
| RESEARCH ARTICLE

Investigating Classroom Interaction from a Gender Perspective: A Comprehensive Review of Relevant Studies

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| ABSTRACT

This article presents a comprehensive overview of the existing body of research investigating classroom interaction from a gender perspective. It takes into account different classroom levels and a wide range of topic areas, including both language and non-language classrooms. Selected studies from the 1970s to the present are carefully analysed and examined in terms of their findings and conclusions. The diverse methodological approaches employed in these studies, which include qualitative, quantitative, reports, and meta-analyses, further enrich the depth and breadth of this exploration. The results of most studies indicate that teachers often exhibit unconscious and unaware differential treatment towards male and female students, particularly in terms of the quantity of attention allocated to boys. Additionally, a significant finding emerges from the majority of the studies reviewed, highlighting that teachers predominantly control classroom discourse, resulting in male students monopolizing a considerable amount of interaction, while female students experience a state of relative invisibility. These findings underscore the need for increased awareness and understanding of gender dynamics in the classroom, emphasizing the need to address these disparities to promote inclusivity and equity in education.

| KEYWORDS

Classroom talk, teacher attention, boys' domination, differential treatment, gender bias.

| ARTICLE INFORMATION

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1. Introduction

Since the 1970s, the issue of classroom interaction and gender has been an interesting area of study partly because of the significant impact of formal education on reproducing and reinforcing gender differences and inequalities. From this perspective, different studies have reported varying results. On the one hand, the majority of studies have concluded that gender is a significant variable that influences classroom practices. On the other hand, some studies have found no gender differences at the classroom level and have attributed the inequalities and imbalances within the educational setting to various factors, including teacher expectations, student roles, academic achievement, and the overall classroom climate.

2. Review of studies: Brophy's review

Brophy (1985) provided an overview of the research on the interactions of male and female students with male and female teachers. He reported and analyzed the data prior to 1974, which focused on elementary schooling, and then he reviewed in more detail data reported 10 years since 1974 in which researchers have given more attention to secondary school classrooms. In elementary classrooms, boys did not achieve as highly as girls in reading and language arts. This disparity was mainly attributed to teacher expectations and student roles. In fact, boys demonstrated reading achievement inferior to that of girls because they were taught by teachers who expected girls to outperform boys in reading and language arts, whereas boys who achieved as highly as their female counterparts were taught by teachers who believed in no gender differences in reading instruction. As far as the student role is concerned, which is defined according to Brophy (1985, p.118) as "the desired attributes of students", girls seemed to better

fit into this category since they are quiet, mature and conforming while boys were observed to be more active, independent and sometimes even aggressive. Thus, teachers treat boys and girls differently because of "a poor fit between the culturally prescribed gender role and the student role that has become institutionalized in American elementary schools" (ibid).

In the secondary school context, most studies reviewed by Brophy (1985) attempted to account for the under participation and underachievement of girls in mathematics and science. One such study is Becker's (1981) who observed 10 high school geometry teachers using the Brophy-Good Teacher-Dyadic Interaction System and concluded that teachers treated male and female students differently by providing male students with more opportunities for responding, questioning, being encouraged or being criticized. They also received more social joking contacts from their teachers, who seemed to offer "a supportive environment" both "academically and emotionally" for boys (cited in Brophy: 133). However, another study conducted by Parson et al. (1980) showed contrasting results with no sex differences in criticism, praise or frequency of interaction. Brophy concluded that, generally, sex differences in teaching styles might be considered as an influential factor in the performance of students. Accordingly, male teachers were found to be "relatively more teacher-centered and direct, and female teachers tend to be relatively more student-centered, indirect and supportive of students" (Ibid: 136-7). Consequently, female teachers provided positive learning opportunities for students since they encouraged more students-initiated talk, used more praise than criticism and answered more questions.

In brief, boys and girls behave differently in classrooms because they were socialized to adopt gender roles that exist already in their societies, and therefore, teachers were not producing those gender roles, but they were rather maintaining and reinforcing them. To put it differently, teachers' classroom differential treatment is a consequence of differences in the behavior of students themselves. Additionally, the teacher's gender is not an influential variable that accounts for the discrepancy in classroom processes and experiences, but it is a combination of many factors, including teachers' expectations, the nature of the subject matter as well as the age of the student.

3. Review of studies: Kelly's Review

Three years following Brophy's (1985) review, Kelly (1988) provided a significant consideration regarding the inequitable distribution of the amount of teacher attention directed to male and female students through her well-known meta-analysis of 81 studies. One central finding of Kelly's study is that teachers seemed to interact with boys more than girls both in teacher and student initiated interactions. They also were reported to ask them more questions and provide them with more response opportunities despite girls' willingness to take an equal part in interaction through volunteering or raising their hands. However, there was only one category in which both boys and girls were almost treated the same; it was receiving feedback in the form of praise and criticism for giving correct or incorrect responses, respectively. As for criticism of behavior, it was mainly addressed to boys. Apparently, one of the major criticisms of Kelly's meta-analysis is that it provides only quantitative data on the relative amount of interaction. The second drawback is the discrepancy in findings, which did not lead to any definite conclusion (cited in Farooq 2000).

4. Subsequent Studies

4.1 The effect of student gender

Dale Spender (1982) offered a parallel perspective through audio recording her own lessons to examine whether her teaching was gender-biased. She reported that:

Sometimes I have...thought I had gone too far and had spent more time with the girls than the boys. But the tapes have proved otherwise. Out of ten taped lessons...the maximum time I spent interacting with girls was 42% and on average 38%, and the minimum time with boys was 58%...It is nothing short of a substantial shock to appreciate the discrepancy between what I thought I was doing and what I actually was doing. (Spender, 1982, as cited in Sunderland 2000, p.160)

It is noteworthy that Spender's findings have been corroborated by numerous subsequent studies, even though she did not explicitly outline her methodology. For example, Swann and Graddol (1988) conducted research in a British primary school, where they analyzed two talk sequences involving two teachers and a small group of primary-aged pupils. Their study revealed that boys tend to dominate classroom discourse in terms of the quantity of words spoken, the frequency of speaking turns taken, and the number of interactions they have with the teacher. The researchers attributed boys' verbal dominance to the fact that boys were more likely than girls to chip in and participate in classroom discourse, especially when no one was invited to take the floor, and to a bias in the teacher's selection of pupils through eye contact, which favours boys.

Along the same line, French and French (1984) conducted an ethnographic study focusing on gender imbalances in teacher attention and turn distribution among British primary school students. Their research involved analyzing interactional turns during a teacher-class discussion session facilitated by a male teacher. Interestingly, despite the majority of girls in the classroom, the study revealed that boys monopolized the "interactional space" during the lesson. They further noted that gender imbalances in the distribution of turn taking in that given class were not generally attributed to boys but only to a small subset of four boys who

dominated most of the classroom interaction in their attempt to seek attention. Based on such findings, the researchers acknowledged that both the biased-teacher attitude favouring boys and the interactional strategies used by male students themselves in "securing attention and conversational engagement" (Ibid, p. 133) were responsible for the gender imbalances at the level of classroom practice. In this regard, teachers must become aware of the interactional methods used by boys in initiating and maintaining interaction with the teacher. Nevertheless, Hammersley (1990) (cited in Beaman et al., 2006, p. 344) criticized the manner in which French and French (1984) and Swann and Graddol (1988) arrived at their conclusions, namely the very small classroom data used in both studies that restrict their generalization to wider populations. In addition, French and French did not provide a depth analysis of the different strategies used by male students to gain more than their fair share of teacher attention and speaking turns.

In a similar vein and in a more recent study, Aukrust (2008) examined the participation of boys and girls in teacher-led classroom conversations in 26 different classes across four grade levels (first, third, sixth, and ninth grade levels) in Norway. She found that boys participated more than girls in both female and male teachers' classrooms throughout all grade levels. This difference increased relatively in higher levels, especially in the ninth grade. She also found that boys interrupted the teacher more than the girls did and contributed more comments that were not invited by the teacher, whereas most of the girls' utterances were initiated by the teacher allocating turns. Thus, girls' talk was a response to the fact of being given the floor; however, boys tended to take the floor in classrooms with male teachers more than with female teachers. Such conclusions were, in fact, widely echoed in the literature and were often interpreted as evidence of male dominance in teacher students' classroom interaction.

Dart and Clarke (1988) analyzed the verbal interaction data of 3 teachers and 111 students in secondary school (year 8 science classes) in Australia to compare the participation of boys and girls and concluded that while boys had a greater number of interactions than girls, the latter initiated more interactions with their teachers than did the boys. On the surface, the results from this study seemed to support the finding of previous work on the invisibility of girls and the dominance of boys in classroom talk, but profound analysis of the data provided contradictory results to those found in the literature on boys initiating more interaction than girls. Accordingly, though it was not statistically pertinent, female students initiated more interactions with the teachers, while boys' disruptive behavior accounts for the higher level of interaction they had with their teachers. In light of the given results, the interaction patterns of girls did not significantly differ from those of boys. Dart and Clarke (1988) also emphasized that other variables, including personality and environmental factors, should be taken into consideration to compare the participation of students, whether they are boys or girls.

In an American context, the two linguists David and Myra Sadker (1994) observed and analyzed over 100 American schools and found that female students were in a disadvantaged and subordinated position in education, and they were even classified as "second-class educational citizens" (Ibid, p. 1) because of gender segregation. In contrast to that, male students were reported to be the dominant group, mainly due to their tendency to monopolize the classroom linguistic space. To make this drastic division clear, David and Myra Sadker (1994) stated:

The classroom consists of two worlds: one of boys in action and the other of girls' inaction. Male students control classroom conversation. They ask and answer questions. They receive more praise for the intellectual quality of their ideas. They get criticized. They get help when they are confused. They are the heart and center of interaction. (p. 42)

Additionally, gender bias in American schools was mainly attributed, according to the researchers, to gender roles that males and females should abide by in their given society. On this basis, boys should fall into the category of being more active, independent, assertive, aggressive and self-confident, whereas girls should be more passive, quiet, dependent and conforming. Although the qualities associated with female students should give them an advantage in their schooling, they still get less attention, less time and less help from their teachers. Sadker and Sadker talked also about the "the self-esteem gap" that affects students' achievement, especially that of girls because they tend to lose their self-esteem gradually when they reach middle school, while boys maintain their self-esteem since they have more confidence in their abilities. Nevertheless, the two researchers have been widely criticized in the literature because of the exaggerated picture they portrayed of the gender gap and imbalances existing in American schools. An additional consideration of boys' domination of classroom talk is the research review of Howe (1997). Based on a wide range of whole classroom data taken from various relevant studies conducted in Australia, the United States and Great Britain, Howe (1997) reported that gender divisions and inequalities persist in classroom interaction, allowing boys to dominate most of the classroom talk. She claimed that "visibility" and "being more restless" were two crucial factors which accounted for males' verbosity over females. In this regard, boys were found to be the first students to raise their hands to respond to the teacher's questions and to "chip in" classroom discourse more frequently than girls and consequently attracting more teacher attention. In addition, boys were often perceived to be more restless than girls in classrooms, and their movement, together with their misbehavior, resulted in getting more teacher attention.

Furthermore, Howe (1997) made an important observation regarding students' utterances, highlighting that the majority of these utterances were in response to prompts from teachers. Numerous other researchers, such as Swann and Graddol (1988), have substantiated this particular finding. Notably, it was found that significant portions of these responses were generated by male students, irrespective of whether they were specifically chosen or not. In some instances, teachers even displayed a preference towards male students when selecting individuals to answer their questions. In relation to the amount of positive and negative feedback that students received from their teachers, substantial evidence from several studies reviewed by Howe revealed that a greater proportion of negative feedback was addressed to males versus females due to boys' higher levels of disruptive behavior. As for positive feedback, some studies documented that positive remarks such as "You're absolutely right" and "What a great idea" were directed to boys, while other studies found no gender differences in this context. Then, the researcher concluded her review by stating that girls in a number of studies were reported to adopt and develop more "compensatory strategies" for their lower levels of participation. To put it differently, girls were found to interact with their teachers on a more individual or private basis, whereas the learning of boys was a more public process, which accounts for the different roles of males and females in society.

The meta-analysis of Jones and Dindia (2004) studying the effect of student gender on teacher-initiated interactions across 127 empirical studies revealed that both male and female students received equal amounts of positive interactions, such as praise and acceptance. As for negative interactions, including reprimands and criticism, they were mainly addressed to male students. Once again, male students were reported to be the main recipients of the overall interactions initiated by the teacher. However, one major criticism associated with Jones and Dindia's meta-analysis is that it neglects other variables, which may, to a certain extent, account for differential treatment in the classroom, including the teacher's gender, the age and the achievement level of the student.

4.2 The effect of teacher gender

The gender of the teacher may also be regarded as a contextual factor which may account for gender differences in classroom interaction. Different studies have examined the influence of this variable on the overall patterns of interaction of classroom discourse. One crucial study is that of Duffy, Warren and Walsh (2001), who observed 597 high school students and 36 teachers in 18 mathematics classes and 18 English literature/language classes to explore the effects of gender of the teacher, gender of student, and classroom subject on the overall teacher-student interactions. The data were recorded and analyzed using the Interaction for Sex Equity in Classroom Teaching (INTERSECT) observational instrument. One central finding of this study is that both male and female teachers in literature/ language classes directed more interactions with male students than with female students in the form of acceptance or criticism of male students' academic performance as well as criticism of misconduct. However, in mathematics classes, male teachers showed a tendency to direct an equal number of interactions towards male and female students, while female teachers were responsible for a higher proportion of interactions directed to male students. In other words, the gender of the teacher, along with the academic subject matter being taught, accounts for teachers' inequitable interactions with students. Moreover, no gender differences among students in initiating interactions with their teachers nor in responding to questions asked by the teacher to the whole class were observed in this study, which contradicts the findings of previous studies (for reviews, see Brophy, 1985) the fact that suggests that the student gender may be considered as an influential variable in initiating interaction with teachers.

In a prior investigation, Good, Sykes, and Brophy (1973) conducted an empirical study within the context of junior high school classrooms, specifically in the subjects of mathematics and social studies. The study involved observing eight male teachers and eight female teachers using the Brophy-Good Dyadic system. The primary objective was to explore the impact of both teacher gender and student gender on classroom interaction. The researchers discovered that, despite differences in teaching styles between male and female teachers (with female teachers adopting a more relaxed and discussion-oriented approach, while male teachers tended to prioritize structured lessons and content mastery), there were notable similarities in the treatment of male and female students across both groups of teachers. Consequently, the study revealed no evidence of male and female teachers' bias against students of the opposite sex. Instead, the data showed that student gender, as well as other variables such as the subject matter and the student achievement level, justify gender differences in classroom interaction patterns. In this regard, high achieving boys received the most favorable teacher treatment (more response opportunities in the form of different types of questions), whereas the low-achieving boys got the least favourable interaction with their teachers, which was not that lower with the case of low-achieving girls.

Merritt and Wheldall (1992) observed 32 primary and 38 secondary teachers interacting with their mixed classes in British schools and reported different findings as to male and female responses to male and female students' academic and social behavior at both primary and secondary levels. From this perspective, this study revealed no significant difference in male and female teachers' interaction with boys and girls in primary classrooms. However, the teacher gender seemed to be an important variable in classroom interaction with boys and girls at the secondary level since boys received more responses, both praise and reprimand, than girls received from both male and female teachers. Apparently, these results seemed to concur with previous research findings such as French and French (1984), Kelly (1988), and Swann and Graddol (1988) that teachers directed more attention and more

responses to boys than to girls. Nevertheless, a depth analysis of the results revealed an important discrepancy in the patterns of responding between male and female teachers. Indeed, female teachers employed more negative responses to boys' social behaviour, whereas male teachers used more positive responses to boys' academic behavior. The fact that boys received more positive responses for their academic behavior appeared to be in conflict with the results of other studies, which demonstrated that boys tend to receive less positive support than girls for their learning. For example, Younger and Warrington (1996) conducted interviews with students, teachers and parents to investigate the differential achievement of girls and boys and found that boys received more criticism than girls. Similarly, Stake and Katz (1982) observed eleven female and ten elementary teachers and found that both male and female teachers directed more reprimands to male students than to their female counterparts because they caused more discipline problems.

4.3 The effect of achievement

Other studies, however, attributed gender differences in classroom interaction to achievement rather than gender. For instance, Younger et al. (1999) used focus group interviews with students and classroom observation to examine the gender gap in GCSE examination in England, which accounts for the poor achievement of boys. The findings of this study revealed that boys received a greater amount of negative attention, primarily in the form of reprimands, due to their tendency to exhibit disruptive behavior. In addition, boys received a higher number of direct questions compared to girls and displayed a greater inclination to respond to questions initiated by the teacher. It is worth noting that although girls asked fewer questions, their questions were effective in supporting learning. Younger et al. (1999) concluded their study by stating that one way to address boys' underachievement effectively is through encouraging the implementation strategies, which would help boys achieve their potential. It can be inferred that classroom discourse constitutes a multifaceted domain requiring intricate examination and analysis. The disparities observed in the treatment of boys and girls across various classrooms shed light on the distinct strategies employed by each gender in their learning processes. In this perspective, Younger et al. (1999) stated that:

Teachers saw many girls as self-learners, spending more time on homework, adopting a more rigorous and carefully planned approach to coursework and revision, able to anticipate and conform to the demands of the school. In contrast, many staff saw many boys as presenting an opposite image, more disordered, more demotivated, and less willing to prioritize schoolwork. (p. 328)

In another significant study of boys' underachievement, Myhill (2002) observed 144 students in 106 teaching sessions from years 1 to 10 to explore the patterns of participation and interaction in the classroom across first, middle and high school. One crucial finding of Myhill was that the underachievers, boys and girls alike, were the least likely to engage in positive classroom interaction, which contradicts the view of boys being more dominant in the overall classroom interaction. In this line, the researcher associated students' willingness to take part in positive classroom interactions with achievement rather than gender. Such finding was corroborated by Younger and Warrington's (1996) research, which revealed that "the level and quality and tone of teacher-student interactions in the classroom was a major factor in the teaching-learning process, affecting the achievement of both boys and girls" (cited in Beaman et al. 345). Myhill (2002), however, discussed a slight gender-differentiated behavior, which is demonstrated in the perpetual decline in participation in the secondary school of the high-achieving boys in contrast to the high achieving girls who maintained their readiness to engage in classroom interactions throughout the three phases studied. She explained the reduced positive participation of the high achieving boys in secondary school to "an emerging male culture around adolescence in which it is not cool to be seen to be working hard or enthusiastic" (p. 350) fact which is regarded as "a threat" to boys' social identity. Thus, in this study, the high achieving girls were found "to be compliant, conformist and willing to please" (ibid), which confirms the view of females as "the ideal students". In brief, this study showed largely the direct relationship between achievement and the level of students' participation, concluding that high achievers dominate positive interaction while underachievers are responsible for the more negative classroom interaction (staying off-task). To put it differently, differences in the patterns of classroom interaction are less to do with gender than achievement.

Four years later, Myhill, with another researcher Jones (2006), found through individual interviews, in an attempt to investigate the underachievement of boys, that teachers treat boys more negatively than girls, and this differential treatment increased with age. This was mainly due to the difference in teachers' expectations of boys and girls with regard to behavior and academic achievement. Girls in this study were perceived to be the "ideal student", which was confirmed earlier, whereas boys were seen as "a problem". Thus "teacher pupil interaction is reinforcing the social stereotypes of female compliance and conformity and male challenge and individuality" (ibid, p.111). In addition, students in this study thought female teachers to be less influenced by gender expectations as they were more fair in the way they treated students of both genders; however, findings showed that students had the tendency to listen more to a male than a female voice. Apparently, both teachers and students bring their own beliefs, attitudes and expectations into the classroom and contribute significantly to reconstructing and enhancing gender stereotypes, consequently making education a biased climate where gender inequities are performed.

4.4 The effect of classroom climate

Shifting our attention back to the crucial matter of professor gender as a contextual factor, which holds the potential to exert influence on students' active engagement, it is noteworthy that diverse findings have emerged from other scholars, particularly within the realm of higher education. Notably, at the college level, investigations have yielded distinct outcomes regarding this variable. For instance, a compelling study conducted by Fassinger (1995) involved the administration of a comprehensive questionnaire survey to both students and professors across 51 distinct classes. Surprisingly, the results indicated that the gender of the faculty or instructor did not yield substantial consequences on class participation. Instead, it was observed that the emotional climate prevailing within the classroom and the student's level of confidence emerged as prominent factors influencing their propensity to actively participate in discussions and academic activities. In this regard, the researcher pointed out that it is the teacher's job to help develop students' confidence and create a positive atmosphere in the classroom by designing activities that take a supportive and cooperative mode to foster interaction, especially that of females who were less likely to participate than their male counterpart in this study.

The social context of the classroom is an additional factor which may affect the extent to which male and female students interact with their male and female teachers. For instance, in their observational study investigating the influence of gender on classroom interaction during the transition of a former women's college to mixed-sex education, Canada and Pringle (1995) discovered several noteworthy factors. These factors included the gender composition of the classroom, encompassing both the students and the teacher, the proportion of males within the class, the educational setting itself (whether it was a single-sex or mixed-sex institution), and other contextual variables such as class size and level. The study unveiled the significant impact of these factors on the intricate patterns of classroom interaction. They related the behavior of female students and of both male and female professors to the presence of male students in mixed-sex classes to the proportion of male students (*ibid*, p. 179). To put it differently, in mixed-sex classrooms, both female students and female professors initiated more interaction than male students and male professors. However, this interaction decreased with the increase in the number of male students in the classroom.

Additionally, Hall and Sandler (1982) described the college classroom as a "chilly climate" for female students. Through observations and interviews (qualitative analysis) of undergraduate students to examine the extent to which student participation is influenced by gendered expectations, the two researchers concluded that women are disadvantaged in college mainly because of professors' differential behavior. Examples of this teachers' sexist treatment include calling on male students more than females, giving them more eye contact, and asking them questions that are more difficult. Female students, conversely, are frequently subject to disregard or frequent interruptions by both their instructors and male classmates. Hall and Sandler (1982) attributed professors' discrimination in their treatment of male and female students to prior socialization and gender expectations.

5. Gender in the ESL Classroom

Initial attempts to investigate gendered discourse in the ESL classroom were made by Holmes (1989 cited in Sunderland 1992, pp. 88-89). In studies conducted in ESL classrooms in Australia and New Zealand, she found that male students were more likely than females to speak more frequently and to take longer turns. On the other hand, female students were providing a good supportive environment for males' language production and practice by providing them with more feedback, especially in pair work or group work (learner-learner interaction). In another study, Janet Holmes (1994 cited in Sunderland 2000b, p. 209; Holmes 1994 cited in Chavez 2001, p.107) looked at and analyzed "discoursal differences" between male and females adult ESL learners and reported about males' general tendency to take longer and to take more turns in group work; whereas females were deprived of their turns due to males' continuous interruptions. Moreover, males were also reported to ask the most questions, mainly "response restricting questions," which lead to very brief answers, as opposed to "response facilitating questions" (*ibid*).

In a small-scale study, Yepez (1990 cited in Farooq 2000, p. 50) observed three male and four female teachers of adult ESL classes to examine teacher's attention directed towards students of both genders and found out that approximately all teachers treated their female and male learners at an equal basis. Yepez (1994), she and a research assistant observed two male and two female ESL teachers to analyze differences in teacher classroom behavior and found that all teachers, with the exception of one male teacher, showed equitable behavior to male and female students also supported further research. Apparently, both studies conducted by the same researcher came out with the same conclusion, which was inconsistent with the findings of existing studies in the literature. However, Yepez (1994) did not refer to the results of her previous work (1990). As for methodology, Yepez used a coding instrument developed by the Sadkers in 1982 called INTERSECT (Interaction for Sex Equity in Classroom Teaching) to analyze gender differences in teachers' classroom interaction. The INTERSECT codes the four behaviours a teacher is likely to use in interaction which is mainly praise, acceptance, remediation if the answer is wrong and criticism or strong disapproval. One major shortcoming of this instrument is its inability to code for interaction length and periods of silence, which means that the frequency and time per interaction are not measured. Additionally, it is worth noting that the instrument was not specifically designed to assess language lessons, thereby necessitating further investigation to explore the implications of the study's findings.

In a qualitative investigation into the linguistic dynamics within a grade two ESL classroom in British Columbia, Allyson Julé (2002) conducted a study exploring the disparity in verbal expression between girls and boys. Julé employed the concept of "linguistic space," initially introduced by Mahony (1985), to characterize the amount of speech generated. Video recordings were made over a span of forty hours, capturing classroom interactions involving twenty students—eleven boys and nine girls—of the same ethnic background (Punjabi Sikh), all under the instruction of a Canadian-trained teacher. Then, she analyzed the use of the linguistic space and the types of speech acts being produced in this ESL classroom. The findings revealed that the teacher dominated classroom discourse because of the incredible amount of linguistic space she used. As for the remaining talk, boys predominately monopolized it, whereas girls appeared to be "silent" or "invisible" because they rarely spoke. Concerning the speech acts performed in this ESL classroom, questioning was the most frequently used speech act by the teacher; however, most questions were directed to boys, and consequently, they received more praise than girls for their responses. In brief, these findings confirm the results of previous research studies found in non-language classrooms, which assert males' overall tendency to monopolize classroom talk as well as teachers' biased behavior towards male and female students.

Working with adult learners in a Japanese context, Gass and Varonis (1986 cited in Sunderland 2000b, p. 209) found that male learners tended to dominate the classroom talk and to win instances of overlapping speech in mixed-sex conversations. However, in the same-sex dyads, the talk was relatively distributed equally between participants. In accordance with those findings, Shahadeh's (1999, p. 259) discussion of gender differences in the ESL educational setting revealed that male and female speakers seemed to play different roles in the conversation since the latter is considered to be significant for the development of a second/foreign language. In this regard, men appeared to take advantage of the conversation to promote and foster their comprehensible output (their production ability), which accounts for their frequent use of interruptions and their tendency to take more opportunities to talk and dominate the conversation. Females, on the other hand, use the conversation in a way that allows them to get a greater amount of comprehensible input that boosts their comprehension ability. Ultimately, ESL teachers should take into consideration the distinct roles adopted by males and females in conversation to provide equal opportunities for their learners so that they would develop their receptive and productive skills alike.

6. Gender in the FL Classroom

Jane Sunderland (1996 cited in 2004) carried out her research in a comprehensive British school classroom with approximately an equal number of boys and girls (13 girls and 14 boys) between 11 and 12 years studying German as a foreign language. In this study, Sunderland observed and analyzed teacher-to-student talk and student-to-teacher talk in order to look for any possible differences in the way the teacher treated boys and girls and if such differences were statistically significant. The major findings revealed that boys received more attention in terms of words produced. Additionally, the type of solicits or questions addressed to boys and girls was different in the sense that boys received more non-academic solicits that mainly concerned disciplinary and organizational measures, whereas girls received more academic solicits or questions that required longer answers and to which the answers were expected to be in German. Consequently, the type of attention male students get does not necessarily mean that female students are not doing well in the FL classroom, but they are rather "constructing themselves as the more academic students" (ibid, p. 230). Indeed, the kind of attention girls get from the teacher helped them have more language learning opportunities and volunteer more answers in the target language. According to Sunderland (2000), this study suggests the tendency for boys "to dominate the classroom in one sense", but it also highlights the fact that "girls may dominate it in another" (p. 163). From what has been stated above, it becomes evident that teachers and educators should analyze a teacher's attention not only quantitatively but also qualitatively because a greater amount of attention may not reflect the more advantaged group.

Similarly, in an American context, Chavez (2000 referred to in Chavez 2001, p. 107-109) conducted a self-report study in which 201 students responded to different questions focusing on classroom discourse behavior. The results of this study revealed that female students regard themselves as more self-conscious about their learning, more cooperative with their teachers as well as their peers, and more concerned about pleasing the teacher or meeting expectations. Besides, they were reported to take short turns and only respond when they were convinced of the correctness of their answers. In contrast, male students are perceived to use more humour than their female counterparts, and they frequently respond even if they are not sure of their answers. They also consider themselves more actively involved in the overall classroom discourse. However, Chavez argued that the gender composition of the classroom might have a considerable effect on classroom discourse patterns and behavior since the different gender distributions might yield different results. The findings of this study seem to corroborate the results of previous work, which demonstrate that women, generally speaking, employ a cooperative style in their talk, which encourages them to work together in the construction of a shared text. This joint effort of women's verbal cooperative production involves, according to Coates (1998, p. 235), "both the right to speak and the duty to listen and support". This implies that women value listening much more than men and tend to respect each other's turns since talk is equally distributed between participants, whereas men tend to use a competitive style in their linguistic behavior to show their powerful position in society.

Another noteworthy study conducted by Batters (1987, as cited in Sunderland 1998, p. 53) involved accompanying 58 students across over 100 distinct foreign language lessons. The aim of the study was to investigate the nature of student-teacher interactions

within these language classrooms. The findings unveiled intriguing disparities concerning the activities in which male and female students were prone to participate. In this perspective, male students dominated in oral communication and participatory activities such as speaking to the teacher as well as to the other pupils in the target or native language. On the other hand, female students were more likely to take part in "attentive" activities, including listening to the teacher and other pupils. Such findings paralleled those found in the existing literature on the nature of talk in non-language classrooms.

7. Gender in the EFL Classroom

As far as the EFL classroom is concerned, Sunderland (1992, p. 81) advocates that gender biased operates at three different levels in terms of classroom materials, the English language itself, and classroom processes, including learning practices, learner-teacher interaction, and learner-learner interaction in pair or group work. However, the focus of the following review will be on classroom practices. Then, Sunderland (ibid, p.89) talked about an apparent discrepancy between the claims that females are better language learners and research into classroom processes, which suggests that females are disadvantaged because of males' verbal dominance of language classroom discourse.

One significant study to investigate the role of participation and gender in classroom interaction in a Spanish context is that of Alcón (1994 cited in Bağcıoğlu et al. 2014 p. 61). The researcher looked at secondary school learners of English as a foreign language and found out that in teacher-student interaction, male and female teachers took more turns than the students and that male students took more turns than female students. Moreover, in pair-work and in both the students' same-gender and cross-gender conversations, male students were found to interrupt not only the girls but also their male peers, and then the girls interrupted each other. The results from this study confirm the findings of many other investigations, which reflect male students' overall tendency to monopolize the classroom linguistic space through their frequent use of interruptions and the hierarchical nature of their spoken behavior. Conversely, female students' discourse is mainly collaborative and supportive, which provides facilitative input for their female peers as well as their male counterparts. To account for this discrepancy, Alcón (ibid) suggests that women are supposed to be polite and supportive in conversations because of the stereotypes women already have in society.

In another study, Farooq (2000) used an adapted version of Scinclair and Coulthard's (1992) model to analyze a male teacher's attention in a Japanese EFL high school classroom. The overall findings of the given study suggested that the teacher treated boys and girls differently by paying attention to boys more than girls. According to the researcher, this differential treatment emerged due to the perception that boys' disruptive and negative behaviors in the classroom demanded greater attention from teachers, whereas girls were perceived as academically inclined and well-behaved learners. Consequently, this perception contributed to the absence of negative feedback directed towards female students. Additionally, the teacher allocated more wait time to girls, allowing them the opportunity to formulate more elaborate responses in the foreign language. However, this study will not be helpful in generalizing findings in EFL educational setting at large because it is based on one male teacher, and the results were reported over three lessons only.

Rashidi and Rafieerad (2010), in their studies of adult students in EFL classes in Iran, showed no significant differences between male and female teachers regarding their patterns of interaction with their students. For instance, both teachers used more display questions than genuine questions. However, female teachers tended to give a supportive environment for their students by using more positive feedback than male teachers. As far as the effect of students' gender on student-teacher talk, it was noted that boys were a bit more interactive with their teachers than girls. In addition, in this study, girls tended to interact with one another more than boys. Nevertheless, the findings of this study cannot be generalized because it concerned only single gender classrooms as a source for data since the interaction took place between either boys or girls.

In another study to explore the effect of gender on the patterns of classroom interactions between teachers and students in Iranian EFL classrooms, Rashidi and Naderi (2012) observed 358 students and 24 teachers in 24 classes and found that male and female teachers behave differently in their classes. For example, while the former employed more display questions (the answer is already known by the teacher), the latter seemed to use more referential questions (the answer is not known by the teacher), which promoted more interaction. Female teachers encouraged interactive activities and were more supportive since they gave more compliments to establish a "rapport" with their students, especially females. These results are consistent with the findings of Canada and Pringle (1995), Chavez (2000), and Sadker and Sadker (1992). On the other hand, male teachers used more directives and warnings, a finding that seems to be inconsistent with the results obtained from Rashidi and Rafieerad's (2010) study. Regarding the impact of the gender of the students on their interaction processes, this study revealed that male and female students behave differently in their classrooms. Accordingly, male students were found to provide their teachers with short answers, they initiated more exchanges with their teachers, employed more humour and gave more feedback to their teachers, especially criticism. Female students, on the other hand, provided longer answers and used more sophisticated vocabulary and grammar structures (ibid, p.34). The latter results seem to be in conjunction with Sunderland's (1996 referred to in 2004) findings in her study of German foreign language classrooms that the kind and quality of attention girls get help them have more language learning opportunities.

Additionally, Chavez (2000) drew similar conclusions to the findings of the given study in terms of males' tendency to use humor in language classrooms, which resulted in the teacher's humorous behaviour towards their male students (*ibid*, p. 35).

In a more recent study aimed at investigating the impact of gender on interactional patterns within an Iranian EFL context, Navabfard and Rezvani (2017) conducted observations in 12 classrooms consisting of 120 upper-intermediate students (60 males and 60 females), along with 12 teachers in EFL conversation classrooms across various language institutes in Isfahan. The researchers employed Tsui's framework of discourse speech acts as the analytical tool, which utilizes a three-part exchange following the model proposed by Sinclair and Coulthard (1975). The study focused on examining three key aspects: teachers' question types, student responses, and feedback provided by teachers. The results of the study revealed that teachers used more display questions in mixed gender classrooms than those in single gender classes. In addition, male and female teachers tended to employ a higher frequency of positive responses for students of their opposite gender. As for the third feature, it was noted that more feedback, especially explicit feedback, was employed in mixed classes. Thus, the gender of the teacher is an important variable because it is an influential factor in the patterns of classroom interaction; therefore, teachers should pay a fair amount of attention to both male and female students to avoid any gender bias in their classrooms.

In a Turkish context, Bağ, Marti and Bayyurt (2014) examined the amount of attention of a male and a female teacher given to students in two EFL classrooms. Sinclair and Coulthard's Classroom Discourse Analysis model was used to analyze teachers' moves in general (both initiating and follow up moves). Findings revealed that there was not an equal distribution of teacher attention in both classrooms. Indeed, both teachers directed more initiating moves (academic and non-academic) to students of the opposite gender. As for the follow up moves, the female teacher treated male and female students on an equal basis when providing feedback; in contrast, the male teacher directed more feedback to females than to male students. This finding is not consistent with previous research results (Farooq, 2000; Sunderland, 1996).

Minasyan (2017) investigated the role of gender in the overall interaction in Greek primary school classrooms. Fifth-grade students from four different classes studying English as a foreign language were observed. This study adopts a different approach to language and gender, which aims at exploring gender differences with regard to turn-taking and interruptions, praise and reprimands, class dominance, teacher attention and class participation. The results of this study contribute to research gender bias in EFL educational settings and corroborate the findings of previous research work existing in the literature, suggesting that female students are in a disadvantaged position since male students dominate most of the classroom talk. Furthermore, girls in this study demanded and received less attention from the teacher, whereas male students got more attention because of their willingness to speak and take risks; thus, they participated more often than their female peers.

As for gender differences in turn-taking and interruptions, the findings demonstrated that male students took more turns in classroom interaction and interrupted more frequently in teacher-student interaction as well as in peer interaction. According to the researcher, the functions for which male and female students used interruptions differ in the sense that female students employed interruptions for cooperative reasons while male students used them to gain the floor or to express disagreement. Concerning praise and reprimand, female students received more positive feedback and encouragement; in contrast, male students were more reprimanded due to their inappropriate behavior. Generally, these findings support the results of studies reported by Sadker and Sadker (1994), Swann and Graddoll (1988), Spender (1982) and many other researchers in language and non-language classrooms. However, Minaysan (2017) was not explicit enough about the instruments used for methodology. She also did not explore the effect of the teacher's gender on the overall classroom interaction in addition to the limited number of students and teachers, which does not allow for drawing definite conclusions as to the research questions of the given study.

Sunderland (1991), referred to in Chavez (2001, p. 110), conducted a pilot questionnaire at the Institute for English Language Education at Lancaster University to explore reasons for differential treatment in an EFL classroom. Thirty-nine Greek and eighteen Austrian EFL training teachers (almost exclusively female) were asked about their individual experiences as language learners. Both participants pointed out that they were expected not only to produce better written work but also to behave in a more polite way, and consequently, they were treated more politely by their teachers. Moreover, both groups reported that teachers called on a female student when nobody volunteered to answer a question and that they were more praised and encouraged about studying the English language, in addition to the fact that male students were often asked less difficult questions while female students were often ignored. However, the gender of the teacher was not discussed in this pilot questionnaire. Similarly, Sunderland also surveyed 18 Japanese EFL teachers (almost exclusively male), and they reported that they treated female students more politely and they tended to ask a female learner when "someone was needed to do a classroom job" (*ibid*) or in a situation when a female and a male student talked at the same time. The results of the given study seem to be inconsistent with those found in both language and non-language classrooms. One major difference lay in the fact that teachers would favour female students over their male peers in English language contexts, while most research literature suggested the reverse.

8. Conclusion

This article reviewed the most relevant studies concerned with gender and classroom interaction. It mainly addressed the question of whether teachers were biased in the way they treated male and female students and the extent to which this biased behavior was affected by the gender of the student as well as that of the teacher. The results of most studies advocated that teachers were unconscious and unaware of their differential treatment towards male and female students, especially in terms of the quantity of attention they allocated to boys. This finding has been substantiated by several researchers (Spender, 1982; Swann and Graddol, 1988; Swann, 1992; and Sunderland, 2000) who maintain that disparities in classroom interaction patterns primarily stem from the unintentional actions of teachers, which inadvertently contribute to the gendered nature of classroom discourse. Furthermore, it is important to note that the majority of the studies reviewed reached a similar conclusion: the teacher controlled a significant portion of classroom discourse, and male students, leaving female students in a state of relative invisibility, monopolized a considerable amount of interaction. However, some studies confirmed that although girls did not take their fair amount of interaction, they were considered as the more academic students because of the quality of interaction they had with their teachers.

9. Implications and Recommendations

The review emphasizes the need for educators and policymakers to have a deepened awareness and understanding of gender dynamics in the classroom, with a particular focus on promoting equal opportunities for all students to avoid differential treatment, especially in terms of teacher attention and the quantity of interaction. By recognizing and addressing unconscious biases, educators can foster an inclusive and equitable classroom environment that ensures fair treatment and active engagement of students, regardless of their gender. In addition, the review highlights the importance of ongoing teacher professional development, including training on gender-sensitive teaching practices. Such training equips teachers with strategies to promote equal engagement and participation among all students, preventing any gender group from being disproportionately favoured or marginalized. This supports the academic success and well-being of all students.

The given review of studies establishes a basis for future investigations on gender differences in classroom interaction. Accordingly, more research is required to explore the underlying causes of gender disparities, assess the efficacy of interventions designed to mitigate these disparities and examine the enduring effects on students' academic achievements and socioemotional well-being. Additionally, future research should aim to unveil the subtle forms of gender biases that exist in the classroom, including the examination of implicit biases and microaggressions that may contribute to inequitable treatment. Understanding and addressing these subtle biases is crucial for creating a truly inclusive and bias-free learning environment for all students.

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