit in learning foreign languages like English. The gender differences could only be seen in the Learning Belief Inventory (BALLI) and the expectation and motivation aspects of language learning. Though the male student gains more awareness and productive skills in language learning than the female, the female, on the other hand, finds speaking and understanding English easier. Yang and Quadir (2018) conducted a study to examine how individuals' levels of gaming flow experience influenced their levels of learning and whether gender differences occur in the gaming flow experience and learning motivation. The study found that motivation in language learning is perceived and seen both in male and female learners. The results revealed that female learners had slightly better gaming flow than male learners, but both male and female learners revealed comparable learning motivation. Moreover, the findings revealed that male learners gained more engaging rewards than female learners.

Yet, there were no significant disparities in other rewards achieved by male and female learners.

Finally, Namaziandost and Çakmak (2020) discovered that when the flipped classroom model is used, females have higher levels of self-efficacy than males. This is possible due to the gains attributed to the flipped classroom model, which creates opportunities for all learners to jointly collaborate and carry out a unified task through possible interaction. Female learners are better off than male learners at this stage due to self-efficacy, which tends to differ from the flipped classroom model. It is primarily concerned with social and cognitive involvement and encourages group collaboration.

4. Discussion

The empirical studies discussed in this article provide valuable insights into the differences between genders when it comes to learning languages. One study conducted by Khong, Hassan, and Ramli (2017) suggests that female students tend to be more motivated than male students when it comes to learning Spanish through instrumental motivation. However, there is no significant difference between genders in terms of adopting either instrumental or integrative bases for choosing a foreign language. In the context of Arabic language learning, Daud, Wong Ghani, and Ramli (2021) found that gender differences exist in the use of mobile applications. Male learners demonstrated higher proficiency and greater engagement with these apps compared to their female counterparts, resulting in better performance on tests. This highlights how gender disparities can impact the effectiveness of technology-assisted language learning. Another study by Yu (2019) focused on cognitive load, attitudes towards learning, and academic achievements among different genders in mobile English learning. The findings revealed that male students tend to have higher cognitive loads - meaning they process information more intensively - as well as more positive attitudes toward education compared to female students. These results suggest that these gender differences in cognitive processing abilities and attitudes can influence overall outcomes when it comes to acquiring a new language.

These studies emphasise the significance of acknowledging and addressing gender differences in language learning. Various factors, including motivation, self-regulation, cognitive load, and attitudes towards learning, can differ between males and females. These differences have the potential to influence language learning experiences as well as overall outcomes. By recognising these gender disparities in language acquisition, educators can develop more tailored approaches to teaching that cater to male and female learners' specific needs and preferences. This understanding allows for the design of more effective strategies and interventions that consider individual motivations, self-regulatory abilities, cognitive processing styles, and attitudes towards education. Ultimately, this knowledge helps create a more inclusive educational environment where both male and female students have equal opportunities for comprehensive and successful language learning.

5. Conclusion

Gender differences in learning languages in recent times have raised much debate among scholars and academics, especially in literary studies and linguistics. This resounding debate tends to show just how important the subject matter of gender differences is in learning languages. Notably, studying gender differences, especially in language learning, is vital in establishing the various factors that ignite one gender over the other in language participation. The findings from previous studies hold divergent views. In contrast, some studies agree that there is a significant impact of gender differences in learning languages. Others have expressed the opposite view that gender differences play no essential role in learning languages. The study looked at potential factors contributing to gender differences in language learning. Again, one would conclude from the study that gender differences in learning languages could be attributed to factors such as social-cultural interactions between genders, the motivation that drives them to learn foreign languages, and the learning environment as a contributing factor in deciding gender differences from learning languages. While extracting the benefits of this study, it provides a connection on what factors are involved in gender differences and why one gender participates in language learning more than the other.

However, the majority of findings show that gender differences exist in language learning for the simple reason that, as previously stated, different factors lead to these findings. Nonetheless, these findings from previous studies could be reversed when both genders are given the right opportunity and atmosphere to learn languages. In conclusion, individuals such as scholars, academics, and institutions can benefit from the findings of these studies by creating a balance in the areas of motivation and belief in learning. Finally, the study recommends conducting future studies to adopt communication as a factor that can enhance learning languages and also recommends using other data collection methods and a mixed research design, as this will give more significant insights into the discourse of gender difference in language learning.

Conflict of Interest Statement

The authors declare no conflicts of interest.

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