GENDER EFFECTS ON STRATEGIC COMPETENCE: A SURVEY STUDY ON COMPENSATORY STRATEGIES IN A CLIL CONTEXT

EL EFECTO DEL GÉNERO EN LA COMPETENCIA ESTRATÉGICA: UN ESTUDIO A TRAVÉS DE CUESTIONARIOS SOBRE ESTRATEGIAS COMPENSATORIAS EN UN CONTEXTO AICLE

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Second language research has shown that females usually outperform their male counterparts (Pavlenko & Piller, 2008). They also have more positive attitudes and greater motivation (Spolsky, 1989).

Nevertheless, these tendencies have been found to be blurred in meaning-oriented approaches such as Content and Language Integrated Learning (CLIL) (Fernández Fontecha & Canga Alonso, 2014).

   As regards strategic competence, very little research has been conducted on the effect of gender on the use of language learning strategies (Ehrman & Oxford, 1989) and much less on compensatory strategies (Kocoglu, 1997). Besides, there is a lack of research investigating the effect of gender on the use of compensatory strategies by CLIL learners.

   This study examines the existence of gender differences in the 5th and 6th grades of Primary Education as regards amount and type of strategies preferred in a self-reported questionnaire on compensatory strategy use (i.e. guessing, miming, morphological creativity, dictionary, predicting, paraphrasing, borrowing, calque, foreignising, avoidance and appeal for assistance).

   In terms of overall amount, no statistically significant differences emerged, which seem to be in line with those CLIL studies that credit a vanishing effect on gender-related differences. As for types, females tend to avoid answering if they are not sure whereas males prefer to guess and feel more at ease in ambiguity. Females also rely more on borrowing, which makes them feel secure that the content of their message is unambiguously conveyed. In contrast, males prefer to predict, are braver, and take more risks when communicating (see Oxford & Ehrman, 1988).

Key words: *gender, compensatory strategies, CLIL, L3 English*

La investigación en el campo de la adquisición de segundas lenguas ha demostrado que las mujeres frecuentemente son mejores aprendices que los hombres (Pavlenko & Piller, 2008). También muestran tener mejor actitud y mayor motivación (Spolsky, 1989). Sin embargo, estas diferencias se desdibujan en metodologías orientadas al significado, tales como el Aprendizaje Integrado de Contenidos y Lenguas Extranjeras (AICLE) (Fernández Fontecha & Canga Alonso, 2014).

   En cuanto a la competencia estratégica, se han llevado a cabo pocos estudios sobre el efecto del género en el uso de las estrategias de aprendizaje (Ehrman & Oxford, 1989) y menos aún en el uso de estrategias compensatorias (Kocoglu, 1997). Por otro lado, no existen estudios que aborden el efecto del género en el uso de estrategias compensatorias en

alumnado AICLE.

Este estudio analiza la existencia de diferencias de género en alumnado de 5° y 6° de Educación Primaria en cuanto a cantidad y tipo de estrategias preferidas según un cuestionario sobre el uso de estrategias compensatorias (adivinar el significado de una palabra, mimo, creatividad morfológica, uso del diccionario, predicción, parafraseo, préstamo, calco, adaptación, evitación y petición de ayuda)

En cuanto al uso general, no se encontraron diferencias estadísticamente significativas entre los dos grupos, en la línea de estudios anteriores que apuntan a que las diferencias de género desaparecen en contextos AICLE. En cuanto al tipo de estrategias, las mujeres muestran una tendencia a evitar contestar si no están seguras, mientras que los hombres prefieren adivinar y se sienten más cómodos ante la ambigüedad. Las mujeres también recurren al préstamo, como garante de que el mensaje se transmite sin ambigüedad, a diferencia de los hombres, que prefieren predecir, son más valientes, y se arriesgan más durante la comunicación (véase Oxford & Ehrman, 1988).

Palabras clave*: género, estrategias compensatorias, CLIL, inglés como tercera lengua.*

1. Introduction

Second language (L2) research has shown that females are more inclined to study foreign languages and usually outperform their male counterparts (Pavlenko & Piller, 2008; Sunderland, 2000). They also have more positive attitudes and greater motivation (Spolsky, 1989). Nevertheless, these tendencies have been found to be blurred in meaning-oriented approaches such as Content and Language Integrated Learning (CLIL) (Fernández Fontecha & Canga Alonso, 2014; Heras & Lasagabaster, 2015), even though this type of research is still preliminary as conflicting evidence has also been obtained (Lasagabaster, 2008; Roquet, LLopis, & Pérez-Vidal, 2016).

As regards strategic competence, very little research has been conducted on the effect of gender on the use of language learning strategies (Ehrman & Oxford, 1989; Gass & Varonis, 1986; Oxford & Nyikos, 1989)

and much less on compensatory strategies (CSs henceforth) (Kaivanpanah, Yamouty, & Karami, 2011; Kocoglu, 1997; Lai, 2010). Besides, there is a lack of research investigating the effect of gender on the use of CSs by CLIL learners.

This study will try to fill the aforementioned gaps by examining if female (n=58) and male (n= 84) CLIL learners in the 5th and 6th grades of Primary Education differ in terms of the amount and type of strategies preferred in a self-reported questionnaire on CS use.

This paper is organized as follows. Section 2 presents the review of the literature, specifically focusing on the effect of gender on L2 learning and on investigations of this variable in CLIL settings. This section finishes with the research questions addressed in the study. Section 3 describes the methodology of the study. Subsequently, results are shown in section 4, while section 5 discusses them and concludes the paper.

2. Literature review

2.1. The effect of gender on L2 learning

L2 acquisition studies on the effect of gender are few compared with research on other factors that account for individual differences (Jiménez Catalán, 2003). These studies have shown that females are more inclined to study foreign languages and usually outperform their male counterparts (Pavlenko & Piller, 2008; Sunderland, 2000). Similarly, girls have been found to have more positive attitudes to foreign language learning and greater motivation (Spolsky, 1989). As regards strategies, very little research has been conducted on the effect of gender on the use of language learning strategies and much less on CSs.

Both early research on this issue and more recent research indicates that in terms of amount, females use a greater number of learning strategies (Ehrman & Oxford, 1989; Graham, 1997; Jiménez Catalán, 2003; Oxford, Nyikos, & Ehrman, 1988), and in terms of types, female students use more social language learning strategies (Ehrman & Oxford, 1989; Oxford & Nyikos, 1989; Politzer, 1983) –even though some contradictory evidence

exists in recent studies (Salahshour, Sharifi, & Shalahshour; 2013); more affective strategies (Hong-Nam & Leavell, 2006; Yilmaz, 2010), more conversational strategies (Gass & Varonis, 1986; Oxford & Nyikos, 1989), monitoring strategies in comprehension (Bacon, 1992; Oxford & Nyikos, 1989), as well as rehearsing and planning strategies (Bacon & Finnemann, 1992; Ehrman & Oxford, 1989). In contrast, males have been found to use more translation strategies (Bacon, 1992), they use interaction opportunities to produce more output, whereas females use it to obtain more input (Gass & Varonis, 1986), and prefer visual and tactile learning strategies (Reid, 1987). There are also similarities as regards strategies such as using a bilingual dictionary, guessing from textual context or using English-language media (to name but a few), which have been explained by the great deal of uniformity in L2 and foreign language in academic settings (see Jiménez Catalán, 2003; Schmitt, 1997).

With respect to CSs, a few studies have examined the impact of gender on their frequency and choice (Kaivanpanah et. al., 2011; Kocoglu, 1997; Lai, 2010) and a call for more research in this area has been made. Kocoglu (1997) examined the use of CSs by male and female (age range 19-21) Turkish EFL learners when communicating with male and female native and non-native speakers and found that the gender of the native speaker interlocutor had a significant impact on the use of CSs. Lai (2010) examined the use of CSs by L1 Chinese university learners (age 22+). The analysis of oral and written production tasks together with a retrospection report revealed the inexistence of differences between females and males in frequency and types of strategies used, which were accounted for by the Chinese culture of learning (i.e. Chinese students are achievement motivated and perseverant). The examination of the results also indicated that females were more efficient in their use of CSs, as they obtained better scores in the execution phase of the production.

A few studies have examined the effect of gender through self-report questionnaires (Cabrejas Peñuelas, 2012; Hong-Nam & Leavell, 2006; Salahshour et. al., 2013; Yilmaz, 2010) together with other learning strategies in general (i.e., memory, cognitive, metacognitive, affective and social strategies), with the exception of Kaivanpanah et. al., (2011), who just concentrated on CSs. The study concentrated on CSs analysing

the effect of gender and proficiency on their use. In order to accomplish this aim, the self-reported opinions on the use of CSs by 12-37 year-old learners of English in Teheran, together with the performance of three different oral tasks (picture description, telling a story and telling a joke) were examined. No differences among various proficiency level learners were found except for calques, self-repetition, feigning understanding and guessing. Task type was found to have an effect on the use of CSs. As for gender, there were differences in circumlocution, asking for clarification, omission, comprehension check, use of fillers and overexplicitness. The use of social strategies on the part of females was explained by the fact that females generally display greater social orientation than males (Oxford & Nyikos, 1988) and by females' greater interest in social activities (Politzer, 1983). In this vein, females have been shown to be more socially oriented than males (Benenson et al., 2009). This finding was also attributed to the fact that women and men perform different social roles and experience different social pressures. According to Kramarae (as cited in Oxford & Nyikos, 1989), the division of labour and power in the society leads to the use of different strategies by males and females. For example, females tend to be more aware of the appropriate speech and CSs. The authors also claim that as females have been reported to be less tolerant of ambiguity, consequently, they are more likely to use comprehension checks, asking for clarification and overexplicitness (see Vandergrifi, 1997).

2.2. Gender and CLIL programmes

The vast majority of studies conducted in CLIL settings to the present date have focused on the examination of general proficiency and specific linguistic features in CLIL and NON-CLIL learners (e.g., Admiraal, Westhoff, & de Bot, 2006; Dalton-Puffer, 2007; Jexenflicker & Dalton-Puffer, 2010; Llinares García & Whittaker, 2010). Individual variables such as attitudes and motivation have also received increasing attention in CLIL research (e.g., Lasagabaster, 2011). But other variables, such as gender, have been scarcely looked into (Fernández Fontecha & Canga Alonso, 2014; Heras & Lasagabaster, 2015; Roquet, Llopis, & Pérez-Vidal, 2016).

Fernández Fontecha and Canga Alonso (2014) investigated the existence of gender-based differences in learners' general, intrinsic and

extrinsic motivation in CLIL and NON-CLIL settings. To this end, 31 CLIL learners aged 8-9 years old (18 girls and 13 boys) were compared to 31 NON-CLIL learners (14 girls and 17 boys). An adapted version of Gardner's (1985) attitude/motivation test battery was administered. The analysis of the results did not yield statistically significant differences between boys and girls. Despite the inexistence of statistically significant differences, males were found to be slightly more motivated than girls in the CLIL group, probably because of the type of subject taught through the foreign language, i.e. Natural Science, which has typically been a subject more popular amongst males than females. These results are in line with previous investigations carried out on attitudes of males and females in bilingual education. These studies have proposed a levelling effect of meaning-oriented approaches on gender-based differences in foreign language achievement (Baker & MacIntyre, 2000).

Heras and Lasagabaster (2015) explored the effect of gender both on motivation and on vocabulary knowledge in CLIL and NON-CLIL 16-year-old learners. Both a motivation and a self-esteem questionnaire based on previous studies (Henry, 2009; Lasagabaster, 2011; Taguchi, Magid, & Papi, 2009) were administered to 12 girls and 13 boys immersed in a CLIL programme and 10 girls and 11 boys in a NON-CLIL programme. As for motivation, no statistically significant differences were found between girls and boys in the CLIL group, unlike the results found in the NON-CLIL group in which females obtained higher scores in the 'ideal L2-self'. Thus, in CLIL contexts females and males seem to be equally motivated to learn a foreign language, as males compensate for their lower motivation –usually attested in research conducted in NON-CLIL settings– with their higher motivation towards the subject taught in CLIL. The analysis of the results also revealed the inexistence of statistically significant differences in vocabulary, which could again be explained by the blurring effects of CLIL.

Different results have been found by Roquet, Llopis, and Pérez Vidal (2016). In this study 12-14 year-old CLIL and NON-CLIL Catalan learners of English were tested on productive and receptive skills following a pretest-posttest design over one academic year. Contrary to the authors' expectations and to previous literature, female participants were better than male participants in both educational contexts. In this study, the CLIL

component (i.e. the teaching of Natural Science through English) does not seem to be strong enough to motivate male participants' to learn both the language and the subject matter and in turn to obtain a higher score in the skills investigated. In fact, Lasagabaster (2008) and Lasagabaster and Sierra (2009) have suggested that in more limited forms of immersion, such as CLIL, the levelling effect may not be perceived.

Taking into account the scarcity of research as regards the effect of gender both in CLIL settings and on CSs, our study explores the self-reported opinions from a survey on CS use administered to primary school female and male English learners immersed in a CLIL programme. We will explore whether female and male CLIL learners differ in terms of the amount of self-reported use and in terms of type of strategies preferred. Hence, the following research questions will be entertained:

> RQ1 – Are there any differences between young female and male CLIL learners in terms of amount of self-reported use of CSs?

> RQ2 – What type of CSs do young female vs. male CLIL learners prefer?

3. Methodology

3.1. Participants

The study was conducted in a semi-private school within the Basque / Spanish bilingual educational context of the Autonomous Community of the Basque Country, where two co-official languages co-exist – Basque being the minority language in the town where the school was located. The participants in the study came from an original pool of 142 beginner learners (58 female, 84 male) of 5th and 6th Grade (ages 10-12) in primary education. They had been exposed to both Spanish and Basque since birth or - more commonly in the case of Basque - early childhood in an academic context (i.e. partial immersion). English is taught from pre-primary education as a school subject and also as a vehicle of instruction in subjects such as science, arts and crafts or physical education beginning in 3rd grade of primary education. In 5th and 6th years (when learners filled in

the questionnaire) learners receive three to four hours a week of instruction in EFL and 3 to 4 hours a week of CLIL instruction, whereby learners receive 5 to 7 weekly hours of instruction in the target language (TL). In the course of these 2 academic years language lessons are reduced, as content lessons are simultaneously stepped up so as to increase the hours of content lessons, at the expense of language lessons. Classes scheduled as English are gradually reduced throughout these two academic years, while classes scheduled as CLIL are gradually increased, as follows: English takes up 3 to 4 hours of instruction in the first term (3 in 5th year / 4 in 6th year), and 2 to 3 hours (2 in 5th / 3 in 6th) in the 2nd and 3rd terms, while CLIL takes up 2 to 3 hours (2 in 5th / 3 in 6th) in the first term and 3 to 4 hours (3 in 5th / 4 in 6th) in the subsequent terms.

3.2. Instrumentation

At the outset of the study, participants underwent a profile questionnaire which enabled us to rule out important differences in language background or in extra-curricular exposure to the TL. Differences in the TL proficiency level were equally ruled out by means of a proficiency level test (listening, reading and writing sections of Cambridge English Flyers (see http://www.cambridgeenglish.org/exams/young-learners-english/flyers/test-format/). Then the participants underwent a self-report questionnaire adapted from Purdie and Oliver (1999) consisting in forty 5-point Likert scale statements (the minimum score for each item was 1 -*I strongly disagree*- and the maximum 5 -*I strongly agree*-) that surveyed on learning strategies in general, out of which 11 randomized items focused on CSs. The data presented here focuses on the latter. In order to overcome the lack of consensus in strategy types suggested by the different taxonomies (see Kellerman, Bongaerts, & Poulisse, 1987) the survey employed in the study was adapted from several taxonomies, and included conceptual, linguistic and interactional strategies. From Purdie and Oliver (1999) – which built on the categorization by Oxford (1989) and O'Malley & Chamot (1990) - the following strategies were selected: *guessing, miming, morphological creativity, dictionary, predicting* and *paraphrasing*. From Poulisse (1990) linguistic strategies such as *transfer*, which falls into *borrowing, calque* and *foreignising*, were included. Finally, interactional strategies such as

avoidance and *appeal for assistance* were added from the classification by Tarone (1977). Table 1 displays the distributions of these categories with the corresponding items, as presented to children in Spanish.

Purdie& Oliver (1999)	Guessing	Si no entiendo algo en inglés, trato de adivinar lo que quiere decir.
	Miming	Si no sé cómo decir algo en inglés, uso las manos para mostrar lo que quiero decir.
	Morphological creativity	Si no sé cómo decir algo en inglés, me invento palabras nuevas.
	Dictionary	Si no entiendo lo que significa algo cuando leo en inglés, lo miro en el diccionario.
	Predicting	Cuando alguien me habla en inglés, trato de adivinar lo que va a decir justo a continuación.
	Paraphrasing	Si no sé cómo decir algo en inglés, uso otras palabras que significan lo mismo.
Poulisse (1990)	Borrowing	Cuando no sé decir algo en inglés, lo digo en euskera o castellano.
	Calque	Cuando no sé decir algo en inglés, traduzco palabra por palabra del euskera o castellano (por ejemplo, 'my favourite plate' en vez de 'my favourite dish'.
	Foreignising	Cuando no sé decir algo en inglés, adapto la palabra del euskera o castellano al inglés (por ejemplo, 'go to the bosque' en vez de 'go to the forest'.

Yule & Tarone (1990)	Avoidance	Cuando no sé decir algo en inglés, evito referirme a ello.
	Appeal for assistance	Cuando no sé decir algo en inglés, pido ayuda a otra persona (profesor, compañero, mamá, papá,…).

Table 1. Distribution of CSs

4. Results

Mean scores (between 1 and 5) and standard deviations were calculated both for the whole set of strategies and for each individual strategy in the male and the female samples separately. Data were statistically analyzed in two different fashions. The first analysis looked into inter-group differences for each of the individual strategies and for all strategies overall. The second analysis explored intra-group differences with regard to the distribution of use of the different individual strategies. The aim of this second analysis was to see if males and females present (dis)similar distributions of reported CS use. Kolmogrov-Smirnow tests indicated that the distribution of the samples was not normally distributed and, consequently, non-parametric procedures were used in both types of analysis. Mann-Whitney tests were used for the first analysis in order to see if there were significant differences between males and females. For the second analysis, Friedman tests were used to discover if there were intra-group significant differences among the use of individual strategies. As significant differences were found, the next step was to compute Wilcoxon tests comparing the means of each of the individual strategies to the mean of the whole category of CSs. This way, we were able to establish three different degrees of strategy use. Those strategies whose means were significantly higher than that of the whole set of CSs were referred to as 'higher use' strategies, those whose means were significantly lower were labeled as 'lower use' strategies, and those strategies whose means did not significantly differ from the overall CS mean were named 'average use' strategies. Regarding statistical probability, alpha levels of .05, .01 and .001 were used. Additionally, marginally significant p-values below .09 were also indicated.

Table 2 presents the results of the first analysis. Mean scores and standard deviations are organized on the horizontal axis according to the independent variable of the study, which distinguishes results for males and females. The vertical axis presents means and standard deviations according to the dependent variable of the study, which explores the overall and individual use of CSs. Individual strategies (from top to bottom in Table 2) follow the order of appearance as presented in the survey which the students had completed.

	Males Mean – SD	**Females** Mean – SD	p-value
All Strategies	3.36 – .57	3.44 – .54	>.05
Avoidance	2.89 – 1.39	3.22 – 1.17	>.05
Guessing	3.62 – 1.33	3.71 – 1.32	>.05
Miming	2.76 – 1.40	2.64 – 1.37	>.05
Morphological creativity	2.25 – 1.26	2.24 – 1.30	>.05
Paraphrasing	4.10 – .95	4.03 – .99	>.05
Dictionary	3.76 – 1.16	3.82 – 1.07	>.05
Predicting	3.34 –1.26	2.96 – 1.27	<.09#
Foreignising	2.98 – 1.51	3.05 – 1.26	>.05
Appeal for assistance	4.56 – .59	4.59 – .68	>.05
Calque	3.34 – 1.24	3.50 – 1.16	>.05
Borrowing	3.55 – 1.39	4.05 – 1.16	<.05*

Table 2. Means and standard deviations for reported use of CS in males and females

As can be seen on the first line of Table 2, male and female learners attained a very similar overall mean score of CS use (3.36 vs. 3.44), and the Mann-Whitney test did not reach statistical significance, indicating

that both groups made a similar overall use of this type of strategies to compensate for missing knowledge. This very same situation occurred to all the individual strategies except for *borrowing (cuando no sé decir algo en inglés, lo digo en euskera o castellano)*, where males were found to report a significantly lower use of this type of strategy than females (3.55 vs. 4.05). A marginally significant difference was also found for the strategy *predicting* (*Cuando alguien me habla en inglés, trato de adivinar lo que va a decir justo a continuación*), but in this case it was males who surpassed females (3.34 vs. 2.96).

As for the second type of analysis, Tables 3 and 4 organize the various individual strategies in descending order, that is, from higher to lower means, for the two learner groups. Friedman tests of differences among repeated measures computed for the two groups separately revealed that there were significant differences ($p<.001$) among the various individual strategies, Chi-squares values of 178.83 and 163.04 being rendered for the male and the female samples, respectively. Subsequent Wilcoxon tests comparing the means of each of the individual strategies to the mean of the whole category of CSs (3.36 for males and 3.44 for females) allowed us to classify, in both learner groups independently, the various individual strategies into the three categories described above: 'higher use', 'average use' and 'lower use'. For the sake of clarity, Tables 3 and 4 display 'higher use' strategies (those significantly superior to the average overall use of CSs) shaded in dark grey, 'average use' strategies (those not found to be significantly different from the average overall use of CSs) in light grey, and 'lower use' strategies (those significantly inferior to the average overall use of CSs) in white.

As for the male sample (Table 3), *appeal   for assistance*, *paraphrasing*, *dictionary* and *guessing* means turned out to be significantly higher than the mean of the whole set of CSs (3.36), whereas *foreignising*, *avoidance, miming* and *morphological creativity* means happened to exhibit significantly lower means. *Borrowing*, *predicting* and *calque* strategies did not significantly differ from the whole category mean.

Males			
Strategies	***Mean – SD***	***Z***	***p-value***
Appeal for assistance	4.56 – .59	-7.231	<.001***
Paraphrasing	4.10 – .95	-5.100	<.001***
Dictionary	3.76 – 1.16	-3.244	<.01**
Guessing	3.62 – 1.33	-2.356	<.05*
Borrowing	3.55 – 1.39	-1.504	>.05
Predicting	3.34 – 1.26	-.032	>.05
Calque	3.34 – 1.24	-.130	>.05
Foreignising	2.98 – 1.51	-2.521	<.05*
Avoidance	2.89 – 1.39	-3.192	<.01**
Miming	2.76 – 1.40	-3.993	<.001***
Morphological creativity	2.25 – 1.26	-6.657	<.001***

Table 3. Distribution of CS use in males

With regard to the female sample (Table 4), the frequency of strategy use was distributed as follows –*appeal for assistance*, *borrowing*, *paraphrasing*, and *dictionary* obtained significantly higher means than the whole category mean (3.44); *guessing*, *calque* and *avoidance* were not found to significantly differ from the average use; and *foreignising*, *predicting*, *miming*, and *morphological creativity* means were significantly inferior to that of the whole set of CSs.

Females			
Strategies	*Mean – SD*	*Z*	*p-value*
Appeal forassistance	4.59 – .68	-6.028	<.001***
Borrowing	4.05 – 1.16	-4.211	<.001***
Paraphrasing	4.03 – .99	-3.990	<.001***
Dictionary	3.82 – 1.07	-2.611	<.01**
Guessing	3.71 – 1.32	-1.719	>.05
Calque	3.50 – 1.16	-.596	>.05
Avoidance	3.22 – 1.17	-1.727	>.05
Foreignising	3.05 – 1.26	-2.504	<.05*
Predicting	2.96 – 1.27	-2.937	<.01**
Miming	2.64 – 1.37	-4.062	<.001***
Morphological creativity	2.24 – 1.30	-5.667	<.001***

Table 4. Distribution of CS use in females

Having presented the frequency of strategy use in both learner groups, let us now look at their differences and similarities. As for the latter, we found that both males and females showed a preference for the use of strategies such as *dictionary*, *paraphrasing* and, above all, *appeal for assistance*. Similarly, *foreignising*, *miming*, and above all, *morphological creativity* were reported to be used the least often in both learner samples. Besides, both groups coincide in their average use of the *calque* strategy.

Regarding the differences found between males and females in their CS use distribution, four individual strategies were found to be classified in different frequency bands. *Borrowing* presented an 'average use' in males but a 'higher use' in females. Similarly, *avoidance* was classified as a 'lower use' strategy in the male sample but as an 'average use' strategy in

the female sample. In other words, these two strategies were comparatively reported to be used more frequently by females than by males. Unlikely, other strategies such as *predicting* and *guessing* exhibited a dissimilar pattern, that is, they were reported to be comparatively used more frequently by males than by females, *predicting* presenting an 'average use' in males but a 'lower use' in females, and *guessing* being classified as a 'higher use' strategy in the male sample but as an 'average use' strategy in the female one.

5. Discussion and Conclusion

The present study has analyzed young CLIL male and female learners' self-reported use of CSs in terms of amount and preference of strategy use. In this section we discuss the results obtained from our data analysis and draw some conclusions from them. Our first research question inquired about the amount of self-reported use of CSs by male and female CLIL learners. An inter-group analysis revealed that there were no significant differences between males and females in the overall amount of use of CSs. We can ascribe the lack of differences between the two groups to the levelling effect of CLIL, as evinced by previous research findings (e.g., Fernández Fontecha & Canga Alonso, 2014; Heras & Lasagabaster, 2015), insofar as males turn out to have a strong motivation in meaning-based instructional contexts. It follows that the blurring effect of CLIL is also evident in the lack of differences between males and females' reported use of *appeals for assistance* and *paraphrasing*, findings in line with previous studies carried out in CLIL contexts (Martínez-Adrián, Gallardo-del-Puerto, & Basterrechea, in press); but which differ from those in Kaivanpanah et. al. (2011), who found gender differences in strategies of similar nature (i.e. circumlocution and clarification requests) in an older sample in Iran.

However, our data showed that there were significant differences in the use of *borrowing*, where males reported a lower use, thereby suggesting that females tend to fall back on the L1 shared by the interlocutors to a larger extent so as to guarantee that the message is conveyed. In other words, females in the study tend to resort to their L1 as a way to build meanings collaboratively and avoid communication breakdowns. In this vein, females tend to avoid ambiguity, as has already been observed

in previous investigations (Oxford & Nyikos, 1989). A closer look at the inter-group trend reveals that males report using *predicting* more frequently than females (with a marginally significant difference), which might be somewhat attributable to the males' tolerance of ambiguity, as opposed to females. These findings are in line with those of Vandergrifi's (1997) study, where it was found that females make more extensive use of comprehension checks, or clarification requests than males.

Our second research question asked about the type of CSs preferred by male and female CLIL learners. Gender differences were found in the reported use of *predicting* and *guessing*, as males reported resorting to these categories comparatively more frequently than females, which supplements the existing evidence found in EFL contexts (see Lai, 2010). It appears that males are risky and daring, and are less concerned with conveying meaning or even producing non-target-like utterances. Females, however, reported resorting to *borrowing* and *avoidance*, which seems to indicate that females circumvent difficulties they may encounter when performing a given communicative act, and show a strong preference for efficiency in using the TL. Their preference for using *borrowings* (see above) seems to respond to the very same need to be efficient by avoiding miscommunication (Oxford & Nyikos, 1989).

In conclusion, the scarcity of differences between both males and females in terms of the overall self-reported use of CSs seem to be in line with those studies conducted in CLIL settings that credit a vanishing effect on gender-related differences (Fernández Fontecha & Canga Alonso, 2014; Heras & Lasagabaster, 2015). However, in the light of the intra-group analysis, we can conclude that females tend to avoid answering if they are not sure whereas males prefer to guess (see Prieto & Delgado, 1999) and feel more at ease in ambiguity. Females also rely on L1-based strategies, namely borrowing, to a larger extent, which makes them feel secure that the content of their message is unambiguously conveyed. They are quiet and considerate, while males are more direct and braver, and take more risks when communicating (see Oxford & Ehrman, 1988).

Following previous studies on the impact of gender in CLIL settings (Heras & Lasagabaster, 2015; Roquet, Llopis, & Pérez Vidal,

2016), a follow-up study should compare the data obtained in the present investigation to similar data from mainstream EFL learners so as to test the suggested blurring effect of CLIL on gender differences. Similarly, as gender has been found to interact with age, and attitudes measured through self-report questionnaires are not stable but change over time, it would be interesting to conduct longitudinal studies on strategic behaviour development. Triangulation of the self-reported opinions analyzed in this study with oral data would also be advisable.

In addition, some pedagogical implications are worth mentioning and discussing. Teachers should take into account these gender differences when learners face gaps of knowledge when interacting with others. In the light of these differences, teachers could propose activities that cater for this variation shown by sex, which would undoubtedly lead to a more effective use of CSs.

Given the inconsistent results found in different studies on the effect of gender in CLIL settings, which could be due to the different implementations of CLIL programmes, schools should increase the intensity of CLIL instruction and the teaching of attractive subjects to both sexes. We cannot forget that the choice of a particular subject in CLIL might affect the level of motivation, and in turn, foreign language achievement (Heras & Lasagabaster, 2015). In this respect, more similar results to the ones reported in immersion contexts in Canada as regards the levelling effect on gender-based differences in foreign language achievement would probably emerge (Baker & MacIntyre, 2000). All in all, as foreign language skills are equally positive for both male and female citizens, all the necessary measures aimed at the disappearance of gender differences should be implemented, as this should be one of the main objectives of any education system (Lasagabaster, 2008).

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