Males and females in EFL task-based interaction: does gender have an impact on LREs?

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Abstract

This study analyzes the impact of gender on the language learning opportunities available to Spanish EFL learners during task-based interaction. These learners worked in mixed and matched gender dyads on four collaborative tasks and the language learning opportunities were operationalized as language-related episodes (LREs) on the basis of their production, focus, outcome and level of engagement. The findings pointed to a high level of engagement in LREs and no differences between males and females overall. The outcome and the level of engagement in LREs were affected by the gender of the participants’ interlocutors: males and females seemed to have more opportunities to resolve and deal with LREs in mixed gender dyads and males’ engagement seemed to be a little bit more limited than females’. This article supports the benefits of collaborative work for L2 learners and provides new evidence of the impact of gender during EFL task-based interaction.

Keywords: gender, interaction, collaborative tasks, level of engagement, LREs

Resumen

Este estudio analiza el impacto del género en las oportunidades de aprendizaje de las que disponen aprendices españoles de inglés como lengua extranjera durante la interacción generada a raíz de la participación en tareas. Estos aprendices realizaron cuatro tareas colaborativas en parejas de género mixtos e iguales y dichas oportunidades de aprendizaje se operationalizaron como episodios relacionados con el lenguaje (ERLs) en base a su producción, enfoque, resultados y nivel de compromiso. Los resultados mostraron un nivel de compromiso alto en los ERLs y ninguna diferencia entre hombres y mujeres en general. El resultado y nivel de compromiso en los ERLs sí se vieron afectados por el género del interlocutor de los participantes: tanto hombres como mujeres parecían tener más oportunidades de resolver ERLs en parejas mixtas y el nivel de compromiso de los hombres parecía algo más limitado que el de las mujeres.
Este estudio respalda los beneficios del trabajo colaborativo en aprendices de una segunda lengua y proporciona nuevas pruebas sobre el impacto del género durante la interacción basada en tareas en contextos de inglés como lengua extranjera.

**Palabras clave:** género, interacción, tareas colaborativas, nivel de compromiso, ERLs

1. Introduction

Research on gender has shown that males and females differ in the way they use language (Tannen, 1990, 1994). These differences might also be present when students interact during foreign/second language (FL/L2) learning. However, the role that gender might play in FL/L2 interaction has not been studied in depth (Gass and Varonis, 1986). Gender is an important factor to consider when FL/L2 learners learn a language, as it might affect language learning opportunities, such as language related episodes (LREs), that arise during peer interaction. LREs are “[…] any part of the dialogue in which students talk about the language they are producing, question their language use, or other- or self-correct” (Swain, 1998: 70). Research has mainly focused on the impact of different factors and variables on LREs, such as learner proficiency (Williams, 1999), task type (Adams and Ross-Feldman, 2008), or context (Basterrechea and García Mayo, 2013), but only a few studies have focused on the impact of gender on LREs (Azkarai and García Mayo, 2012; Ross-Feldman, 2007).

Recently Storch (2008) examined the impact of the level of engagement learners showed toward linguistic issues in LREs. Level of engagement is a relatively new term and, as well as gender, still needs a lot of consideration in the second language acquisition (SLA) field. This article specifically analyzes the occurrence, nature (focus/meaning), outcome (resolved/not resolved) and level of engagement (elaborate/limited) in LREs when 44 Spanish English as Foreign Language (EFL) learners worked on different collaborative tasks in pairs. The results indicate high engagement in interaction overall and little impact of gender on LREs.

This article first provides information about the language learning opportunities that arise during L2 interaction and the role of gender in L2 interaction. Then it presents the study itself with information about the participants, materials and procedure; followed by results and discussion. Finally, the conclusion presents some limitations of the study that can themselves serve as suggestions for further research.
2. Language learning opportunities in L2 interaction

Research on SLA from different perspectives has shown the benefits of working in pairs. Considering the interactionist perspective (Long, 1996), when L2 learners work in pairs they have many opportunities to (a) receive input and feedback; (b) produce output; and (c) notice the gap between their language and the target language (Schmidt and Frota, 1986) (see also Keck, Iberri-Shea, Tracy-Ventura and Wa-Mbaleka, 2006 and Mackey and Goo, 2007 for recent meta-analyses). According to the sociocultural perspective, interaction provides L2 learners with opportunities to collaborate in upcoming linguistic problems and co-construct meaning (Lantolf, 2000; Swain, 2000). Collaborative work creates knowledge by means of collaborative dialogue, that is, “… dialogue in which speakers are engaged in problem solving and knowledge building” (Swain, 2000: 102) and its benefits have been shown in a variety of studies (García Mayo, 2002a, 2002b; Storch, 2002; Swain and Lapkin, 1998).

Within sociocultural theory, the language learning opportunities that arise during interaction and collaborative work have been widely operationalized as LREs. The occurrence, focus (form or meaning) or outcome (resolved or not) of LREs might vary depending on several factors, such as L2 proficiency (Leeser, 2004; Malmqvist, 2005; Williams, 1999) or tasks (Adams and Ross-Feldman, 2008; Niu, 2009). Recently Storch (2008) analyzed the level of engagement in LREs, understood as the learners’ commitment toward a task. She categorized LREs on the basis of the learners’ engagement as (i) elaborate level of engagement (E), when both learners deliberated over language items seeking and providing confirmation and explanations, and (ii) limited level of engagement (L) when participants just mentioned a linguistic item but did not discuss it. When identifying LREs with a limited engagement, Storch found that there was a need to make another distinction. Some of the LREs that showed limited engagement consisted of only one learner making a suggestion and the other not responding to the partner or just responding with an utterance like ‘mmm, yeah, ok’. These LREs were coded as showing limited engagement by only one participant (L). When both participants just repeated a suggestion and did not discuss it, the LRE was codified as showing limited engagement by both participants (L + L) (examples of these LREs from the current database will be provided below).

In her study, Storch (2008) analyzed the metatalk of 22 English as a Second Language (ESL) learners who worked in pairs on a text reconstruction task during a 2-week period. She examined learners’ attention toward tasks, the nature of learners’ engagement during collaborative work and whether or not the nature of the engagement affected L2 development. Storch found that participants focused more on grammar than on lexis and that the majority of LREs were resolved correctly and
with an elaborate level of engagement. In another study, Storch and Wigglesworth (2010) analyzed the relationship between the level of engagement and feedback provided among ESL learners during a text composition task. Their findings showed that an elaborate level of engagement when feedback was provided led these learners to higher levels of uptake. More recently Wigglesworth and Storch (2012) examined the written texts produced by ESL students before and after receiving two different types of feedback: reformulation and editing (see Wigglesworth and Storch, 2012: 6 for details). They distinguished between LREs consisting of one turn, which showed little engagement, and LREs consisting of more turns, which led to more discussion or engagement. They found that the level of engagement across reformulation and editing was high in both cases, but higher in the editing group. However, Wigglesworth and Storch (2012) could not establish whether a higher engagement led to greater accuracy. They concluded that it was difficult to determine the level of engagement, as in some cases they could not specify whether these students engaged silently on the task or not.

The impact of level of engagement on LREs is a relatively new concept that needs further consideration in the SLA area. The studies briefly reviewed above have shed more light on the impact that the level of engagement might have on L2 development.

The aim of this article is to provide more evidence about the level of engagement in LREs during L2 learning, specifically focusing on the role of gender. Gender might play an important role in the language learning process and it might also affect the level of engagement with which L2 learners manage LREs.

Section 3 will review some of the few studies that have explored the role of gender in L2 interaction.

3. Gender on interaction

Research has shown that males and females differ in their communicative patterns, which originate in the socialization processes during childhood. Children usually interact with same-gender friends and, as a consequence, males and females develop different ways to express themselves (Maltz and Borker, 1982; Tannen, 1994). In this sense, the language differences between males and females are related to social constructions (Ehrlich, 1997) and, considering that males and females differ in their communicative experiences, their use of language might vary too (Ochs, 1993). Tannen (1990) explained the differences between males and females and the way they communicate and, in line with Maltz and Borker (1982), she stated that during
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childhood, individuals play with same-gender friends and the different groups of males and females are structured and organized differently. In a study focusing on males’ and females’ motivation in language learning, Bacon and Finnemann (1992) examined the differences between males and females on the basis of their attitudes and beliefs towards language learning. Their findings pointed to higher levels of motivation and strategy use in language learning by females.

Against this backdrop, the impact of the gender variable on L2 interaction is clearly an under-researched topic. In what follows, studies that have considered the issue are briefly summarized. These studies have reported mixed findings. Gass and Varonis (1985) examined the oral interactions of ESL learners working in mixed gender dyads and small groups on two different tasks and analyzed the indicators these learners produced. Indicators were those instances when a learner let his/her partner know that something was not clear. Their findings showed that overall males used more indicators than females. In a subsequent study, Gass and Varonis (1986) analyzed negotiation routines in the oral interaction of Japanese learners of English in mixed and matched gender dyads. Their main findings pointed to more negotiations occurring in mixed gender dyads than in matched gender dyads. They also found that males had more opportunities to produce comprehensible output and females to obtain comprehensible input.

Pica, Holliday, Lewis and Morgenthaler (1989) analyzed the oral interaction of male and female Japanese learners of English when paired up with female native speakers (NSs) of English. They found no differences in the amount of negotiation between the different dyads; however, there was a trend for female NSs to negotiate more with males than with females. In another study, Pica, Holliday, Lewis, Berducci and Newman (1991) investigated the oral interaction of male and female Japanese learners of English and English NSs in four communicative tasks. Their findings showed that negotiation was affected by the gender of the NS and that female learners might be more sensitive to the influence of gender than males.

Shehadeh (1994) investigated the oral interactions of NSs and non-native speakers (NNSs) working in dyads and small groups in an ESL setting. Participants in the former arrangement worked in male-male and female-female dyads on a picture dictation and an opinion-exchange task; participants in the latter arrangement worked in mixed gender groups on a decision-making task. The findings showed that both males and females received more opportunities to produce comprehensible output when they worked with females. Shehadeh (1999: 260) concluded that in mixed gender dyads/groups men seemed to take more advantage than females in communication, promoting their skills and showing overall development in their L2.
In an EFL setting, Alcón and Codina (1996) explored the role of gender on negotiation and vocabulary learning in an information gap task and a discussion task. Their findings suggested that overall gender did not play a role in vocabulary learning and was not a discriminating factor in negotiation. They found some differences between tasks, such as in the information gap task where females' involvement in negotiation was superior to males', while in the discussion task no differences were found.

The role of gender has also been studied in child interaction. Madu and Kasanga (2005) analyzed the performance of ESL pupils of different grades (8 to 11) in English in four different South African schools. They considered the questionnaires that these students completed, which contained information about their sex, L1, school grade and English proficiency. Their findings showed no differences between males and females. In another study with ESL young learners (8 to 13 years old), Oliver (2002) analyzed the negotiation of meaning of NS and NNS children in an Australian school setting. These children worked in matched gender dyads (male-male, female-female) in two communicative tasks. Oliver did not find any gender difference in the negotiation of meaning routines of the two dyad types.

More recently, Ross-Feldman (2005, 2007) analyzed the relationship between gender and conversational interaction. She emphasized the importance of analyzing the influence of gender on the use of interactional features such as LREs (Ross-Feldman, 2007: 57). Ross-Feldman examined 32 male and 32 female ESL learners in the USA when they worked in mixed and matched (female-female [FF], male-male [MM]) gender dyads on a picture differences, picture placement and picture story task. Ross-Feldman (2005, 2007) examined the occurrence, nature and resolution of LREs that arose during these interactions with the goal of casting light on ultimate learning possibilities for males and females engaging in task-based interaction. Regarding the occurrence of LREs, Ross-Feldman found that females initiated more LREs in mixed gender dyads, but, overall, there were no differences in the LREs initiated by males or females. She also found that the nature of LREs was not affected by gender either. Regarding the resolution of LREs, the majority was correctly resolved and no differences were found when comparing dyad types. However, LREs initiated by males were resolved more often than female-initiated LREs. Ross-Feldman (2007) also found that LREs generated by males were more likely to be resolved in mixed gender dyads and, in the case of females, in matched gender dyads. Similar to previous research findings (Gass and Varonis, 1986), her results suggest that topics raised by males were resolved more often than those initiated by females and that both males and females had more language learning opportunities when they worked with females (Shehadeh, 1994). However, these findings might be due to the origin of the participants. The majority came from Latin America (most of them from El Salvador), an area with diverse economic, political, social and cultural characteristics (Chant and Craske, 2003: 2).
Gender differences rooted in society may offer unbalanced opportunities for males and females to interact. Norton and Pavlenko (2004: 4) stated that in some ESL contexts immigrant and minority women’s flexibility and access to ESL classes, education or workplaces might be inhibited (Corson, 2001; Goldstein, 1995, 2001; Heller, 2001; Kouritzin, 2000; Norton, 2000) and immigrant or minority group females might have fewer opportunities to interact than immigrant or minority group males or majority group males and females. (Corson, 2001; Losey, 1995). Góchez (2006) reported that, although Salvadorian women are integrating gradually into the developmental process of the country, there are still disparities between males and females in everyday life. As an example, males have double per capita income than females and in the urban areas there are 17.7% more poor females than males. Moreover, females’ salaries are 24.2% lower than the salaries of males. Thus, one might speculate that the origin of the participants that took part in Ross-Feldman’s study could have biased her results. The author herself points out that there are gender variations within Latin American countries (Ross-Feldman, 2007: 59).

More recently Azkarai and García Mayo (2012) investigated whether there were differences in the occurrence and outcome of LREs when participants worked in mixed and matched gender dyads (FF and MM dyads) during task-based interaction. Twelve (12) EFL Spanish learners participated in this pilot study and they worked in mixed and matched gender dyads on a dictogloss (Wajnryb, 1990), a picture story, a picture placement and a picture differences task. The last three tasks were the same as in Ross-Feldman (2007). The study analyzed the occurrence and outcome of LREs in each dyad type, namely mixed gender dyads, FF dyads and MM dyads, and across-task differences. The authors reported that the majority of LREs were resolved correctly and the differences they observed were task-related rather than type of dyad/gender-related.

Although some studies have focused on the role of gender in L2 interaction, not all of them have analyzed males’ and females’ behaviour working in mixed or matched gender dyad as Ross-Feldman (2005, 2007) and Azkarai and García Mayo (2012) did. These two studies help providing a more valid vision of the impact of gender on interaction, specifically on the occurrence of LREs. However, these two studies have been carried out in different instructional settings and reported different findings. In addition, although Azkarai and García Mayo’s (2012) work has been carried out in an EFL context, like the present study, the small sample size was a shortcoming to reach a robust conclusion about the impact of gender in EFL settings. This article aims at filling these gaps and provides new evidence about the role of gender in L2 interaction by analyzing the LREs generated in dyadic task-based interaction.
4. The Study

This study analyzes the oral interaction of Spanish EFL learners on the basis of their gender and the language learning opportunities (operationalized as LREs) available to them during task-based interaction. Specifically, the present article analyzes whether the occurrence, nature, outcome and level of engagement in LREs varies between males and females and, if so, whether these differences also depend on the gender of the interlocutor.

As mentioned above, the studies that have analyzed the relationship between gender and LREs have reported mixed findings. Besides, they have been mainly carried out in ESL settings, a context which differs considerably from EFL settings (García Mayo and García Lecumberri, 2003; Muñoz, 2006). In addition, the term level of engagement (Storch, 2008) is relatively new and needs further research. Thus, taken these considerations into account and on the basis of the research summarized above, the present study entertains the following research questions:

- Do males and females differ in the occurrence, nature, and outcome of LREs and in the level of engagement in those LREs?
- If so, do these differences also depend on the gender of their interlocutor?

Considering the setting of the present study (EFL) and the origin of the participants (Spain), the present study expects results similar to those reported in Azkarai and García Mayo (2012); that is, no differences in the occurrence, nature and outcome of LREs between males and females or differences due to the gender of their interlocutor. Regarding level of engagement in LREs, no studies have analyzed the relationship between the two variables so far and, therefore it is difficult to advance hypotheses. Bacon and Finneman (1992) found that females were more motivated than males in language learning. It could be the case that their findings might be due to the fact that females’ commitment toward language learning is higher than males’. In this sense it can be hypothesized that females’ level of engagement might also be more elaborate than males’ and L2 learners working in pairs with females might also increase their commitment toward a task and, therefore, show more elaborate engagement.

4.1 Participants

The participants were 22 female (mean age: 23) and 22 male (mean age: 25) Spanish EFL learners and all of them volunteered to participate in the study. They were enrolled in different degree courses at a major Spanish university. Participants
completed a questionnaire with some biographical and sociolinguistic data (age, first exposure to English (mean age: 11) or years they had been studying English (mean age: 11)) before beginning with the experiment. This questionnaire was necessary as the present study was part of a larger one and it contained relevant information that was considered in order to analyze other variables. Participants self-evaluated their English proficiency level in the questionnaire but, in order to have a more valid assessment, they were asked to complete a Quick Oxford Placement Test (Syndicate U.C.L.E., 2001). The scores they obtained in this test indicated that 6 participants had an elementary level of English, 26 a lower-intermediate level and 12 an upper-intermediate level. Some of the participants knew each other as they were friends and came together to participate in the study. However their scores in the placement test were the only criterion considered for the set-up of the dyads.

4.2 Procedure and materials

Each participant worked first in matched (MM and FF dyads) and then in mixed gender dyads in a laboratory setting at a major Spanish university. A total of 44 dyads were considered for data analysis (11 MM, 11 FF and 22 mixed gender dyads). All the conversational interactions of the participants in each dyad type were audio recorded (around 17 hours) while they completed four collaborative tasks: a dictogloss (Wajnryb 1990), a text editing, a picture placement and a picture differences task in both dyad types. In order to avoid task repetition effects, different versions of each task were presented in matched and mixed gender dyads.

The tasks employed in this study are common tasks that appear in standard ESL/EFL textbooks and that all participants were familiar with (see Appendix). They have been widely used in SLA research because they provide L2 learners with many language learning opportunities (García Mayo, 2007; Pica, Kanagy and Falodun, 1993). Dictogloss (Wajnryb, 1990) favors collaborative work, draws learners’ attention to form and encourages them to reflect on their output (Kowal and Swain, 1994). In this task both participants have to work together to reconstruct a final written original text that they have previously heard. By doing so they refine their understanding of the language they are using (García Mayo, 2002a, 2002b) and notice their grammatical strengths and weaknesses, which they try to overcome while they attempt to co-construct the text (Nassaji, 2000: 247). Similar to the dictogloss, the text editing also favors collaborative work and draws learners’ attention to meaning and form (Storch, 2007). During task completion learners receive feedback on their production (García Mayo, 2002a, 2002b). Participants had to reconstruct a final written text that had been previously manipulated by the
researcher: some subjects had been omitted and subject-verb agreement, vocabulary items or prepositions were changed. The picture placement and picture differences tasks have also been widely employed SLA research (Mackey and Oliver, 2002; Ross-Feldman, 2007). These tasks are information-gap tasks (Pica et al., 1993; Pica, Kang and Sauro, 2006) in which students need to exchange the information they hold about the items that appear in their pictures in order to complete the tasks. In this case no written output was expected and the main focus of the tasks was on meaning rather than form.

Although the participants were familiar with all the tasks, the researcher explained the instructions for each of them in Spanish. These instructions were also available in writing for the participants’ convenience.

4.3 Data codification and analysis

Once the participants completed the tasks in mixed and matched gender dyads all their conversational interactions were transcribed verbatim and LREs were identified and classified on the basis of their nature, outcome and level of engagement. Each LRE started when either a male or a female raised a question about language. LREs were first analyzed considering the proportions of the total number of LREs that occurred in each dyad to the total amount of talk in each dyad. All the data were submitted to the corresponding data analysis (bilateral two sample binomial test for independent samples ($\alpha = 0.05$)). An independent rater coded 12 oral interactions, which were about 28% of the whole data. Inter-rater reliability was above 95%.

The nature of LREs was categorized following Ross-Feldman (2005, 2007), as this study is based on hers. Meaning-focused LREs were identified when learners discussed the meaning or use of a word, and form-focused LREs, when learners discussed issues related to morphology, syntax, spelling or phonology. The outcome of LREs was also categorized on the basis of Ross-Feldman (2005, 2007). Resolved LREs occurred when the partner who raised an issue about language received a solution about it, and not resolved LREs, when no solution was provided. Resolved LREs were subcategorized in target-like resolved LREs, when the provided solution was correct, and not target-like LREs, when the solution was not correct. This study also subcategorized not resolved LREs, as differences were found within this same category of LREs. When the partner did not provide any solution because he/she did not know the answer, the LRE was coded as dealt with; when the linguistic issue was simply ignored, LREs were coded as not resolved ignored LREs. The studies
that have examined the impact of gender on LREs (Azkarai and García Mayo, 2012; Ross-Feldman, 2005, 2007) did not distinguish between dealt with and ignored LREs and these LREs were simply codified as not resolved LREs. This study offers a new categorization of not resolved LREs, thus providing more evidence about the way participants treat LREs.

The level of engagement in LREs was coded on the basis of Storch’s (2008) categorization: (a) LREs showing an elaborate engagement (E LREs), when the two participants of the dyad showed commitment with the LRE providing confirmations and explanations over linguistic issues; (b) LREs showing limited engagement by one participant (L LREs), when just one member of the dyad showed commitment with the linguistic issue and the other did not provide any confirmation or responded with no interest; and (c) LREs showing limited engagement by both members of the dyad (L+L LREs), when the two members of the dyad just stated a linguistic issue and did not deliberate about it. Consider examples 1 to 4 below from the current database as they provide details on how LREs were codified:

**Example 1.** Meaning-focused; target-like resolved; E LRE

1 Rebeca: *...there is a… Oh! How do you say? Where you cook the beans and those things.*
2 Susana: *Yes. I don't know.*
3 Rebeca: *Bueno [Well], the utensil you use as a caldron.*
4 Susana: *Caldron?*
5 Rebeca: *Caldron. The caldron is what-what the witches use to do potions.*
6 Susana: *Ok. Is-is similar.*

During the picture placement task, Rebeca is looking for the word ‘cooking pot’ in English (turn 1) and asks Susana about it, but she does not know either (turn 2). As an alternative to ‘cooking pot’, Rebeca uses the word ‘caldron’ (turn 3) but Susana does not know its meaning (turn 4). Rebeca explains to Susana the meaning of the word (turn 5) and Susana agrees that it is very similar to a cooking pot, the item of their pictures (turn 6). This excerpt shows two different meaning-focused and E LREs. The first one refers to the word ‘cooking pot’ (turns 1 to 2), which was not resolved but dealt with, because they tried to find out the word as is shown in the following LRE (turns 3 to 6). As explained, this LRE also shows elaborate engagement and is resolved correctly because Rebeca explains the meaning of caldron to Susana in detail:
Example 2. Form-focused; not target-like resolved; E LRE

1 Gabriel: Share a house with other students...
2 Nora: ...during their studies.
3 Gabriel: There is, with eh...
4 Nora: With Y?
5 Gabriel: Yes. No?
6 Nora: I think that it’s with...
7 Gabriel: Students. Bueno [Well]... Yes?
8 Nora: I don’t know. [...] 

During the text editing task, Gabriel is not sure about the correct spelling of the word ‘studies’ (turn 3). He thinks it is written with a ‘Y’ instead of an ‘I’. Nora helps telling him that she thinks that the correct spelling of the word is with ‘Y’ (turn 4), but both are mistaken (turns 5 and 6). This LRE was resolved but in a not target-like way, as they wrote ‘studyes’ instead of ‘studies’ and focused on form, specifically on spelling. However, although it was not target-like resolved, both partners seemed engaged trying to figure out the correct spelling. For this reason it was coded as an E LRE.

Example 3. Meaning-focused; dealt with not resolved; L LRE

1 Laura: So... Maybe it’s whatever... So you can find it in San Francisco. The city is house of over... House?
2 Antonio: No tengo ni idea. [I have no idea].
3 Laura: Because that means that over four hundred five... Four thousand five hundred are in...
4 Antonio: Aha.
5 Laura: ...in San Francisco. I think. [...] 

Laura and Antonio are working on the text editing task. In this meaning-focused LRE Laura struggles with the correct meaning of the sentence and provides many options (turn 1), but Antonio does not deliberate and just says ‘he has no idea’ (turn 2). Laura provides more options in turn 3 but Antonio again answers with a simple ‘Aha’ (turn 4). This could mean that he agrees with Laura or that he does not want to contribute helping her with her doubt. Laura is engaged with the doubt while Antonio does not seem to be enthusiastic with the task or the LRE in this case, which was coded as a not resolved dealt with and L LRE, but only because Laura was engaged with the resolution of the LRE.
Example 4. Form-focused; ignored not resolved; L+L LRE

1 Sergio: \ldots eats\ldots
2 Iria: \ldots times year? Ay\ldots
3 Sergio: On average San Francisco eat\ldots
4 Iria: San Franciscans. People from San Francisco.
5 Sergio: Ah, yes.

Participants in this example were working on the text editing task. Iria feels that something is missing in the sentence ‘\ldots times year?’ and asks Sergio (turn 2), but he does not pay attention because it seems he is concentrated on another linguistic issue (turn 3). Iria seems to forget about her doubt and goes on to help Sergio (turn 4). She does not try to deliberate about her doubt in turn 2, for this reason this LRE was codified as not resolved and ignored and L+L. It was also coded as a form-focused LRE focused toward syntax as the syntactic structure of the phrase ‘times year’ needs to add the indefinite article in between.

5. Results and discussion

This section presents the findings and the discussion of the results on the basis of the research questions and the hypotheses posited above. The first research question focused on the possible differences between males and females regarding the occurrence, nature, outcome and level of engagement in LREs. The hypotheses stated above predicted no differences between LREs initiated by males and females and no differences in the nature and outcome of LREs, but a higher level of engagement in LREs initiated by females than males was expected. The findings partially supported the hypotheses as no differences were found in any of the four analyses of LREs between males and females, including level of engagement in LREs. Consider Table 1 for details:

<table>
<thead>
<tr>
<th></th>
<th>Females</th>
<th>Males</th>
<th>Statistical value</th>
</tr>
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<tbody>
<tr>
<td><strong>Total turns</strong></td>
<td>5809</td>
<td>6761</td>
<td></td>
</tr>
<tr>
<td><strong>Occurrence of LREs</strong></td>
<td>400 (48.54%)</td>
<td>424 (51.46%)</td>
<td>( z = 1.18, p = 0.24 )</td>
</tr>
<tr>
<td><strong>Nature of LREs</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Meaning-focused</td>
<td>212 (53%)</td>
<td>237 (55.90%)</td>
<td>( z = 0.83, p = 0.40 )</td>
</tr>
<tr>
<td>Form-focused</td>
<td>188 (47%)</td>
<td>187 (44.10%)</td>
<td></td>
</tr>
</tbody>
</table>
The analysis of the occurrence and nature of LREs suggests that language learning opportunities (operationalized as LREs) are similar for males and females and that these learners seem to focus similarly on formal and meaningful aspects of the target language. These findings are in line with Ross-Feldman (2005, 2007) as she did not find differences between males and females on the occurrence and nature of LREs and also support Azkarai and García Mayo (2012) since in their study gender did not affect the overall occurrence of LREs.

The analysis of the outcome of LREs also showed that, in line with Azkarai and García Mayo (2012) and Ross-Feldman (2005, 2007), the majority of LREs was resolved in a target-like manner. As expected, no differences were found between males and females, which suggests that the opportunities to discuss the linguistic issues that arose during interaction, to resolve them and to deal with them were similar regardless of the gender of the participants. However these findings do not support Ross-Feldman (2005, 2007), as in her study those LREs initiated by males were resolved significantly more than those initiated by females. The difference in the analysis of the outcome of LREs between Ross-Feldman (2005, 2007) and this study might be due to the instructional setting and the origin of the participants. Unlike Ross-Feldman’s work, this study was carried out in an EFL setting, where the learners do not have as many opportunities to use English as their ESL counterparts. Participants in this study might have seen interaction as an opportunity to develop their English skills and they tried to take the most of it. The origin of the participants in this study and Ross-Feldman

---

**Table 1**: Descriptive and statistical analyses of LREs initiated by females and males

<table>
<thead>
<tr>
<th></th>
<th>Females</th>
<th>Males</th>
<th>Statistical value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outcome of LREs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resolved</td>
<td>285 (71.25%)</td>
<td>302 (71.23%)</td>
<td>(z = 0, p = 0.99)</td>
</tr>
<tr>
<td>Not resolved</td>
<td>115 (28.75%)</td>
<td>122 (28.77%)</td>
<td></td>
</tr>
<tr>
<td>Target-like resolved</td>
<td>194 (68.07%)</td>
<td>197 (65.23%)</td>
<td>(z = 0.72, p = 0.47)</td>
</tr>
<tr>
<td>Not target-like resolved</td>
<td>91 (31.93%)</td>
<td>105 (34.77%)</td>
<td></td>
</tr>
<tr>
<td>Dealt with not resolved</td>
<td>82 (71.30%)</td>
<td>95 (77.87%)</td>
<td></td>
</tr>
<tr>
<td>Ignored not resolved</td>
<td>33 (28.70%)</td>
<td>27 (22.13%)</td>
<td>(z = 1.16, p = 0.24)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Level of engagement in LREs</strong></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>262 (65.5%)</td>
<td>276 (65.09%)</td>
<td>(z = 0.12, p = 0.90)</td>
</tr>
<tr>
<td>L</td>
<td>65 (16.25%)</td>
<td>58 (13.68%)</td>
<td>(z = 1.03, p = 0.30)</td>
</tr>
<tr>
<td>L+L</td>
<td>73 (18.25%)</td>
<td>90 (21.23%)</td>
<td>(z = 1.07, p = 0.28)</td>
</tr>
</tbody>
</table>
Males and females in EFL task-based interaction: does gender have an impact on LREs

(2005, 2007) is another point to consider. Socialization patterns between men and women in Europe differ considerably from those in Central and South America and this factor might have had a direct impact on the findings reported here.

Considering the level of engagement in LREs, in line with previous studies (Storch, 2008; Wigglesworth and Storch, 2012), these participants showed an elaborate level of engagement in LREs. In addition, no differences were found in the level of engagement in LREs between males and females. This does not support the hypothesis stated above in which females were expected to show a more elaborate level of engagement in LREs. These findings suggest that males’ and females’ commitment toward the linguistic problems that arose during interactive work in their L2 was elaborate and supports the benefits of collaborative work and interaction. These learners received many opportunities to raise concerns about language, to discuss them and to receive feedback from their peers.

The second research question focused on the possible differences in LREs initiated by males and females depending on the gender of their interlocutor. No differences were found in the occurrence and nature of LREs when females worked in mixed or matched gender dyads; however the analysis of the outcome of LREs showed that females produced significantly more resolved LREs when they were paired up with males \( (p = 0.04) \) and the analysis of the level of engagement in LREs also showed differences as the amount of L LREs was significantly higher when females worked in mixed gender dyads \( (p = 0.03) \). Table 2 details these findings:

Table 2: Descriptive and statistical analyses LREs initiated by females in mixed and matched gender dyads

<table>
<thead>
<tr>
<th></th>
<th>Mixed</th>
<th>Matched</th>
<th>Statistical value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total turns</strong></td>
<td>3153</td>
<td>2656</td>
<td></td>
</tr>
<tr>
<td><strong>Occurrence of LREs</strong></td>
<td>203 (50.75%)</td>
<td>197 (49.25%)</td>
<td>( z = 0.42, p = 0.67 )</td>
</tr>
<tr>
<td><strong>Nature of LREs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meaning</td>
<td>116 (57.14%)</td>
<td>96 (48.73%)</td>
<td>( z = 1.68, p = 0.09 )</td>
</tr>
<tr>
<td>Form</td>
<td>87 (42.86%)</td>
<td>101 (51.27%)</td>
<td></td>
</tr>
<tr>
<td><strong>Outcome of LREs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resolved</td>
<td>154 (75.86%)</td>
<td>131 (66.50%)</td>
<td>( z = 2.07, p = 0.04 )</td>
</tr>
<tr>
<td>Not resolved</td>
<td>49 (24.14%)</td>
<td>66 (33.50%)</td>
<td></td>
</tr>
<tr>
<td>Target-like R.</td>
<td>101 (65.58%)</td>
<td>93 (70.99%)</td>
<td>( z = 0.98, p = 0.33 )</td>
</tr>
<tr>
<td>Not target-like R.</td>
<td>53 (34.42%)</td>
<td>38 (29.01%)</td>
<td></td>
</tr>
</tbody>
</table>
Table 2: Descriptive and statistical analyses LREs initiated by females in mixed and matched gender dyads

<table>
<thead>
<tr>
<th></th>
<th>Mixed</th>
<th>Matched</th>
<th>Statistical value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dealt with NR.</td>
<td>39 (79.59%)</td>
<td>43 (65.15%)</td>
<td>$z = 1.69, p = 0.09$</td>
</tr>
<tr>
<td>Ignored NR.</td>
<td>10 (20.41%)</td>
<td>23 (34.85%)</td>
<td></td>
</tr>
</tbody>
</table>

**Level of engagement in LREs**

<table>
<thead>
<tr>
<th></th>
<th>Mixed</th>
<th>Matched</th>
<th>Statistical value</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>132 (65.02%)</td>
<td>130 (65.99%)</td>
<td>$z = 0.20, p = 0.84$</td>
</tr>
<tr>
<td>L</td>
<td>41 (20.20%)</td>
<td>24 (12.18%)</td>
<td>$z = 2.17, p = 0.03$</td>
</tr>
<tr>
<td>L+L</td>
<td>30 (14.78%)</td>
<td>43 (21.83%)</td>
<td>$z = 1.82, p = 0.07$</td>
</tr>
</tbody>
</table>

In the case of males, significant differences were only found in the number of ignored and dealt with LREs produced. They ignored significantly more LREs when they worked in matched gender dyads ($p = 0.02$). Table 3 features these findings:

Table 3: Descriptive and statistical analyses of LREs initiated by males in mixed and matched gender dyads

<table>
<thead>
<tr>
<th></th>
<th>Mixed</th>
<th>Matched</th>
<th>Statistical value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total turns</strong></td>
<td>3151</td>
<td>3610</td>
<td></td>
</tr>
<tr>
<td><strong>Occurrence of LREs</strong></td>
<td>200 (47.17%)</td>
<td>224 (52.83%)</td>
<td>$z = 1.65, p = 0.09$</td>
</tr>
<tr>
<td><strong>Nature of LREs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meaning</td>
<td>120 (60%)</td>
<td>117 (52.23%)</td>
<td>$z = 1.61, p = 0.11$</td>
</tr>
<tr>
<td>Form</td>
<td>80 (40%)</td>
<td>107 (47.77%)</td>
<td></td>
</tr>
<tr>
<td><strong>Outcome of LREs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resolved</td>
<td>135 (67.5%)</td>
<td>167 (74.55%)</td>
<td>$z = 1.60, p = 0.11$</td>
</tr>
<tr>
<td>Not resolved</td>
<td>65 (32.5%)</td>
<td>57 (25.45%)</td>
<td></td>
</tr>
<tr>
<td>Target-like R.</td>
<td>81 (60%)</td>
<td>116 (69.46%)</td>
<td>$z = 1.72, p = 0.09$</td>
</tr>
<tr>
<td>Not target-like R.</td>
<td>54 (40%)</td>
<td>51 (30.54%)</td>
<td></td>
</tr>
<tr>
<td>Dealt with NR.</td>
<td>56 (86.15%)</td>
<td>39 (68.42%)</td>
<td></td>
</tr>
<tr>
<td>Ignored NR.</td>
<td>9 (13.85%)</td>
<td>18 (31.58%)</td>
<td></td>
</tr>
<tr>
<td><strong>Level of engagement of LREs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>129 (64.5%)</td>
<td>147 (65.62%)</td>
<td>$z = 0.24, p = 0.81$</td>
</tr>
<tr>
<td>L</td>
<td>25 (12.5%)</td>
<td>33 (14.73%)</td>
<td>$z = 0.67, p = 0.50$</td>
</tr>
<tr>
<td>L+L</td>
<td>46 (23%)</td>
<td>44 (19.64%)</td>
<td>$z = 0.84, p = 0.40$</td>
</tr>
</tbody>
</table>
Males and females in EFL task-based interaction:
does gender have an impact on LREs

The hypotheses posited above, which were partially supported, predicted no
differences in the occurrence, nature and outcome of LREs either, but differences were
expected in the level of engagement in LREs: participants in this study would show
higher level of engagement when working with females. In the case of the occurrence
and nature of LREs, as expected, no differences were found on the basis of the gender
of the interlocutor either. These findings again support Ross-Feldman’s study on
gender and LREs, as the nature of LREs was not affected by dyad type in her study.
The EFL learners in this study discussed freely formal and meaningful issues about
language during interaction regardless of the gender of their interlocutor. However,
the analyses of the outcome and level of engagement in LREs showed differences on
the basis of the gender of the interlocutor. Females resolved significantly more LREs
when they were paired up with males and males ignored significantly more LREs when
they were paired up with males. These findings contrast with Ross-Feldman (2005,
2007) as in her study males and females received more opportunities to resolve LREs
in a target-like manner if they worked with females and also counter Azkarai and
García Mayo (2012) as in their findings the outcome of LREs was not affected by type
of dyad/gender but rather by task.

The participants in this study raised issues about language similarly in mixed and
matched gender dyads, but the opportunities to resolve and deal with them increased
if they were paired up in mixed gender dyads. Females might have received more
opportunities to resolve their linguistic concerns because males seemed to be more
decisive than females during interactive work. Females expressed their doubts more
frequently when a LRE was raised and did not provide emphatic answers as in the case
of males. Consider example 5:

**Example 5.** Male resolving a LRE raised by a female:

1 Candela: [... ] Louise Woodward was the eighteen year nanny convicted in
nineteen no sé qué [whatever] by a court in the United States of
America for murder. No. Convicted for murder? No sé [I don’t
know]. For murder the infant? Of murder...

2 Carlos: *For the murder.*
3 Candela: For the murder?
4 Carlos: Sí. Y quitando ‘of’. [Yes. And eliminating ‘of’].
5 Candela: Of America.
6 Carlos: *Puede ser ‘United States of America’ o sin más ‘United States’. [It
can be ‘United States of America’ or simply ‘United States’].*
7 Candela: United States... *Vale.* [Ok].
8 Carlos: *Sí. Pon lo que quieras.* [Yes. Write whatever you want].
This example shows how Candela and Carlos work together in the text editing task. Candela has some doubts with the construction of the sentence ‘convicted for murder’ (turn 1). Carlos firmly states that the correct form should be ‘for the murder’ (turn 2). Candela repeats what Carlos says and Carlos continues explaining that ‘of’ should be eliminated from the construction ‘United States of America’ (turns 4 and 6). Candela assimilates all this information and finally agrees with Carlos (turn 7). In the end Carlos tells her to ‘write whatever she wants’. Candela looks dubious all the time, but Carlos is firm in his answers.

In the case of males, they also ignored more LREs if they worked in matched gender dyads and, like females, they seemed to benefit more from mixed gender interaction. This suggests that when males raised issues about language, females’ commitment in helping them could have been higher than males’, as example 2 above shows.

The analysis of the level of engagement in LREs produced by females and males in mixed and matched gender dyads showed that, overall, their engagement was high regardless of the gender of the interlocutor. Differences were only found in the amount of L LREs produced by females. These LREs were more frequent when they were paired up with males and this finding suggests that males’ engagement decreased in some occasions when females raised a LRE. Considering the results obtained in the analysis of ignored LREs produced by males, it seems that males’ engagement might be more limited than females’ and that males’ opportunities to deal with LREs could have been higher than females’ due to females elaborate LE. As shown in example 5 above, although Carlos solves Candela’s LRE, in the end he tells her to ‘write whatever she wants’. He probably provided answers because she kept insisting (turn 3).

Overall, these findings support the benefits of interaction and collaborative work and provide new evidence about the role that gender plays during collaborative work in EFL settings. Gender had little impact on the language learning opportunities (LREs) that arose during interaction. These learners received many opportunities to raise issues about language and they focused similarly on meaning and form regardless of their gender or the gender of their interlocutors. However, as suggested by the analyses on the outcome of LREs, males and females might benefit more from mixed gender dyads as their opportunities to resolve or deal with linguistic issues increased in this dyad type. Moreover, although all participants showed an elaborate level of engagement in LREs, it seems that males’ engagement might decrease during interaction. It is important to take this under consideration in order to develop strategies that might engage FL/L2 learners, especially males, in collaborative work.
6. Conclusions, implications and limitations

This study has analyzed the impact of gender on the occurrence, nature and outcome of LREs and the level of engagement with which they were addressed by Spanish EFL learners while working in mixed and matched gender dyads during L2 task-based interaction. Research so far has barely considered the impact of gender on LREs (Ross-Feldman, 2005, 2007). In addition, the concept ‘level of engagement’ in collaborative work and interaction has been recently introduced (Storch, 2008), and has not been considered regarding the impact learner gender might have on it. The present study sheds more light on the impact of gender on language learning opportunities (operationalized as LREs) during L2 interaction. The findings showed a high level of engagement by the learners and a minor effect of gender in when addressing LREs. The few differences reported suggest that these participants had more opportunities to resolve and deal with LREs when they were paired up in mixed gender dyads and that males’ engagement decreased at some point when females raised a LRE.

EFL teachers might consider these findings when pairing up their students, as the opportunities to resolve and deal with LREs might be higher when students work in mixed gender dyads. Teachers could also take into account that in mixed gender dyads males’ engagement might decrease at some point when females raise issues about language. More research needs to be done on the topic in order to see whether males repeat the same pattern and under which conditions. If further research obtains similar results, strategies need to be developed in order to find out the reasons for that limited engagement.

The findings reported on in this article support the benefits of collaborative work and interaction as males and females were really engaged in solving language-related problems. However, the study has limitations that need to be acknowledged and that could themselves serve as lines for further research. For example, future studies could explore the impact of gender on LREs with a larger sample of participants and in different instructional and sociological settings to establish more robust conclusions about the impact of gender on LREs. This study was an experimental study carried out in a laboratory setting and future studies should consider carrying out similar studies in classroom settings, especially in foreign/second language settings (Sunderland, 1998) in order to report findings from a more ecologically valid scenario of the impact of gender on interaction. Finally, this study did not use a counter-balanced research design as all the participants worked first in matched and then in mixed gender dyads. One could speculate that there could have been a task-repetition effect in LREs, although different versions of the tasks were prepared for each dyad type. Further studies should consider a counter-balanced design.
Individual variables such as gender or learners’ commitment during interactive work might negatively or positively affect the language learning opportunities that are available to learners during collaborative work and interaction. It is important to analyze which variables these are and in which conditions they play a role during interaction. By investigating them researchers and foreign/second language teachers will be able to develop strategies to take the most out of interaction.

Acknowledgements

This research was supported by a pre-doctoral grant from the Basque Government (Reference: BFI08.281). I would like to thank Professor María del Pilar García Mayo for her invaluable comments, and to the participants of the study, without whom the research would have been impossible. I would also like to thank the anonymous reviewer and the editor for their suggestions and advice.

7. References


Males and females in EFL task-based interaction: does gender have an impact on LREs


Norton, B., and A. Pavlenko. 2004. “Gender and English Language Learners: Challenges and Possibilities”. In B. Norton, and A. Pavlenko (eds) 2004 Gender and English Language Learners (pp. 1–12). Alexandria, VA: TESOL.


Males and females in EFL task-based interaction: does gender have an impact on LREs


Appendix

Some examples of the tasks employed in this study:

**Dictogloss (lower-intermediate level version):**

I was very optimistic when I went to meet Claire. My first impression was that she was very friendly and very extrovert. Physically she was my type: she was quite slim and not very tall with long dark hair, very pretty! And she was very funny too! She had a great sense of humor, we laughed a lot. But the only problem was that Claire was very talkative.

**Text Editing (upper-intermediate level version):**

Original Text:

Louise Woodward was the 18-year old nanny convicted in 1998 by a court in the United States of murdering the infant Matthew Eappen. Recently she spoke about her experience of a televised court case at the Edinburg Television Festival.

Louise criticized the televising of trials. ‘It should never be the case of looking into a defendant’s eyes and making a decision on their guilt or innocence,’ she told the Edinburg Television Festival. ‘It should be the law decides on a person’s guilt, but television, with its human and emotional interest, takes the attention away from this.’

Although she thought it was an inevitable development, she added: ‘Television turns everything into entertainment. We should remember that in the end courtrooms are serious places. It is people’s lives and future lives that you are dealing with. It is not a soap opera and people should not see it like that. Serious issues should not be trivialized.’

Modified Text:

Louise Woodward was the 18-year nanny convicted in 1998 by a court in the United States of murdering the infant Matthew Eappen. Recently she spoke about her experience of a televised court case at the Edinburg Television Festival.

Louise criticized the televising of trials. ‘It should never be the case of looking into a defendant’s eyes and making a decision on their guilt or innocence,’ she told the Edinburg Television Festival. ‘It should be the law decides on a person’s guilt, but television, with its human and emotional interest, takes the attention from this.’
Although she thought it was an inevitable development, she add: ‘Television turn everything in entertainment. We should remember that in end courtrooms are serious places. It is people lives and future lives you are dealing with. It is not a soap opera and people should not see it like that. Serious things should not be trivialized.’ [...]
Males and females in EFL task-based interaction: does gender have an impact on LREs

Picture Differences (in color in the original task)

Version A

Version B

From: http://commons.wikimedia.org/wiki/File:Spot_the_difference.png
(retrieved on July 2014)