

The Role of Single-sex and Mixed-sex Context on Iranian Students' Willingness to Communicate

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Abstract: *Willingness to communicate as the most immediate predictor of language use is claimed to be influenced by both individual and contextual variables. Given this, this study addresses the effect of single-sex and mixed-sex context on EFL students' inside the classroom and outside the classroom willingness to communicate (WTC). To conduct the study, WTC questionnaires were issued among three hundred students in private English language institutes; one hundred of whom (both males and females) were studying in the mixed-sex context, one hundred females, and one hundred males studying in a single-sex context. A 2 × 2 ANOVA was conducted to examine the effects of context and gender on the students' WTC. The results indicated that a) students studying in single-sex contexts enjoy higher amount of WTC both inside and outside the classroom b) males are more willing to communicate than females. Other findings and pedagogical implications of the study are discussed.*

Keywords: *Willingness to communicate, single-sex context, mixed-sex context, gender*

1. Introduction

With the shifting of attention from the mastery of structures to the ability to communicate and interact effectively, modern language pedagogy has attached great importance to communicative interactions. Likewise, willingness to communicate (WTC), a good predictor of frequency of communication, has attracted the attention of the researchers in the related fields. Previously WTC was considered to be a personality-based orientation toward communication (McCroskey & Richmond, 1987). But by observing situations in which one doesn't make any attempt to communicate in spite of having sufficient knowledge, the construct was regarded as comprising both individual and contextual variables (MacIntyre, et al., 1998). Given the importance of context in WTC, this study is targeted toward finding the influence of mixed-sex versus single-sex classroom on the Iranian EFL learners' WTC. Hence, the aim of this study is twofold: a) to examine the effect of these two kinds of context on WTC and, b) to find the influence of gender on WTC among Iranian EFL learners. In doing so, it would be helpful to know about the literature of WTC and gender studies.

1.1. Willingness to communicate

The concept of WTC was originally introduced regarding L1 communication (McCroskey, 1992; McCroskey & Richmond, 1990; Zakahi & McCroskey, 1989). The first attempt to originate a WTC construct was made by Burgoon (1976) who called her construct "unwillingness to communicate" and defined it as a concept corresponding "enduring and chronic tendency to avoid or devalue oral communication." (p. 43). Mortensen et al. (1977) discussed it as a predisposition toward verbal behavior and claimed that the global features of speech are

consistent across situations. Taking a behavioral approach toward WTC, McCroskey and Richmond (1982) proposed the shyness model and defined it as the tendency to be timid and reserved and to do less talking. These models consider WTC as a trait-like predisposition which means that an individual's WTC is constant and enduring in different situations and with different interlocutors.

Considering WTC in second or foreign language context required a more general and multidimensional construct due to the great difference in L2 users' communicative competence and social factors influencing L2 use (MacIntyre et al., 1998; Cao & Philip, 2006). Therefore, WTC was no longer considered as just a trait-like construct and was proposed to have dual characteristics at both trait (internal) and state (external) levels (MacIntyre et al., 1998). Trait L2WTC reflects a stable and enduring predisposition toward communication, whereas state L2WTC is situated in specific context and depends on it (Peng & Woodrow, 2010).

Therefore, with conceptualizing the pyramid model of WTC, MacIntyre et al. (1998) defined L2WTC as "a readiness to enter into discourse at a particular time with a specific person or persons, using a L2" (MacIntyre et al., 1998, p. 547). This six layer model merges social and individual context, affective cognitive context, motivational propensities, situated antecedents, and communication behavior; with the first three layers representing situation-specific influences on WTC at a given moment in time and the other farther three layers demonstrating stable influences on WTC. L2 use is at the top of the pyramid as the first layer and WTC as the most immediate determinant of L2 use (Cle´ment et al., 2003; MacIntyre et al., 1999) is situated at the second layer followed by desire to communicate with a specific person and state communicative self-confidence (third layer). The fourth layer contains the motivational propensities consisting of interpersonal motivation, intergroup motivation and L2 self-confidence. The two final layers are intergroup attitudes, social situation and communicative competence (fifth layer) and intergroup climate and personality (sixth layer). Regarding this model, the fundamental role of context is very apparent as contextual variables are considered as the immediate factors that drive someone to initiate the communication, however; one cannot deny the influence of individual variables since they are regarded as a base or foundation for the rest of the variables.

Placing desire to communicate with a specific person and state communicative self-confidence as the most immediate predictors of WTC, MacIntyre et al. (1998) state that desire to communicate with specific persons results from a combination of interindividual and intergroup motivations and that this desire is influenced by affiliation. According to Lippa (1994) affiliation often takes place with persons who are physically nearby, persons who are encountered frequently, physically attractive persons, and those who are similar to us in a variety of ways (cited in MacIntyre et al., 1998). Regarding these, single-sex and mixed-sex classrooms can have a variety of effects on one's WTC since one's motivation to communicate can be influenced by being placed in these two contexts or his/her affiliation may grow stronger or get weaker and so their desire to initiate a communication. As students of the same sex have more things in common and are more similar to each other, they may develop a stronger affiliation with each other. Besides, affiliation itself is influenced by the group tension, hence by being in a mixed-sex group, the group tension may just elaborate leading to lack of desire to communicate.

These situational determinants are followed by motivational propensity which is believed to be based on the affective and cognitive contexts of intergroup interaction. Single and mixed-sex classrooms influence the affective aspect of interactions as well. Learning English in these two different contexts may influence students' motivation and state self-confidence which are indirectly affect one's WTC.

While lots of researches have been conducted on the relationship of different individual characteristics such as personality, attitudes, self-confidence, motivation, language anxiety and communicative competence on WTC (Ghonsooly et al., 2012; MacIntyre & Charos, 1996; MacIntyre & Clément, 1996; MacIntyre et al., 2001; McCroskey & Baer, 1985; McCroskey & Daly, 1987; McCroskey and McCroskey, 1986; McCroskey & Richmond, 1987, 1990, 1991; Yashima, 2002), there are few studies on the influence of sex on WTC (Baker & MacIntyre, 2000; MacIntyre et al., 2002). Some studies have examined the effect of different contextual variables such as the amount of exposure to an L2 in classroom learning contexts (Yashima & Zenuk-Nishide, 2008), the ethnolinguistic vitality of the group (Clément, et. al., 2003), the group size, familiarity with interlocutors, interlocutors' participation, familiarity with topics under discussion, medium of communication and cultural background (Cao & Philp, 2006), but the effect of mixed versus single-sex classroom has not been examined yet.

As mentioned before most of the factors contributing to WTC are influenced by the context in which the individual tends to initiate communication. Therefore, investigating the role of each context on WTC seems quite helpful. This study aims at finding the efficient context which drives one to initiate communication rather than inhibit him.

1.2. Single-sex Vs. Mixed-sex Classroom

The question of single-sex or mixed-sex context has been a long discussed issue. In the past few decades, extensive controversial studies have been carried out on the effects of single-sex and mixed-sex classrooms and schools on students' achievements. But the number of studies examining the effect of these contexts on language learning is handful.

Despite the large numbers of studies on this issue, no general agreement has been reached. Some studies favor single-sex context (Barton, 1998; Chambers, 2005; Cheng et al., 1995; Woodward et al., 1999, 2002) while the others advocate mixed-sex one (Marsh, 1989; Price, 1993; West & Hunter, 1993). However, there are a number of studies reporting no difference in achievement of single and mixed context (Miller & Dale, 1974; Rutter et al., 1979).

In an 18 years longitudinal study, Brutsaert and Houtte (2002) demonstrated consistent tendencies for pupils in single-sex classroom to outperform their peers in coeducational classroom. These pupils had greater success in the national School Certificate examinations, higher Burt reading scores and greater school retention.

Sax et al. (2009) collected data from 6,842 women who graduated from 250 all-girls high schools, and 19,327 women graduated from 2,047 coeducational high schools. The study found that women graduates of single-sex schools exhibited higher academic engagement and were more likely to engage in group study than their coeducational counterparts; they were also

reported more time talking with teachers outside of class. They showed higher self-confidence in their academic ability, their speaking, and writing.

As Brutsaert (2001) claims, single-sex school girls show considerably lower levels of stress than their co-educational counterparts. Chambers (2005) reported that male students were less embarrassed in the absence of girls and could talk to each other in the target language “without feeling stupid” (p.50).

One reason can be the absence of opposite sex, in this case there exists a less competitive environment which lowers students' anxiety and consequently raises their self-image and self-confidence. As mentioned before self-confidence correlates with perceived competence, therefore with the increase in self-confidence, students perceive themselves competent enough and they feel motivated to initiate a communication. This is consistent with Monaco & Eugene's claim (1992) that an increase in confidence contributes to academic success and vocational motivation.

In a mixed-sex environment the presence of the other sex creates a kind of peer pressure. Burgess (1990) suggested that achievement, self-esteem and willingness to take an active role are endangered in mixed schools (cited by Robinson & Smithers, 1999).

There are a lot of studies which claimed that females take greater advantage of single-sex classrooms (Carpenter & Hayden, 1987; Finn, 1980; Fisher, 1994; Gass & Varonis, 1986; Kreienbaum, 1995; Lirgg, 1994; Mahony, 1985; Marsh, 1989, 1991; Riordan, 1985, 1990; Rowe, 1988; Sax et al., 2009; Shmurak, 1998; Thompson, 2003) whereas males get more benefit from mixed-sex classes (Gass and Varonis, 1986; Pica et al., 1989; Shehade, 1999) regarding their general educational achievements.

A limited number of studies have investigated the effect of sex on WTC. For example, MacIntyre et al. (2002) reported a small sex difference in a way that girls show an increase in WTC and decrease in anxiety in higher grades in comparison to boys. MacIntyre et al. (1999) likewise noted that male students showed the least positive attitudes toward learning French and female students showed higher endorsement of 3 of the 4 language learning orientations.

Regarding this, it should be taken into account that some gender differences are socio-culturally bound (Shehadeh, 1999). It is the society which defines opposite sex relationship. In other words, in some cultures males and females can communicate freely, but in others, there may exist some special framework for such relationships. Iran is an Islamic country and since Islam dictates that the sexes remain separate from puberty (Haw, 1994; Osier & Hussain, 1995; Shaikh & Kelly, 1989), schools are single-sex from primary school to high school and just universities have mixed-sex classes. English is taught in schools as a subject from junior high school with the emphasis on reading skills and structures. Since speaking and communicating in English is not practiced in public schools, many students take English courses in private institutes which provide them with enough opportunities to interact and speak in English. Thus these institutes have a fundamental role in the education of Iranian English language learners. Unlike public schools, private language institutes are held both in single-sex and mixed-sex form. In Iran, English is learned as a foreign language, so private language institute classrooms are the only places for the language learners to interact in English. Due to the importance of

language learning and the mushrooming of different language institutes, finding the most effective context on WTC seems essential and helpful, especially with regard to the major context of education in Iran.

1.3. Research questions

Given the rare number of research on this topic, the current study attempts to find answers to these questions:

- 1) Do single-sex and mixed-sex contexts influence WTC inside and outside of the classroom?
- 2) What is the effect of gender on WTC?

2. Method

2.1. Participants

The participants of this study were selected randomly from two different English language learning contexts. The data were collected from 300 advanced English language learners (100 females and 100 males learning English in a single-sex context and 100 students – 36 males and 64 females- learning English in a mixed-sex context) in different private language institutes in Mashhad, Iran. Their mean age was 19.9 years and the mean length of exposure to the English language in a classroom setting was 6.3 years. All of the four language skills, specially speaking, are worked on and emphasized in these institutes. They were all at the advanced levels, so competent enough to communicate in English. None of the participants had the experience of living or studying abroad, so this factor which could influence their responses to the items for outside the classroom was controlled.

2.2. Instrumentation

For measuring students' willingness to communicate a modified version of the likert-type questionnaire developed by MacIntyre et al. (2001) was administered. This questionnaire includes two sections for measuring one's WTC both inside the classroom and outside the classroom. Both sections comprise 27 items entailing speaking, reading, writing and listening comprehension. Students rated each item in a range from 1 to 5 (1 = almost never willing, 2 = sometimes willing, 3 = willing half of the time, 4 = usually willing, and 5 = almost always willing) according to their WTC in each situation.

Reliability checks on the questionnaire yielded alphas for speaking (8 items, $\alpha = .82$), comprehension (5 items, $\alpha = .81$), reading (6 items, $\alpha = .83$), and writing (8 items, $\alpha = .86$) for inside the classroom and for outside the classroom: speaking (8 items, $\alpha = .87$), comprehension (5 items, $\alpha = .89$), reading (6 items, $\alpha = .90$) and writing (8 items, $\alpha = .91$).

At the end of the questionnaire, some open ended questions were posed. The students were asked to write their ideas about the influence of their context of study and any other factors that they believe might influence their WTC.

2.3. Procedure

The data were collected from different private English language institutes. These institutes are of two kinds; they are either single-sex (only boys' or only girls' classrooms) or mixed-sex (classrooms with both boys and girls). The questionnaires were issued during the class session with the consent of the teachers. For the reason of avoiding wild guesses, no limited time was allocated for filling out the questionnaires. Because the context of study is an EFL one, and that EFL students have no opportunity to speak outside the classroom, the students were asked to just imagine that if they had such chance, what they would do.

3. Results

A 2×2 ANOVA was conducted to determine if the kind of context and gender affect students' WTC inside the classroom. The main effect for the context, $F(1,296)= 67.073, p \leq .05$, was significant indicating that students enjoy more WTC in a single-sex context ($M= 92.25$) than a mixed-sex context ($M=80$). Considering single-sex context, males' WTC ($M= 98.4$) was higher than females' ($M= 86.10$). But in a mixed-sex context the difference in males' WTC ($M= 79.86$) and females' ($M= 80.36$) was not really significant.

There was also a main effect of the gender, $F(1,296)= 27.432, p \leq .05$. This shows that males have higher amount of WTC ($M=90.64$) than females ($M=84.84$). Finally, there was an interaction between gender and the context, $F(1,296)= 12.369, p \leq .05$. Therefore, it can be inferred that males and females show different amount of WTC in different contexts. These results are shown in Table 1 below.

Table 1
Gender and context effect on inside WTC

Source	df	F	Sig.	Partial Eta Squared	Observed Power ^b
Corrected Model	3	30.801	.000	.238	1.000
Intercept	1	12261.946	.000	.976	1.000
Context	1	67.073	.000	.185	1.000
Gender	1	27.432	.000	.085	.999
context * gender	1	12.369	.001	.040	.939
Error	296				
Total	300				
Corrected Total	299				

a. R Squared = .238
(Adjusted R Squared = .230)

b. Computed using alpha = .05

The same procedure was performed for investigating the effect of context and gender on WTC outside the classroom. As demonstrated by Table 2, the main effect of context, $F(1,296)= 78.197, p \leq .05$, was found to be statistically significant as were the main effect of gender, $F(1,296)= 34.601, p \leq .05$, and the interaction between context and gender, $F(1,296)= 27.461, p$

$\leq .05$. Regarding the means, males are shown to have higher WTC in single-sex contexts ($M=100.91$) than females ($M=84.12$) while females ($M=81.07$) enjoy higher amount of WTC in mixed-sex context outside the classroom in comparison to males ($M=76.75$).

Table 2

Gender and context effect on outside WTC

Source	df	F	Sig.	Partial Eta Squared	Observed Power ^b
Corrected Model	3	40.876	.000	.293	1.000
Intercept	1	9886.913	.000	.971	1.000
context	1	78.197	.000	.209	1.000
gender	1	34.601	.000	.105	1.000
context * gender	1	27.461	.000	.085	.999
Error	296				
Total	300				
Corrected Total	299				

a. R Squared = .293 (Adjusted R Squared = .286)

b. Computed using alpha = .05

Correlation analysis revealed that there is a significant correlation between WTC inside and outside the classroom for all four skills: speaking, reading, writing, and comprehension ($p < .001$) which varies from .69 to .78. As suggested by MacIntyre et al. (2001) this overlap among the WTC scales shows some stability in individual differences in the potential for L2 communication.

4. Discussion

This study was undertaken to determine the effect of single-sex and mixed-sex contexts on students' WTC. The significant difference between single-sex and mixed-sex students' WTC tends to suggest that the kind of context has a strong influence on both inside and outside WTC. Students of the single-sex classes were found to be more willing to communicate (both inside and outside the classroom) than their counterparts in mixed-sex classrooms. As suggested by MacIntyre et al. (2001) individuals are more likely to perform a behavior that is approved by others. Both males and females always like to be approved in both their appearance and their actions. Therefore, while exposed to the opposite sex, they cannot focus directly on the classroom task as there are some other things which they concern about. They like to impress each other and concern about how they appear in the eyes of others especially the opposite sex. In the final section of the questionnaires, some students reported that there were a lot of times which they refrained from speaking and talking out their ideas because of the fear of being laughed at or ignored by the other sex. They claimed that these fears prohibited them from developing and mastering language skills especially speaking. This kind of classroom anxiety and fear can lower the students' self-confidence, so they just underestimate their competence and

prefer not to take the risk of initiating communication. As mentioned before desire to communicate with a specific person and state communicative self-confidence are the most immediate factors influencing one's WTC. It seems that these two factors are endangered in mixed-sex classes. Most of the students stated that in the exposure to the opposite sex they feel a kind of tension because of the differences in worldview and ideas they have with their opposite sex that causes them losing their desire and motivation to speak and communicate.

Besides, males and females are different both physically and mentally. They completely differ in their orientations, attitudes and ways of perceiving the world surrounding them. In a study conducted by Tannen (1990), it was demonstrated that males and females have different communication styles and communication strategies which may result in different strengths and weaknesses in terms of second language learning that might correlate with gender (cited by Shehade, 1999). For example females prefer peer interaction and cooperation in the classroom while males favor teacher-led classrooms and competition rather than cooperation (Chavez, 2000). Hence, single-sex classes may help the students to have an anxiety-free atmosphere which makes them more motivated and self-confident. In the absence of the opposite sex, language learners often report to be more interested in the topic, more confident in their abilities, and less anxious in the foreign language classroom (Barton, 1998, 2002; Chambers, 2005; Mireylees & Thomas, 1998).

Besides males and females have different kinds of learning styles and strategies (Aliakbari & Tazik, 2011; Catalan, 2003; Wehrwein et al., 2006), therefore single-sex classrooms can provide an opportunity to adapt teaching approaches to meet the different learning strategy and style preferences of the students.

As mentioned before society plays an important role in laying down the underlying principles forming males and females relationship. Educating in separated context from the very beginning, Iranian students are not accustomed to working together, especially at the beginning point. This lacking of enough exposure to the opposite sex may lead to gender alienation toward each other and may result in more anxiety and less self-confidence in both sexes when confronting each other in the classroom context. Lack of self-confidence causes students to perceive themselves incompetent and feel anxious which prevent them from speaking and initiating communication.

Although most of the reviewed literature favors females over males in taking greater advantage in single-sex context, the current study shows that in a single-sex context, male students enjoy higher amount of WTC than female students. This contrast can be explained by paying attention to the fact that most of the conducted studies have examined the effect of single-sex and mixed-sex schooling on students' general achievement or subjects rather than language learning. Examining the effect of these contexts on language learning issues can render different results. An Analysis of standardized test scores in British secondary schools, for example, demonstrated that while the students of all-boys schools attained lower levels of achievement in comparison to the students of coeducational schools, their grades in the foreign language classroom are considerably higher than those achieved by students in co-ed schools (Barton, 2002). This is consistent with the findings of Kissau et al. (2009) which indicated that both sexes enjoyed some educational advantages from the single-sex environment in learning Spanish, but the benefits appeared to be greater for the males than the females. Results from the study by Carr

and Pauwels (2006) indicated that boys are freer to be themselves in single-sex foreign language classrooms. Being free of the other sex's presence anxiety, males can focus more as they no longer need to impress their opposite sex. They can start speaking and propounding their ideas and posing questions in the other language freely without the fear of how they may be interpreted and thought of by females.

Regarding mixed-sex context, males' and females' WTC inside the classroom does not differ significantly while females are more willing to communicate outside the classroom in comparison to the males studying English in the mixed-sex context.

Inside the classroom, both males and females are under peer pressure, they both feel anxious toward receiving the negative feedback from the opposite sex, so being equally willing to communicate is not illogical.

Females' choosing their own interlocutor can be one reason justifying their higher amount of WTC outside the classroom. In a classroom context, this decision is made by the supervisor of the institute and students themselves have no control over this. They should work with students who are not familiar to them. But when it comes to practice speaking outside the classroom, they are the ones who choose their special addressees with whom they feel completely at ease. Hence this gives them a sense of control that lowers their anxiety.

The second question addressed the effect of gender on WTC. It was demonstrated that males are more willing to communicate than females. There are a number of studies suggesting that men listen less and talk more than women (Catalan, 2003; Fishman 1980; Holmes 1988, 1994; Thorne & Henley 1975; West & Zimmerman 1983) despite the belief which considers females as more talkative. Likewise, Gass and Varonis (1986) and Pica et al. (1989) reported that men use the conversation in a way that allow them to retain the turn, enjoy a greater amount of talk, and thus produce a greater amount of comprehensible output than women (cited by Shehade, 1999). Instinctively males tend to be dominators in every field and that is why they try to keep the turn and dominate the conversion. In generating such kinds of feelings, society plays a fundamental role. Traditionally, Iran had a kind of male-dominated orientation. Although this view has been changed in the recent years and females' contributions are seen in every major part of the society, the spirit of male domination has not disappeared yet. Indeed, passing of some ideas and biases from one generation to the next is something inevitable. Inheriting this kind of feeling, males may feel more self-confident in their daily interactions. Society defines the kind of relationship. In Iran males feel freer to initiate communication with whoever they like to while for females this action is regarded as something disagreeable. This kind of self-confidence and lack of anxiety make them more willing to communicate than females.

5. Conclusion

Examining the effect of single-sex and mixed-sex context on WTC, we demonstrated that Iranian students studying English as a foreign language in a single-sex context are more willing to communicate than their counterparts studying in a mixed-sex context. Also, it was found that Iranian males enjoy higher amount of willingness to communicate than females. Speaking English is one of the most demanding skills and that is why further research is needed to verify this effect.

There are some limitations in the current study. One which worth considering is that the findings of this study are restricted to private language institutes rather than public schools. Another one is that, due to the learning situation of Iran (public schools are single-sex), these findings cannot be generalized over other EFL learners outside Iran. A major limitation of this study is that since Iranian students study English as EFL learners and they don't usually have the opportunity to communicate in English outside the classroom, the results regarding WTC outside the classroom need to be interpreted with great caution.

These findings offer a significant contribution to the existing body of knowledge in the field especially with regard to the fact that studies of this kind have not been conducted in Iran as an EFL context and in many other countries - to the extent of the present researchers' knowledge. Future research needs to address qualitative aspects of the effect. Due to the importance of WTC in language learning, conducting these kinds of studies seems quite helpful and essential.

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