

Target language proficiency and reported use of compensatory strategies by young CLIL learners

Abstract

Studies investigating compensatory strategies (CSs) by means of questionnaires in English-as-a-Foreign-Language (EFL) contexts with young learners are lacking, particularly in Content-and-Language-Integrated-Learning (CLIL) environments. Three different proficiency groups of young English learners in a CLIL programme were administered a survey to explore the existence of intergroup differences regarding the amount and types of CSs used. Learners exhibited a moderately high use of CSs overall, and no differences emerged regarding the total number of CSs as a function of target language (TL) proficiency. In terms of types of CSs used, they reported using some CSs (*paraphrasing*) which are typical of more advanced learners. However, more proficient learners were found to draw on some non L2-based strategies (*avoidance, foreignising, miming*) to a lesser extent than less proficient learners.

Keywords: compensatory strategies, CLIL, English as a foreign language

Introduction

Studies of compensatory strategies (CSs) in the case of Content and Language Integrated Learning (CLIL) learners have been carried out mainly with reference to oral and written production, and the majority have revolved around the use of the first language (L1) as a CS. In addition, little is known about these learners' self-reported opinions concerning their use of CSs, particularly where young learners are concerned,

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3 Purdie & Oliver (1999) being the only study that employed self-report questionnaires in
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5 an English-as-a-second-language (ESL) context.
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7 In this paper, we investigate the whole inventory of communication strategies
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9 through questionnaires administered to young English learners in a CLIL context. In
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11 order to overcome the lack of consensus on the inventory of CSs in the literature, in the
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13 present study the three main types of strategies identified by the most relevant
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15 taxonomies were employed, namely *linguistic*, *conceptual* and *interactional* strategies.
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17 Particularly, we analyze the effect of proficiency on learners' reported use of CSs as
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19 well as their preference in the type of strategies employed during target language (TL)
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21 production.
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24 This paper is organised as follows: a first section is devoted to the review of the
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26 literature on CSs with a particular emphasis on the effect of second language (L2)
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28 proficiency on strategy use as well as on the study of CSs in CLIL settings. Research
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30 questions follow the literature background and precede the description of the study
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32 where participants, materials and procedures are progressively covered. Results are
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34 presented next, and subsequently discussed. Finally, a conclusion section closes the
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36 paper.
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41 **Literature review**

42 ***Research on CSs***

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48 Two main theoretical approaches have been taken in the study of CSs in L2 acquisition
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50 –the interactional approach and the psycholinguistic approach. From an interactional
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52 viewpoint (Corder, 1978; Tarone, 1977, 1981; Váraidí, 1973), a CS is understood as a
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54 shared enterprise in which both the speaker and the hearer are involved. From a
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3 psycholinguistic perspective (Bialystok, 1990; Faerch & Kasper, 1980 1983, 1984;
4 Poulisse, 1993, 1997; Poulisse, Bongaerts & Kellerman, 1990), a CS is the speaker's
5 only responsibility, a mental plan "for solving what to an individual presents itself as a
6 problem in reaching a particular communicative goal" (Faerch & Kasper, 1983, p. 36).
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11 There have been as many as nine different classifications of CSs in the literature,
12 as reviewed by Dörnyei and Scott (1997), with those by Tarone (1977), Faerch and
13 Kasper (1983) and Poulisse (1990) attracting the most attention. The survey we
14 administered to participants in the present study is mainly built upon the interactional
15 taxonomy proposed by Tarone (1977) and the psycholinguistic one developed by
16 Poulisse (1990) in the Nijmegen project regarding Dutch learners of English. Tarone's
17 (1977) classification distinguishes five main types of CSs: avoidance (topic avoidance,
18 message abandonment), paraphrase (approximation, word coinage, circumlocution),
19 conscious transfer (literal translation, language switch), appeal for assistance, and mime.
20 Poulisse's (1990) taxonomy divided CSs into two *archistrategies* depending on whether
21 the meaning or the language is altered –conceptual vs. linguistic strategies. Within the
22 former, two types of CSs are distinguished –analytic (circumlocution, description,
23 paraphrase) and holistic (superordinate, coordinate, subordinate). Linguistic strategies
24 are also classified into two types – transfer (borrowing, foreignising, calque) and
25 morphological creativity.
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44 Beyond the classification of strategies, research on L2 learners' use of CSs has
45 focused on the factors affecting their frequency and choice, among which the TL
46 proficiency has received the greatest attention. Research has shown that TL proficiency
47 exerts an influence on the frequency of CSs, a lower proficiency being associated with a
48 higher use of CSs because lower proficiency learners typically exhibit a more limited
49 command of the L2 than higher proficiency learners (Fernández Dobao, 2002; Hyde,
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3 1982; Liskin Gasparro, 1996; Paribakht, 1985; Poulisse et al., 1990). As for the choice
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5 of particular types of CSs, the influence of the proficiency factor does not happen to be
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7 so straightforward in the literature. Some researchers (Bialystok, 1983; Bialystok &
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9 Fröhlich, 1980; Jourdain, 2000; Wannaruk, 2003) conclude that less proficient learners
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11 are likely to fall back on L1-based strategies, mime and avoidance, whereas more
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13 proficient learners tend to opt for L2-based strategies, such as paraphrasing (Jourdain,
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15 2000). However, Poulisse et al. (1990) found that the mediating effect of some
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17 variables, namely the nature of the communicative task, overruled the influence that
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19 proficiency exerted on the quantity of CSs used by Dutch L1 learners of English. In
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21 contrast, Fernández Dobao (2002) also provided evidence that more advanced learners
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23 tend to prefer L2-based strategies. In her study, she examined the effect of proficiency
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25 on the amount and type of CSs used by L1-Spanish EFL learners with different
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27 proficiency levels of English (elementary, intermediate and advanced). Results showed
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29 that intermediate learners used fewer CSs than the advanced learners examined,
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31 contradicting previous research. As per the type of CSs used, the results confirmed
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33 previous research findings demonstrating a higher percentage of avoidance and
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35 conscious transfer strategies employed by less proficient students, and a greater use of
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37 paraphrasing (i.e., an L2-based strategy) by more proficient ones.
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42 Although most research on the use of CSs **has** analyzed oral or written
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44 production (e.g. Muñoz, 2007; Poulisse & Bongaerts, 1994), there is also some research
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46 which has looked into learners' self-reported opinions concerning the use of CSs by
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48 means of questionnaires. In such research, CSs are often investigated together with
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50 learning strategies in general (Ehrman & Oxford, 1990). Learning strategies can be
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52 defined as “specific actions taken by the learner to make learning easier, faster, more
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3 enjoyable, more self-directed, more effective, more transferable to new situations”
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5 (Oxford, 1990: 8).
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7 The strengths and weaknesses of survey research on the study of strategic
8 competence have been discussed by scholars (Cohen, 1998; Dörnyei, 2003; Ellis, 2008;
9 Khan & Victori, 2011). The use of such instrumentation, despite being considered
10 valuable for providing quantitative data (Dörnyei, 2003; Ellis, 2008; Oxford, 1990), has
11 been put into question because questionnaires are said to assume a stable reality for
12 such a dynamic phenomenon as language acquisition (Tseng, Dörnyei & Schmitt,
13 2006), and to disregard the fact that learners modify their strategic behaviour according
14 to the context (Macaro, 2006; Oxford, Cho, Leung & Kim, 2004).
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24 In fact, a call for triangulation of data in survey research has been made (Gao
25 2007). A growing body of research has explored the effect of proficiency on the use
26 (amount and type) of learning strategies -including CSs- in ESL (e.g., Griffiths, 2003;
27 Hong-Nam & Leavell, 2006; Magogwe & Oliver, 2007; Purdie & Oliver, 1999) and
28 EFL (e.g., Salahshour, Sharifi & Shalahshour, 2013; Yilmaz, 2010) contexts by means
29 of self-report questionnaires. These studies have employed the Strategy Inventory for
30 Language Learning (Oxford 1989), where learning strategies fall into six categories:
31 Memory, cognitive, metacognitive, compensation, affective and social strategies (see
32 Hong-Nam & Leavell, 2006, for further details). Results point to a positive linear
33 relationship between strategy use and proficiency: more proficient language learners
34 employ more learning strategies and in a greater number of situations than less
35 proficient learners (Dreyer, 1992; Green & Oxford, 1995; Griffiths, 2003; Magogwe &
36 Oliver, 2007; O'Malley & Chamot, 1990; Taguchi, 2002). In terms of type of strategy,
37 many of the studies report a higher use of metacognitive strategies (that is, strategies
38 used by the learners to manage their own learning). However, results regarding the
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3 category of CS in particular are less conclusive. While some studies report a low use of
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5 CSs across all educational (primary, secondary and tertiary) and proficiency levels
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7 (Magogwe & Oliver, 2007), other studies show that, compared to the rest of the learning
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9 strategies, CSs rank moderate-to-high in use. For instance, Hong-Nam and Leavell
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11 (2006) found that CS was among the strategies that rank high in use in a 5-point Likert
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13 scale (M=3.59, where M=3.66 is the maximum). It is worth noting that when focusing
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15 on individual item scores, the most preferred item fell into the CS category 'When I
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17 can't think of a word during a conversation in English, I use gestures' (M=4.25).
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19 Yilmaz (2010) found that the category of CS had the highest mean (M=3.97), a result
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21 which kept constant across differing proficiency levelsⁱ, as well – M=4.13 in high (or
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23 good), M=3.99 in intermediate (or fair), and M=3.88 with low (or poor).
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27 In the case of young learners, CS research studies using questionnaires are thin
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29 on the ground (Magogwe & Oliver, 2007- see above -; Purdie & Oliver, 1999). Purdie
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31 and Oliver (1999) analyzed the self-reported use of learning strategies by young
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33 schoolchildren (ages 9-12) learning L2 English in Australia, an acquisition context
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35 defined as naturalistic. These children exhibited a use of CSs which turned out to be
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37 lower than the rest of the strategies analyzed, a finding that accords with the results in
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39 the study by Magogwe and Oliver (2007), but contrasts with what has been found in
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41 young EFL learners during oral production (AUTHOR 1 2015; AUTHOR 3 2015;
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43 García Mayo & Lázaro, 2015; Pladevall-Ballester & Vraciu, 2017).
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47 Thus in this paper we take up the call made by Purdie and Oliver (1999) for
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49 more research on young learners' strategy use by exploring the opinions gathered
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51 through a questionnaire administered to young EFL learners in a CLIL environment in
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53 Spain, a context where the use of CSs has been examined in the course of oral and
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3 written production only. The next section, thus, focuses on the study of CSs in such a
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5 context.

6 7 8 9 ***CSs in CLIL settings***

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11 According to Dalton-Puffer (2011) CLIL is defined as an educational approach
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13 where curricular content is taught through the medium of a foreign language, typically
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15 to students in some form of mainstream education at the primary, secondary, or tertiary
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17 level. A more recent definition by Dalton-Puffer, Llinares, Lorenzo and Nikula (2014)
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19 stresses the dual focus of the approach on content and language, as it was originally
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21 labelled. Attempts to find similarities and differences between CLIL and other bilingual
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23 education programmes such as immersion (see Dalton-Puffer, 2011; Dalton-Puffer &
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25 Smit, 2013), or Content-based instruction (CBI; see definition in Richards & Schmidt,
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27 2010: 125) have been made, but the description of what CLIL is in comparison to other
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29 bilingual education programmes is not clear (Llinares & Morton, 2017). In particular,
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31 while some define CLIL as an example of CBI (Shehadeh, 2017; Lyster, 2017), others
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33 find equivalences between CLIL and CBI (e.g., Cenoz, 2015). All in all, they share
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35 theoretical and pedagogical considerations (Nikula, Dalton-Puffer & Llinares, 2013),
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37 but they are distinct in the following respects: (a) CLIL programmes in Europe are
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39 characterized by the use of a foreign language (typically English) instead of a L2 as the
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41 language of instruction for content subjects; (b) less than 50% of the curriculum is
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43 taught in the foreign language; (c) apart from content instruction through the foreign
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45 language, English is also taught as a typical language subject; (d) teachers are usually
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47 non-native speakers of the TL and generally they are content specialists rather than
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49 language specialists; (e) basic literacy skills are acquired before the CLIL experience
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51 (Lasagabaster & Sierra, 2009; Nikula, et al, 2013). But, as Smit (2007) and Marsh
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3 (2009) point out, CLIL comes in different shapes and forms. In fact, Coyle, Hood, and
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5 Marsh (2010) propose the idea of a continuum of CLIL types, with content at one end
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7 and language at the other. Nonetheless, Llinares and Morton (2017) warn that what
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9 actually happens in CLIL experiences is far from what its label stands for, as little
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11 integration actually happens. Instead, the primary focus seems to be on content teaching
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13 *through* an additional language.
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16 Despite the different implementations of CLIL, all of these programmes are
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18 characterized by the provision of more natural and intense input **than in mainstream**
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20 **EFL classrooms** (Coyle, 2007; Lázaro Ibarrola & García Mayo, 2012; Marsh, 2002;
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22 Muñoz, 2007). The type of input offered in these meaning-oriented approaches is
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24 communicatively more meaningful than the input provided in non-CLIL programmes.
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26 In addition, learners in CLIL tend to use the foreign language for communicative
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28 purposes as they consider this language an instrument for interaction rather than an
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30 object of study (AUTHOR 3 AND COLLEAGUE, 2015). Learners construct
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32 knowledge and develop understanding about the subject-specific content by means of
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34 tasks that integrate language and subject-matter teaching goals (AUTHOR 2 AND
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36 COLLEAGUES, 2014). The exposure to more meaningful and intense input has been
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38 claimed to enhance general proficiency, as well as receptive and productive vocabulary
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40 knowledge in CLIL programmes (Agustín Llach & Canga Alonso, 2016; Canga
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42 Alonso, 2013; Canga Alonso & Arribas García, 2015; COLLEAGUE AND AUTHOR
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44 3, in press; Jiménez Catalán et al., 2006; Jiménez Catalán & Ruiz de Zarobe, 2009;
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46 AUTHOR 1 AND COLLEAGUE, 2013, 2017; Xanthou, 2011). As a result of the
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48 greater proficiency and vocabulary knowledge attained by CLIL learners, they have
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50 been found not to rely so much on their previously known languages as a CS during
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52 production.
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3 While there is evidence of considerable research on CSs during oral and written
4 production carried out in EFL contexts (Cenoz, 2003; Gost & Celaya, 2005; Muñoz,
5 2007; Navés, Miralpeix & Celaya, 2005; Poulisse & Bongaerts, 1994; Viladot &
6 Celaya, 2007), little research exists in other educational contexts such as CLIL. Bearing
7 in mind that CLIL implementation and its outcomes are influenced by contextual
8 factors, we have restricted the following review of previous CLIL studies to Spain,
9 where the present study was carried out.
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18 Apart from the fact that most studies have concentrated on secondary education,
19 to our knowledge no studies have examined the whole inventory of CSs, but have
20 mainly focused on L1-based strategies, instead. Some of these studies compare CLIL
21 learners' strategy use to their mainstream EFL counterparts' use in oral and written
22 production in secondary (Celaya & Ruiz de Zarobe, 2010; AUTHOR 3 AND
23 COLLEAGUE, 2015) and primary (Agustín Llach, 2009; Celaya, 2008; AUTHOR 1,
24 2015; García Mayo & Lázaro Ibarrola, 2015; AUTHOR 3, in press; Pladevall-Ballester
25 & Vraciu, 2017) education. The general finding is that CLIL learners produce fewer
26 borrowings (L1 words without any morpho-phonological adaptation) in oral (AUTHOR
27 1, 2015; Pladevall-Ballester & Vraciu, 2017) and written (Agustín Llach, 2009; Celaya,
28 2008; Celaya & Ruiz de Zarobe, 2010) production and tend to use the L1 as an
29 interactional strategy to a lesser extent than EFL counterparts (García Mayo & Lázaro
30 Ibarrola, 2015; AUTHOR 3 AND COLLEAGUE,, 2015). Results in the use of
31 foreignising (L1 words morpho-phonologically adapted to the L2), however, are
32 somewhat contradictory, as its increased use from early stages observed in some studies
33 (Agustín Llach, 2009; Celaya, 2008; Celaya & Ruiz de Zarobe, 2010) is not confirmed
34 by more recent studies (e.g. AUTHOR 1, 2015), where CLIL learners resort to this CS
35 less frequently than mainstream EFL learners.
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3 Furthermore, to date little research has been carried out that examines the
4 developmental nature of CS use in CLIL contexts, and the very few longitudinal and
5 pseudo-longitudinal studies that have been conducted in CLIL contexts do not exhibit a
6 clear tendency, either. Arratibel Irazusta (2015) found that foreignising was a strategy
7 employed more frequently by beginners in secondary education –findings that support
8 results in AUTHOR 1's (2015) study– but that there were no differences in the use of
9 the L1 as an interactional strategy. On the contrary, Gutiérrez Mangado (2015) found a
10 decrease in appeals for assistance at testing-time 2 in a primary-school context.
11 Regarding borrowings, Arratibel Irazusta (2015) found no differences in their use at two
12 different testing times whereas Gutiérrez Mangado (2015) reported an increase in their
13 use.
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26 Other studies analyzing data gathered through classroom observation have
27 provided evidence of when the L1 and the TL are used (Gené Gil, Juan Garau, &
28 Salazar Noguera, 2012). While the use of the TL (in this case, English) is common in
29 planned discourse, the use of the L1 is still common in these CLIL classes, particularly
30 in unplanned discourse, for disciplinary or organizational purposes. The TL has also
31 been found to be employed in reformulations of learners' utterances (Milla Melero,
32 2017). Other studies have reported the tuning of teacher talk as a means of facilitating
33 exposure to input at a challenging level (De Graaf, Koopman, & Westhoff, 2007) such
34 as the use of repetitions and paraphrasing or approximation by CLIL teachers when
35 struggling with specific terminology (Dafouz Milne & Llinares García, 2008; Dalton-
36 Puffer, 2007; Hüttner & Rieder-Bünemann, 2010).
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50 The scarce research on young CLIL learners' strategic behaviour suggests the
51 need for more studies that examine the developmental nature of CS use. An inquiry into
52 the whole inventory of CSs is also needed as, to the best of our knowledge, no studies
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3 that examine the use of other CSs such as mime, avoidance or conceptual strategies in
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5 CLIL contexts have been reported so far. The present study will address this research
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7 gap by analyzing the opinions gathered through a questionnaire concerning the use of
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9 CSs by young CLIL learners. This line of research is particularly important when one
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11 considers that most research in CLIL has tended to focus on secondary education
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13 (Dalton-Puffer & Nikula, 2014).
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16 17 18 **Research questions**

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20 Based on previous findings regarding the effect of proficiency on strategic competence
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22 and the use of CSs both CLIL and mainstream EFL learners, we address the following
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24 research questions:
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26 **RQ 1.** Do more proficient CLIL learners display a lower self-reported use of
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28 compensatory strategies than less proficient CLIL learners?

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30 **RQ 2.** Are there any differences in terms of types of compensatory strategies that
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32 more and less proficient CLIL learners respectively report using?
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37 **The study**

38 39 40 41 ***Participants***

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43 139 participants from the 3rd cycle of Primary Education (Grades 5 and 6) were
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45 recruited from a school in Vitoria-Gasteiz, the capital of the Autonomous Community
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47 of the Basque Country, a region with two co-official languages (Basque and Spanish) in
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49 northern Spain. Table 1 displays the main characteristics of the sample for the purposes
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51 of our research.
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[TABLE 1 NEAR HERE]

As can be seen, participants were divided into three different English proficiency groups. An English proficiency placement level test had been administered to all participants so that their foreign language competence could be assessed. The test consisted of the reading, listening and writing sections of the Cambridge English Flyersⁱⁱ. The learner sample was divided into three categories on the basis of their English proficiency by dividing the Flyers test results (max = 75) into three portions as a result of both adding and subtracting ‘half of the standard deviation value’, that is 7.24 (standard deviation = 14.48), to the mean score obtained by all subjects in the test, which was 48.88 (minimum obtained = 13; maximum obtained = 71). Participants were thus classified into three different types of foreign language proficiency learners: Lower Beginners (LBs) for those participants who obtained 40 or fewer points in the English test, Beginners (Bs) for those learners between 41 and 56 points, and Upper Beginners (UBs) for those subjects with 57 or more points. In addition, an ANOVA was computed revealing significant differences among the three proficiency levels ($F = 460,388$; $p = .000$).

Participants had also been administered a background questionnaire asking them to provide personal data and information about the languages they used for social and academic purposes, as well as the amount of foreign language input received both at school and extramurally. As regards participants’ use of the three languages, they had all been exposed to L1 Spanish (majority language in the town as well as the language spoken at home by the children’s families since birth), L2 Basque (minority language to which children are exposed from the beginning of nursery school at the age of 2) and L3 English (foreign language not readily available outside the school context where

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3 children's first school exposure occurred at age 4). Both Basque and Spanish were the
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5 instruction languages at the school which the students belonged to, English being
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7 introduced as a school subject quite early (age 4), and later as a vehicle of instruction to
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9 teach other content subjects (e.g.: Arts and Crafts, Physical Education, and Science)
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11 from Grade 3 (age 8) onwards. At the time of data collection, Grade 5 and Grade 6
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13 students were receiving 3-4 hours per week of English as a subject and 3-4 hours a
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15 week of content lessons delivered in English. Both language and content lessons were
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17 delivered by non-native teachers of English who shared participants' L1 and L2. The
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19 gap between 3 and 4 hours is accounted for by the fact that language lessons were
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21 progressively reduced as CLIL lessons were simultaneously increased, so that learners
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23 received from 5 to 7 weekly hours of instruction in English in the course of the two
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25 academic years examined. Additionally, 59% of the learners had received exposure to
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27 English extramurally, with an average of 2 hours of extra lessons per week in the past
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29 few years.
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35 ***Materials***

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37 Apart from the background questionnaire and the English proficiency test
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39 previously mentioned, participants completed a strategy questionnaire written in
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41 Spanish and adapted from Purdie and Oliver (1999)'s child survey. The questionnaire,
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43 which had previously been piloted with same-age children, was made up of forty 5-
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45 point Likert scale statements aimed at the study of learning strategies in general in
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47 which the minimum score for each item was 1 (I strongly disagree) and the maximum 5
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49 (I strongly agree) (see Appendix 1). Out of these forty statements, 11 items were
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51 devoted to CSs, which are the focus of our study. These items corresponded to
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53 conceptual, linguistic and interactional strategies in line with the taxonomies by Oxford
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3 (1989), O'Malley & Chamot (1990), Poulisse (1990) and Tarone (1977). Specifically,
4 from Oxford (1989) and O'Malley & Chamot (1990) the following strategies were
5 selected: *guessing*, *miming*, *morphological creativity*, *dictionary*, *predicting* and
6 *paraphrasing*ⁱⁱⁱ. From the taxonomy by Poulisse (1990), linguistic strategies such as
7 *transfer*, which is broken down into *borrowing*, *calque* and *foreignising*– were also
8 incorporated in the survey. Finally, *avoidance* and *appeal for assistance* included in the
9 classification by Tarone (1977) were also adopted. Table 2 features the distribution of
10 categories with their corresponding items, which were presented in Spanish to students
11 but are written in English here for the reader's convenience.
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29 ***Data analysis***

30 Data were analyzed for the whole participant sample and for each of the proficiency
31 groups separately. Mean scores (between 1 and 5) and standard deviations were
32 calculated both for the whole set of strategies and for each individual strategy.
33 Kolmogrov-Smirnow tests were run to verify the normality of distribution of the
34 samples. Data were not normally distributed and, thus, non-parametric procedures were
35 used in our study. Kruskal-Wallis tests were computed to investigate if there were any
36 differences among the learner group means. Mann-Whitney tests were subsequently
37 carried out to compare the learners groups in twos (LB vs. B, B vs. UB, and LB vs. UB)
38 so as to verify which of the bidirectional comparisons reached statistical significance.
39 Statistical probability values were marked at below .05 for significant differences and
40 below .09 for marginal differences.
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Results

In this section we will present the results for the whole sample and for each of the three proficiency groups separately. Table 3 displays these results for all strategies taken together and also for individual strategies organised as shown in the Materials section (see Table 2). Mean scores (between 1 and 5) and standard deviations (between parentheses) are given. Kruskal-Wallis figures are marked with an asterisk (*) when the p-value (between parentheses) was found to be significant (below .05), and with a hash sign (#) when the p-value was marginally significant (below .09).

[TABLE 3 NEAR HERE]

The first line of Table 3 shows that, when the whole sample is considered, learners reported a moderate use of CSs with a general mean score of 3.39, a slightly positive value considering the range of the scale used (between 1 and 5). The comparison of the means obtained by the three proficiency groups indicated that the reported use of CSs decreased as learners' proficiency increased, values being moderate (between 3.28 and 3.47) for the three learner groups. Inter-group differences, however, did not reach statistical significance, which can be read as the three proficiency groups behaving very similarly as regards their general use of CSs.

As for the analysis of the different individual strategies, striking agreements were also discovered among the three proficiency groups. Firstly, all the learner groups coincided in the strategies which yielded the highest and the lowest mean scores. 'Appeal for assistance' and 'paraphrasing' were reported to be the strategies most frequently used at all proficiency levels, whereas 'morphological creativity' was the strategy that the three proficiency groups said they resorted to the least. Secondly, with

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3 regard to the comparisons among the learner groups for each strategy, the Kruskal-
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5 Wallis test revealed that on most occasions ('guessing', 'morphological creativity',
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7 'dictionary', 'predicting', 'paraphrasing', 'borrowing', 'calque', and 'appeal for
8
9 assistance') there were no statistically significant differences among the proficiency
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11 groups.

12
13 However, two cases were found in which the significance value reached by the
14
15 Kruskal-Wallis test turned out to be below .05, namely 'avoidance' and 'miming'. A
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17 marginal statistical difference was also found in the case of 'foreignising'. The general
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19 pattern observed in these cases was that of lower proficiency learners making a greater
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21 use of these types of strategies.

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24 Post-hoc analyses were subsequently performed for these three strategies in
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26 order to verify the direction of the differences. Table 4 displays the results of the Mann-
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28 Whitney tests carried out to look into one-to-one comparisons among the proficiency
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30 groups for these three variables. Significance values (between parentheses) are marked
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32 with an asterisk (below .05) or a dash (below 0.9) when differences were supported
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34 statistically.

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39 [TABLE 4 NEAR HERE]
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44 For 'avoidance' and 'miming', it was clearly seen that LBs reported a
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46 significantly higher use than Bs and UBs, differences between Bs and UBs not being
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48 statistically significant. As for 'foreignising', it was found that it is UBs that
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50 distinguished themselves from Bs and LBs, while no statistical support was reached for
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52 the LB vs. B comparison.
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Discussion

In this section we will answer the two research questions posed for the present study. As for the first research question (*Do more proficient CLIL learners display a lower self-reported use of compensatory strategies than less proficient CLIL learners?*), no differences emerged when the total number of CSs was examined. Learners in the three proficiency groups examined reported a moderate use of CSs, results that contrast with the ones reported in Purdie and Oliver (1999) for child learners immersed in an ESL context. However, they are in line with studies conducted in EFL contexts (Poulisse et al., 1990). Similarly, this result is also consistent with the findings on the use of learning strategies reported in Hong-Nam and Leavell (2006) and Yilmaz (2010) according to which the category of CSs obtained the highest mean.

In addition, not many differences were found in the analysis of the eleven different strategies examined either, except for 'mime', 'avoidance' and 'foreignising'. The fact that the three groups are still beginner learners may explain the lack of differences between the groups. A comparison at a higher level of proficiency would probably be more likely to yield statistically significant differences among the three proficiency groups. We may also speculate that the difference in the number of hours of exposure received by the three groups is not so great as to observe larger differences in terms of proficiency and in turn in the number of CSs used. In this respect, this study aligns with other pseudo-longitudinal investigations into the use of the L1 as a CS by CLIL learners during oral production (Arratibel Irazusta, 2015).

As for the categories 'mime' and 'avoidance' in which language is not involved, proficiency seems to play a role, as the less proficient learners reported a greater use of these two categories than the beginners and upper beginners, supporting previous research on the effect of proficiency on the selection of these particular types of CSs

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3 (Bialystok, 1983; Bialystok & Fröhlich, 1980; Jourdain, 2000; Wannaruk, 2003). At
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5 more advanced stages of development, we would expect that the more proficient
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7 learners would probably differ from the less proficient learners in those categories in
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9 which language is clearly involved, such as ‘paraphrasing’ (Fernández Dobao, 2002;
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11 Poulisse et al., 1990).

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13 As regards the category ‘foreignising’, which yielded a marginally significant
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15 difference, upper beginners reported not resorting to this category so frequently as low
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17 beginners and beginner learners, which supplements the existing evidence found in the
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19 oral production of CLIL learners (Arratibel Irazusta, 2015; AUTHOR 1, 2015). In other
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21 words, this type of strategy does not seem to be so characteristic of more proficient
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23 learners as previously thought (Agustín Llach, 2009).

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25 With respect to the second research question (*Are there any differences in terms*
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27 *of types of compensatory strategies that more and less proficient CLIL learners report*
28
29 *using?*), the most preferred strategies were ‘appeals for assistance’ and ‘paraphrasing’
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31 and the least, ‘morphological creativity’ in the three proficiency groups. The categories
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33 ‘paraphrasing’ and ‘morphological creativity’ also coincide with the categories most
34
35 and least widely used in the studies conducted by Poulisse et al. (1990). Even if research
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37 has shown that together with ‘avoidance’ and ‘mime’, L1-based strategies (‘borrowing’,
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39 ‘calque’ and ‘foreignising’) are usually more common among less proficient learners
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41 (i.e. AUTHOR 1, 2015; AUTHOR 3, in press; AUTHOR 3 AND COLLEAGUE, 2015),
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43 these CLIL learners, who are still beginner learners, seem to use some L2-based
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45 strategies (i.e. paraphrasing), which are typical of more advanced learners and may
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47 evince an advantage in line with other attested linguistic benefits of CLIL contexts
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49 (Agustín Llach & Canga Alonso, 2016; Merino & Lasagabaster, 2017). In other words,
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51 the effect of proficiency seems to be overruled by the effect of CLIL in this respect. The
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3 fact that CLIL learners are used to employing the foreign language as a means of
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5 communication might lead them to risk more and to manipulate concepts in the TL to a
6
7 larger extent. Additionally, the type of input received by CLIL learners could also be a
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9 factor accounting for their use of CSs characteristic of more advanced learners. In CLIL
10
11 contexts, teachers tend to paraphrase with greater frequency and reformulate both their
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13 own and learners' utterances as well as scaffolding learners' messages so as to avoid
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15 communication breakdowns (Dafouz-Milne & Llinares-García, Dalton-Puffer, 2007,
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17 Huttner & Rieder-Bunemann, 2010). In this respect, the learners in this study might be
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19 imitating their teachers' behaviour.
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22 But despite the greater use of paraphrases reported by these CLIL learners, they
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24 still manifest an extensive use of 'appeals for assistance', which seems to contradict
25
26 what has been previously found in CLIL research with respect to this strategy (see
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28 AUTHOR 3, in press; AUTHOR 3 AND COLLEAGUE,, 2015). Nevertheless, this finding
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30 would be in line with studies that investigated the use of the developmental nature of
31
32 learning strategy use (Victori & Tragant, 2003), according to which a younger age
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34 seems to favour the choice of this particular social strategy.
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40 **Conclusion**

41 This study set out to investigate the role that TL proficiency plays in young CLIL
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43 learners' reported use of CSs as well as in their preference regarding the type of
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45 strategies employed during production of the TL.
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48 This study has revealed a moderate-to-high use of CSs. Even if these learners are
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50 involved in a CLIL programme, where a focus on meaning is promoted, they are still in
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52 an EFL context where the language is not used for communication purposes outside the
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54 school. Besides, a low impact of proficiency has been found on the amount of CS use,
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3 probably because participants still were beginner learners. Regarding types, proficiency
4 differences were found in the case of avoidance, mime and, more marginally,
5 foreignising. These strategies were more common among low-proficient learners, a
6 finding which is in line with oral production data analyzed in previous studies.
7 Additionally, the results suggested that proficiency might be overruled by the effect of
8 CLIL, as learners immersed in this type of meaning-oriented approach reported using
9 strategies typical of more advanced learners, namely paraphrasing, a finding which
10 would agree with the purported linguistic benefits of CLIL (Agustín Llach & Canga
11 Alonso, 2016).
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22 Some pedagogical implications can be drawn from our findings. First, teachers
23 should take into consideration TL proficiency-based differences while learners need to
24 compensate their lack of knowledge when interacting with others. In an attempt to foster
25 TL use they could, for instance, develop classroom activities which prevent beginner
26 learners from using non-linguistic strategies such as avoidance or mime. Interactive
27 tasks in which students cannot see but just hear each other might be helpful in this
28 regard. Second, regarding L2-based strategies, teachers should become aware of the fact
29 that young CLIL students, despite their low proficiency, report having more advanced
30 TL resources to paraphrase and to explain themselves in different ways, and thus make
31 use of this potential in their content lessons. Third, primary education teachers must
32 take cognisance of the fact that social strategies, namely appeals for assistance, seem to
33 be quite abundant in young learners, and take benefit of this fact when designing tasks
34 for their language or content lessons. Finally, as for the L1-based strategies that these
35 three groups of CLIL learners report resorting to (i.e.; borrowing, foreignising), in the
36 light of existing evidence that the use of the L1 can be a useful resource in bilingual
37 and/or multilingual education (see Gené Gil, Juan Garau, & Salazar Noguera, 2012),
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3 and following current theoretical perspectives that consider the L1 a cognitive and
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5 mediating tool that might report multiple advantages in language learning (see Lo & Lin
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7 2015), we advocate a judicious use of these languages.

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9 For future research, a longitudinal study of self-reported opinions over time, as
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11 in Serra (2007), would be advisable since self-reported behaviours in survey research
12
13 are surely unstable (Macaro, 2006; Oxford et al., 2004) and change over time (Tseng et
14
15 al., 2006). Secondly, it would be convenient to compare these three groups of beginner
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17 learners at a higher level of proficiency, as proficiency may interact with such variables
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19 as age or any other age-related variables, namely attitudes or motivation. Thirdly, a
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21 comparison of these CLIL learners with non-CLIL learners would also shed more light
22
23 on the effect of CLIL and, more particularly, it would help to differentiate the effects of
24
25 CLIL from those of formal English learning courses. **Fourthly, a better comparison**
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27 **between our survey research findings and those of studies comparing CLIL and non**
28
29 **CLIL learners while performing production tasks** (e.g.: Agustín Llach, 2009; Celaya &
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31 Ruiz de Zarobe, 2010; García Mayo & Lázaro Ibarrola, 2015, among others) could be
32
33 established. Finally, following Gao's (2007) recommendation, triangulation of the self-
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35 reported opinions analyzed in this study with other linguistic behaviour measurements
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37 from the same participants would be recommendable. As in Kahn & Victori (2011), we
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39 are awaiting the results of the comparison between the findings of the survey study
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41 presented here and the results of observations of the CSs these participants actually use
42
43 when they are engaged in an interactive oral activity with their peers. This way, some of
44
45 the general criticisms made about the reliability of survey research outcomes (Cohen,
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47 1998; Dörnyei, 2003; Ellis, 2008; Kahn & Victori, 2011) could be overcome.
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55 **Acknowledgements**

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TABLES

	English proficiency		Mean age	Mean hours of exposure	Gender	
	Mean	SD			M	F
Lower Beginner (n=35)	30.00	(6.61)	10.71	782.00	68.57	31.43
Beginner (n=52)	48.15	(4.81)	10.59	789.19	55.77	44.23
Upper Beginner (n=52)	63.67	(4.09)	10.90	818.62	61.54	38.46

Table 1. Participants

Purdie & Oliver (1999)	Guessing	If I don't understand something in English, I guess what it means.
	Miming	If I can't think how to say something in English, I use my hands to show what I mean.
	Morphological creativity	If I can't think how to say something in English, I make up new words.
	Dictionary	If I don't understand what something means in English, I look it up in a dictionary.
	Predicting	When someone talks to me in English I try and guess what they will say next.
	Paraphrasing	If I can't think how to say something in English, I use other words that mean the same thing.
Poulisse (1990)	Borrowing	If I can't think how to say something in English, I say it in my mother tongue.
	Calque	If I can't think how to say something in English, I translate word for word from my mother tongue.
	Foreginising	If I can't think how to say something in English, I adapt a word from my mother tongue.
Yule & Tarone (1990)	Avoidance	If I can't think how to say something in English, I avoid referring to it.
	Appeal for assistance	If I can't think how to say something in English, I ask for help.

Table 2. Distribution of CSs.

STRATEGIES	ALL	LB	B	UB	Kruskal-Wallis (sig.)
All Strategies	3.39 (.56)	3.47 (.60)	3.42 (.55)	3.28 (.53)	2.198 (.333)
Guessing	3.66 (1.32)	3.56 (1.28)	3.87 (1.25)	3.46 (1.41)	.2531 (.281)
Miming	2.74 (1.36)	3.38 (1.53)	2.58 (1.36)	2.42 (1.19)	9.046 (.011)*
Morphological creativity	2.24 (1.27)	2.47 (1.54)	2.08 (1.17)	2.27 (1.19)	.891 (.641)
Dictionary	3.80 (1.13)	3.69 (1.20)	3.73 (1.20)	3.88 (1.00)	.335 (.856)
Predicting	3.16 (1.28)	3.19 (1.35)	3.27 (1.25)	3.00 (1.26)	1.285 (.526)
Paraphrasing	4.09 (.96)	3.94 (.95)	4.21 (.96)	4.02 (1.00)	2.537 (.281)
Borrowing	3.75 (1.33)	3.64 (1.47)	3.94 (1.29)	3.66 (1.25)	2.070 (.355)
Calque	3.39 (1.21)	3.18 (1.33)	3.71 (1.06)	3.30 (1.18)	4.322 (.115)
Foreginising	3.01 (1.40)	3.27 (1.62)	3.16 (1.33)	2.66 (1.27)	5.064 (.079)#
Avoidance	3.07 (1.30)	3.53 (1.11)	2.83 (1.22)	2.90 (1.43)	6.730 (.035)*
Appeal for assistance	4.57 (.62)	4.52 (.71)	4.47 (.70)	4.67 (.47)	1.939 (.379)

Table 3. Means and standard deviations for reported use of CS

STRATEGIES	LB vs. B	B vs. UB	LB vs. UB
Avoidance	-2.562 (.010)*	-.103 (.918)	-2.072 (.038)*
Miming	-2.357 (.018)*	-.399 (.690)	-2.947 (.003)*
Foreignising	-.607 (.544)	-1.904 (.057)#	-1.855 (.064)#

Table 4. Mann-Whitney and probability for one-to-one group comparisons

ⁱProficiency was determined by the average grades at university.

ⁱⁱ Cambridge English Flyers is a Cambridge English exam specially designed for children in primary and lower-secondary school. It assesses the four language skills (listening, reading, writing and speaking) and it is targeted at Level A2 of the Common European Framework of Reference for Languages (CEFR). See <http://www.cambridgeenglish.org/exams/young-learners-english/flyers/test-format/>

ⁱⁱⁱ Note that 'paraphrasing' (conceptual strategy) and morphological creativity (linguistic strategy) belong to the classification by Poulisse (1990). The strategy 'miming' is also included in Tarone (1977).