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# CORRECTIVE FEEDBACK IN CLIL

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## INTRODUCTION

Language learning has been found to be promoted by focus on form techniques, such as corrective feedback (CF; Nassaji & Kartchava, 2021). In second language (SL) and foreign language (FL) settings, teachers make use of different strategies in order to compensate for the scarcity of input and opportunities for real communication. Content and language integrated learning (CLIL) classrooms are typically set in instructional contexts where the target language is a FL (Lasagabaster & Sierra, 2010) but, given the meaning-oriented nature of these type of contexts, differences are expected in the approach to language teaching in CLIL and FL lessons.

Research on CF in FL classrooms is extensive (see the recent handbook edited by Nassaji and Kartchava, 2021) but that is not the case in CLIL contexts. Therefore, the present chapter reviews the scant existing literature on CF in CLIL classrooms, trying to provide the reader with a complete picture of the use and effectiveness of this technique in this particular setting. It will examine teacher's provision of oral and written feedback and learners' response, operationalized as immediate uptake. The chapter will review studies reporting findings from primary and secondary education CLIL classrooms, but will not include studies in tertiary education as they are included within English medium instruction (EMI; Lasagabaster & Doiz, 2018) and the characteristics of these lessons differ from in those CLIL programmes with younger students.

The chapter is organized as follows: after this brief introduction, the following section presents some basic concepts and the most important findings about feedback on language errors in FL classrooms. Afterwards, the literature on oral and written CF in CLIL classrooms is reviewed. A final section concludes the chapter and offers some pedagogical implications derived from the research findings presented.

## FEEDBACK IN FOREIGN LANGUAGE CONTEXTS

Research on the process of second language (L2) acquisition has promoted the use of activities that focus both on meaning and on formal aspects of the target language. As is

well known (Spada, 2011), the mere exposure to meaningful L2 input is not enough for learners to reach proficiency in an L2/FL and to foster their productive skills. Evidence from Canadian immersion programs (Lyster, 2007) showed that, after large amounts of exposure to meaningful input, the speaking and writing skills remained far from native-like and some aspects of grammar were never acquired. VanPatten (1990) also pointed out the processing limitations that led to learners' focus on meaning rather than on form at the beginning stages, and Schmidt (1990) highlighted the need that some attention to form was necessary for language learning to take place. CF is one of the ways to draw learners' attention to formal aspects of the target language.

Feedback on learners' output can be positive or negative, with the former entailing the provision of input in the target language and the latter drawing attention to problems in the learners' production. CF had been defined as "a reactive type of form-focused instruction which is considered to be effective in promoting noticing and thus conducive to learning" (Yang & Lyster, 2010, p. 237). A number of studies have shown that CF is beneficial for FL learning (Nassaji & Kartchava, 2021). This form-focused technique can be provided orally or in writing, with various options in each modality, as will be seen below[1].

Regarding **oral corrective feedback (**OCF), CF typically occurs in the context of corrective feedback episodes (CFE), which consist of three moves as shown in example (1) below:

(1) Learner: last night he was watching TV but then he *fall asleep.
Teacher: he…?
Learner: he fell asleep.

The first move is the learner's erroneous utterance, in this case a wrong irregular verb form in the past tense, so a morphosyntax error. We may also find errors related to vocabulary, pronunciation, content, or even the unsolicited use of the L1, which is not always considered erroneous. The second move will be the CF itself, which can be of different types. Ranta and Lyster (2007) established a distinction between prompts, where

[1] Feedback can be also provided online in computer assisted language learning (CALL) environments. This chapter will only deal with offline oral and written feedback because that is the most common type of feedback in content lessons and also due to space constraints.

no positive feedback is provided - just the indication of the existence of an error, as in turn 2 in example (1) above-, and reformulations, those types that offer the learners some positive evidence related to their error, such as the recast in example (2) below. Hence, prompts would be output-pushing types such as clarification requests, repetitions, elicitation and metalinguistic explanations, and reformulations would be recasts and explicit correction:

(2) Learner: …depends also *in your personality in the company.
Teacher: you have said the first one: on your personality, depending on your personality. Explain that a little bit.

The third turn in example (1) represents the learners' response, which is referred to as uptake in OCF research and has been defined as "[…] a learner's utterance that immediately follows the teacher's feedback and that constitutes a reaction in some way to the teacher's intention to draw attention to some aspect of the learner's initial utterance" (Lyster & Ranta, 1997, p.49). Most studies have operationalized the effectiveness of OCF in terms of learners' immediate uptake, and research has shown that different types of OCF lead to different rates of uptake. Thus, recasts are the most frequently provided CF type in FL/SL classrooms, but not necessarily the most effective in terms of learners' immediate use of that feedback (Yang & Lyster, 2010; Yilmaz, 2012). According to research, other factors seem to affect the effectiveness of OCF, such as the type of instructional context. That is, studies comparing more form-oriented instructional contexts, such as FL classrooms, and contexts more focused on meaning, such as immersion or SL classrooms, report that CF types have a different effect on the learners' response (Lyster & Mori, 2006). In the context of FL teaching, more implicit types such as recasts appear to lead to higher rates of uptake than in SL contexts, since the learners' attention is already set on language form, while in meaning oriented classrooms uptake is achieved by means of prompts or explicit correction. This idea has been summarized in Lyster and Mori's Counterbalance Hypothesis (2006), which states that:

> Instructional activities and interactional feedback that act as a counterbalance to the predominant communicative orientation of a given classroom setting will be more facilitative of interlanguage restructuring than instructional activities and

interactional feedback that are congruent with the predominant communicative orientation (Lyster & Mori, 2006, p. 294).

Content and language integrated learning (CLIL) classrooms, although occurring in FL settings, are usually more oriented to meaning and content than to pure language form. Therefore, CLIL classrooms would belong to the former type of instructional setting, so it would be reasonable to think that the effect of OCF would be similar to that in SL classrooms. However, CLIL is an umbrella term which includes multiple types of programmes and a variation in the focus of the lessons, so this issue needs to be analyzed in more detail, as we will do below.

Concerning **written corrective feedback (WCF)**, information about the errors in the learners' written output may be given in more or less explicit forms. Thus, teachers sometimes provide direct/explicit correction on learners' texts, or reformulate the errors, while in other cases more implicit feedback in the form of written codes is used. An even more implicit type of WCF would be providing learners with model texts written by native speakers or the teachers themselves and allowing the learners to establish comparisons with their original drafts.

Learners' response to written feedback can be operationalized as noticing of features. Noticing and attention to form have been found to be essential for L2 acquisition (Schmidt, 2001). In order to analyze the effect of WCF on noticing, the researcher may examine, on the one hand, the participants' comparisons between their written draft and the one that contains the feedback provided and, on the other hand, whether or not the features that are noticed have been later incorporated in their subsequent written drafts.

Studies on WCF types have obtained mixed findings as to their effectiveness. In general, explicit WCF appears to promote learners' noticing more than less explicit or indirect WCF (Suzuki, Nassaji & Sato, 2019). For instance, direct error correction (EC) has proved to be effective (Coyle & Roca de Larios, 2014; Sheen, 2007) since it offers the solution to the error in a juxtaposed position and it does not require complex processing of the feedback. Noticing can be more problematic with indirect WCF such as the one provided by model texts, especially with low level and/or young students (Coyle & Roca de Larios, 2014). Reformulation is another type of indirect WCF type but it provides more salient corrections as the errors in each learner's text are specifically addressed. Previous research has found that reformulations seem to offer more

opportunities than model texts, for deeper processing (Kim & Bowles 2019) and noticing of language problems (Yang & Zhang, 2010). Comparison between WCF types has shown that they trigger noticing of different types of features as well as different amount of incorporation in revised drafts (Hanaoka & Izumi, 2012; Yang & Zhang, 2010), as will be detailed below.

## CORRECTIVE FEEDBACK IN CLIL

CLIL has been defined as 'a dual-focused educational approach in which an additional language is used for the learning and teaching of both content and language' (Coyle, 2010:1)". This approach has been implemented in FL contexts, usually with English as the target language and it is an umbrella term for a variety of teaching programmes, although they all share certain characteristics (Lasagabaster & Sierra, 2010). Some of these common features include: non-native teachers who are typically specialists on the subject matter and do not have a linguistic background, lesson focus on content and meaning, and the starting age at which learners are enrolled in these programmes, usually after some literacy skills have already been acquired in their first language.

As seen above, although there is plenty of research on CF in immersion settings (Lyster & Ranta, 1997) and mainstream FL classrooms (Yilmaz, 2012), relatively few studies have considered CF in CLIL settings (Dalton-Puffer & Nikula, 2014). However, some research has attempted to explore how CLIL teachers react to students' language errors and the effectiveness of their corrective measures. The findings and pedagogical implications of those studies are reviewed in what follows. As with studies on CF in FL classrooms above, we have considered those focusing on OCF and those concerning WCF separately.

### Oral corrective feedback in CLIL

In this section, we consider several aspects about OCF that have been dealt with in the literature. First, teachers' use of CF in terms of frequency, types, and linguistic focus at different educational levels followed by the relationship between teachers' beliefs and actual classroom corrective practices. Then, learners' perspective is examined, both as far as uptake and as to their preferences about OCF.

*Primary vs secondary classrooms*

Findings on OCF generally show how CLIL teachers in **primary education** provide rather explicit and frequent corrections to learners' oral errors (Llinares & Lyster, 2014; Nguyen, 2018) while teachers in secondary education classrooms tend to ignore the errors related to language and when they address them, they prefer to use implicit CF, such as recasts (Milla & García Mayo 2014, 2021a).

Thus, Llinares and Lyster (2014) made a comparison of CF in three types of contexts at elementary level: French as a second language (FSL) in Canada, Japanese as a foreign language (JFL) in the US and CLIL classrooms in Spain. The data in FSL classrooms was taken from a seminal study on CF by Lyster and Ranta (1997) where they examined feedback provided to L1 English learners in French immersion classrooms. The second set of data belonged to a study by Mori (2002) and had been analyzed in a comparative study of French immersion and Japanese immersion classrooms (Lyster & Mori, 2006). In fact, the so-called Japanese immersion classrooms were actually L1 English learners in the US Japanese as a FL classrooms, who followed an intensive programme. Finally, the third set of data were L1 Spanish learners in a CLIL programme in Madrid (Spain). The study reported that CF was provided in a similar proportion in the three contexts. Hence, recasts were the most frequently provided type but the JFL and CLIL teachers used more explicit recasts - also referred to as didactic recasts in Sheen, (2007) - while the teachers in the immersion classrooms preferred the use of conversational recasts, of a more implicit nature. Moreover, differences were found mainly in the learners' immediate response to the feedback: higher uptake of recasts was found in CLIL and JFL classrooms while more uptake after prompts occurred in the FSL classrooms. In terms of repair, similar rates were found after recasts, prompts, and explicit correction, but recasts were much more effective in JFL classrooms while the opposite happened in the CLIL context. The authors concluded that the teachers' beliefs and previous experience accounted for the CF patterns while the type of instructional setting (more or less oriented to form) seemed to influence learners' noticing of CF.

In her doctoral dissertation about OCF in CLIL primary classrooms, Nguyen (2018) compared teachers' behaviour in CLIL natural-science classrooms in Spain and Vietnam. Nguyen (2018) reported that the three participant teachers in the CLIL classrooms in Spain corrected content errors in a double proportion over formal errors, while the four teachers in Vietnam corrected content and form errors in a similar

proportion. The author explains that this difference might be related to the number of years the programme had been implemented. Teachers in Spain had been teaching CLIL programmes for several years, while this type of programme had been very recently implemented in the Vietnamese schools participating in the study. Apparently, the longer the primary school teachers had been teaching in a CLIL programme, the less they addressed language errors, since they considered that attention to form should be dealt with in English classes. On the contrary, teachers in Vietnam came from a FL teaching tradition that they were now applying in their CLIL lessons. Regarding the types of CF, Nguyen (2018) found that prompts were preferred in both contexts, while recasts were the second more frequently used CF type. Nguyen attributed the difference in her findings to those in Llinares and Lyster (2014) to the fact that their study focused only on language errors while hers included content and form errors in the data. In fact, when examining the use of CF to address formal errors only, teachers in Spain used recasts more frequently, in line with what Llinares and Lyster (2014) had observed to happen.

Similar findings were revealed in a study by Guzmán-Alcón (2019), in which she compared the application of several principles proposed by Brandl (2008) in order to achieve effectiveness in communicative language teaching methodologies. Some of the principles observed were: promoting collaborative work, focusing on form, and providing corrective feedback. The author analysed the application of these principles by observing oral interaction in EFL and CLIL lessons in a primary education class (n=27; age=6) at a European school in the UK. Following an action research approach, five sessions of Spanish as a FL and five Maths sessions were observed and group interaction and peer interaction were analysed. Some of the tasks performed by the learners were describing dimensions and shapes in order to describe the classroom, telling the time in relation to their daily schedule, and describing animals in a farm. Regarding CF, the author reported that CLIL teachers almost never provided CF or focus on form. The types of feedback were different in the EFL and the CLIL classrooms as well: recasts were the most frequent type in CLIL lessons whereas in FL lessons the different types were used in a similar proportion.

Marsol Jornet (2015) showed that the two participant teachers in her study behaved differently depending on the subject they were teaching in the primary school classroom: CLIL or EFL. Thus, more recasts were offered by the teachers in the EFL lessons, while prompts were preferred in the CLIL subjects. Explicit correction was rare

in both contexts, and slightly higher in EFL lessons. As to the linguistic focus of the OCF, even though no significant differences were found, a slightly higher proportion of lexical and pronunciation errors were addressed in CLIL and when teaching EFL, teachers addressed more morphosyntactic errors. Therefore, one might think that it is not only the teacher's background but also the instructional context that creates a different lesson orientation to form or meaning, thus resulting in more or less frequency and the preference for different types of OCF to address language errors.

On the contrary, CLIL teachers in **secondary** education are clearly focused on content as comparative studies have found (Hampl, 2011; Milla & García Mayo, 2014, 2021a). Even though they have a positive attitude towards OCF and believe it is necessary and beneficial (Milla & García Mayo, 2021b), they seem to consider it the responsibility of their language teachers' counterparts (Schuitemaker-King, 2013). Hence, they tend to provide OCF only when communication is hindered because of lack of lexical knowledge or because of content errors. This is what Hampl (2011) found when investigating error correction in secondary EFL and CLIL (Social and Natural Sciences) classrooms in Austria. In her study, twelve lessons by six different teachers were observed and findings showed that errors in CLIL classrooms were much more frequent than in EFL but less than 50% were addressed by the teacher. Similarly, Mariotti (2015) reported that teachers in secondary school (learners' age= 13-18) CLIL (Biology, Geography and Natural Science) classrooms in two schools in Italy with English as the language of instruction rarely used negotiation moves with a corrective intention, they did not encourage learners to produce comprehensible output and there was a lack of output-pushing moves in the teacher's feedback. The author claimed that teacher training is needed since negotiation of form and output modification are conducive to L2 acquisition. In a theoretical article on CLIL planning and teaching strategies, Meyer (2012) supports this claim by pointing out that systematic error treatment is essential for L2 learning, particularly in CLIL classrooms.

Similar findings were reported by Milla and García Mayo (2014, 2021a) in their comparative studies in CLIL and EFL secondary school classrooms. Milla and García Mayo (2014) observed and recorded three lessons of a CLIL teacher in Business English and four of an EFL teacher in English in a post-obligatory secondary education class (age=17-18) of a bilingual community in the north of Spain (L1=Spanish/Basque). In Milla and García Mayo (2021a) the authors increased the sample of teachers (two CLIL

and two EFL) as well as the number of sessions (20 CLIL and 18 EFL) and recorded the lessons to account for CFEs in these two different contexts. In both studies, CLIL teachers were found to overlook most errors and address mainly lexical errors and by means of recasts while EFL teachers showed a more form-focused orientation in their corrective practices with more than 70% of the errors receiving attention from the EFL teachers and the use of different types of OCF, including prompts and multiple feedback moves.

Regarding the types of CF used by CLIL teachers in secondary education to correct oral errors, research has also found that they tend to overlook errors and merely provide OCF in the form of recasts, as opposed to FL teachers' comprehensive and more explicit feedback (Dalton-Puffer, 2007; García Mayo & Milla, 2021). Regarding error types, lexical errors are corrected while others such as morphosyntactic or pronunciation errors are less frequently addressed. Although the comparison of different linguistic foci has not yielded significant differences, in some studies the correction rates of pronunciation and lexical errors were slightly higher in CLIL while in EFL there was more correction of oral morphosyntactic errors (Dalton-Puffer 2007: Krampitz 2007; Llinares, Morton & Whittaker, 2012; Marsol Jornet, 2015).

As suggested above, one of the explanations for these differences in OCF between EFL and CLIL classrooms and even between primary and secondary levels might be the different background teachers have in primary and secondary education. While in primary school CLIL teachers are usually language specialists, in secondary classrooms teachers are subject specialists with a certified English level. As Dalton-Puffer (2007) indicated, it seems that CLIL teachers with previous training on language teaching corrected much more frequently than those without it. The focus of the lessons in primary school, then, can shift from content to language depending on the circumstances if the teacher is a FL specialist. However, generalist educators and secondary CLIL teachers are usually oriented to content and leave the language teaching exclusively to the English teachers.

*Teachers' beliefs and corrective practices in CLIL contexts*

As explained above, in studies where teachers' beliefs about OCF and practices have been compared, mismatches have been found, especially with CLIL teachers (Milla & García Mayo, 2021b). The authors compared 11 CLIL and 20 EFL teachers' responses to a belief questionnaire about CF and found that CLIL teachers show a positive attitude towards the use of CF and consider it beneficial for FL learning. However, when

comparing these beliefs with the teachers' actual CF practices, Milla and García Mayo (2021b) reported that CLIL teachers use a very small amount of correction and, when they do, they merely choose recasts and address basically lexical or content errors. As just mentioned, similar findings were observed in Dalton-Puffer's (2007) study, where former EFL teachers corrected much more frequently than those who did not have a language teaching background, although their beliefs were not consistent with their practices. Thus, teachers with a FL teaching training reported not being concerned with language errors in the CLIL lessons, but their behavior was actually much more form-oriented than the non-EFL teachers in terms of CF provided. In a similar vein, in a small scale study with 47 language teacher trainees in Argentina, Banegas (2015) found that, when planning a CLIL lesson, the pre-service teachers considered language development in their aims and employed language noticing and awareness strategies, even though the majority of the proposed activities were content-related.

Such mismatch, which has not been observed when comparing FL teachers' beliefs and feedback, has been attributed to the fact that CLIL teachers do not consider themselves responsible for attention to form, leaving this job to their language teacher counterparts (Milla & García Mayo 2021b, Schuitemaker-King, 2013).

*Learners' uptake and repair*

The effect of OCF effect can be measured in terms of immediate uptake, which has been investigated in depth as it may be influenced by different variables, such as the type of feature in the CFE, the type of CF provided, the instructional context, and the learners' characteristics, among others. One of the most widely researched variables in studies about OCF effectiveness has been the type of CF provided. Different studies have reported mixed findings, although some general conclusions can be reached. On the one hand, it seems that more implicit and input-providing types such as recasts are less effective in terms of uptake and are usually overlooked by the learners, who fail to recognize the corrective nature of the teacher's utterance (Lyster & Mori, 2006). Again, controversial results have been found regarding the effectiveness of recasts, but mainly due to the different nature of the contexts involved. As explained above, recasts seem to be more effective in form-focused contexts (such as FL classrooms) while they are

generally not easily perceived by learners in immersion settings or content-oriented lessons such as many of those in CLIL programmes. On the other hand, prompts or output-pushing types of OCF seem to be very helpful to draw learners' attention to form in meaning-oriented settings, as Lyster and Mori's (2006) Counterbalance Hypothesis suggests. Hence, in CLIL lessons, where content is generally the focus of the lesson, a similar situation appears to occur.

For instance, in García Mayo and Milla (2021), the CLIL teacher's OCF was almost exclusively in the form of recasts, but, interestingly, prompts had a much greater impact on the learners' uptake. A similar trend was observed in Nguyen (2018) study with primary school CLIL classrooms, as recasts were the most frequently provided type of OCF in both Spanish and Vietnamese classrooms, but also the least effective in terms of uptake. Dalton-Puffer (2008) explains that the use of this type of CF is beneficial in that it helps to maintain the communicative flow and learners are more engaged in interaction and feel more relaxed. The focus on meaning of these lessons is said to create an atmosphere that may resemble L1 interactions. However, as Dalton-Puffer (2008) points out, a great deal of repair occurs also in "normal" conversations outside the instructional settings, therefore, focusing on problematic language features does not necessarily create an artificial environment in the classroom, since it is also part of L1 interactions.

*Learners' preferences*

In general, studies on FL learners' preference for CF have shown a mismatch with teachers' practices in that usually learners demand more frequent, comprehensive and explicit OCF. A similar trend has been found in studies involving CLIL classrooms. Given the lack of attention to form on the part of CLIL teachers, it appears that learners are more concerned with linguistic accuracy than their content teachers (Dalton-Puffer, 2008; Milla & Garcia Mayo 2021b).

A few studies have explored learners' perspectives about CLIL, regarding language learning process or instructional activities. For example, in a longitudinal study that tracked down secondary school CLIL learners' beliefs, Lasagabaster and Doiz (2016) found that learners had a positive attitude towards their progress in language and believed that CLIL was beneficial for them in this sense. However, grammar was the least important aspect for these students and also the one in which they believed they had gained less through their CLIL lessons. The authors believe that learners' beliefs might be biased due to the lack of an explicit focus on grammar in the CLIL lessons but also

acknowledge that language results or classroom observations were not included in the study. However, the topic of learners' beliefs about CLIL is still under-researched and deserves further attention in order to meet learners' needs and hence help promote their language acquisition.

**Written corrective feedback in CLIL**

In what follows, we will consider the WCF provided in CLIL classrooms and the impact of the different types of WCF on learners' noticing and subsequent improvement (Coyle & Roca de Larios, 2020). Unfortunately, in spite of the great amount of teachers' handbooks and articles with indications for teachers on how and when to provide WCF (e.g. Dale, van der Es & Tanner, 2010; de Graaff, Koopam & Westhoff, 2006; Evnitskaya, 2018), there are very few studies who have actually investigated teachers' corrective practices in the written modality in CLIL contexts. We saw above that CLIL teachers do not provide learners with a great amount of correction on oral errors, so it would seem reasonable to think that they would be even more concerned with content when revising the learners' written work. Additionally, learners receiving CLIL instruction are expected to react differently to feedback, since the FL literacy demands in CLIL are higher than in non-CLIL programmes, where the FL is not a tool to acquire other knowledge.

Coyle and Cánovas Guirao (2019) conducted a study with fourth and fifth grade EFL learners (n=16) performing two multi-stage writing and feedback tasks, where they received models as feedback to be compared with their compositions from picture prompts. The authors advocate for the use of model texts as WCF for young learners in CLIL classrooms, since, according to their results, it seems that this type of WCF, together with scaffolding by the teacher, helps these learners develop skills in comprehension, word recognition, spelling, morphology and text structure.

In a recent study, Coyle and Roca de Larios (2020) selected four pairs of fifth grade EFL learners (age=10-11) and four pairs of fourth grade CLIL learners (age=9-10) to carry out a collaborative writing task using a picture prompt, followed by a second stage where models were provided for comparison and a final stage when learners had to rewrite the story based on the picture prompt. The authors found that CLIL students were more capable of identifying alternative lexical features and solutions for their linguistic problems in model texts written by native speakers than their EFL counterparts.

According to Coyle and Roca de Larios (2020), since their lexical repertoire is larger, they may pay attention to language forms at the sentence level. In this study, uptake to WCF was operationalized as incorporation of features in a revised draft after providing the learners with model texts and requesting them to make a comparison with their own compositions. A larger amount of features was incorporated in the CLIL group (55%) than in the non-CLIL group (26%). It appears, then, that CLIL learners can benefit more from WCF than their non-CLIL counterparts, at least in the Spanish context and in the primary education level where the study was carried out.

More recent studies have supported these findings. Thus, work by Luquin and García Mayo (2021) on models and by Milla and García Mayo (accepted) on reformulations, have reported that young primary school learners are able to notice and incorporate lexical and grammatical features in the revised drafts of their original compositions. In a study looking at the effect of models in the noticing and incorporation of features in the written output of primary school young CLIL learners (11-12 years old), Luquin and García Mayo found that the learners in the group receiving models (n = 18) noticed and incorporated significantly more lexical and content features than the control group (n = 20) but also aspects related to grammar, mechanics and discourse. The learners in the study were able to retain some of the learned knowledge, as the results from the delayed posttest showed. The authors recommend the use of models as a source of native input for lexical and content elements and to combine it with more focused WCF types. Reformulations might be useful to this aim, as seen in Milla and García Mayo (accepted). The authors analyzed the written output produced by fourteen pairs of 11-12 years old children and compared the noticing and incorporation of features in models and reformulations. They reported that children provided with models noticed and incorporated more lexical features, while those provided with reformulations focused on grammar and spelling features and incorporated a larger amount of these features in the revised drafts than the learners in the models group.

## CONCLUSION AND PEDAGOGICAL IMPLICATIONS

This chapter has reviewed the scant literature on teachers' oral and written CF in CLIL primary and secondary school classrooms. Research suggests that a combination of different types of CF is advisable since each seems to trigger a different type of uptake. In OCF, input-providing types of feedback seem to be more effective for pronunciation, lexical items and irregular forms of the language, together with language forms that are

more out of the scope of the learners' developmental level. Prompts, on the other hand, are beneficial for morphosyntactic aspects of the language, such as regular forms, frequent errors, or less complex features. Besides, CLIL lesson's orientation has to be considered and try to make OCF more explicit when necessary, to shift the learners' focus from content to form. When providing WCF, reformulations help with grammar and spelling while model texts provide a source of input in terms of vocabulary and expressions that enrich learners' written output. In addition, learners' preferences need to be considered and an attempt to match them should be made, to improve their level of motivation and self-confidence.

After revising existing literature on CF in CLIL, some pedagogical implications deriving from these findings will be suggested. Firstly, research has shown that teacher training makes a difference regarding how teachers provide incidental focus-on-form techniques. Mackey, Polio and McDonough (2004) reported that teachers behaved differently depending on their level of experience, with more experienced teachers using more incidental focus-on-form techniques than inexperienced teachers. What is more, the study showed that after the inexperienced teachers participated in a teacher education workshop that dealt with the issue of providing feedback their performance improved. Thus, we believe that it would be of utmost importance to raise CLIL teachers' awareness regarding the importance of drawing their learners' attention to formal aspects of language in their content classes as competences and skills are transferred from one area to another (Cummins, 2021). Awareness-raising has to be promoted via teacher workshops, where teachers should be informed about advances in research and be provided with appropriate pedagogical tools.

Secondly, collaboration between CLIL and EFL teachers should be fluent and continuous: the CLIL teachers should convey the language requirements of their content courses to the EFL teachers. In turn, the EFL teachers should adapt their timeline and adjust to the needs of the content subjects.

Thirdly, materials developers should also be involved in these changes. If CLIL teachers have their materials appropriately prepared for a focus on content and language, it will be easier for them to focus on language when problems arise within the development of the lesson. However, CLIL materials have been found to be too complex in terms of language (Aguirregoitia Martínez, Bengoetxea Kortazar & González-Dios, 2021), which poses problems not only for the learners' L2 development, but especially

for content learning. CLIL does not simply consist on teaching a subject in English (or any other foreign language), but specific techniques and materials have to be developed and used. When making decisions, teachers, material developers and policy makers should keep in mind that CLIL learners are in FL instructional contexts, low-input contexts by definition, most of the time with non-native teachers who have to handle crowded classes where keeping a fluent communication is not an easy task.

Even though research on CF in FL and SL contexts is extensive, there is a lack of research on CLIL classrooms, particularly in terms of WCF, which appears to occur very rarely in this type of content-oriented settings. Moreover, teachers' beliefs and practices show a mismatch which should be addressed in further studies, together with research on learners' preferences. There is still much work to do if we want to reach the full potential of CLIL in terms of integrating content and language learning.

**FURTHER READING**

Nassaji, H., & Kartchava, E. (2021). *The Cambridge handbook of corrective feedback in language learning and teaching*. Cambridge University Press.

This volume compiles the newest research and state-of-the art articles about the role of corrective feedback in second and foreign language teaching and learning. Different aspects of this teaching technique are addressed, including learning context and its effect on corrective feedback provision and effectiveness. Pedagogical implications and ideas for further research are suggested.

Talbot, K., Mercer, S., Gruber, M.-T. & Nishida, R. (2021). *The psychological experience of integrating language and content*. Multilingual Matters.

This book presents a variety of psychological constructs in the context of teaching and learning content through a foreign or second language. The empirical chapters explore the challenges and benefits that integrating content and language entails for teachers and learners. The range of contexts include CLIL and bilingual education as well as various educational levels.

Nguyen, T. T. (2018). *Interactional corrective feedback: a comparison between primary CLIL in Spain and primary CLIL in Vietnam* (Unpublished doctoral thesis). Universidad Autónoma de Madrid, Spain.

In this PhD dissertation, the author compares the use of corrective feedback occurring during oral interaction in primary school CLIL classrooms in Spain and in Vietnam. The thesis explores the types and amount of CF provided by the teachers in the two contexts to content and language errors, as well as the learners' uptake of those corrections. Pedagogical and research implications are suggested based on the findings.

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