

Gendered Teacher–Student Interactions in English Language Classrooms: A Case of Iranian College Context

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Abstract

Being and becoming is the ultimate objective of any educational enterprise, including language teaching. However, research results indicate seemingly unjustified differences between how females and males are treated by EFL (English as a Foreign Language) teachers. The overall aim of this study is to illustrate, analyze, and discuss aspects of gender bias and gender awareness in teacher–student interaction in the Iranian college context. To this end, teacher–student interactions of 20 English teachers and 500 students were investigated from the perspective of gender theory. The data were obtained via classroom observations, a seating chart and the audio-recording of all classroom interactions during the study. The findings, obtained from the quantitative descriptive statistics and chi-square methods, as well as the qualitative analysis by way of open and selective coding, uncovered that there were significant differences in the quantity and quality of the interaction for females and males in almost all categories of interaction. The study also revealed teachers' perception of "gender," the problems they associate with gender, and the attitudes they have to gender issues. Apparently, while positive incentives are able to facilitate learner growth, the presence of any negative barrier such as gender bias is likely to hinder development. This has implications for teachers, and faculty members who favor healthy and gender-neutral educational climate.

Keywords

gender theory, teacher–student interaction, gender bias, gender equity, teacher feedback

Introduction

Gendered behavior is recognized by many social, critical and feminist researchers to be the consequences of the cultural norms and influences. To quote De Beauvoir (2012), one is not born, but becomes a woman. This view is in direct contrast with traditional psychological researchers that tend to attribute male/female differences to biological sex (e.g., Stewart & McDermott, 2004). This study, in line with the former view, adopts the constructionist epistemological (e.g., Scott, 1986; West & Zimmerman, 1987) position, and hypothesizes that learned preferences or classroom behaviors are socially determined.

There are numerous indicators within schools and society that point to the fact that gender bias is present in the curriculum and teachers' practices. Gender bias, according to Sunderland (1992), operate at different levels in English as a Foreign Language (EFL) classrooms: classroom materials, English language itself, and classroom processes that always interact within a particular political, sociolinguistic and educational context. Examples of gender bias are one gender is substantially over- or underrepresented in a curriculum, such as the stereotypical images of men and women present in the textbooks; teacher expectations are related to or affected by student gender; or classroom practices, teaching methods or

discipline disproportionately affect one gender (Dabiri, 2006; Fabes, Pahlke, Martin, & Hanish, 2013; Mehran, 2003; Streitmatter, 1994).

Sadly enough, these seemingly unjustified gender inequalities are at work in the educational contexts of many countries in general (Ifegbesan, 2010; Lopez-Saez, Morale, & Lisbona, 2008; Powell, Butterfield, & Parent, 2002; White & White, 2006), and the EFL setting of this research site in particular (e.g., Dabiri, 2006). Ifegbesan (2010), for instance, explores teachers' belief and perception of gender bias in classroom practices, and reports that educational system not only reinforces traditional gender roles but also the stereotyped attitudes toward gender. Ironically, majority of the teachers who hold gender stereotypes are unaware of this fact and deny that they hold or perpetuate biased perceptions of males and females in their classroom practices.

Classroom practices are classified into three different categories: those focusing on teacher-to-student discourse in

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whole-class work; those focusing on student-to-teacher discourse in whole-class work; and those focusing on learner discourse in pair- and group work (Sunderland, 1992). However, common to all is the idea of interaction that is the part and parcel of any language classroom practice. Given that one of the main objectives of Foreign Language (FL) classrooms is facilitating interaction—usually via IRF structure (teachers' Initiate; students' Respond; teachers' Feedback)—it immediately becomes clear that teachers' manner of initiation can not only create more interactive activities but can also prompt students to participate in all kinds of negotiation of meaning (Xiao-yan, 2006).

Therefore, the ways in which teachers interact with students prompted many researchers to study teacher–students interaction in the classroom (e.g., Rosén, 2012). More specifically, the role of teachers in providing and distributing equal interaction opportunities for all students regardless of their gender, race, and social status was understood to be of vital importance because they not only offer language practice and leaning opportunities but also help the process of language development itself (Xiao-yan, 2006).

However, while in literature there exist numerous studies on the content analysis of textbooks, curriculum materials, gender-affected academic achievements (e.g., Wilkins, 2012), and gender-stereotyped beliefs and behavior (Calvanese, 2007; Fukada, Fukada, & Hicks, 1992; Hoang, 2008; Jones & Dindia, 2004; Lopez-Saez et al., 2008; Marshall & Reihartz, 1997;; Razumnikova, 2005; Riegle-Crumb & Moore, 2013; M. Sadker, Sadker, & Klein, 2001), studies focusing on the nature of interactions in classroom—as an important arena for gender constructions—has just started to receive the due attention (Dabiri, 2006; Rosén, 2012; Sunderland, 1998).

Dabiri (2006), for instance, indicates that the classroom interactions between Iranian teachers and students are influenced by teachers' attitude and expectations from genders, and that teachers change their behavior, expectations, and teaching style according to students' gender. Or Sunderland (1998) examines the quality and quantity of interactions and maintains that teachers vary considerably in the quantities of interactions they have with individual students, with males receiving a higher proportion of contacts from teachers across subject areas. In other words, teachers initiate more contacts with males than with females and males initiate more contacts with teachers and they criticize and praise males more often than females (Brophy & Good, 1974; Jones & Dindia, 2004; M. Sadker & Sadker, 1994).

In addition, studies suggest that from the very early grades through the university level, female students have been the victims of hidden bias in teacher interactions and the curriculum, although they sit in the same classroom and are expected to learn the same material (M. Sadker & Sadker, 1994). Streitmatter (1994) in her book toward gender equity illustrates the fact that the quantity and quality of teacher interactions varies by student gender and through their interactions

they allow for male dominance in classrooms. Koca (2009) also indicates that female and male teachers interact more frequently with males, and this interaction is influenced by gender-stereotyped beliefs of teachers and students.

There are also some qualitative differences in how teachers interact with their students. This differentiation, on the part of many teachers, has to do with expectations that are largely based on the acceptance of gender stereotypes (Dabiri, 2006; Streitmatter, 1994). Qualitative differences of teacher interactions according to the gender of students are generally manifested through the intensity of academic interaction between teacher and student.

Jones and Dindia (2004) in studying the role of student gender in teacher-initiated interactions found that across 127 empirical studies, it appeared that female and male teachers tend to have more interactions of all kinds with male students than do female students. Kelly (1988) also in her meta-analysis concludes that males get “more instructional contacts, more high-level questions, more academic criticism and slightly more praise than females”—all of which would seem potentially valuable in terms of facilitating learning. Due to the importance of higher level questioning in effective teaching and learning, much of the research in qualitative gender difference has targeted that direction (Good, Sikes, & Brophy, 1973). Duffy, Warren, and Walsh (2001) argues that the higher number of questions (especially process questions) and feedback (acceptance and criticism) given toward males could function as feedback and reinforcements for thinking by males; this signals to individual that a certain way of thinking is correct or incorrect, although not indicating the correct type of thinking. Thus, somewhat more attention to males' thinking than to females' thinking appears to be taking place in some classrooms. Duffy et al. (2001) concludes that the tendency to interact more with male than female students, besides other factors, also depends on the academic subject being taught. It infers that teachers hold higher expectations of males.

Considering that inequalities in classrooms may wrongly decide who in general is empowered as a learner and unrealistically define who a learner is as a person, gender bias with all its complexity and subtlety has to be recognized and controlled in advance of every aspect of students' classroom life (Streitmatter, 1994). Concerned with the issue, this study reasons that students who do not interact with their teachers are less likely to receive encouragement, chance to talk, and hence learn—a threat that is recognized by Sternglanz and Lyberger-Ficek (1977) as influential in determining underrepresentation in postsecondary education.

Whereas many of the earlier studies indicated that gendered classroom interaction could obstruct and even harm knowledge acquisition for males and females (Yepez, 1994), still little is known about how gender bias might affect second language acquisition in adult EFL classrooms, and how teacher's gender might affect teacher–student interaction (Good et al., 1973). Moreover, considering that teachers'

expectations of male and female students are subject-sensitive (Duffy et al., 2001), the other question that arises is whether this “differential teacher treatment by gender” may be manifested in the foreign language classroom, an environment in which females are generally thought to outperform males (Sunderland, 1998). In the light of these questions, the following objectives were postulated for this study:

1. To examine the differences in frequency and types of teacher-initiated interactions directed toward females and males.
2. To discover the differences in the frequency and types of interactions directed toward females and males between female and male teachers.
3. To assess teachers’ attitude toward gender bias and their awareness of their own treatment of male and female students in class, because according to M. Sadker and Sadker (1992) despite most teachers’ claim that they treat students fairly, irrespective of their gender, research reveals the opposite.

It was hypothesized that due to the dominant sociopolitical attitude to women in this research context, which places women under male guardianship (Moghadam, 2004), female participants would be more likely to experience gender discrimination in their classrooms.

Method

To meet the objectives stated above, the researchers required only mixed-gender EFL classes, where considerable amount of interaction between teacher and students would occur, and from which comparable data of teachers’ treatment toward males and females could be obtained.

Sampling

The sampling technique had to be nonrandom and purposive, because the accessibility of mixed-gender classes in a country like Iran, where the prevalent tendency is toward having segregated classes, was heavily restricted. As a result, a sample of 20 teachers, 10 females, and 10 males from different universities in Guilan-Iran, who taught “Basic English” courses (Conversation, Reading, and Oral reproduction; these courses were selected because they required sufficient interaction and acted as the stepping stones for the students’ ongoing academic life), and 500 Iranian students (78% females and 22% males; the proportion represented male/female groups in the population) within the age range of 19 to 25 were selected to serve as the participants of this study.

Instruments

The main sources of data collection for this study were classroom observation and teacher interviews. In general,

classroom observation procedures are grouped into three major categories: (a) those that focus on the teacher, (b) those that focus on the teacher–student dyad, and (c) those that focus on the student (Lockheed & Harris, 1989). However, in line with the objectives of this study, that of the second type (i.e., focusing on teacher–student interactions) was used which took the form of quantitative systematic observations and qualitative note taking, and mainly focused on the teacher-initiated interactions.

The tools used for this kind of observation consisted of a modified version of gender-equity observation checklist (INTERSECT observation instrument) developed by Sadker (cited in D. Sadker, Sadker, & Bauchner, 1984) to systematically observe classroom interactions, and a seating chart to keep a sound record of frequency and type of teacher–student interactions and to quantify the classroom behavior observed.

The gender-equity observation checklist aids in the conversion of general classroom interactions into evaluative types of interactions: praise, criticism, remediation, and acceptance. Using this observation tool to collect data on frequency and pattern of teacher-initiated interactions to students, the researchers deliberately recorded only the interactions between teachers and individual students and overlooked those between teachers and the class as a whole and between student and student or student to teacher. In addition, the seating chart that was constructed for this research purpose was used as the means for observation and codification of the observed data. The chart consisted of square boxes to represent the location and gender of each student, as well as the teacher’s in the classroom.

A code was assigned to each category in the checklist, and on the occurrence of each of the categories, and the specified code was recorded on the seating chart. Codes were used to represent teacher and students behavior.

Besides coding the interactions based on the prespecified checklist, interactions were also audio-recorded for later verification of the coded data. Of course, video-taping the classes would have been much more preferable in these situations; however, as that was not allowed in the observed classes, audio-recording alone was used. The audio-recording was very helpful in categorizing the types of interactions observed.

Intraobserver reliability. To gain experience with the use of coding chart and to test the intraobserver reliability, a pilot study, which was not used in the main study, was conducted. Although using only one coder eliminated the problem of interobserver agreement, there remained the possibility of individual observer coding bias (Patton, 1990). Consequently, three randomly selected classes of the pilot study were simultaneously coded by another observer as a check on observer reliability. The Cohen’s kappa was calculated to show the overall agreement for the observers’ coding among four evaluative type of interaction during the pilot study. The index obtained was .79, which according to Landis and Koch (1977) was substantial.

Procedures

Observation. To observe the ethical requirements of the study, the participant teachers were asked for their permission to allow one of the researchers to visit their classes at least 3 times in an academic term—As a result, 60 classes were totally observed. Moreover, they were informed that the researchers would need to have a follow-up interview for which their further cooperation might be required. It should be noted that due to the nature of the investigation, the main goal of the study (gender equity) was deliberately withheld to prevent teachers' dog-and-pony show and as a result a change in classroom dynamics. Moreover, codes were assigned to names to maintain participants' confidentiality. Having done so, the observer regularly entered every classroom prior to the arrival of the students and sat in an unobtrusive position near the back and side of the room to be able to have a better grasp of the whole setting and to observe all and every students and their teachers. The seating arrangement of the class was drawn and labeled with the students' name (if possible), gender, and any other needed information. Generally the average class size was 23 students. In most classes, males and females sat in a rectangular format, with the teacher in front. Students' desks were more frequently arranged in rows of 4 or 6, and there was no decoration on the walls.

Students in all classrooms sat in gender-differentiated pattern—females mostly sitting in front rows and males in last rows, or females on one side and males on the other side of the class. Teacher's position was also identified to examine his or her action zone—the section he or she was mostly facing or projecting in a discussion—because this is suggested to be influential in the learning experience of the students (D. Sadker et al., 1984).

The observer recorded every teacher-initiated interactions that occurred between a teacher and a student based on a prespecified checklist and on the seating chart. Moreover, to prevent the loss of any piece of the data, a high quality recorder was used to audio record the interactions. In addition, some field notes besides coding the interactions were also taken on classroom setup, teacher talk, and teacher behavior in class to help the researchers have an ongoing analysis of the data, and as a result a better understanding of teacher behavior in class to see if they signal the promotion of any sort of gender inequity in the classrooms.

Finally, all classes were continuously observed 3 times within 90-min class periods, yielding a total observation time of 90 hr to get a typical sample of teacher–student interactions and to be able to generalize the findings. The number of students present during all the class observations carried out in this study was 500 (392 females and 108 males), and that of teachers was 20 (10 females and 10 males).

Interview. A sample of two thirds of the observed teachers (six teachers, three females and three males) was randomly selected for the interview. Having completed the

observations, and before posing the interview questions, the teachers to be interviewed were informed about the main concern of the study, after then were asked two sets of questions: (a) relevant demographical questions and (b) three open-ended questions to assess how they perceived their behavior toward male/female students, and their interaction patterns in the classroom.

Permission was obtained orally from each respondent to record the interview and they were assured that their answers would be kept confidential; codes were used to protect anonymity of the participants. To have a better ability to compare the responses, all the questions asked in the interview process were structured and preplanned, and whenever the interviewees were not clear with the questions, they were freely offered clarifications and explanations by the interviewer. Notes were taken on their responses to every question. The whole interview was audio-recorded and then transcribed for further analysis.

Data Analysis

For the quantitative data, descriptive statistics of the overall patterns of classroom interaction was calculated and the corresponding counts were tallied for the categories and organized into tables for easy reference. In the second phase of analysis, to examine the statistical difference in teacher interaction with males and females; that is to determine if a significant difference existed between teachers and their interactions with male/female students, the chi-square statistic was run to compare the tallies or counts of categorical teacher interaction with males and females. It should be noted that only actual numbers and not percentages were used for this purpose.

For the analysis of the qualitative data, the constant comparative method of qualitative analysis (Patton, 1990) was used. That is, all interviews were recorded in the researchers' field notes. The audio-recording of the interviews was then transcribed and later, the researchers systematically worked through each transcript of the interviews and the notes taken during classroom observations to assign codes to the specific characteristics within the texts. After the open coding the researchers looked for themes in the data that could be sorted into categories. To ensure that naturally arising categories were used rather than those the researchers might have hoped to locate and to substantiate, an assistant rechecked the data and the classification system for the appropriateness and accuracy of the categories as well as the data placement in these categories.

Results

Quantitative Results

In the 20 classes observed, a total of 1,270 teacher-initiated interactions were recorded. Then, the total number of teacher to student interactions was broken down into four categories

Table 1. Frequency and Percentage of Teacher Interaction.

Type of interaction	<i>n</i>	%
Acceptance	710	56
Praise	268	21
Remediation	172	14
Criticism	120	9
Total	1270	100

of contact: praise, acceptance, remediation, and criticism. The ratio of each type of contact to the total was further computed to represent the distributions of interactions. Table 1 summarizes the frequency and percentage of teacher-initiated interactions regardless of teacher gender in each category of interaction.

As illustrated in the table, of four types of contacts specified in this study, teachers mostly provided students with *acceptance* (comments which implied that student performance was correct or appropriate) in response to the questions asked by the teachers themselves. Thus, *acceptance* was, by far, the largest type of feedback used by teachers (56%); followed by *praise* (21%; Explicit comments which positively reinforced student performance), then *remediation* (14%; A constructive teacher comment, usually encouraging or cueing a more acceptable student response), and finally *criticism* (explicitly negative teacher evaluation) that accounted for only 9% of the interactions.

Teacher-initiated interactions and students' gender. This part is done in response to the first objective of the study; that is, examining the differences in the frequency of interaction directed toward males and females. To this end, the breakdown of the number of females and males in the observed classes, the total number of each interaction type, the quantity of the observed interactions by student gender, and the quantities of interactions that would have been expected, prorated for the numbers of females and males in the study are shown in Table 2. To account for the uneven distribution of females and males in the observed classes the expected frequency of the interactions was calculated based on the ratio of females and males in all the observed classes. Considering the ratio of females and males in the observed classes it would have been expected that in each interaction category 78% of the interactions be distributed among females and 22% of them among males.

As can be seen from Table 2, in all interaction categories the total interactions distributed to males were more than what would have been expected proportional to their numbers. In general, if we consider the uneven distribution of females and males in the class it is revealed that although females constituted 78% of the total sample (392 females, 108 males), they accounted for only 33% of the total interactions (819 out of 1,270).

In the next phase of analysis, the one-dimensional chi-square was conducted to determine if there was any significant difference in the distribution of each interaction category between females and males. The analysis revealed a significant difference in the distribution of all the specified categories of interactions directed by female and male teachers toward female and male students, except for *remediation*. In other words, there was no significant difference in the distribution of *remediation* between females and males ($\chi^2 = 2.688$; $df = 1$; $p < .05$). All the other interaction categories were distributed significantly more among males (Table 2). The chi-square measures of all the categories are presented in Table 2 ($df = 1$; $p < .05$).

Types of teacher–student interactions directed toward females and males and teachers' gender. This part of the quantitative analysis contributes to the second objective of the study which is concerned with the issue of the differences in frequency and types of interaction directed toward female and male students between female and male teachers.

To meet this end, the observed frequency of teacher–student interactions initiated by female and male teachers toward female and male students was counted (Table 3). For ease of comparison, the quantities of interactions that would have been expected to be directed toward students of either gender by female and male teachers, proportional to students' enrollment in their classes, are presented in Table 4. Comparing the observed frequency of the different types of contact initiated by female and male teachers with the expected frequency of these types of interactions, it is clear that all categories of interaction were consistently directed toward males more than what would have been expected proportional to their enrollment in class by female and male teachers. To test the differences in frequency and types of teacher-initiated interactions directed toward female and male students between female and male teachers, a chi-square test of independence was performed for each category of interactions.

Results of the analysis revealed that female teachers directed significantly more *acceptance* ($\chi^2 = 28.419$; $df = 1$; $p < .05$) and *praise* ($\chi^2 = 5.158$; $df = 1$; $p < .05$) toward males than toward females. Yet, there was no significant difference in female teacher-initiated *remediation* ($\chi^2 = 0.6$; $df = 1$; $p < .05$) and *criticism* ($\chi^2 = 2.111$; $df = 1$; $p < .05$) directed toward female and male students. However, in the classes of male teachers the results of the analysis manifested that significantly more *acceptance* ($\chi^2 = 63.379$; $df = 1$; $p < .05$), *praise* ($\chi^2 = 50.921$; $df = 1$; $p < .05$), and *criticism* ($\chi^2 = 8.41$; $df = 1$; $p < .05$) were directed toward males than females. However, there was no significant difference in *remediation* that male teachers directed toward females and males ($\chi^2 = 2.152$; $df = 1$; $p < .05$). Tables 3 and 4 present the observed and expected frequencies of different categories of feedback directed toward females and males between female and male teachers, respectively.

Table 2. Observed and Expected Frequency of Different Categories of Questions Between Males and Females.

Category	Number of boys	Number of girls	Total interactions	Observed frequency for girls		Expected frequency for girls		Observed frequency for boys		Expected frequency for boys		Chi-square	
				<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	χ^2	Sig
A	108	392	710	452	64	557	78	258	36	154	22	90.565	0.00
P	108	392	268	165	62	210	78	103	38	58	22	44.841	0.00
R	108	392	172	126	73	135	78	46	27	37	22	2.688	0.10
C	108	392	120	80	67	94	78	40	33	26	22	9.756	0.00

Table 3. Observed Frequency of Types of Teacher-Initiated Feedback Toward Females and Males Between Female and Male Teachers.

	Acceptance				Praise				Remediation				Criticism			
	Girl		Boy		Girl		Boy		Girl		Boy		Girl		Boy	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>N</i>	%	<i>N</i>	%
Female	208	62	126	38	75	66	39	34	57	71	23	29	38	67	19	33
Male	244	65	132	35	90	58	64	42	69	75	23	25	42	67	21	33

Table 4. Expected Frequency of Types of Teacher-Initiated Feedback Toward Females and Males Between Female and Male Teachers.

	Acceptance				Praise				Remediation				Criticism			
	Girl		Boy		Girl		Boy		Girl		Boy		Girl		Boy	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>N</i>	%
Female	251	75	83	25	86	75	28	25	60	75	20	25	43	75	14	25
Male	305	81	71	19	125	81	29	19	75	81	17	19	51	81	12	19

Qualitative results. This last section presents the results obtained through interview to assess teachers' awareness of how they treated male/female students in their classrooms. Six teachers (three females and three males) were randomly chosen from among the observed teachers to be interviewed. The interview contained three open-ended questions as follows:

1. Do you see any difference between females and males in your class that makes you treat them differently?
2. Do you think the type of feedback that you give to females and males are the same or different?
3. What do you think would be the likely cause of any unequal distribution of the interaction patterns in your classroom?

All the teachers interviewed had similar if not the same answers to the interview questions. When teachers were asked whether they saw any differences between females and

males in their classes, almost all of them (83%) explicitly stated that they did not see any difference regarding gender of the students; however, in elaborating their answers 67% of teachers stated that females were more participating in the classroom. They believed that females compared with males took part more in activities and interacted more with the teacher. Teachers' comments as stated by they themselves and without any modification appear below:

Females like to talk a lot, even participate more in activities and more question and answer happen. Males mostly try just to keep silent and when they are asked they take part. (Teacher J, male)

However, one teacher had a different view in this regard:

. . . sometimes male students participate more in class so they take more attention but the others not . . . (Teacher H, female)

Another teacher points to students' level of achievement as the source of students' difference and not their gender:

The only difference between students is determined by their level. (Teacher P, female)

Concerning the type of feedback directed toward females and males 83% of the teachers stated that the type of feedback did not depend on the gender and in this regard they did not consider any difference between females and males. Some of them further explained that type of their feedback depended on the personality of the student.

The type of feedback is not based on gender; it depends on the personality of the students. I do not think that females are more sensitive than males. You can see some males that are very sensitive. And because the number of males is few in class, when you criticize them in front of all females it will offend them too much sometimes. (Teacher D, female)

Mostly I disregard the difference between females and males but if I feel the student is bothered with my feedback I try to mend it and mostly females are more sensitive to those matters. (Teacher J, male)

Personality of the students determines the kind of feedback. (Teacher N, male)

One of the teachers referred to the type of answer as the determining factor:

It depends on the type of answer I receive regardless of any gender consideration. (Teacher H, female)

Only one teacher claimed that he was “more careful in treating females.”

... they [females] are much more emotional. So you should be careful when directing criticism or remediation toward them. We are supposed to be alert in providing feedback to females. We criticize the females but in a polite way not to offend them. Of course, it depends most of the time on them being obedient or not, otherwise we have to use direct words. We treat males politely too but the selection of the words and the way we provide the feedback is different. (Teacher O, male)

In asking the teachers' opinion about the cause of any likely unequal distribution of interaction between females and males, they provided various answers. Among the mentioned causes were: students' voluntary participation (50%), gap between teaching and practice (17%), the classroom context (50%), teacher characteristics (17%), and student's knowledge (33%). Below are some of the comments from the teachers interviewed:

Maybe the level of participation of that gender caused it. Some students just grab the teachers' attention ... (Teacher H, female)

It is my failure and I accept it, but maybe more volunteers from one gender are the cause because mostly I put a question and choose from volunteers to answer. (Teacher J, male)

The cause is the gap between practice and thinking. Always there is a gap between the teacher concept before coming to class and something that happens in the class. The second factor may be the context of the class. (Teacher N, male)

It depends on someone's temperament and characteristics. Some men are more comfortable with male students and some with female students. (Teacher O, male)

It depends on the knowledge they have. Among the students at the same level I do not put any difference in the type of asked questions but for both students that are in higher level or lower level type of question would be different. (Teacher P, female)

Discussion

The quantitative findings of this study indicated that within teacher-initiated interactions, three out of four categories of evaluative contacts (*acceptance, praise, and criticism*) were directed significantly more to males than females. Actually males were involved in more than 50% of all the interaction categories. The only category with no significant difference in its distribution between females and males was *remediation*. Moreover, findings regarding the influence of gender of teachers on their differentiated behavior toward females and males exposed that female teachers normally provided males with more *acceptance* and *praise* than females; however, there was no significant difference in providing females and males with *criticism* or *remediation*. However, in male-taught classes almost all categories of interaction were directed significantly more toward males.

Generally speaking, these results support M. Sadker and Sadker (1994), Duffy et al. (2001), Jones and Dindia (2004), and Koca (2009), and confirm that males get more speaking practice and more feedback on their utterances. That is, males responded more to the teachers' questions, and hence received more feedback and practice in language functions. However, in explaining the causes of female teachers not providing males with more *criticism* and *remediation*, classroom observations and teachers' interviews revealed that Iranian female teachers were more cautious in criticizing males, as one of the teachers said,

... maybe a boy is more sensitive than a girl, especially if we have few males in class and when you criticize them in front of all the females it will offend them too much sometimes. (Teacher D, female)

Teachers' beliefs and behaviors in the classroom are most probably influenced by the dominant bias that exists in Iranian society. Actually, Iranian society assigns abilities and characteristics to individuals on the basis of their gender (Moghadam, 2004). For instance, men are identified as responsible, strong, independent, self-confident, aggressive, and successful, whereas women are described as passive, emotional, nurturing, and warm. As Dabiri (2006) claims, it

is students' gender that specifies the kind of positive or negative feedback. In her study, it was revealed that teachers' definition of male roles emphasizes mastery and competence, whereas female role was defined as submissive and dependent. This way of looking at female and male roles may make the teacher accept the males' answers more easily and not question the response that they provide, and it might further explain why *criticism* and *remediation* were the only categories whose distribution happened to be equal between females and males by female teachers.

Accordingly, as it was discussed earlier, as most language learners consider opportunities to talk and practice using the language very important, this lack of opportunity to use the language may hinder the development of females' language ability. Therefore, the trend of male domination of talking time in EFL classrooms gives reason for concern that women are getting less than their fair share of opportunities to practice using English.

Contrary to the quantitative findings of the study, teachers in their interviews claimed that they treated female and male students equally and acknowledged the fact that it was their sincere belief that all students should have the right to access equal opportunities for learning in the classroom, and it is the teachers' responsibility to provide an equal learning environment in the classroom—a claim that was ironically counterbalanced by the actual teacher–student interactions that were shown to have been overwhelmingly male dominated. This is in line with M. Sadker and Sadker (1994) that while teachers may acknowledge gender-equity principles and may express gender-fair viewpoints, what they actually do in their own classes may not necessarily reflect this knowledge. Generally, it can be concluded that teachers are not aware of their own behavior with the genders and they may unconsciously make males the focus of instruction, giving them more frequent and more precise attention. Consequently, when teachers interact less with female students they have less chance to talk, which in turn might threaten development of their language ability.

In further explaining the causes of the inequalities in classrooms, it has been suggested that the greater number of interactions directed toward male students is a result of increased initiations of interactions by male students themselves. Some studies discovered that more males than females volunteered to answer the questions (Altermatt, Jovanovic, & Perry, 1998; Bailey, 1993; D'Ambrosio & Hammer, 1996; Koca, 2009; D. Sadker et al., 1984; M. Sadker & Sadker, 1986). Similarly, some of the teachers interviewed in the current study also mentioned that the students' voluntary participation was the likely cause of unequal distribution of interactions.

However, observations in the present study demonstrated that in all classrooms there were active students of both genders (males and females) who took a considerable number of turns. This is a new situation, which in theory, calls for some noticeable changes to the traditional way of distributional imbalance.

The researchers also observed that, except for some active females, majority of females were more likely to sit silently, waiting to be called on. In other words, the number of silent females, not being called on or not calling out in the classrooms, is remarkably higher than the number of silent males proportional to their enrollment in the classrooms. This is consistent with the findings of the study conducted by Salata (1994) reporting that two thirds of the silent students in college classrooms are females, not having any interaction whatsoever with their professors.

However, Morrow (1979) argues even if volunteering is the cause, it is the teachers' responsibility to manage classroom interactions and provide equal opportunities for all students in the classroom. However, if student volunteering remains a critical feature of teacher–student interactions, simply instructing teachers to call on females more often will not suffice. Efforts should be made to understand the reasons behind females' relative nonparticipation, so that steps can be taken to encourage females to become full participants in the classroom question–answer interactions. Shomoossi, Amouzadeh, and Ketabi (2008) note that some females feel threatened in classrooms characterized by a high reliance on participation through student volunteering. One way for teachers to alleviate the perceived threat of volunteer participation is to use teaching strategies that defend females against male dominance such as being aware of subtle gender bias and in turn equally calling on females even if they are not raising their hands.

Besides the possibility of males initiating more interactions with teachers as the cause of this unequal distribution of interaction, another factor that might have further heightened this verbal domination was gender segregation of many of classes. In examining the seating pattern of the classrooms, the researchers of the current study observed that females most commonly sit with other females, and males cluster together. As male students talked and called out more, teachers were drawn to the noisier male sections of the class, a development that further silences females. This is also supported by many classroom observations that have shown teachers talk more frequently to males no matter where they are in the classroom, but only to females when they are nearby (D. Sadker, Sadker, & Thomas, 1981). Other studies have also shown that classroom seating patterns can influence interaction patterns, and that they could be a compelling factor in determining interaction frequency and time (Yepez, 1994). Having informal interviews with the students to seek the cause of this segregation, the researchers discovered that although this segregation is sometimes put in effect by the teacher, it is typically done by the students themselves. Rarely does the teacher intervene to integrate seating and group work, particularly in higher education. Of course males and females have their own reasons for this segregation. When the students were asked why that was the case, while some of the male students complained that it is their female classmates who are reluctant to integrate with them, the females voiced their own reason for the reluctance which

was the fear they had for mixing with males. They confessed that as soon as they get together with a male classmate to work, other friends would label them as girlfriend/boyfriend that might have its own social consequences.

Whatever the reason is, M. Sadker and Sadker (1992) suggest when left intact, these segregated grouping patterns influence the distribution of teacher attention because the instructor is drawn to sections of the room where one particular gender or group of students are clustered. Consequently, one group of students is out of the instructor's immediate visual zone, and literally invisible, they are less likely to be called on to participate, and so they become silent as well. These subtle inequities in attention might have an impact on student achievement.

Conclusion and Recommendations for Future Research

In general, although it was found that students' gender may affect teacher–student interaction in adult classrooms, these researchers believe that few teachers set out to discriminate against their students based on race, ethnicity, gender, or economic class. In other words, it is hard to believe that there is a teacher, who wakes up in the morning with the intention of excluding any student or class of students, but it happens inadvertently, and the effect is withering. The reason perhaps is hidden in the nature of this profession. Classrooms are complex, busy places, and teachers engage in a variety of interactions with their students each day. The speed of these interactions makes it difficult for the teachers to be fully aware of exactly what is happening (M. Sadker & Sadker, 1986). As a result of this, problems may arise and as the empirical research suggests teachers may, in spite of their best intentions, vary their behavior toward students on the basis of student's gender. Yet, privilege is invisible to those who have it (McIntosh, 1988).

Given that school is not only a place where students acquire academic knowledge, but a place where they become socialized and learn to assume particular roles in society, teachers' role as models for students, and therefore, their actions become important in communicating messages that shape students' beliefs and their self-concepts. If teachers, inadvertently or not, demonstrate gender-biased actions (e.g., giving more attention to males, permitting their interruptions or attention-drawing behaviors, or asking them more intellectually challenging questions in comparison with questions asked of females), students may come to believe that males are expected to be more outspoken and active, while females are expected to be quiet and undistruptive and may also internalize the message and grow to believe that such differential treatment for males and females is the norm.

This calls for developing a training program, like that proposed by D. Sadker et al. (1984), to enable teachers and administrators to detect this bias and create equitable teaching methods. It is only by making it visible to ourselves that

we can eradicate its effects—no matter how unintentional—on others. Program evaluations indicate that biased teaching patterns can be changed, and teachers can achieve equity in verbal interactions with their students. When teachers become aware of differences in the way they interact with female and male students and when they receive appropriate resources and training, they can become more equitable in their response patterns. Research shows that for elementary and secondary school teachers, as well as college instructors, this training leads not only to more equitable teaching but to more effective teaching as well (D. Sadker et al., 1984). As a result, individual educators, teachers and administrators, can insure that instructional strategies and curricular innovations benefit all our students. However, considering the diverging empirical results, it would be naïve to attribute all such patterns solely to student gender (Jones & Dindia, 2004). As Jones and Dindia (2004) point out, several factors may shape teacher-initiated behavior toward students, from among which individual student factors (such as student gender, student classroom behavior, student achievement, and student race) and teacher factors (such as teacher gender and teacher's gender role orientation) have the most outstanding influence.

Thus, future research is required to investigate additional factors that are likely to affect teacher–student interactions in classrooms, as they may offer explanations of gender differences in teacher–student interaction patterns. Some demographic factors that may be relevant include English language proficiency, personality, and the racial or ethnic background of teachers and students. It would also be interesting to see how teaching strategies and personality differences among teachers correlate with the tendency to interact more with students of one gender. Researchers suggest that our society's expectations and restraints on males and females have led us to accept and condone certain behaviors when displayed by a member of the expected gender. Future researchers could look at students' perceptions, taking into consideration that perceptions and expectations are shaped by society and early learning experiences. Finally, the effect of a training program concerning gender equity in language, teacher interactions, and all other areas of learning on teachers' interactions with students and their attitudes toward gender roles can be investigated.

To reiterate, however complex, additional studies of these types are needed because the payoff comes in a number of ways. First, it more accurately portrays what actually occurs in the classroom; of course what unfolds depends on the teachers' next move. Second, it focuses on “equity of access”—a unique feature of the classroom culture criteria which allows teachers to reflect on their classroom events with a less biased approach, the result of which can be fair and equitable treatment of students as individuals and providing them with equal access to the full educational resources of the learning environment, and finally if the results are taken sincerely and put into practice correctly, it

would potentially pave the way for establishing a learning environment where every idea is a good one and no individual is left behind.

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