Educational Environment (Coeducation / Segregated) and the Progress of Speaking Ability among Iranian EFL Students

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Abstract—Coeducation environment which in Iran is just enjoyed in universities is an unfamiliar educational environment for Iranian students and may influence the total outcome of teaching and learning. The present research focuses on the impact of coeducation on speaking ability. A longitudinal study was undertaken on 20 subjects, chosen from 2 universities in which both coeducation and single-sex education were enjoyed. The probable influence of sex, family income, language proficiency, and extroversion/introversion variables were controlled. Furthermore, the probable impact of attending extra conversation classes was eliminated. Analyzing the results of pre-test and post-test of speaking indicated that single-sex system is better for male students, but no significant difference was observed for female students. This negative influence of coeducation system on the speaking ability of the male students and probably the total gains of teaching and learning do worth revisions on educational system provided that it could be confirmed by meticulous replications.

Index Terms—coeducation, single sex education, segregated education

I. INTRODUCTION

Coeducation in universities started before the Civil War when women first succeeded to enroll in a few colleges on terms similar to men. This access was the result of the efforts of the early women's rights movement. Early feminists were concerned that separate education for women would certainly be low-grade in comparison with that of men since they were disappointed by the education offered in female secondary schools. They maintained that the only way of ensuring equality was to insist that male and female students be educated together (Rosenberg, 1991).

Abandonment of segregated educated was welcomed by the leaders of the early women's movement not only on academic grounds but also on sexual grounds. They maintained that this segregation ends in a preoccupation with sex; whereas they thought that coeducation created a more natural and therefore healthier sexual atmosphere. Stanton (1882, p. 67) argued that "If the sexes were educated together, we should have the healthy, moral and intellectual stimulus of sex ever quickening and refining all the faculties, without the undue excitement of senses that results from novelty in the present system of isolation." Coeducation promised intellectual freedom and sexual health (cited in Rosenberg, 1991).

Women's early success at Oberlin convinced many pioneers of women movement to develop coeducation. Stone summarized their views:

Our demand that Harvard and Yale colleges should admit women, though not yet yielded, only waited for a little more time. And while they were waiting, numerous petty 'female colleges' have sprung into being, indicative of the justice of our claim that a college education should be granted to women. Not one of these female colleges . . . met the demands of the age, and so would eventually perish. (cited in Rosenberg, 1991, pp.148-49)

Ever since scholars and theoreticians have theorized and their theories have been put into practice, in many cases, culture and environment have not had an outstanding influence on adjusting these theories. Yet, it is of utmost importance to consider some factors such as culture that may cause a theory to culminate in quite different results. Sometimes, the reverse of what was aimed at is being acquired. Therefore, even if a theory was accepted and performed, it is not wise to keep up performing without carefully and dynamically reconsidering every aspect of the matter. Coeducation as it is stated is the result of a movement called Feminism. Feminism has been criticized on many grounds.

Bork (2003, p. 18) states:

Feminism, the "most fanatical and destructive movement of the 1960s," is an attack on hierarchy, family, religion, and national security. Racial tensions have escalated. Affirmative action "was a serious mistake...Continuing it would be a disaster." Education has become politicized to the point that competency has decreased. Teachers do not teach; students do not learn. Religion, "essential to a civilized culture," has become marginalized. Multiculturalism is a lie
because all cultures are not equal. It has fragmented America. A culture of chaos persists. America heads toward moral decline and spiritual decay.

The important point is uncovering the reason(s) for persistence on implementing a theory which may or may not work in Western countries and then trying to act it out in an oriental country like Iran (a country which has many cultural contradictions with American and European countries). What makes the problem worse is the acceptance of a theory, without any adaptation to the Iranian culture, limitations and differences. In American and European countries, one almost cannot see any limitation in two sexes’ relationships anywhere, regarding the place and sort of relationships. So, it will be really different while a theory is acted out in a country where the two sexes are being regarded differently from Western countries. In some parts of the country, there almost exists no relationship between them. The system of segregated education is practiced even in some kindergartens in Iran let alone primary schools, guidance school, and high school, not to mention that some universities in Iran follow this system of single-sex education like the one investigated in the current study.

Regarding all the above-mentioned points, is it right to say that a Western student who has no limitation regarding the relations with students from the other sex will benefit equally from schooling as an Iranian student (or similar eastern and specifically Moslem countries) with restricted opposite-sex relationships? As in many of the Middle Eastern Countries, most public schools are segregated by sex, whereas most private schools enjoy co-ed. Upon students’ entrance in university one can see the preoccupation of Iranian students with the influence of less familiar coeducation environment on their lives and their way of studying. Overcoming the impact, if possible, may take a lot of time; even, sometimes, the whole period of studying in university is being passed by while the impact still exists.

The research here focuses on the impact of coeducational environment on language classes especially on the speaking skill of students. The most important reason for choosing this subject is reflected in the weakness of Iranian EFL students in speaking skill. In general, performing in front of others is a difficulty. It becomes more difficult if one is supposed to perform in front of students from other sex and, in a country like Iran, it becomes the hardest since the relations between the two sexes are restricted in some parts of the country. If students, at the very beginning of their performance, see that there are many factors hindering or at least deferring commencement of their performance, they will not start at all or will use the language occasionally. Therefore, progress of this skill is highly dependant on performance, which is being restricted due to the above-mentioned problems in an Iranian educational environment.

Attendance in coeducational environment could be risky insofar as the crystal clear reality of two sexes’ attractions for each other and the danger of relative diverting from learning which students are expected to do. Possible attraction of students to sexual appeals instead of learning may change the learning environment to something different. The problem might not end up in the class and exist outside in the dormitory, the students’ houses and so forth. Being occupied with these concerns will reduce the concentration on learning materials.

Analysis of the literature on coeducation and single-sex education effects on academic performance indicates that there exist contradictory research findings. Some findings strongly supported the positive effect of coeducation on educational performance (Lee & Lockheeds, 1990; O’reilly, 2000; Dean C., 1998; Harker & Nash, 1997; Lepore & Warren, 1997; Mc closky, 2001). Some others rejected the positive effect of coeducation on educational performance. For example, in religion schools, according to Riordan (1990), better results were achieved in single sex schools and also in sexual matters (Sadker, 1994). Student’s self esteem according to Carins (1990), Brutsaert and Bracke (1994), Langdon (2001) was better. Especially, the rejection was strongly supported through the research done by national foundation for educational research (2002) in which 2950 participants were studied and the results indicated that single sex environment was better for both boys and girls. Also about language learning, a remarkable study was done by Finn (1980) in which 2777 high school students participated. The results indicated the progress in learning vocabulary which was not good in coed schools; the same results was achieved by Henry (2001) and Trickett and Trickett (1982). The reasons usually emphasized for single-sex education are as follows: male-female variances in performance and development and also the achievement gap favoring boys and discriminating against racial poor minorities. Also, notions such as boys will focus better on school tasks if not distracted by girls.

The main research hypotheses addressed in this study could be stated as: there is no significant relationship between coeducation and speaking ability of Iranian EFL students. And also students’ gender has no role to play in their success in the progress of speaking ability in coeducational environment.

II. METHOD

A. Participants

Based on the purpose of the present study, which seeks the relationship between speaking skill and coeducation in Iranian universities, the subjects were selected from among English Literature students. Also a university in which coeducation system existed was needed along with a university with single-sex education system. For this purpose Qom University was selected in which the two sexes studied in one university but under two separate roofs, in other words they had separate classes, and the whole educational environment was separate.

There were important factors which might influence speaking, like being extrovert or introvert, gender, socioeconomic factors, and the level of proficiency at the moment of entering university. To control these important variables, the process of subject selection was done precisely. Thus, the following actions were taken: For recognizing...
extrovert students from the introvert, a psychological test was a requirement for 10 subject to take, in order to control this important variable through selecting those students who would be more appropriate. To neutralize gender effects, if any, equal number of the two sexes were selected from each environment (single-sex and coeducation environment), that is 5 male students and 5 female students from Qom University and then 5 male and 5 female students from Mashhad University. For the socioeconomic factors to be neutralized, a question was put in a questionnaire asking the subjects about the income of their family, then students belonging to the families with nearly the same amount of income were selected and those who have incomes which greatly differed were eliminated. Another question was asked from students by the questionnaire about their participation in conversational classes before or during their studies in university (English language in Iran is a foreign language). And the last point to consider was students’ proficiency which influences the results. First as the base for selecting subjects who were highly likely to have nearly the same level of proficiency, students’ scores in the Konkoor Exam (University Entrance Exam) were asked, those with nearly the same scores were selected and obviously those with greatly different scores were eliminated. Since Konkoor Exam does not measure oral proficiency which was needed for the purpose of this study, measuring the speaking proficiency must be done over time. One semester was the time allocated to the interval between the two turns of test taking for every student.

B. Instruments

Two tests were utilized for the purpose of this research. One was a psychological test, which distinguished the extrovert students from the introverts. Among various psychological tests measuring the degree of extroversion and introversion, “Izong Test” proved to be the most appropriate one. It was administered and the results of the administered test were interpreted, afterwards extrovert students were selected. The second one was a reliable and valid IELTS test of speaking to measure the speaking ability of the students.

1. Assessment Criteria for the IELTS Speaking Test

There are numerous criteria for evaluating a speaking test, like the ability to open, maintain and end a conversation, and many others. But the IELTS test used in the current research needs short answers in a way that the compilers of the test (Ramezanee and Hakimi, 2004) suggest the following criteria for scoring the test, all were used in scoring the present test. Turn taking, Feedback, Intelligibility, Ability to communicate effectively, Ability to use appropriate range of vocabulary, General fluency, Structural accuracy, Speaker’s purpose, Speed, Relevance were the criteria for scoring speaking.

C. Data Collection

Izong test was administered and the results of it were interpreted and showed the extrovert and the introvert students. To neutralize the highly likely influence of this variable, all the subjects were chosen among the extrovert. Equal number of male and female extrovert students, with nearly the same score in Konkoor Exam, who belonged to the families with nearly the same amount of income, with no experience of attending the language institutes were selected as the subjects of the study.

Izong Test along with IELTS Speaking Test was administered at the beginning of the semester in Qom University. The subjects of the study were instructed how to take the test and it was explained for them why this test was being done. A time was set for 10 male students to come and take Izong Test; in the second place, IELTS test was taken by each student individually; finally, the students were paired off to have a discussion on some specified subjects, sometimes groups were composed of more students. The interview was recorded completely. The same process was conducted for the female students in Qom University. After finishing this part, all the above-mentioned stages were exactly done in Mashhad University. Since this research could be best done by a longitudinal method, at the end of the semester again the same IELTS Speaking Test was taken by the same students.

D. Data Analysis

After explaining to the raters what was the research about and the way the test was supposed to be scored based on the mentioned criteria, IELTS Speaking Test was scored by three different raters in order to increase the reliability of scoring to increase inter-rater reliability. At the end of the process of scoring, there were two sets of scores for every student, and each set was composed of three scores obtained through 3 turns of scoring by three raters. The average of each set of scores was calculated. Then the progress of first average score obtained by every student was compared with his/her own second obtained average score. Finally, the progress of students in the university in which single-sex education existed was compared to the progress of students in university with coeducation system.

III. RESULTS

Then IELTS Test of Speaking was administered two times (at the beginning of the semester as a pre-test and at the end of the semester as a post-test). Two sets of means acquired thorough scoring the test by three raters were calculated; the means for each of four groups of students (two groups of male students along with two groups of female students from the two different systems of education) were compared together. To compare the results of the test, that is
comparing two means for every subject in each group, matched t-test was applied (P>0.05). The results of the calculations are shown at the following tables:

**Table 1.**

<table>
<thead>
<tr>
<th>X1</th>
<th>X2</th>
<th>D</th>
<th>D²</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>60.6</td>
<td>71.3</td>
<td>10.7</td>
<td>114.49</td>
<td>Student 1</td>
</tr>
<tr>
<td>78.6</td>
<td>92.3</td>
<td>13.7</td>
<td>187.09</td>
<td>Student 2</td>
</tr>
<tr>
<td>71.6</td>
<td>81</td>
<td>9.4</td>
<td>82.36</td>
<td>Student 3</td>
</tr>
<tr>
<td>50.6</td>
<td>48.3</td>
<td>-2.3</td>
<td>5.29</td>
<td>Student 4</td>
</tr>
<tr>
<td>62</td>
<td>64.3</td>
<td>2.3</td>
<td>5.29</td>
<td>Student 5</td>
</tr>
</tbody>
</table>

**Table 2.**

<table>
<thead>
<tr>
<th>T-critical</th>
<th>One-tailed Hypothesis</th>
<th>d.f</th>
<th>T-Observed</th>
<th>P&gt;0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.132</td>
<td>0.05</td>
<td>4</td>
<td>-1.03</td>
<td></td>
</tr>
</tbody>
</table>

The observed “t” acquired from the group of male students who studied in a single-sex university (see table 2), was significant (P> 0.05); Comparing this figure with the observed “t” value for male students who studied under coeducation system for whom the observed “t” was not significant (see table 4), the first hypothesis was rejected. Then it could be said that coeducation played a negative role in developing speaking ability of Iranian EFL students.

**Table 3.**

<table>
<thead>
<tr>
<th>X1</th>
<th>X2</th>
<th>D</th>
<th>D²</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>54.6</td>
<td>57.3</td>
<td>2.7</td>
<td>7.29</td>
<td>Student 6</td>
</tr>
<tr>
<td>97.3</td>
<td>102.6</td>
<td>5.3</td>
<td>28.09</td>
<td>Student 7</td>
</tr>
<tr>
<td>71.6</td>
<td>78</td>
<td>6.4</td>
<td>40.96</td>
<td>Student 8</td>
</tr>
<tr>
<td>45.6</td>
<td>49</td>
<td>3.4</td>
<td>11.56</td>
<td>Student 9</td>
</tr>
<tr>
<td>56.3</td>
<td>62</td>
<td>5.7</td>
<td>32.49</td>
<td>Student 10</td>
</tr>
</tbody>
</table>

The progress made in developing speaking ability for female students was not significant (see table 1 & 3).

**Table 4.**

<table>
<thead>
<tr>
<th>T-critical</th>
<th>One-tailed Hypothesis</th>
<th>d.f</th>
<th>T-Observed</th>
<th>P&gt;0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.132</td>
<td>0.05</td>
<td>4</td>
<td>-2.42</td>
<td></td>
</tr>
</tbody>
</table>

Also the second hypothesis which posited that gender plays no role in developing speaking ability of students was rejected, since for male Iranian student, coeducation proved to have a negative influence on speaking ability.

**IV. DISCUSSION AND CONCLUSION**
In the current study it is revealed that single sex education works better for male students in Iran, a country in which coeducation is somehow unfamiliar to the students. The findings of the current study are somehow in line with one of the first great studies on segregated education which was done by Dale (1969, 1971, 1974) in the UK. His research revealed that coed offered the most favorable readiness for adult life. Regarding academic performance, he found that girls’ educational advancement was not disadvantaged by coeducation; yet, the results indicated some disadvantages for girls, particularly in mathematics. A line of parallel researches done in the UK in the 1970s and 1980s also, showed that female students tended to have higher progress in segregated schools (Ormerod, 1975; Deem, 1984).

The results of the current study confirmed what Riordan (1994) had found who argued an advantage to single-sex education among African American and Hispanic schools. Yet the results disconfirmed the findings of Garcia (1998) who argues no significant variation in success between the two sectors for African American and Asian girls was observed.

In the current study it is proved that male students benefit more from a single sex environment of education. It is in line with some studies which have indicated that boys contribute more to classroom interaction and dominate in “hands-on” activities, like computer sessions and laboratory work (Askew & Ross, 1988; Howe, 1997; Francis, 2004).

It was concluded that, for male students regarding the progress in speaking ability, segregated system of education is better; coeducation hinders their progress. For female students, no considerable results were acquired. Therefore, the first hypothesis positing that there was no relationship between coeducation and students speaking ability was rejected. Furthermore, the second hypothesis positing that students’ gender played no role in their progress in speaking ability was rejected, since female students studying under the two different systems of education, less or more progress the same, but, for male student, this sameness was not observed.

In case further and wider studies can prove the negative influence of coeducation on speaking ability of students or even on the total outcome of teaching and learning in Iran and similar countries, reconsidering the system of education, seems to be of vital importance.

This research was limited on several ways. Due to lack of universities which enjoyed single-sex education system in Iran, the research was limited to only two universities; students might have chosen a religious city like Qom for religious beliefs which can be influential on the quality and quantity of studies. The number of the subjects who were examined might not be high enough to administer a proficiency test. These two factors, along with maybe other unknown factors to the researcher, jeopardize the generalizability of the results of the research. But regarding the vast and various researches done on the relationship between coeducation and academic performance, the results of which mostly showed the negative effects of this system, more research and investigations into the results of practicing this system of education, seems to be necessary. Considering the increasing value of learning English language, the importance of developing speaking ability increases, hence the necessity for more research. Recent years have seen a rebirth of segregated education (Datnow & Hubbard, 2002; Younger & Warrington, 2005). That is the reason for a number of countries, including New Zealand, Australia and Ireland that continue to have a noticeable number of segregated schools. In other countries, such as USA and the UK, there has been an increase in single-sex schools, or more usually in single-sex classes, as a reaction to perceived underachievement by boys. All in all, the results show a probability of the need for reconsidering educational environments.

REFERENCES


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