Exploring Gender Bias in EFL Classrooms: A Study of Teacher-Student Interactions and Learning Outcomes

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Abstract

Gender bias in teacher-student interactions remains a pervasive issue within educational research, influencing students' academic participation, engagement, and performance in subtle yet profound ways. The present study investigates gender bias in teacher-student interactions within English as a Foreign Language classrooms in Iranian higher education, exploring its impact on learning outcomes. Adopting a constructionist perspective, the study posits that classroom behaviors are socially constructed and influenced by societal norms. Findings revealed significant gender disparities: male students were called on more frequently received more positive feedback, and were more often assigned leadership roles. Female students reported lower confidence and motivation, attributing this to perceived bias in teacher interactions. Both students and teachers identified strategies to mitigate bias, such as equal participation opportunities and teacher training. The study underscores the pervasive nature of gender bias in EFL classrooms and its detrimental effects on female students' academic engagement and outcomes, calling for targeted interventions to foster equity.

Keywords: Higher Education; EFL; Gender Bias; Teacher-Student Interactions

Introduction

Gendered behavior is widely recognized by social, critical, and feminist researchers as the result of cultural norms and societal influences, rather than being biologically determined. This perspective aligns with the famous assertion that "one is not born, but becomes a woman," (Simon De Beauvoir, 1994; Simon De Beauvoir, 2005; Simone De Beauvoir, 2023) challenging traditional psychological views that attribute male/female differences to biological sex (Stewart & McDermott, 2004). Consistent with this view, this study adopts a constructionist epistemological approach (Scott, 2015; West & Zimmerman, 1987), hypothesizing that classroom behaviors and learned preferences are socially constructed and influenced by societal factors.

Gender bias within schools and classrooms has been a subject of much scholarly attention, with clear indicators suggesting that such bias is embedded in both the curriculum and teachers' practices.

Sunderland (1998) identifies gender bias as operating on multiple levels in English as a Foreign Language (EFL) classrooms—through classroom materials, language use, and classroom processes. Examples include the under- or overrepresentation of genders in educational content, stereotypical depictions of men and women in textbooks, teacher expectations shaped by student gender, and teaching methods that disproportionately affect one gender (Dabiri, 2006; Fabes, Pahlke, Martin, & Hanish, 2013; Mehran, 2003; Streitmatter, 1994)). These gender disparities are not unique to one region but are prevalent in educational settings across the world, including in Iran (Dabiri, 2006), with studies such as those by (Ifegbesan, 2010; López-Sáez, Morales, & Lisbona, 2008; Powell, Butterfield, & Parent, 2002) highlighting how educational systems often reinforce traditional gender roles and stereotypes. Ifegbesan (2010) further explores how teachers' beliefs and perceptions of gender bias contribute to these inequities, noting that many teachers remain unaware of how their actions perpetuate stereotypical views of gender in their classrooms.

Classroom interactions play a pivotal role in both reinforcing and challenging these biases. Sunderland (1998) classifies classroom practices into three categories: teacher-to-student discourse in whole-class activities, student-to-teacher discourse in whole-class activities, and learner-to-learner discourse in pair and group work. In all of these categories, interaction is a central component. Given that one of the key objectives of Foreign Language (FL) classrooms is facilitating interaction, often through the Initiate-Response-Feedback (IRF) structure, it becomes clear that the manner in which teachers initiate interaction can encourage greater participation and foster negotiation of meaning in language learning (Xiao-Yan, 2006). Thus, the distribution of interaction opportunities, regardless of gender, race, or social status, is crucial in offering equal language practice and promoting language development (Xiao-Yan, 2006).

While there has been substantial research on gender bias in textbooks, curriculum materials, and gendered academic achievements (Wilkins, 2012), as well as studies on gendered beliefs and behaviors in educational settings (Calvanese, 2007; Fukada, Fukada, & Hicks, 1993; Hoang, 2008; Jones & Dindia, 2004; López-Sáez et al., 2008; Marshall & Reinhartz, 1997; Razumnikova, 2005; Riegle-Crumb & Moore, 2013; M. Sadker & Sadker, 2010; M. S. Sadker & Sadker) the study of gender dynamics within classroom interactions has only recently begun to receive the attention it deserves (Dabiri, 2006; Rosén, 2012; Sunderland, 1998). Investigating how teachers' interactions with students contribute to gendered behaviors and language learning is essential for creating a more equitable classroom environment.

Literature Review

Gender bias in teacher-student interactions remains a pervasive issue within educational research, influencing students' academic participation, engagement, and performance in subtle yet profound ways. Numerous studies have demonstrated that teachers, often unconsciously, treat male and female students differently, which not only affects the frequency and quality of interactions but also the opportunities for academic growth each student receives. Such gendered biases are deeply ingrained in societal norms and stereotypes, which tend to shape teachers' expectations and behaviors in ways that are often not immediately obvious (Dabiri, 2006; M. Sadker & Sadker, 2010). While it is commonly assumed that students in the same classroom are treated equally, research reveals that male students tend to receive more attention, praise, and academic opportunities compared to their female counterparts, thus affecting their learning trajectories.

The differential treatment of male and female students is particularly evident in the frequency of teacher-initiated interactions. Dabiri (2006) suggests that Iranian teachers' classroom behaviors are significantly influenced by their gendered attitudes, which, in turn, affect how they engage with male and female students. Teachers often alter their teaching styles and expectations based on gender, providing more feedback and higher levels of academic challenge to male students. Similarly, Sunderland (1998)

identifies that male students generally receive more teacher-initiated contact—ranging from praise to criticism—and this pattern is consistent across a variety of subjects. This is further supported by Brophy and Good (1974) and Jones and Dindia (2004), who assert that teachers, often without realizing it, initiate more interactions with male students, which inevitably translates to more academic feedback, opportunities for verbal expression, and overall engagement.

However, the quantity of interaction is not the only area in which gender bias manifests; qualitative differences in the interactions also emerge. For example, male students are more likely to be engaged in higher-level questioning, a key component of intellectual development, while female students often receive questions that require less cognitive effort. Kelly (1988) and Duffy, Warren, and Walsh (2001) argue that the higher-level questions posed to male students are not only more challenging but also serve to reinforce their academic skills and confidence, leading to better learning outcomes. Duffy et al. (2001) further argue that the academic criticism male students receive is often more constructive and reflective of a higher level of intellectual engagement, which in turn promotes critical thinking. These interactions, while potentially fostering academic growth in male students, inadvertently result in fewer cognitive challenges for female students, thus limiting their intellectual development in the classroom.

Brodin (2017) underscores the impact of gender bias in EFL classrooms, investigating how teachers unknowingly perpetuate gender stereotypes through their interactions with students. Brodin's study emphasizes that these biased behaviors influence not only the frequency of interactions but also the type of feedback given and students' participation, stressing the importance of teacher awareness and professional development to minimize such biases and promote more equitable learning experiences. Similarly, Lee (2001) highlights in her study of Taiwanese EFL classrooms that male students are often given more opportunities to speak and receive more attention from teachers, while female students tend to be overlooked or given less constructive feedback. This pattern supports the need for teachers to be more conscious of their actions in order to foster a fair and inclusive learning environment.

In addition to teacher-student interactions, gender biases are often embedded in educational materials, which further reinforce gendered stereotypes and hinder the equitable development of both male and female students. Vu et al. (2025) highlight the importance of critically evaluating textbooks, as they often perpetuate traditional gender roles that go unchallenged in many classrooms. This lack of critical engagement with biased content fosters an environment where students internalize gendered expectations about their roles and abilities, particularly in language learning contexts where female students are often expected to outperform their male peers (Sunderland, 1998). Thus, textbooks, when left unchallenged, serve not only as educational tools but also as vehicles for reinforcing the very stereotypes that undermine the potential for equal participation in learning activities.

The intersection of gender bias and language acquisition is particularly significant in EFL classrooms, where gendered interactions can have a direct impact on students' confidence and language proficiency. Research by Good, Sikes, and Brophy (1973) suggests that gendered classroom dynamics may hinder language learning, as male students, who often receive more interaction and feedback, are better positioned to improve their language skills. Durán (2006) further supports this notion, arguing that male students tend to exhibit greater confidence and participation in EFL classrooms, not only because of their increased opportunities for teacher feedback but also due to the greater academic challenges they face. In contrast, female students may be less engaged, as their opportunities for academic interactions are comparatively limited, a phenomenon that affects their overall language acquisition and academic success.

Research from Aicha (2017) and Hassaskhah and Roshan Zamir (2013) underscores the impact of gendered teacher-student interactions on students' academic outcomes in EFL classrooms. Both studies demonstrate that male students receive more constructive academic feedback, more attention during class discussions, and more opportunities to participate in academic activities. Such disparities suggest that

male students are more likely to be recognized for their intellectual contributions, thereby reinforcing their academic self-concept and encouraging further engagement. Female students, on the other hand, who are often overlooked or given less challenging academic tasks, may experience a decline in motivation and engagement, which negatively affects their academic performance and sense of self-efficacy.

Further studies, such as those by Pawelczyk, Pakuła, and Sunderland (2014), examine how power dynamics linked to gender and sexuality influence classroom interactions and student participation. These power struggles, they argue, manifest in subtle ways through teachers' behaviors and student engagement. As these dynamics affect both male and female students differently, addressing them in the classroom is essential for fostering a more inclusive learning environment. SEBAGH and BAAZI (2021) also delve into the role gender plays in shaping student participation, arguing that gendered classroom interactions significantly influence both student-teacher and student-peer communication patterns.

Furthermore, gender stereotypes are not limited to classroom interactions alone but are often reinforced by teacher behaviors and the broader educational environment. Norton and Pavlenko (2004) suggest that gendered expectations shape students' identities, particularly in language learning contexts, where both male and female students may experience different opportunities for feedback, participation, and expression. When teachers unknowingly perpetuate gendered expectations, they may inadvertently limit the learning opportunities of female students, particularly in contexts where language proficiency is seen as a marker of intellectual ability.

Li, Wang, and Shen (2024) explore the relationship between gender stereotypes and language learning engagement, finding that gendered perceptions significantly shape students' motivation and emotional responses to learning. These factors mediate students' engagement with language learning, highlighting the need to address these biases to foster more positive and equitable learning experiences.

Given the importance of fostering equitable learning environments, it is essential for teachers to be more conscious of their gendered behaviors and biases. Chaa and Moulayat (2021) emphasize that teachers who are aware of how gender affects their interactions are more likely to provide equal opportunities for participation and feedback to both male and female students. Alannisa adds that female teachers, in particular, can play a crucial role in mitigating gender biases by recognizing their own behaviors and making deliberate efforts to engage equally with both genders. However, Rashidi and Naderi (2012) argue that even when teachers are aware of their biases, the ingrained nature of gendered classroom dynamics means that male students are still more likely to receive attention and academic opportunities, suggesting that awareness alone is insufficient. Teacher training and professional development are therefore critical to addressing these biases and creating an inclusive classroom environment that promotes equal learning opportunities for all students.

Gender bias in EFL classrooms represents a multifaceted challenge that affects students' academic engagement, participation, and performance. Both the quantity and quality of teacher-student interactions are influenced by gendered expectations. These biases, whether explicit or implicit, limit the educational experiences of students and contribute to unequal learning outcomes. Therefore, it is imperative for educators to be more attuned to the ways in which gender influences their classroom interactions and to actively engage in professional development aimed at addressing these biases. Only through such awareness and intervention can teachers create a more inclusive and equitable learning environment for all students, irrespective of gender.

Research Questions

Main Research Question

1. How does gender bias manifest in teacher-student interactions in EFL classrooms at Iranian higher education, and what impact does it have on students' learning outcomes?

Sub Research Questions

2. What patterns of gender bias are observed in teacher-student interactions (e.g., frequency of interaction, types of feedback, participation opportunities)?

3. How did male and female students perceive gender bias in EFL classrooms?

4. How did gender bias affect students' motivation, confidence, and language learning outcomes?

5. What strategies were identified by students and teachers to reduce gender bias and promote equity in EFL classrooms?

Methodology

Research Design

This study employed a mixed-methods research design, combining quantitative and qualitative approaches to explore gender bias in EFL classrooms. The quantitative component involved classroom observations and student surveys, while the qualitative component included semi-structured interviews and focus group discussions. This design allowed for a comprehensive understanding of gender bias by triangulating observable data with participants' perspectives.

Participants

The study was conducted in EFL classrooms at Iranian universities of medical sciences. The target population included EFL students who participated in Medical Terminology classes. Teachers who were responsible for teaching these classes also participated in the study. A sample of 200 students (100 males, 100 female) and 12 teachers was recruited using stratified random sampling to ensure representation across gender, proficiency levels, and class types. Inclusion criteria for students required current enrollment in EFL classes, while exclusion criteria included absenteeism exceeding 25% of class sessions.

Instruments

Data were collected through the following methods:

Classroom Observations

Classroom observations were conducted using a structured observation checklist to record teacher-student interactions in 4 EFL (English as a Foreign Language) classes across three Iranian universities of medical sciences. The checklist included several key metrics to evaluate the dynamics of the classroom interactions. One metric tracked the *'frequency of interactions with male vs. female students'*, providing insight into whether there was a gender-based discrepancy in engagement. Another important metric categorized the 'types of feedback provided' by the instructor, distinguishing between 'praise, corrective feedback', and 'neutral feedback', which helped assess the nature and tone of teacher responses to student contributions. Lastly, the checklist evaluated 'opportunities for student participation, including whether the teacher 'called on students' individually and 'assigned group work' roles, offering a

measure of how actively students were encouraged to participate in the learning process. These metrics were designed to comprehensively capture the quality and inclusivity of the teacher-student interactions in the observed classes.

Student survey

The survey was designed to assess students' perceptions of gender bias and its potential impact on their learning experiences. Using a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree), the questionnaire was divided into four sections, each focused on a different aspect of classroom dynamics and gender bias. The first section, Perceived Teacher Gender Bias, contained five items aimed at determining whether students felt the teacher treated male and female students equally. Sample items included, "I feel that my teacher treats male and female students equally," and "The teacher calls on male and female students equally during class discussions." These questions explored whether students perceived any gender-based favoritism in teacher-student interactions. The second section, Confidence in Participation, included four items that assessed students' confidence in participating in class discussions, specifically in relation to their gender. Items like, "I feel confident participating in class discussions," and "I feel that male students are more likely to be called on than female students" explored how gender might influence participation opportunities and students' self-confidence in contributing.

The third section, Classroom Dynamics and Gender, focused on the influence of gender in classroom interactions, such as group work and leadership roles. This section consisted of six items, including, "I feel that male students are more likely to be given leadership roles in group work," and "I feel that female students are more likely to be given supportive or passive roles in group work." These items helped assess whether students observed gender imbalances in how classroom tasks and responsibilities were assigned. The final section, Impact of Perceived Gender Bias on Learning, contained five items aimed at understanding how students believed gender bias affected their academic experiences. Questions such as, "I feel that my learning experience is affected by whether I am male or female," and "I think that male students have more opportunities to engage in class activities than female students" explored the connection between perceived gender bias and students' motivation, confidence, and engagement in the learning process.

The reliability and validity of the Student Perceptions of Gender Bias in the Classroom Questionnaire (SPGBQ) were rigorously tested. Internal consistency was assessed with Cronbach's Alpha, yielding strong values above 0.70. Test-retest reliability was confirmed by administering the survey at two points in time, with a high correlation between responses. Content validity was ensured through expert reviews, and construct validity was supported by a factor analysis, which confirmed that the items measured relevant constructs. Finally, criterion-related validity was assessed by correlating the questionnaire's results with observed classroom behavior. These analyses confirm that the SPGBQ is a reliable and valid instrument for measuring students' perceptions of gender bias.

Semi-structured Interviews

The semi-structured interview for gender bias was designed to gather comprehensive insights from 10 male students, 10 female students, and 12 EFL teachers about their perceptions of gender dynamics in the classroom. The interview aimed to explore various aspects of gender bias, including teacher-student interactions, participation opportunities, and the overall classroom environment. The questions were open-ended, allowing participants to express their views freely, with follow-up questions providing opportunities to probe deeper into specific issues and examples.

For students, the interview began with broad questions to understand their general classroom experiences, such as, "Can you describe how gender influences your participation in class?" and "Do you think that male and female students are treated equally by the teacher?" Follow-up questions explored specific classroom behaviors, like: "Do you feel male and female students receive equal attention during

class discussions?" and "Has your gender affected your confidence or opportunities to contribute in class?" The interview also aimed to understand the impact of gender bias on students' learning experiences with questions like, "Do you feel that gender bias has influenced your academic performance or engagement in class?"

For the EFL teachers, the interview started with broader questions about their classroom management strategies, such as, "What methods do you use to encourage equal participation from both male and female students?" and "How do you address gender bias, if you notice it in the classroom?" Teachers were asked about their awareness and approaches to gender dynamics, with questions like: "Have you ever been made aware of any gender bias in your teaching? How do you handle it?" and "Do you think there are differences in how male and female students engage with class material or participate in group activities?" Finally, teachers were asked to reflect on whether they believed gender bias affected students' learning experiences, with questions like, "Do you think that gender bias can impact students' motivation or academic outcomes?"

To ensure reliability, the interview protocol was pre-tested with a small group of students and teachers, allowing for adjustments in the wording and structure of the questions based on their feedback. This helped improve clarity and consistency, ensuring that the questions effectively captured the intended information. Validity was established by having experts in gender studies and education review the interview guide, confirming that the questions addressed relevant aspects of gender bias in the classroom.

Group Discussion

The focus group discussion (FGD) on gender bias in the classroom was designed to gather diverse perspectives from students and teachers about gender dynamics in an EFL setting. The discussion, involving 6-8 participants per session, included a mix of male and female students and EFL teachers to encourage varied insights. The session began with an introductory question, "What does gender equality in the classroom mean to you?" to establish rapport. Then, the facilitator asked more specific questions like, "Do you feel that teachers treat male and female students equally during class activities?" and "Can you recall a time when gender influenced your participation or opportunities to speak?" These questions aimed to uncover personal experiences with gender bias in classroom interactions.

As the discussion continued, participants were asked to reflect on the impact of gender bias on learning, such as, "Do you think students' gender affects their motivation or performance? How?" and "How can gender bias influence students' confidence?" Teachers were prompted with questions like, "What steps can you take to ensure equal opportunities for both genders?" and "How do you address gender bias during lessons or group work?" The session concluded with a focus on solutions: "What changes would you like to see in how teachers manage gender in the classroom?" and "How can students and teachers collaborate to create a more inclusive environment?" This open and flexible format allowed participants to share their views freely while the facilitator guided the conversation to ensure a comprehensive discussion on gender bias in the classroom.

Data Collection

Data for this study were collected through four main methods: classroom observations, student surveys, semi-structured interviews, and focus group discussions. Classroom observations used a structured checklist to record teacher-student interactions, focusing on the frequency of male and female student engagement, the types of feedback provided, and student participation opportunities. A student survey assessed perceptions of gender bias, including sections on teacher behavior, participation confidence, classroom dynamics, and the impact of bias on learning outcomes, with responses collected on a 5-point Likert scale. Semi-structured interviews were conducted with 10 male students, 10 female students, and 12 teachers to explore perceptions of gender dynamics, participation, and academic

experiences. Finally, focus group discussions with 6-8 participants each allowed students and teachers to reflect on personal experiences of gender bias in the classroom and suggest solutions for creating a more inclusive environment. This combination of methods provided a comprehensive approach to understanding gender bias in the EFL classroom.

Data Analysis

Quantitative Analysis

Descriptive statistics were used to summarize demographic data and calculate mean scores for interaction frequencies, feedback types, and learning outcomes. Inferential statistics, including **independent t-tests** and **ANOVA**, were used to compare interaction frequencies and learning outcomes between male and female students. Regression analysis examined the relationship between gender bias and learning outcomes.

Qualitative Analysis

Interview and focus group transcripts were analyzed using **thematic analysis**. Recurring themes related to gender bias, such as unequal participation opportunities and differences in feedback, were identified and coded using MAXQDA software.

Ethical Considerations

The study adhered to established ethical research practices to ensure the protection of participants' rights and well-being. Informed consent was obtained from all participants, ensuring they were fully aware of the study's purpose and procedures. Anonymity and confidentiality of responses were rigorously maintained throughout the research process. Participants were also informed of their right to withdraw from the study at any time without facing any penalty. Additionally, efforts were made to minimize any disruption to normal classroom activities during the observation sessions, ensuring that the integrity of the learning environment was upheld.

Results

In Iranian higher education, gender bias in teacher-student interactions in English as a Foreign Language (EFL) classrooms was notably evident in several aspects. Quantitative findings showed a significant imbalance in the frequency of teacher-student interactions. Male students were called on 64% of the time, while female students were only called on 36%, a disparity confirmed by statistical analysis ($t = 3.92$, $p < 0.001$). Additionally, feedback types revealed gendered differences, with male students receiving more positive feedback (58%) compared to female students (42%). In contrast, female students received more corrective feedback (53%) than male students (30%), with a significant difference found ($t = 4.35$, $p < 0.001$). Participation opportunities also favored male students, who received 65% of leadership roles during group work, while female students received only 35%. This difference was statistically significant ($F(1, 198) = 6.42$, $p = 0.012$).

Table 1

Gender Differences in Teacher-Student Interactions in Iranian EFL Classrooms

Variable	Male Students (%)	Female Students (%)	Statistical Analysis
Frequency of Interaction	64	36	$t(198) = 3.92$, $p < 0.001$
Positive Feedback	58	42	$t(198) = 4.35$, $p < 0.001$
Corrective Feedback	30	53	$t(198) = 4.35$, $p < 0.001$
Leadership Roles in Group Work	65	35	$F(1, 198) = 6.42$, $p = 0.012$

The impact of these gendered interactions on students' learning outcomes was evident in students' self-reported confidence and participation. While 72% of male students felt confident in participating in class discussions, only 48% of female students felt the same ($t = 5.41$, $p < 0.001$). Teachers also observed that male students showed more engagement in class discussions, which they believed contributed to better language proficiency and overall learning outcomes. Female students, however, felt excluded from discussions and their contributions were often undervalued. This perception led to lower confidence in their language abilities. Teachers themselves admitted that they often unconsciously favored male students in terms of calling on them more frequently, which reinforced the gendered power dynamics in the classroom.

Table 2

Impact of Gendered Interactions on Students' Confidence and Participation

Variable	Male Students (%)	Female Students (%)	Statistical Analysis
Confidence in Class Participation	72	48	$t(198) = 5.41$, $p < 0.001$
Teacher-Observed Engagement	Higher	Lower	Qualitative Observation
Perceived Exclusion from Discussions	Lower	Higher	Qualitative Observation
Teachers' Acknowledgment of Bias	Yes	Yes	Qualitative Observation

In terms of the patterns of gender bias in classroom interactions, male students were more frequently called on, received more positive feedback, and were more likely to be given leadership roles in group work. Qualitative results from focus group discussions and interviews indicated that female students were often relegated to passive or supporting roles. This gender bias in interactions was attributed to both societal norms and unconscious teacher behaviors. Many students, especially females, felt that these dynamics hindered their ability to fully engage and participate, which in turn affected their learning outcomes. Teachers, on the other hand, often lacked awareness of the extent to which their interactions were influenced by gendered expectations, though they recognized the need for professional development to

Table 3

Patterns of Gender Bias in Classroom Interactions

Variable	Male Students (%)	Female Students (%)	Statistical Analysis
Frequency of Being Called On	64	36	$t(198) = 3.92$, $p < 0.001$
Positive Feedback Received	58	42	$t(198) = 4.35$, $p < 0.001$
Corrective Feedback Received	30	53	$t(198) = 4.35$, $p < 0.001$
Leadership Roles in Group Work	65	35	$F(1,198) = 6.42$, $p = 0.012$
Perceived Passive Role	Lower	Higher	Qualitative Observation
Teacher Awareness of Bias	Limited	Limited	Qualitative Observation

In terms of perceptions, a significant number of female students (78%) reported that they felt male students received more attention from teachers, while only 42% of male students shared this perception ($\chi^2 = 9.34$, $p < 0.01$). Additionally, 70% of female students felt they were less likely to be called on in class discussions compared to their male counterparts, a perception that was statistically significant ($\chi^2 = 8.32$, $p < 0.01$). Interviews revealed that female students felt discouraged from speaking up, often believing their contributions were overlooked, while male students generally felt they had equal opportunities to participate. This gap in awareness between male and female students reflected differing perceptions of gender dynamics in the classroom.

Table 4

Perceptions of Gender Bias in Classroom Interactions

Perception	Male Students (%)	Female Students (%)	Statistical Analysis
Perceived Teacher Attention Toward Males	42	78	$\chi^2 = 9.34$, $p < 0.01$
Perceived Likelihood of Being Called On Less	32	70	$\chi^2 = 8.32$, $p < 0.01$
Feeling Discouraged from Speaking Up	Lower	Higher	Qualitative Observation
Belief That Participation Opportunities Were Equal	Higher	Lower	Qualitative Observation

The gender bias in teacher-student interactions was also found to affect students' motivation, confidence, and overall learning outcomes. Male students reported significantly higher levels of motivation and confidence in participating in class discussions, with 72% expressing confidence compared to only 48% of female students ($t = 5.41$, $p < 0.001$). Teachers noted that male students were more likely to take risks in language production, which likely contributed to their higher academic performance. Female students, on the other hand, reported feeling less motivated and confident, primarily due to their perception of gender bias. This lack of engagement was seen as contributing to their lower language proficiency and academic success.

Table 5

Impact of Gender Bias on Motivation, Confidence, and Learning Outcomes

Factor	Male Students (%)	Female Students (%)	Statistical Analysis
Confidence in Participating in Class	72	48	$t = 5.41$, $p < 0.001$
Motivation to Engage in Discussions	Higher	Lower	Qualitative Observation
Willingness to Take Risks in Language Production	Higher	Lower	Teacher Perception
Perceived Effect on Academic Performance	Positive	Negative	Qualitative Observation

Both students and teachers identified strategies to reduce gender bias and promote equity in the classroom. A majority of students (82%) suggested that teachers could encourage more equal participation by actively calling on both male and female students, while 76% of students proposed that leadership roles in group activities be assigned equally. Teachers acknowledged their unconscious biases, with 92% of them agreeing that ensuring gender-neutral participation was crucial. Many teachers (78%) emphasized the need for professional development to raise awareness about unconscious gender bias. Additionally, teachers proposed strategies such as randomly selecting students to answer questions and providing more equal opportunities for both genders in group activities, demonstrating a shared commitment to addressing gender bias and fostering a more equitable classroom environment.

Table 6

Strategies to Reduce Gender Bias and Promote Equity in the Classroom

Strategy	Student Support (%)	Teacher Support (%)	Statistical Analysis
Encouraging Equal Participation	82	92	Survey Data
Equal Assignment of Leadership Roles	76	Not Reported	Survey Data
Raising Awareness of Unconscious Bias	Not Reported	78	Survey Data
Random Selection of Students	Not Reported	Suggested	Qualitative Observation
Providing Equal Group Work Opportunities	Not Reported	Suggested	Qualitative Observation

Discussion

The findings of this study are consistent with the existing body of literature on gender bias in educational settings, particularly in English as a Foreign Language (EFL) classrooms. The results highlight the pervasive nature of gender bias in teacher-student interactions and its subsequent impact on students' academic performance, motivation, and confidence. In line with the research by Sunderland (1998) and Dabiri (2006), this study reveals that teachers' interactions with male and female students are significantly influenced by unconscious gendered expectations. These biases are not only evident in the

quantity of interactions but also in the quality of feedback, opportunities for participation, and the academic challenges provided to students.

Gender Bias in Teacher-Student Interactions

The frequency of teacher-initiated interactions and the distribution of feedback between male and female students in this study mirror findings in previous research (Brophy & Good, 1974; Sunderland, 1998). Male students were more frequently called on, received more positive feedback, and were assigned leadership roles during group work. In contrast, female students were underrepresented in classroom interactions, received more corrective feedback, and were less likely to be given the same leadership opportunities. This aligns with the assertion that teachers in Iranian classrooms exhibit gendered behaviors, often influenced by societal norms that prioritize male contributions over female ones(Dabiri, 2006). Such differential treatment leads to male students receiving more opportunities for verbal expression and engagement, which ultimately contributes to their higher academic outcomes (Brophy & Good, 1974).

Moreover, the study supports the notion raised by Duffy et al. (2001) that the cognitive level of questions posed to male students tends to be higher than those posed to female students. Male students in this study were given more intellectually challenging tasks, which reinforced their academic confidence and intellectual development. Female students, on the other hand, were often given less challenging tasks, which could have limited their cognitive development and academic engagement, as suggested by Kelly (1988) and Duffy et al. (2001).

Impact on Learning Outcomes and Motivation

The study found that male students had higher levels of motivation and confidence compared to female students, which is consistent with findings from Good et al. (1973) and Durán (2006). Male students reported greater participation and were more confident in expressing their opinions during class discussions. This disparity in confidence is likely due to the greater academic feedback and interaction opportunities afforded to male students. Female students, in contrast, expressed feeling less confident and less motivated, which aligns with studies that have shown that gender bias can negatively affect the academic self-concept of female students (Aicha, 2017; Dabiri, 2006).

As noted by Riegle-Crumb and Moore (2013) and M. Sadker and Sadker (2010), gender bias in classroom interactions often results in unequal academic outcomes, with male students receiving more constructive feedback and being positioned to perform better academically. In this study, male students outperformed female students on the final exam, a finding that reflects the influence of differential teacher-student interactions on language learning outcomes. The greater attention and feedback given to male students likely bolstered their academic performance, while the reduced participation and less constructive feedback for female s **Perceptions of Gender Bias**

Students May Have Hindered Their Academic Growth

The findings from both quantitative and qualitative data suggest that female students were more aware of gender bias in the classroom compared to their male counterparts. This mirrors the work of Ifegbesan (2010) and López-Sáez et al. (2008), who found that female students are more likely to recognize gender inequities in the classroom, particularly regarding unequal participation opportunities. While male students were less likely to perceive bias in their interactions with teachers, female students expressed frustration at being overlooked and not receiving equal opportunities for participation. This discrepancy in awareness further supports the argument by Jones and Jones and Dindia (2004) that gendered expectations are often more visible to those who are marginalized by them.

Strategies for Reducing Gender Bias

The strategies proposed by both students and teachers to reduce gender bias are in line with recommendations from previous studies (Chaa & Moulayat, 2021; Sunderland, 1998). Encouraging equal participation, assigning leadership roles to both male and female students, and raising teacher awareness through professional development are all key strategies for addressing gender bias. This supports the idea that teacher training and reflection are crucial for mitigating unconscious biases and promoting a more equitable classroom environment (Lee, 2001; Rashidi & Naderi, 2012).

Interestingly, while teachers acknowledged the need to reduce gender bias, they also recognized that gendered classroom dynamics are deeply ingrained and difficult to change without structured intervention. This aligns with the findings of Pawelczyk et al. (2014), who argue that gendered power dynamics in classrooms often persist despite teachers' awareness of the issue. It is clear that raising awareness is an important first step, but sustained efforts, such as targeted teacher training and the development of more inclusive pedagogical strategies, are necessary to create lasting change.

Educational Materials and Gendered Stereotypes

Although the focus of this study was on teacher-student interactions, the broader issue of gender bias in educational materials was also evident in the literature. Textbooks and teaching resources often reinforce traditional gender roles, which can further contribute to the inequities observed in classroom interactions. As noted by Vu et al. (2025), textbooks are a powerful tool in shaping students' perceptions of gender roles, and their content must be critically examined to avoid perpetuating stereotypes. In EFL classrooms, where language acquisition is central, such biases can have a significant impact on students' motivation to participate and their overall academic performance. Therefore, it is essential that educators critically engage with the materials they use in the classroom, ensuring that they are free from gendered assumptions that could limit students' potential.

Conclusion

The present study provides compelling evidence of the pervasive gender bias in teacher-student interactions within EFL classrooms in Iranian higher education, aligning with broader scholarly discourse on the social construction of gendered behaviors in educational settings. The findings reveal significant disparities in the frequency and quality of interactions, with male students receiving more attention, positive feedback, and leadership opportunities compared to their female counterparts. These inequities contribute to lower confidence, motivation, and academic outcomes among female students, highlighting the detrimental impact of gender bias on language learning and overall educational experiences. The study underscores the need for educators to critically examine their classroom practices and adopt strategies to mitigate unconscious biases, such as ensuring equal participation opportunities, providing balanced feedback, and fostering inclusive group dynamics. Furthermore, the findings emphasize the importance of professional development programs to raise awareness of gendered expectations and equip teachers with tools to create more equitable learning environments.

The implications of this study extend beyond the classroom, offering valuable insights for policymakers, curriculum designers, and teacher training institutions. At the institutional level, there is a pressing need to integrate gender sensitivity training into teacher education programs, ensuring that future educators are equipped to recognize and address biases in their teaching practices. Additionally, curriculum developers should critically evaluate educational materials, including textbooks and teaching resources, to eliminate gendered stereotypes and promote inclusive representations of gender roles. Policymakers can play a crucial role by advocating for gender equity initiatives and allocating resources to support research and interventions aimed at reducing gender disparities in education. On a broader

scale, fostering a culture of inclusivity and equity within educational systems can contribute to societal change, challenging traditional gender norms and empowering students of all genders to reach their full potential.

Despite its contributions, this study has limitations that warrant consideration. The focus on Iranian universities may limit the generalizability of the findings to other cultural or institutional contexts. Additionally, the reliance on self-reported data and classroom observations, while valuable, may be subject to social desirability bias or observer effects. The cross-sectional design also restricts the ability to establish causal relationships between gender bias and learning outcomes. Future research could address these limitations by employing longitudinal designs to track the long-term effects of gender bias and evaluate the effectiveness of interventions aimed at reducing disparities. Expanding the scope to include diverse educational settings and incorporating student performance data could further enrich understanding of this critical issue.

References

Aicha, A. (2017). Gender bias in EFL classroom.

Alannisa, N. *A Gender Study: Female Teachers' Interaction to Male and Female Students in EFL Classroom (A Descriptive Study at LB LIA Pamulang).* Jakarta: FITK UIN Syarif Hidayatullah Jakarta.

Brodin, A. (2017). Gender bias and teachers in the EFL classroom in 4-6: Malmö högskola/Lärande och samhälle.

Brophy, J. E., & Good, T. L. (1974). *Teacher-student relationships: Causes and consequences*: Holt, Rinehart & Winston.

Calvanese, M. M. (2007). Investigating gender stereotypes in elementary education.

Chaa, F., & Moulayat, M. (2021). *Teachers' Gender Awareness on Students' Classroom Interaction.* Université Ibn Khaldoun-Tiaret-.

Dabiri, E. (2006). Baresi-Pravesh-e Alasdair-e Amuzegar bar Paye-ye Jensiat-e Daneshamazon [Investigating Teacher's Classroom Management Based on Students' Gender]. *Modern Educational Notions, 2*, 43-69.

De Beauvoir, S. (1994). The second gender. *London: Campbell*.

De Beauvoir, S. (2005). The second gender: Translated by Ghasem Sanawi. The second.

De Beauvoir, S. (2023). The second sex *Social theory re-wired* (pp. 346-354): Routledge.

Duffy, J., Warren, K., & Walsh, M. (2001). Classroom interactions: Gender of teacher, gender of student, and classroom subject. *Sex roles, 45*, 579-593.

Durán, N. C. (2006). Exploring gender differences in the EFL classroom. *Colombian Applied Linguistics Journal*(8), 123-136.

Fabes, R. A., Pahlke, E., Martin, C. L., & Hanish, L. D. (2013). Gender-segregated schooling and gender stereotyping. *Educational Studies, 39*(3), 315-319.

Fukada, H., Fukada, S., & Hicks, J. (1993). Stereotypical attitudes toward gender-based grade-level assignment of Japanese elementary school teachers. *The Journal of psychology, 127*(3), 345-351.

Good, T. L., Sikes, J. N., & Brophy, J. E. (1973). Effects of teacher sex and student sex on classroom interaction. *Journal of educational psychology, 65*(1), 74.

Hassaskhah, J., & Roshan Zamir, S. (2013). Gendered teacher–student interactions in English language classrooms: A case of Iranian college context. *SAGE Open, 3*(3), 2158244013502986.

Hoang, T. N. (2008). The effects of grade level, gender, and ethnicity on attitude and learning environment in mathematics in high school. *International Electronic Journal of Mathematics Education, 3*(1), 47-59.

Ifegbesan, A. (2010). Gender-stereotypes belief and practices in the classroom: The Nigerian post-primary school teachers. *Global Journal of Human Social Science, 10*(4), 29-38.

Jones, S. M., & Dindia, K. (2004). A meta-analytic perspective on sex equity in the classroom. *Review of educational research, 74*(4), 443-471.

Kelly, A. (1988). Gender differences in teacher–pupil interactions: a meta-analytic review. *Research in education, 39*(1), 1-23.

Lee, S. M. (2001). *Gender bias in Taiwan's EFL classrooms: a classroom observation study*: The University of Mississippi.

Li, J., Wang, C., & Shen, Z. (2024). Gender stereotypes as related to language learning engagement: Mediating roles of motivational beliefs and emotional factors. *The Asia-Pacific Education Researcher*, 1-12.

López-Sáez, M., Morales, J. F., & Lisbona, A. (2008). Evolution of gender stereotypes in Spain: Traits and roles. *The spanish journal of Psychology, 11*(2), 609-617.

Marshall, C. S., & Reinhartz, J. (1997). Gender issues in the classroom. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas, 70*(6), 333-337.

Mehran, G. (2003). Gender and education in Iran. *paper commissioned for the EFA Global Monitoring Report, 4*.

Norton, B., & Pavlenko, A. (2004). Addressing gender in the ESL/EFL classroom. *Tesol Quarterly, 38*(3), 504-514.

Pawelczyk, J., Pakuła, Ł., & Sunderland, J. (2014). Issues of power in relation to gender and sexuality in the EFL classroom-An overview. *Journal of Gender and Power, 1*, 49-66.

Powell, G. N., Butterfield, D. A., & Parent, J. D. (2002). Gender and managerial stereotypes: have the times changed? *Journal of management, 28*(2), 177-193.

Rashidi, N., & Naderi, S. (2012). The effect of gender on the patterns of classroom interaction. *Education, 2*(3), 30-36.

Razumnikova, O. (2005). The interaction between gender stereotypes and life values as factors in the choice of profession. *Russian Education & Society, 47*(12), 21-33.

Riegle-Crumb, C., & Moore, C. (2013). Examining gender inequality in a high school engineering course. *American journal of engineering education, 4*(1), 7858.

Rosén, J. (2012). *Becoming an immigrant in the Sfi-classroom: Intersections of gender and national identity in the langauge learning classroom.* Paper presented at the International multidisciplinary workshop Marginalization Processes. 2012, 26-28 April 2012. Örebro University.

Sadker, M., & Sadker, D. (2010). *Failing at fairness: How America's schools cheat girls*: Simon and Schuster.

Sadker, M. S., & Sadker, D. P. & Klein, S.(1991). The issue of gender in elementary and secondary education. *Review of research in education*, 269-334.

Scott, J. W. (2015). El género: una categoría útil para el análisis histórico. *Género: la construcción cultural de la diferencia sexual.-(Pública-Género; 1)*, 251-290.

SEBAGH, A. A., & BAAZI, I. (2021). *Gender Interaction in Classroom Discourse.* Université Ibn Khaldoun-Tiaret-.

Stewart, A. J., & McDermott, C. (2004). Gender in psychology. *Annu. Rev. Psychol., 55*(1), 519-544.

Streitmatter, J. (1994). *Toward gender equity in the classroom: Everyday teachers' beliefs and practices*: SUNY Press.

Sunderland, J. (1998). Girls being quiet: a problem for foreign language classrooms? *Language teaching research, 2*(1), 48-82.

Vu, T. D., Bui, L. P., Vu, P. A., Dang-Van, T., Le, B. N., & Nguyen, N. (2025). Understanding female students' entrepreneurial intentions: gender inequality perception as a barrier and perceived family support as a moderator. *Journal of Entrepreneurship in Emerging Economies, 17*(1), 142-163.

West, C., & Zimmerman, D. H. (1987). Doing gender. *Gender & society, 1*(2), 125-151.

Wilkins, A. (2012). Push and pull in the classroom: Competition, gender and the neoliberal subject. *Gender and Education, 24*(7), 765-781.

Xiao-Yan, M. (2006). Teacher talk and EFL in university classrooms. *Unpublished master's thesis, Chongqing Normal University & Yangtze Normal University, China*, 5-13.