Exploring Gender Differences in English Learning Strategies Among Students at University

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Abstract: This study investigates gender-based differences in the use of English language learning strategies among students at Universitas Muhammadiyah Kalimantan Timur. Employing a mixed-methods design, the research gathered quantitative data through a modified Strategy Inventory for Language Learning (SILL) questionnaire and qualitative data via semi-structured interviews. Forty students (20 males and 20 females) participated in the survey, while four were interviewed to explore their learning experiences in depth. The findings indicate that female students employ a wider variety of strategies, particularly in metacognitive, affective, and social domains. Male students showed a preference for cognitive and compensation strategies. The study highlights the importance of gender-sensitive pedagogical approaches to enhance English learning outcomes. These findings imply that EFL educators should consider integrating diverse learning strategies that cater to gender-specific preferences, thereby fostering more inclusive and effective language learning environments.

Keyword: *English education, gender, learning strategies, SILL, university students*

INTRODUCTION

The process of learning English as a Foreign Language (EFL) is influenced by various internal and external factors, one of the most significant being the learning strategies employed by students. Language Learning Strategies (LLSs) refer to the specific actions, behaviors, steps, or techniques that learners use—often consciously—to improve their progress in developing language skills. These strategies enable students to enhance understanding, retention, and application of new language knowledge.

Among the many variables that affect strategy use, gender has been widely recognized as an influential factor. Gender differences in education manifest not only in academic achievement but also in how male and female students approach the learning process. Language learning strategies have been categorized into six major types: memory, cognitive, compensation, metacognitive, affective, and social. These categories cover the processes through which learners store and retrieve information, practice language, compensate for unknown words, plan and monitor their learning, manage emotions, and interact with others for learning purposes (Oxford, 1990).

Female students are generally observed to use a broader and more varied range of strategies, especially in areas related to planning and emotional regulation. They often exhibit greater self-awareness and organization in their learning routines, making use of strategies like goal-setting, scheduling, and positive self-talk to enhance motivation and reduce anxiety. On the other hand, male students are more inclined toward task-based strategies, such as memorization, repetition, and contextual guessing, showing preferences for independence and problem-solving (Mahmud & Nur, 2018; Božinović & Sindik, 2011).

Despite numerous studies on gender differences in language learning strategies, few have explored this issue within the Indonesian university context using a mixed-methods approach.

Moreover, there is a lack of localized research focusing specifically on students from Universitas Muhammadiyah Kalimantan Timur, highlighting the need for further exploration.

Recent studies such as Andini and Prastiyowati (2021) found that female students at Universitas Muhammadiyah Malang exhibited higher usage of metacognitive and social strategies than males. Similarly, Evans et al. (2021) provided a broader global view of persistent gender disparities in education, while Aguillon et al. (2020) showed that in STEM classrooms, men tend to participate more actively than women, revealing gender-linked affective and self-efficacy gaps. These studies reinforce the urgency of addressing gender-related educational gaps through context-sensitive analysis.

In the Indonesian EFL context, gender-based differences have also been reflected in classroom learning patterns. Female students tend to be more collaborative and strategic, making frequent use of metacognitive and social strategies. Male students, meanwhile, favor direct and functional approaches, relying on individual efforts and practice-based techniques (Andini & Prastiyowati, 2021). Additionally, the use of affective strategies—such as motivation control and emotional regulation—is more common among female learners, contributing positively to their language development (Dalila, 2020).

Recognizing these tendencies is crucial for language instructors, curriculum developers, and academic institutions aiming to provide equitable and effective instruction. When learning strategies are understood through a gender-sensitive lens, educators can create classroom environments that support all students in developing a wider range of strategies. For example, helping male students engage in goal-setting or reflective practices, or encouraging female students to apply risk-taking and fluency-based techniques, can foster more balanced and inclusive language development.

Several previous studies have investigated gender differences in language learning strategies. For instance, Mahmud and Nur (2018) examined high school students in Indonesia and found that females tended to use affective and compensation strategies more often, while males leaned toward metacognitive and social strategies. Similarly, Andini and Prasetyowati (2021) reported that female university students scored higher in the use of metacognitive and social strategies compared to males.

On the other hand, Ahsanah (2020) found that age may play a more decisive role than gender in LLS preferences.Although these studies contribute valuable insights, most focus on a single method—either quantitative or qualitative—and are often limited to a specific educational level such as secondary education. As emphasized by Aprisama (2022), who studied language learning strategies among secondary school students in Indonesia, there remains a need for research that integrates both quantitative and qualitative approaches at the university level. Therefore, this study aims to fill that gap by using a mixed-methods design to explore gender differences in English learning strategies among university students, providing a more comprehensive understanding through triangulated data.

Based on this perspective, the present study focuses on gender-based differences in English learning strategies among students of the English Education Department at Universitas Muhammadiyah Kalimantan Timur (UMKT). This research aims to uncover strategic preferences based on gender and provide insights into how EFL instruction can be tailored to accommodate diverse learner needs and enhance educational outcomes at the university level.

METHOD

This study employed a mixed-methods design to comprehensively explore gender-based differences in English language learning strategies. The participants were 40 students from the English

Language Education Department (PBI) at Universitas Muhammadiyah Kalimantan Timur, consisting of 20 male and 20 female students. A purposive sampling technique was applied to select participants who were actively enrolled in the program and had sufficient experience in English language learning, ensuring that they could provide relevant and reflective responses regarding their learning strategies.

Two main instruments were used in data collection. The first was a questionnaire adapted from Oxford's (1990) Strategy Inventory for Language Learning (SILL), comprising 30 items categorized into six types of language learning strategies: memory, cognitive, compensation, metacognitive, affective, and social. Participants responded to each item using a 5-point Likert scale ranging from 1 (never) to 5 (always), which reflected the frequency of their use of each strategy.

The second instrument was a semi-structured interview designed to explore deeper qualitative insights into students' learning behaviors and strategic preferences. Four students were selected from the same participant pool to be interviewed, consisting of two male and two female students from the English education program. These individuals were chosen to ensure gender balance and representativeness in the qualitative phase of the study. The interview questions were developed in alignment with the six categories of the SILL framework, ensuring methodological consistency between the quantitative and qualitative components. The interview also included a question that explored participants' perceptions regarding gender differences in language learning strategies. To ensure the trustworthiness of the qualitative findings, the interview data were transcribed verbatim from audio recordings and systematically analyzed. The transcription process enabled the researcher to identify recurring patterns, themes, and differences in strategy use between male and female respondents, which were then interpreted in alignment with the study's objectives. This mixed-method design reflects methodological triangulation, combining both quantitative and qualitative data to enhance the validity and depth of the findings.

The quantitative data obtained from the questionnaires were analyzed using SPSS (Statistical Package for the Social Sciences), focusing on descriptive statistics such as means and standard deviations, as well as F-tests to identify significant differences between male and female participants in each strategy category. The interview data were subjected to thematic analysis, where student responses were coded and categorized according to the six SILL strategy types. This approach enabled the researcher to triangulate findings and gain a more nuanced understanding of how gender influences English language learning strategies among university students.

RESULT AND DISCUSSION

This section presents findings from both the quantitative analysis (questionnaire results based on Oxford's SILL framework) and qualitative insights (from interviews with two male and two female participants). The strategies are discussed in six categories: memory, cognitive, compensation, metacognitive, affective, and social. The following table summarizes the mean scores, standard deviations, and frequency between groups for each strategy.

Figure 1. Descriptive Statistics of Language Learning Strategies by Gender

	Group	N	Mean	Std. Deviation	Frequency Between Groups
Memory	Male	20	3.16	.56045	9.18
	Female	20	3.64	.43335	

Cognitive	Male	20	3.52	.61353	4.55
	Female	20	3.87	.40144	
Compensation	Male	20	3.63	.60966	5.63
	Female	20	4.02	.40988	
Metacognitive	Male	20	3.20	.78673	17.07
	Female	20	4.00	.36128	
Affective	Male	20	3.88	.50845	1.68
	Female	20	4.08	.46521	
Social	Male	20	3.34	.77078	8.75
	Female	20	3.95	.50628	

These results show that female students outperformed male students across all strategy categories. Each type of strategy is discussed below, integrating supporting quotes from interviews to contextualize the patterns.

These findings are supported by several previous studies. Mahmud and Nur (2018) found that female students were more inclined to use affective, compensation, and metacognitive strategies, aligning with this study's observation that female participants applied more diverse and emotionally aware strategies. Similarly, Andini and Prasetyowati (2021) observed that female university students frequently employed social and metacognitive strategies, while male students favored more independent approaches. In a broader international context, Huang (2023) emphasized that gender-based preferences in language learning are influenced by social and cultural attitudes, with female learners often showing higher motivation and self-regulation. These theoretical perspectives reinforce the empirical data collected in this study and highlight the value of considering gender as a key variable in English learning strategies.

Memory Strategy

The SPSS findings revealed that female students had a higher mean (M = 3.64, SD = 0.43) than male students (M = 3.16, SD = 0.56), with an F-value of 9.18. This indicates a significant difference in the use of memory strategies. Female students' stronger use may be due to their greater attention to detail and systematic review habits. Studies by Božinović and Sindik (2011) and Mahmud and Nur (2018) support the idea that females employ more diverse and structured memory strategies.

	Group	**N**	**Mean**	**Std. Deviation**	**Frequency Between Groups**
Memory	Male	20	3.16	.56045	9.18
	Female	20	3.64	.43335	

Interviews reinforced this result. Female respondents (R3 and R4) used techniques such as note-taking, memorizing full sentences, and reading novels. R3 explained, "I write it down on my phone or on paper, so when I see the paper again, I remember it." R4 also mentioned, "I often read English books or novels, so I become more familiar with the vocabulary." These strategies show an intentional effort to reinforce memory through context and repetition.

In contrast, male respondents (R1 and R2) used simpler techniques. R1 said, “I record my own voice and listen to it repeatedly,” showing reliance on auditory repetition. R2 stated, “I write the vocabulary and say it over and over again,” highlighting a rote memorization approach. This contrast reflects a broader pattern where female students use more elaborate and layered memory techniques, while male students favor mechanical repetition.

Cognitive Strategy

Female students again scored higher (M = 3.87, SD = 0.40) than males (M = 3.52, SD = 0.61), F = 4.55. This may be attributed to their integration of language learning into everyday activities. Mahmud and Nur (2018) noted that female learners are more likely to engage with English through various forms such as media, which enhances comprehension.

	Group	**N**	**Mean**	**Std. Deviation**	**Frequency Between Groups**
Cognitive	Male	20	3.52	.61353	4.55
	Female	20	3.87	.40144	

Analysis of the interview data indicated that R3 and R4, the female respondents, engaged with English via films, music, and mimicry (ATM). R3 shared, “I like to memorize movie subtitles and then create my own sentences with similar structure.” R4 said, “YouTube is the key... or listening to music, because we end up singing along.” These strategies reflect a dynamic and multimedia-based approach that encourages natural acquisition.

In contrast, R1 and R2, the male respondents, described more traditional learning habits. R1 mentioned, “I use practice questions from question banks,” and R2 added, “I type and write to practice grammar.” These approaches indicate a more conventional and academic-driven method of practice, suggesting male students may prioritize structural mastery over fluency.

Compensation Strategy

Female students showed a higher average (M = 4.02, SD = 0.41) compared to males (M = 3.63, SD = 0.61), with an F-value of 5.63. This suggests females are more proactive in overcoming language limitations. Mahmud and Nur (2018) highlighted females' creativity and adaptability in managing vocabulary gaps.

	Group	**N**	**Mean**	**Std. Deviation**	**Frequency Between Groups**
Compensation	Male	20	3.63	.60966	5.63
	Female	20	4.02	.40988	

The female respondents demonstrated various strategies to overcome vocabulary limitations during speaking. R3 said, “I use a sentence that describes the word... then later I look for its synonym,” showing her ability to adjust mid-speech and reflect afterward. R4 noted, “I search using engines like Google or ChatGPT,” indicating tech-savvy and independent strategies.

On the other hand, R1 and R2, the male respondents, employed different methods. R1 explained, "I guess the meaning from the context," and R2 shared, "I look it up online or use synonyms." While both genders rely on similar tools, female students appear to apply them more analytically and strategically, using them to enhance expression rather than only as substitutes.

Metacognitive Strategy

Female students demonstrated stronger self-regulated learning behaviors compared to their male counterparts, as reflected in their higher average scores (M = 4.00, SD = 0.36) than those of male students (M = 3.20, SD = 0.79), F = 17.07. This suggests that females tend to be more organized and reflective in managing their learning processes. This finding is supported by Andini and Prastiyowati (2021), who noted that women are generally more consistent in planning and monitoring their learning progress.

	Group	**N**	**Mean**	**Std. Deviation**	**Frequency Between Groups**
Metacognitive	Male	20	3.20	.78673	17.07
	Female	20	4.00	.36128	

This trend is also reflected in the qualitative responses. R3, a female respondent, shared, "I usually study the day before, but I focus on understanding the key points," indicating at least a basic strategy for prioritizing. R4, also a female respondent, said, "I make short notes and search for information online," showing active monitoring and resourcefulness.

Male respondents displayed lower planning tendencies. R1, a male student, admitted, "I don't have a plan, I just do it depending on the assignment," suggesting a reactive learning habit. R2, another male student, shared, "I make a schedule and understand the task instructions," showing some structure, though still more task-driven than proactive. This difference reflects how females apply broader self-regulation, even under pressure. This finding aligns with Oxford's (1990) model, which emphasizes the role of metacognitive strategies in successful language learning. It also supports Andini and Prastiyowati's (2021) assertion that female students demonstrate consistent planning and monitoring of their learning.

Affective Strategy

Female students had a slightly higher mean (M = 4.08, SD = 0.47) than males (M = 3.88, SD = 0.51), F = 1.68. While not highly significant, it reflects that females more often manage emotions during learning. Djilah Dalila (2020) noted that women are more effective at applying affective strategies.

	Group	**N**	**Mean**	**Std. Deviation**	**Frequency Between Groups**
Affective	Male	20	3.88	.50845	1.68
	Female	20	4.08	.46521	

This tendency is further illustrated through students' responses. R3, a female respondent, remarked, "I just think, after this people will forget anyway, so just go through it," reflecting an internal coping mechanism based on rationalizing the fear. R4, also a female student, stated, "I remind the audience about the main points to feel more relaxed," demonstrating a proactive and outward focus.

In contrast, R1, a male respondent, said, "I take a deep breath to calm myself, then arrange my words in my mind," indicating a physiological coping strategy. R2, another male student, stated, "I consider it a challenge to build confidence," reframing anxiety into motivation. Although both genders applied affective strategies, females tended to blend emotional reasoning with self-talk and situational control.

Social Strategy

Female students scored higher (M = 3.95, SD = 0.51) than males (M = 3.34, SD = 0.77), F = 8.75. This aligns with previous findings that females are more socially active in language learning (Andini & Prastiyowati, 2021).

	Group	**N**	**Mean**	**Std. Deviation**	**Frequency Between Groups**
Compensation	Male	20	3.63	.60966	5.63
	Female	20	4.02	.40988	

This pattern is also reflected in the participants' statements. R3, a female respondent, said, "At first, I study alone. But before exams, I prefer to study in groups," showing selective use of social strategies depending on the situation. R4, another female student, added, "I focus better when I study alone, but group discussions are fine too." These responses indicate that social strategy use among females is flexible and goal-oriented.

In contrast, R1, a male respondent, shared, "I prefer studying alone to stay focused," and R2, also a male student, also said, "I prefer studying alone too, because it's hard to concentrate in a group." While males prefer individual study, this could limit opportunities for peer-assisted learning. These contrasting preferences highlight that while females score higher in social strategies, both genders adapt based on task demands. This outcome corresponds with Oxford's (1990) classification of social strategies as key tools for language development through interaction, reinforcing the view that social engagement plays a more prominent role among female learners.

In summary, the integration of quantitative and qualitative data reveals a consistent trend: female students tend to utilize a broader range of English learning strategies with greater frequency and depth than their male counterparts. This includes higher engagement with planning, social interaction, emotion regulation, and the use of digital tools to support learning. Male students, while still strategic, often favor individualistic and task-focused approaches. These gender-based patterns should be taken into account when designing inclusive and effective instructional methods that address diverse learning preferences.

CONCLUSION

This study investigated gender differences in the use of English language learning strategies among university students, employing both quantitative data from the SILL questionnaire and qualitative data from student interviews. The results revealed consistent and meaningful patterns: female students tended to apply a wider variety of strategies, particularly in metacognitive, affective, and social domains, while male students were more inclined toward cognitive and compensation strategies. These findings suggest that female learners are generally more self-regulated, emotionally aware, and socially engaged in their approach to learning English, whereas male learners demonstrate a preference for practical, independent, and problem-focused strategies.

The integration of statistical analysis and interview responses provided a nuanced understanding of how strategy preferences are influenced by gender. These insights have practical implications for EFL instruction, emphasizing the need for gender-sensitive pedagogical approaches. Educators are encouraged to design learning environments that support diverse strategy use—for instance, by encouraging male students to engage more in collaborative and reflective practices, and by fostering risk-taking and fluency-building exercises for female students.

In conclusion, acknowledging and addressing gender-based learning preferences can lead to more inclusive and effective English language instruction. Future research may expand on these findings by exploring other sociocultural factors that influence strategy use, thereby contributing to more personalized and equitable language education. This study has practical implications for EFL educators and curriculum designers to develop more inclusive learning activities. However, the research is limited to a single institution with a relatively small sample size, which may affect the generalizability of the findings. Future studies could expand the sample across multiple universities or explore the impact of sociocultural variables beyond gender. In particular, since this study only involved students from the English Education Department, future research could include participants from other departments that also offer English courses, to gain a broader understanding of gender differences across academic disciplines.

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