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Collaborative writing, written corrective feedback and motivation among child EFL learners

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ABSTRACT: The present study compares two types of written corrective feedback (WCF), reformulations and models, and their effect on the output of thirty-nine primary school children studying English as a foreign language (age 11–12; A2 level) working individually and collaboratively. Additionally, the effect of collaborative writing (CW) on learners' motivation was measured. Learners' noticing of problematic features and their subsequent incorporation in their revised drafts were analysed, comparing the children's production after being provided with the two types of WCF and comparing CW vs individual writing for noticing and incorporation of features as well as motivation. Few statistically significant differences between the two WCF groups were found but, rather, the following tendencies were noted: the children using models noticed and incorporated more lexical items, whereas the noticing and incorporation of learners in the reformulation group was generally related to grammatical and spelling features. As for the comparison between the pairs and the individuals, some statistical differences were found, pointing to an advantage of CW over individual writing. These findings are discussed in light of the potential benefits of CW for young learners, and pedagogical implications are considered.
Keywords: collaborative writing, written corrective feedback, motivation, children, EFL

Escritura colaborativa, retroalimentación escrita y motivación en jóvenes aprendices de inglés como lengua extranjera

RESUMEN: El presente estudio compara dos tipos de retroalimentación escrita (RE), reformulaciones y modelos, y su efecto sobre la producción de treinta y nueve alumnos de educación primaria (edad 11-12; nivel A2) con inglés como lengua extranjera (ILE), que trabajaron de forma colaborativa e individual. Además, se examina el efecto de la escritura colaborativa (EC) en la motivación de los aprendices. Se analizaron la percepción de aspectos problemáticos y su consiguiente incorporación a los textos revisados tras haberles proporcionado RE en sus dos tipos, comparando la EC con la individual en cuanto a la percepción e incorporación de elementos lingüísticos y en cuanto a la motivación. Se encontraron escasas diferencias significativas entre los dos grupos de RE, pero sí algunas tendencias en el sentido de que los niños del grupo de modelos percibieron e incorporaron más elementos léxicos mientras que la percepción e incorporación en el grupo de reformulaciones generalmente estaba relacionada con aspectos gramaticales y ortográficos. La comparación de EC e individual reveló diferencias significativas, apuntando a la ventaja de la EC sobre la individual.

Estos hallazgos se comentan con referencia a los posibles beneficios de la EC para jóvenes aprendices y se presentan algunas implicaciones pedagógicas.
Palabras clave: escritura colaborativa, retroalimentación escrita, motivación, niños, ILE

1. Introduction and literature review

Research on foreign language (FL) learning and teaching has considered different variables that might affect these processes (García Mayo & Gutierrez Mangado, 2020). Teaching techniques such as collaborative writing (CW; Storch, 2013) have been reported to enhance learners' metalinguistic reflection and noticing of linguistic features. Moreover, the teacher's corrective feedback on learners' written compositions seems to improve the quality of learners' written output. The FL learning process is also influenced by individual differences such as motivation (Dörnyei, 2009). Despite the vast array of studies on these topics, there is a gap in the literature concerning the impact of CW and written corrective feedback (WCF) on the written output produced by child FL learners. This study sought to analyse the potential benefit of CW (vs individual work) for both written output and learners' motivation, as well as the effect of WCF on the revised versions produced by the children.

1.1. The benefits of collaborative writing

Writing can be carried out in different modalities – namely, individually and collaboratively both online and offline. A collaborative writing task has been defined as "one where two or more writers coauthor and share responsibility for a jointly composed text" (Alshuraidah & Storch 2019, p. 166). There has been much previous research on CW (see Storch, 2013) and it has been mainly been couched within Vygotsky's (1978) sociocultural theory, in which the concept of scaffolding (Wood et al., 1976) is crucial. Scaffolding occurs "when an expert not only finetunes the assistance in response to a novice's state of knowledge, but also encourages the novice to actively participate in learning activities" (Chen & Yu, 2019, p. 84). This assistance also occurs among peers (e.g. Storch, 2002) in the form of language related episodes (LREs[1]), which have been reported to enhance noticing and problem-solving capacities (Swain, 2006), thus influencing learning opportunities (Watanabe, 2008). Learners writing collaboratively have been found to provide more feedback (Alshuraidah & Storch, 2019), their reflective thinking and awareness of the audience was fostered and their writing skills developed (Alwaleedi et al., 2019). Studies on CW have shown that pairs produce more accurate texts than individuals (Fernández Dobao, 2012; Storch & Wigglesworth, 2007; Wigglesworth & Storch, 2009), new vocabulary is processed more deeply (Kim, 2008), attentional processes of higher quality were activated and positive effects were found on learners' noticing (Storch, 2008; Swain & Lapkin, 2002). In a nutshell, the findings for CW have revealed the superiority of the combination of oral and written modalities in different aspects regarding FL development and focus on form (Martínez & Roca de Larios, 2010; Niu, 2009).

[1] LREs "are instances of self or peer deliberation on language use during which learners explicitly attend to the meaning of linguistic items, choice of grammatical forms, spelling, and pronunciation (Swain & Lapkin, 2001); LREs, in effect, operationalize languaging" (Chen & Yu, 2019, p. 84)

Although CW seems to be beneficial for FL development, learners still need to receive feedback (direct or indirect) from teachers and/or peers to overcome problems in their knowledge of the FL. Research on WCF has been carried out with adult and teenage participants, but there is a clear lack of studies with children in FL contexts. In what follows, a brief description of two types of WCF that have been used in the literature will be provided, together with a summary of research on one individual difference, namely motivation, which has been claimed to affect learners' CW behaviour and their reaction to WCF.

1.2. Written feedback: Models and reformulations

Most researchers in the field of second language acquisition conclude that feedback on written language errors is related to noticing and attention to form, which are essential for second or FL acquisition (Norris & Ortega, 2000; Schmidt, 2001). WCF has been claimed to raise learners' awareness of gaps in their interlanguage, to help them entertain new hypotheses and to engage them in metalinguistic reflection (Swain, 2000), which contributes to the internalisation and consolidation of new knowledge (Williams, 2012).

WCF can be provided in direct (error correction, EC) or indirect ways by means of reformulations, metalinguistic explanations or models. According to research, EC seems to be more effective than more implicit WCF types for noticing and subsequent revision of errors in writing (Simard et al., 2015), but some researchers have criticised the usefulness of this feedback strategy due to its lack of consistency and clarity or the fact that learners seem unable to benefit from it in the long term. The jury is still out on whether this type of WCF has an effect on learners' interlanguage (Coyle & Roca de Larios, 2014), although recent research by Suzuki et al. (2019) reported that both direct and indirect types were equally effective. Models and reformulated texts have also been proved to facilitate learners' noticing of problematic features, which subsequently might lead to further FL learning (Nassaji & Kartchava, 2017).

Models have been defined as "complete, well-written texts created by teachers taking into consideration the content and the genre of the target text, as well as learners' age, proficiency level, etc., but without specifically referring to the learners' written output." (Coyle & Cánovas Guirao, 2019, p. 23). Recent studies have suggested that this feedback strategy promotes learners' noticing and incorporation of lexical items (Cánovas Guirao, et al., 2018; García Mayo & Loidi Labandibar, 2017; Hanaoka & Izumi, 2012; Kang, 2020). In studies comparing models and EC, advantages have been reported for the latter WCF type in terms of linguistic acceptability and comprehensibility of revised texts, as well as the noticing of grammar (Coyle & Roca de Larios, 2014).

These benefits assume that learners are capable of identifying the alternatives and applying the changes to their revised texts (Wigglesworth & Storch, 2012). If the learners' proficiency level or age prevents them from noticing and reformulating their original texts, models offer limited advantages for FL learning (Coyle & Roca de Larios, 2014). Models may be difficult for children to take advantage of, but Coyle and Cánovas Guirao (2019) report that when young learners receive instruction on how to use models, they obtain better results in the revision of their texts. Amongst the very few studies with children, Luquin and García Mayo (2020; 2021) also reported that models were particularly useful for noticing

and incorporation of content and lexical features, but rarely of grammar, which suggests that these children tend to focus on meaning over form.

Reformulation was defined by Levenson (1978, in Qi & Lapkin, 2001, p. 281) as "a native speaker's rewriting of an L2 learner's composition such that the content the learner provides in the original draft is maintained, but its awkwardness, rhetorical inadequacy, ambiguity, logical confusion, style, and so on as well as lexical inadequacy and grammatical errors are tidied up". Results reported in the literature have indicated the superiority of EC over reformulation with both adults (Sachs & Polio, 2007) and adolescents (Santos, et al., 2010). However, reformulations seem to offer more opportunities than models for deeper processing (Kim & Bowles 2019) and noticing of language problems (Yang & Zhang, 2010). Research has found that this type of WCF contributes to learners' improvement of their writing, working either individually (Qi & Lapkin, 2001) or on CW tasks (Coyle et al., 2020; García, 2011).

In studies comparing reformulations with models, findings have been mixed (Hanaoka, 2007; Hanaoka & Izumi, 2012; Yang & Zhang, 2010). These two WCF types trigger different processes (Coyle & Roca de Larios, 2014): models favour the noticing and incorporation of more advanced lexical elements, while reformulations help learners to incorporate correct forms of previous errors, mainly those of a grammatical nature. One could argue that reformulations are more concerned with the form of the language while models address both form and meaning, because they offer learners alternatives and new ideas (Hanaoka, 2006). Reformulations have also been claimed to provide a balanced focus on form and meaning, but input is somehow restricted by the limitations of the learners' original version (Yang & Zhang, 2010), as opposed to the possibilities of model texts, which may also offer solutions to problems that were not explicitly reflected in the learners' original writing (Coyle & Roca de Larios, 2014). Moreover, reformulations offer both direct and indirect WCF (Lázaro-Ibarrola, 2013), while models are basically indirect, which might be problematic for learners because they need to be able to recognise language features and use them appropriately in their revised versions (Chandler, 2003). Besides, as Thwaites (2014) explains, it is difficult to reach all learners' idiosyncratic needs with a single text. In this sense, reformulations are tailored to learners' errors and diversity is attended to, but they are time-consuming for large classes (Ferris, 2010) and they do not offer sophisticated alternatives to the learners (Hanaoka, 2007).

There is a clear gap in the literature regarding research on the comparison between these two types of WCF, specifically when used by primary school FL learners when they produce a text in collaboration. Reformulations and models have been explored with younger learners in comparison to a control group (Cánovas Guirao, 2011; García, 2011) or comparatively with adults (Hanaoka & Izumi, 2012) but there is a dearth of research comparing these two types of WCF among children (Coyle & Roca de Larios, 2014). In fact, Li and Vuono (2019) call for more studies on the effect of different feedback types on different age groups, especially children.

As seen above, WCF types are distinctively perceived by language learners, which leads to the noticing of different language features. However, as Yang and Zhang (2010) explain, if learners have the opportunity to interact with peers and teachers, noticing processes are triggered and linguistic problems can be solved. Collaborative oral interaction while writing and analysing feedback seems to foster learners' noticing and incorporation of

more elaborate language. However, most research on CW has focused on adolescents and young adults (but see Luquin & García Mayo, 2021), so it is worthwhile to investigate the effect of CW on children's noticing and incorporation of feedback to confirm whether the aforementioned benefits hold true.

1.3. Motivation

Karim and Nassaji, (2019) point out that individual factors such as learners' attitude, motivation and learning style can play a role in the effectiveness of CW and WCF. If we can identify learners' perceptions and motivation towards both, teachers could make informed decisions and maximise the effect of these teaching strategies. Different authors have established that motivation and learners' positive attitudes are essential for language learning (Dörnyei, 2000; Storch & Wigglesworth, 2010).

Learners' perceptions and attitudes about CW and how they can affect FL learning have, however, rarely been investigated (Chen & Yu, 2019). The scarce research on attitudes towards CW has reported that learners generally have a positive attitude (Fernández Dobao & Blum, 2013; Shehadeh, 2011), although some still have reservations (Vorobel & Kim, 2017), which might lead to less oral interaction, as well as fewer opportunities to improve the texts and learn from the writing process. Students have been found to gain motivation after realising their achievements through CW (Zhai, 2021). Although there is hardly any research with children, work by Azkarai and Kopinska (2020), Calzada Lizarraga and García Mayo (2020), and Kopinska and Azkarai (2020) report an overall positive attitude towards CW.

Regarding beliefs and attitudes towards WCF, in general, learners have been found to prefer more direct and comprehensive types. In a study on models with high school learners, García Mayo and Loidi Labandibar (2017) found that students showed a lack of interest in the activity, and 62.5% of the participants expressed that they would not like their teachers to use this type of WCF. The authors also reported that the learners' negative attitude was influenced by other factors not related to the task or type of WCF, but to learners' attitudes towards learning in general. However, those with more positive attitudes incorporated a higher number of features to their revised texts.

Therefore, examining learners' attitudes and motivation towards different methodological choices such as WCF and CW appears to be essential to be able to give learners instruction about the advantages for FL learning that these approaches entail so that the maximum benefits from them can be obtained.

2. The present study

2.1. Aims and research questions

To overcome the limitations and gaps found in previous research, the present study aimed to answer the following questions:

RQ1: Does WCF (models and reformulations) have any impact on children's written output depending on learner set-up (individual vs collaborative)?

RQ2: Does motivation differ depending on WCF type and learner set-up?

On the basis of previous research, we expected that (i) models would trigger noticing and incorporation of lexical features, reformulations would lead to further noticing of grammar and spelling features and CW would contribute to higher levels of noticing and incorporation of features than individual work, and (ii) motivation would be higher when children work collaboratively.

2.2. Methodology

2.2.1. Participants

The data were collected from two 6th year primary education English as a foreign language (EFL) classes in a semi-public school in the north of Spain. English is introduced when the children are 2 years old, and when they are 6 years old, they have their regular English language class and at least another subject taught in this language, following a content and language integrated learning (CLIL) methodology. The final year of primary education was selected because, at this age, students are capable of producing more elaborate texts. There were 39 students (aged 11–12) who were divided according to the writing modality (individual or CW) and the WCF type they were provided with (reformulations or models); participant information is shown in Table 1.

Table 1. *Participants*

WRITING MODE / WCF TYPE	PAIRS F = female M = male	INDIVIDUAL F = female M = male	TOTAL
Models	14 (6F, 8M)	6 (3F, 3M)	20 Models
Reformulations	14 (8F, 6M)	5 (1F, 4M)	19 Reformulations
Totals	28 Collaborative	11 Individual	39

The children took the Flyers Cambridge test (Cambridge, n.d.) and homogeneously levelled pairs were formed, as previous research has shown that this set-up leads to more interaction and production of LREs (Kim & McDonough, 2008). Additionally, the teacher's suggestions were also considered, as research has reported that teacher-selected pairs produce more LREs (García Mayo & Imaz Aguirre, 2019; Mozaffari, 2017). Gender was not considered as one of the pairing criteria, so there were both mixed and matched pairs.

2.2.2. Instruments and data collection procedure

To collect the data, learners were asked to write a text telling the story from a set of pictures (Cambridge English, 2014). They also received sheets where they had to explain about the problematic aspects that they had noticed in the writing process (sheet 2, sheet 6) and in the comparison of their versions with the feedback (sheet 3). Regarding this feedback, half of the students were provided with two model texts written by two native speakers and the other half were given a reformulated version of their writing where errors had been cor-

rected. These reformulated texts included changes concerning all types of errors: grammatical, lexical and spelling. Other studies have focused on specific features, but feedback provided in a wider range of errors is expected to yield more meaningful findings, because teachers do not usually limit their feedback to a certain type of error (Karim & Nassaji, 2019). Given the learners' age, we expected that note-taking of their noticing would be insufficient to reflect it appropriately (Kang, 2020; Martínez & Roca de Larios, 2010), so we also analysed the pairs' oral interaction by means of video and audio recordings to capture those aspects of noticing that were not explicit in their written noticing sheets. These were the steps followed:

- Flyers English test (Cambridge, 2014).
- Motivation thermometer (Al Khalil, 2016) at the beginning and end of each testing time (T1, T2, T3).
- Video and audio-recording of the pairs while writing
- **T1**
  - Picture story
  - Draft 1. Sheet 1
  - Noticing. Sheet 2
- **T2** (2 weeks after T1)
  - WCF: Models & Reformulations
  - Comparison – Noticing. Sheet 3
  - Draft 2. Sheet 4
- **T3** (4 weeks after T2)
  - Draft 3. Sheet 5
  - Noticing. Sheet 6

The CW pairs, who worked in a large space (the school library), were supervised by the first author, and their interaction was videotaped. Individual writers were given the instructions and remained in the classroom with their English teacher. This organisation was maintained for the three testing times. A motivation thermometer, based on Al Khalil (2016), was given to the children at the beginning and at the end of each session. They had to rate their motivation and choose a reason for it from among the ones provided.

The written output produced by 14 pairs and 11 individual learners was analysed at three different times: Time 1 (T1, pre-test) before they were provided any feedback, Time 2 (T2, test) after comparing their own writing with the model or reformulated version and Time 3 (T3, delayed post-test). At T1, both children working collaboratively and those working individually were provided with the picture story and asked to write a text about it (sheet 1). Then, they were given sheet 2, where they had to write about the problems that they had noticed (problematic features noticed, PFN) in their writing process. At T2 (two weeks after T1 because of the school's requirements), the children compared their original versions with reformulated texts or models, and they were asked to write their perceptions about the comparison in noticing sheet 3 (features noticed, FN). Then, feedback texts were removed and the children were given the picture sheet to write a revised version in sheet 4. As in previous studies (Cánovas Guirao et al., 2015; Hanaoka & Izumi, 2012), we decided to remove the feedback documents to avoid simple editing on the part of the children. At T3

(four weeks later) the participants wrote the story again (sheet 5) and identified PFN (sheet 6). A longer period between the post-test T2 and the delayed post-test T3 was left to avoid mere memorisation due to the repetition of the task in shorter periods of time. Longer periods and additional post-tests have been suggested in previous research on the topic (Karim & Nassaji, 2019). Additionally, we examined the learners' degree of motivation before and after each of the drafts by means of the thermometers.

2.2.3. Data analyses

Data were transcribed and codified using a coding system based on Coyle and Roca de Larios (2014) and García Mayo and Loidi Labandibar (2017). Table 2 below shows the codes for errors in Draft 1, reformulated changes of Draft 1, the PFN from the oral interaction of the pairs and the noticing sheets given after drafts 1 and 3 and the FN in the oral interaction and noticing sheet 3 for the comparison between draft 1 and the feedback:

Table 2. *Codes Used for the Analysis of Oral and Written Data*

DAY	CATEGORY	CODES	MEANING
T1	Error	ERRVOC	Vocabulary error
		ERRGR	Grammar error
		ERRSP	Spelling error
	Reformulation changes	CHVOC	Vocabulary change
		CHGR	Grammar change
		CHSP	Spelling change
T1	Noticing	**PFN**	**Problematic feature noticed**
T2		PFNVOC	Vocabulary PFN
T3		PFNGR	Grammar PFN
		PFNSP	Spelling PFN
T2	Noticing from comparison with WCF	**FN**	**Feature noticed**
		FNVOC	Vocabulary FN
		FNGR	Grammar FN
		FNSP	Spelling FN
T2	Incorporation of features	**FNI**	**Feature noticed incorporated**
T3		FNIVOC	Vocabulary FNI
		FNIGR	Grammar FNI
		FNISP	Spelling FNI
		FNNI	**Feature noticed not incorporated**
		FNNIVOC	Vocabulary FNNI
		FNNIGR	Grammar FNNI
		FNNISP	Spelling FNNI

NNFI	**Not noticed feature incorporated**
NNFIVOC	Vocabulary NNFI
NNFIGR	Grammar NNFI
NNFISP	Spelling NNFI
FNIERR	**FNI with error**
FNIVOCERR	Vocabulary FNIERR
FNIGRERR	Grammar FNIERR
FNISPERR	Spelling FNIERR
NF	**New feature**
NFVOC	New vocabulary feature
NFGR	New grammar feature
NFSP	New spelling feature
NERR	**New error**
NERRVOC	New vocabulary error
NERRGR	New grammar error
NERRSP	New spelling error

The children's motivation was also assessed before and after each of the drafts by means of a motivation thermometer to compare learners working in pairs and those working individually. Differences between the learners provided with models and those who received reformulations of their texts were also examined. To this end, we looked both at the general rating (0–10) as well as at the reasons chosen by the learners to justify that rating before and after each of the writing tasks. To carry out these analyses, Python 3.8's SciPy version 1.8.1. was used. SciPy is a collection of mathematical algorithms and convenience functions built on the NumPy extension of Python and the NumPy 1.23.1 version of the main package. The Mann–Whitney U test was employed. This is a non-parametric test that can be used in place of an unpaired t-test; it is used to test the null hypothesis that two samples come from the same population or, alternatively, whether observations in one sample tend to be larger than observations in the other. Although it is a non-parametric test, it does assume that the two distributions are similar in shape.

3. Results and discussion

After codification and tallying, non-parametric tests were run to identify significant differences between pairs and individuals regarding WCF in general, reformulations and models and motivation. In what follows, the findings of the quantitative analyses are presented in order to provide answers to the research questions entertained.

RQ1: Does WCF (models and reformulations) have any impact on children's written output depending on learner set-up (individual vs. collaborative)?

Research question 1 aimed to investigate the effect of WCF in the noticing of language features and the incorporation of such features in revised versions of the texts written collaboratively and individually.

When comparing the total amount of errors and PFN among children working collaboratively or individually, no statistically significant differences could be reported. When considering FN by children after their comparison with the feedback provided, the numbers were lower for individuals than for pairs, particularly in terms of grammatical features, although none of the comparisons turned out to be significant. Figure 1 displays the total number of FN in both groups[2]:

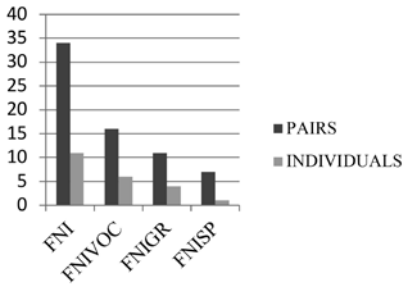

Figure 1. *Features Noticed by Pairs and Individuals After Feedback Provision*
(FN: features noticed; FNVOC: vocabulary features noticed; FNGR: grammar features noticed; FNSP: spelling features noticed)

A further comparison was established between FN and those that were incorporated (FNI) by individual and collaborative writers at T2. Collaborative writers not only noticed more features but were also able to incorporate some of them, as can be seen in figure 2:

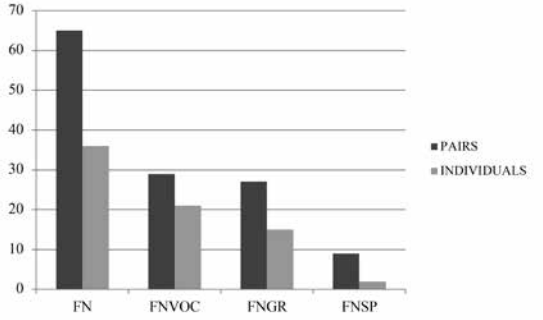

Figure 2. *Incorporation of Noticed Features in Draft 2 by Pairs and Individuals*
(FNI: noticed features incorporated; FNIVOC: vocabulary noticed features incorporated; FNIGR: grammar noticed features incorporated; FNISP: spelling noticed features incorporated)

[2] As individual students were 11 and pairs were 14, we weighed the results of the pairs so that the comparison was on the same basis (11-11).

FNI in general (p=0) and related to vocabulary (p=.04) and spelling (p=.04) were significantly higher among collaborative writers than among individual writers. In addition, features noticed but not incorporated (FNNI) were significantly more frequent among the individual writers (p=.04), as were vocabulary not incorporated features (p=.02).

At T3, significantly greater numbers of features were incorporated by the children working collaboratively than by those working individually (p=.03). FN in general were incorporated to a lesser extent by individuals (p=0), the same as vocabulary FNNI (p=0). Moreover, in draft 3, new errors in general (p=.0) and in grammar (p=.02) and spelling (p=.0) in particular, were committed by individual writers in significantly greater numbers. New features mainly having to do with vocabulary were incorporated more frequently by individuals in the reformulation group, but these differences were not significant (NF2, p=.08; NFVOC2, p=.19).

After analysing the results of children working collaboratively and those working individually, the effect of CW was also explored in models and reformulations separately. Regarding children using models, significant differences were found at T2 with respect to incorporation of FN in general (FNI, p=.02) and noticing of vocabulary features (FNIVOC, p=.04), which were higher among collaborative than among individual writers, while features noticed but not incorporated were found to be higher among individual writers (FNNI, p=.04). This finding for individual writers also occurred at T3, because higher rates were found among individual writers for FNNI, both in general (FNNI, p=0) and for vocabulary features (FNNIVOC, p=0). The number of new errors produced by individual writers was also significantly higher in T3 (NERR, p=.02).

The analysis of the pairs and individuals who had been provided with reformulations revealed a few significant results, but only at T3. Again, a higher number of errors in general (NERR, p=0) and spelling errors (NERRSP, p=.02) were found in the texts written individually. Individual writers also produced a higher number of new features in the reformulation group, both in general (NF, p=.01) and for vocabulary features (NFVOC, p=.02).

RQ2: Does motivation differ depending on WCF type and learner set-up?

Regarding motivation, a comparison between collaborative and individual writers showed that the formers give higher scores in general, with significant results at T1, before (p=.02) and after (p=.0) writing the draft; at T2, before writing the draft (p=.01) and T3, also before the draft (p=.03). When the children's motivation is compared for the two WCF techniques (models and reformulations), significant differences could only be reported at T2 before the task (p=.01), with slightly higher motivation among the children given models. As for the reasons given by the children to justify their numerical responses to the motivation thermometer, the learners mentioned the simplicity of the task, their interest and liking of the task and their willingness to work with their partner in the case of the pairs, both before and after the task.

In summary, when children's noticing and incorporation of features were compared, our findings revealed advantages for CW over individual writing, thus supporting the benefits of this pedagogical tool (Storch, 2013). In general, the number of errors was lower among children working collaboratively, who also paid more attention to language, as shown by the amount of PFN in the oral interaction during the writing process at T1. Moreover, noticing

of feedback was greater among children working in pairs, as well as the incorporation of features in drafts 2 and 3. On the other hand, individual learners were more creative in their revised drafts, because they incorporated more new features, although many of these new features were erroneous. The WCF effect appeared to have a greater impact on the output of the children writing collaboratively than on the output of learners writing individually.

These findings were also attested when looking at the models and reformulations separately: noticing and incorporation were higher in pairs than in individuals, while individuals' noticing did not lead to incorporation of those features in subsequent drafts. It seems that WCF, in any form, is better used when learners are working collaboratively, which has been reported in previous studies as well (Luquin & García Mayo, 2020; 2021; Martínez & Roca de Larios, 2010; Storch, 2008). As in previous research, models lead to more noticing and incorporation of vocabulary, while learners provided with reformulations were more aware of grammar and spelling features (Coyle et al., 2018; Coyle & Roca de Larios, 2014; García Mayo & Loidi Labandibar, 2017; Luquin & García Mayo, 2020; 2021; Kang, 2020). Individual learners made new errors in their revised drafts, which points to an advantage of CW, as predicted (Martínez & Roca de Larios, 2010; Niu, 2009). Additionally, learners working individually included new features more often in the reformulation group, with the pairs being more conservative in this respect. This finding might be seen as an advantage for individual writing, but, when those features were analysed in more detail, most of them were found to be erroneous.

Learners were motivated before the task, and their motivation scores were higher after each of the sessions. The task was innovative and the environment was new, so this may have contributed to the good results. The findings showed significantly higher scores in the motivation of the learners in the CW group, which supports the use of this modality, as previous authors have proposed (Azkarai & Kopinska, 2020; Kopinska & Azkarai, 2020; Lázaro-Ibarrola & Villarreal, 2021; Zhai, 2021). Feedback type did not appear to make a difference in the students' motivation. Although previous studies have suggested that learners have positive beliefs about WCF in general and towards direct correction in particular (García Mayo & Loidi Labandibar, 2017), in the present study, learners seemed to receive similar encouragement from the use of both reformulations and models.

4. Conclusion

The present study aimed to fill the gaps in the literature regarding the effect of WCF on young EFL learners' output, the comparison of their collaboratively and individually produced output and the effect of CW and two different types of WCF on their motivation. To the best of our knowledge, this type of comparison has not been carried out in previous studies looking at the effect of WCF, so our findings contribute to the existing literature on CW as well as to that documenting young learners' EFL learning process. Overall, the findings in this preliminary study are in line with previous research on CW and WCF, showing a clear advantage of CW over individual writing for both noticing and incorporation of language features. Moreover, motivation was found to be higher after carrying out the task collaboratively, while no differences were found between the models and the reformulation group in this respect. The trends reported in the present study are in line with previous studies with older learners and with the scarce literature on these topics with young EFL learners.

Limitations, however, should be noted. First, our study had a small number of participants, which prevents the findings from being generalised to other contexts. However, small-scale studies such as this one are frequent in research on learners' engagement with feedback, as Storch and Wigglesworth (2010) point out, as they provide insights into mixed findings in the literature. Future investigations should try to gather a larger sample, use a longer time span for longitudinal analysis and focus on specific language features for the analysis.

Our findings lead to some pedagogical implications for the use of these two types of written feedback as well as to a reflection on the potential benefits of CW for young learners. Models and reformulations seem to trigger noticing of different feature types, so it would be advisable for teachers to alternate both WCF techniques, including direct correction and metalinguistic explanations. In the same line, the use of CW should be considered by teachers at primary school levels. Different CW tasks should also be included, because collaboration appears to motivate children and help them in their language learning process.

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