Martínez-Adrián, M., & Gallardo-del-Puerto, F. (2021). Task modality and language-related episodes in young learners: An attempt to manage accuracy and editing. Language Teaching Research, 0(0). https://doi.org/10.1177/13621688211052808

Task modality and language-related episodes in young learners: An attempt to manage accuracy and editing

Journal:	*Language Teaching Research*
Manuscript ID	LTR-21-0053.R1
Manuscript Type:	Full Research Article
Keywords:	Task modality, Language Related Episodes, task-based interaction, Young learners, Task motivation
Abstract:	Task modality (oral vs. writing) has been found to affect the production, nature and resolution of the language-related episodes (LREs) produced by adult learners in collaborative interaction (Adams & Ross-Feldman, 2008; García Mayo & Azkarai, 2016; Niu, 2009; Payant & Kim, 2019), a finding also attested in very recent and still limited research with young learners (Authors, forthcoming; García Mayo and Imaz Agirre, 2019), a population that deserves greater attention in the literature. Besides, previous research has not yet considered the incorporation of LREs in the final output of both oral and written tasks. Nor has it controlled for the differential levels of accuracy that the oral vs. the written modality demand, or the opportunity for revising the output equally in both modalities. Besides, little is known about learners' motivation towards tasks of different modality. This paper fills these gaps by examining the effect of task-modality on the production of LREs by 10-to-12 year-old schoolchildren performing an oral+writing task and an oral+editing task, as well as its effect on their task motivation. Task modality effects were evinced in terms of nature and incorporation of LREs, the written mode leading to greater focus on form and incorporation of accurately resolved LREs. The possibility of editing of the oral output resulted in enhanced target-likeness of resolved LREs. As for task motivation, learners perceived both tasks as equally motivating.

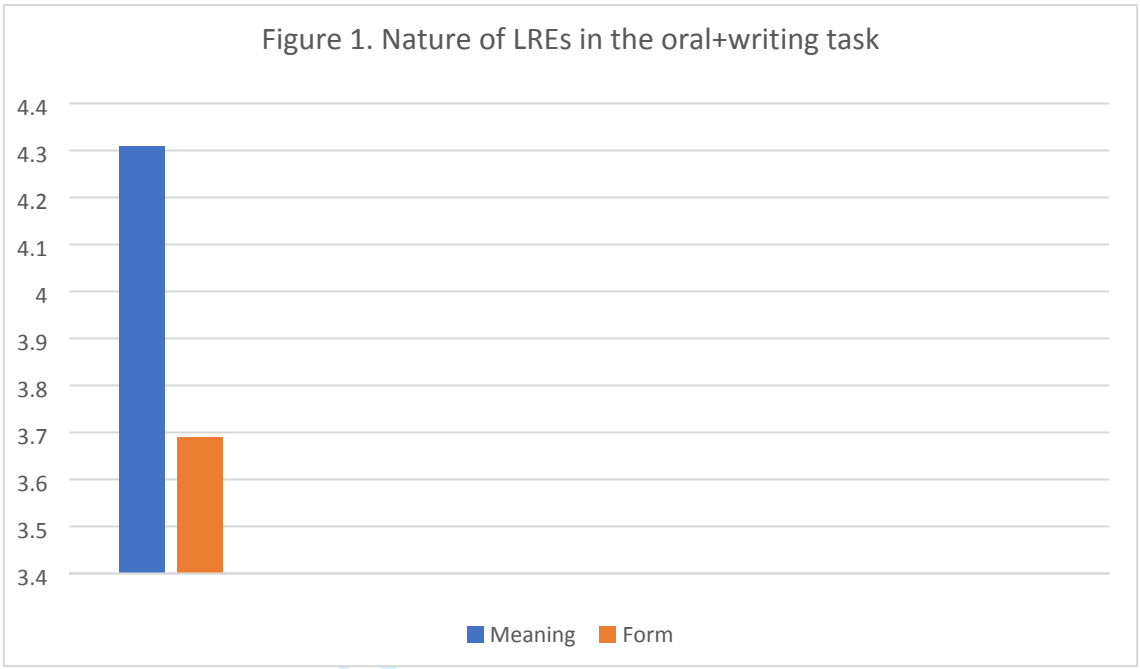
Figure 1. Nature of LREs in the oral+writing task
4.4
4.3
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3.8
3.7
3.6
3.5
3.4
Meaning
Form

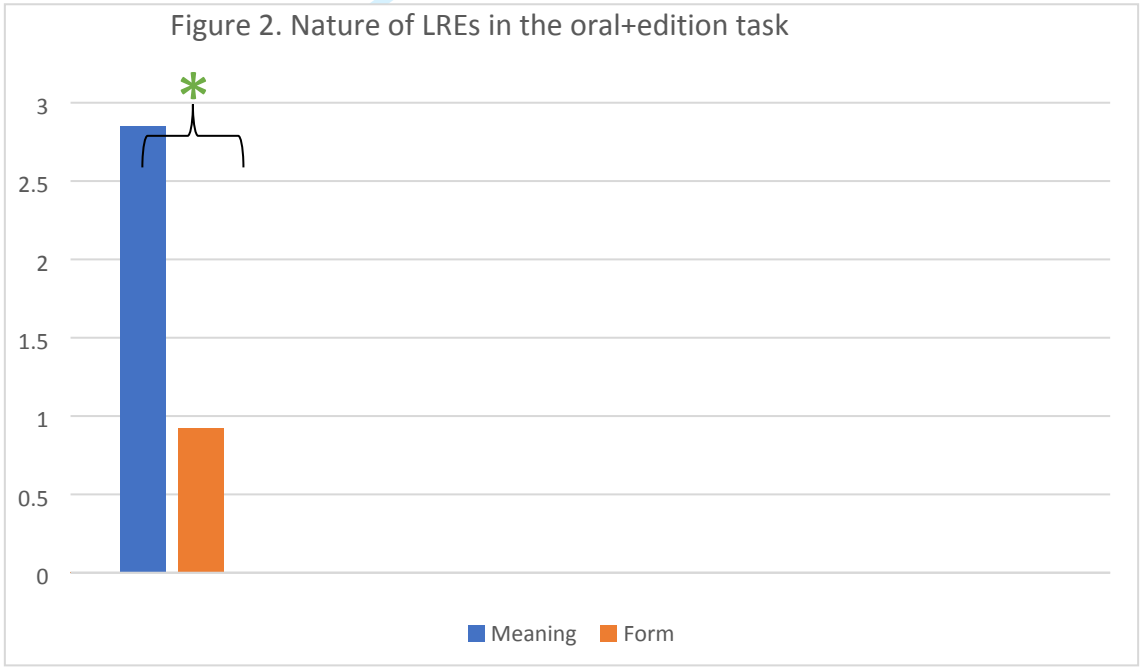
Figure 2. Nature of LREs in the oral+edition task
*
3
2.5
2
1.5
1
0.5
0
Meaning
Form

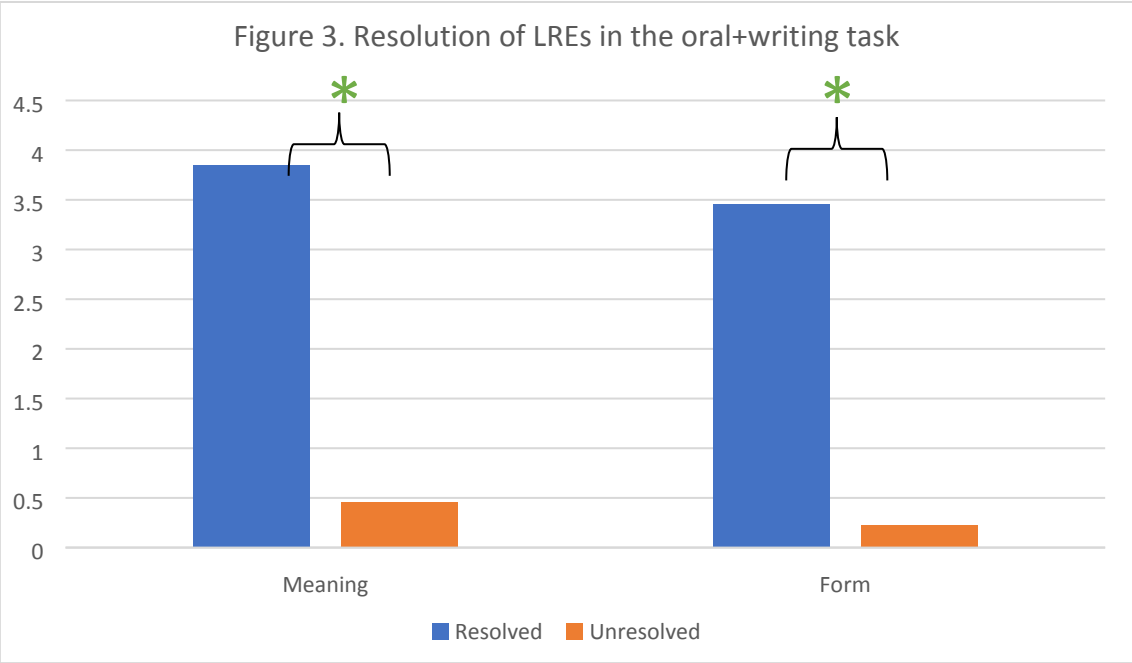
Figure 3. Resolution of LREs in the oral+writing task
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
*
*
Meaning
Form
Resolved
Unresolved

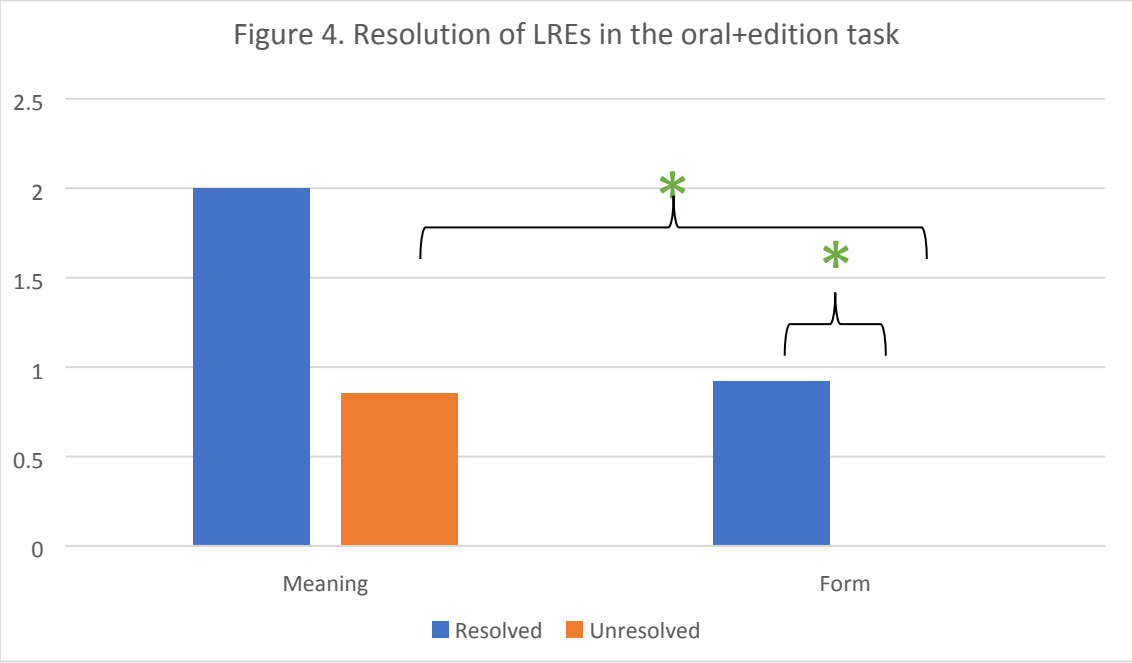
Figure 4. Resolution of LREs in the oral+edition task
2.5
2
1.5
1
0.5
0
*
*
Meaning
Form
Resolved
Unresolved

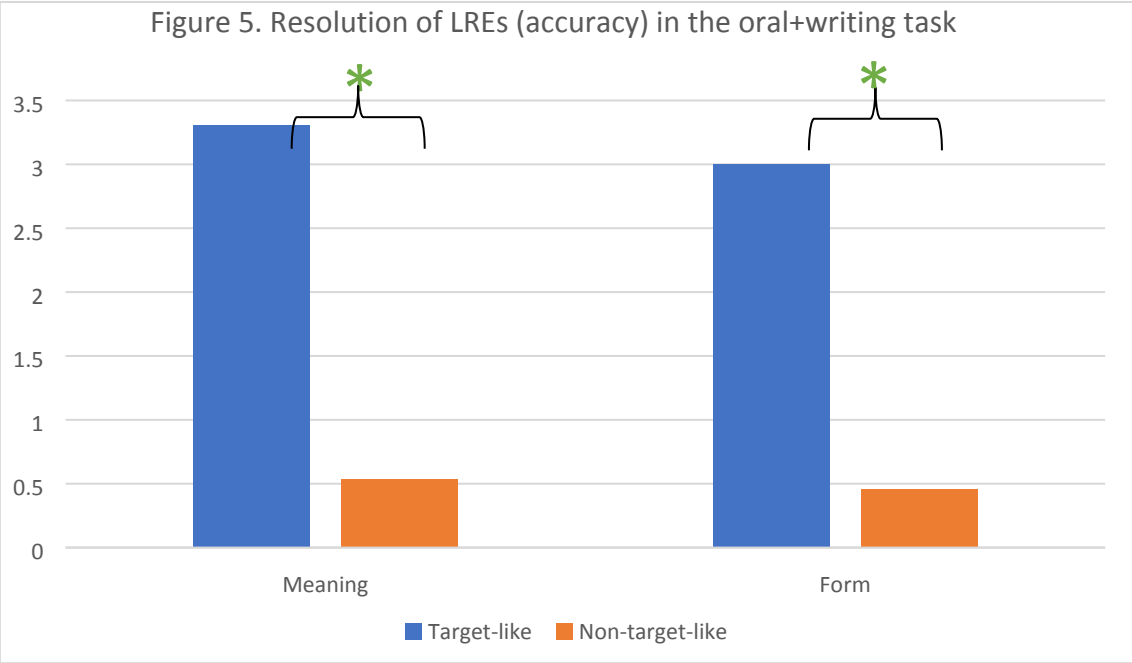
Figure 5. Resolution of LREs (accuracy) in the oral+writing task
3.5
3
2.5
2
1.5
1
0.5
0
*
*
Meaning
Form
Target-like
Non-target-like

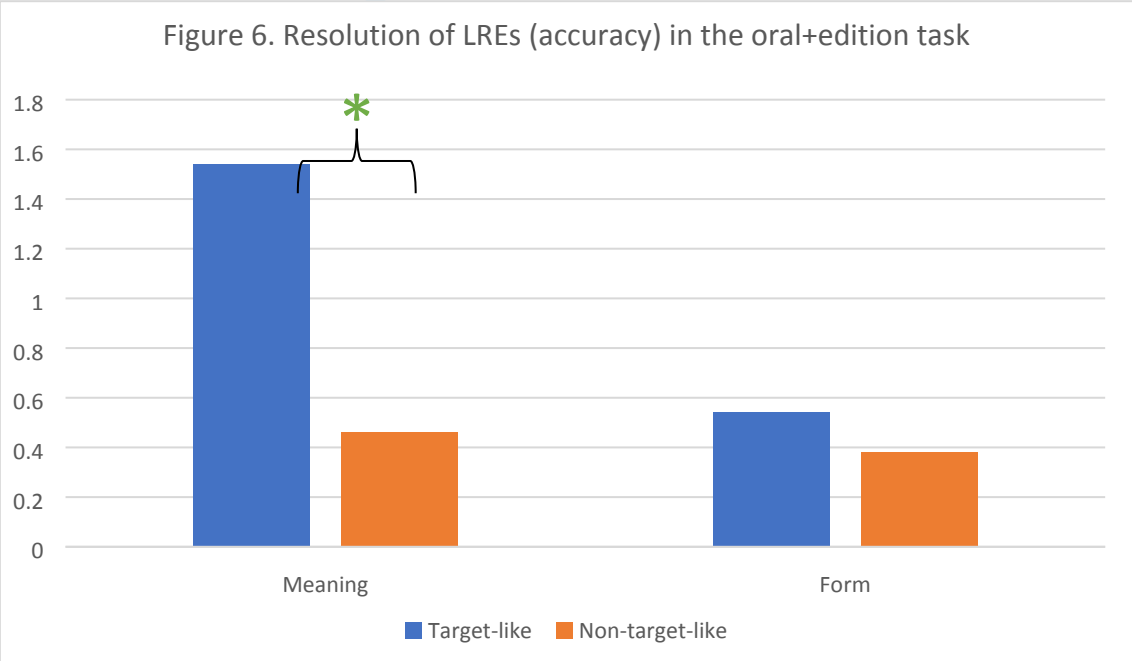
Figure 6. Resolution of LREs (accuracy) in the oral+edition task
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
*
Meaning
Form
Target-like
Non-target-like

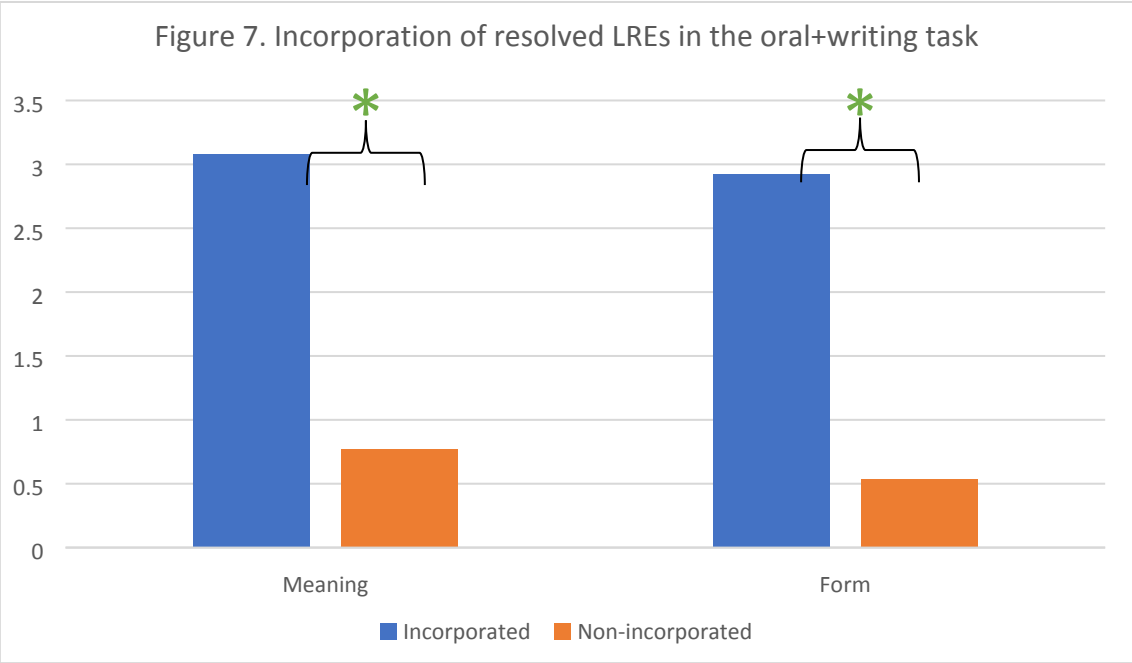
Figure 7. Incorporation of resolved LREs in the oral+writing task
3.5
3
2.5
2
1.5
1
0.5
0
*
*
Meaning
Form
Incorporated
Non-incorporated

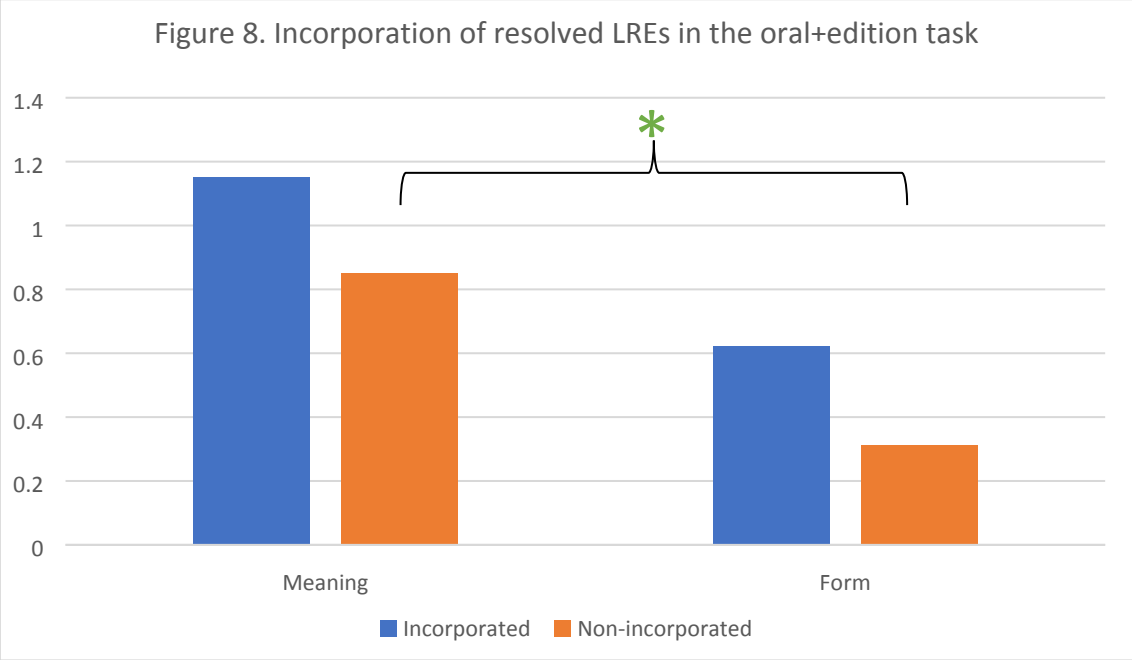
Figure 8. Incorporation of resolved LREs in the oral+edition task
1.4
1.2
1
0.8
0.6
0.4
0.2
0
*
Meaning
Form
Incorporated
Non-incorporated

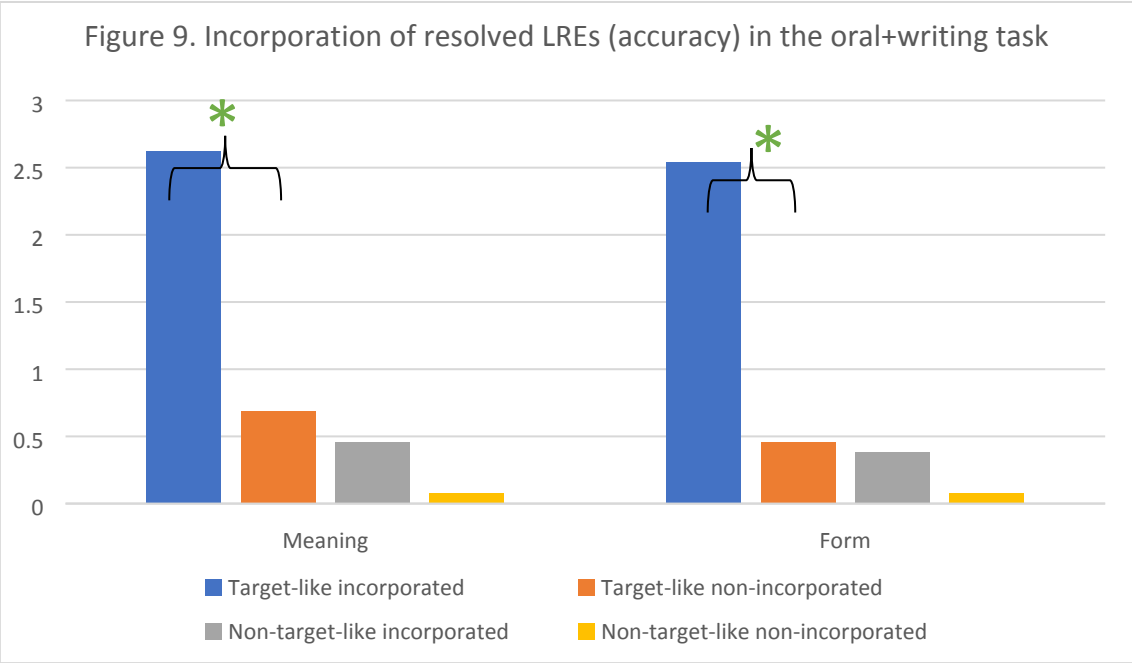
Figure 9. Incorporation of resolved LREs (accuracy) in the oral+writing task
3
2.5
2
1.5
1
0.5
0
*
*
Meaning
Form
Target-like incorporated
Target-like non-incorporated
Non-target-like incorporated
Non-target-like non-incorporated

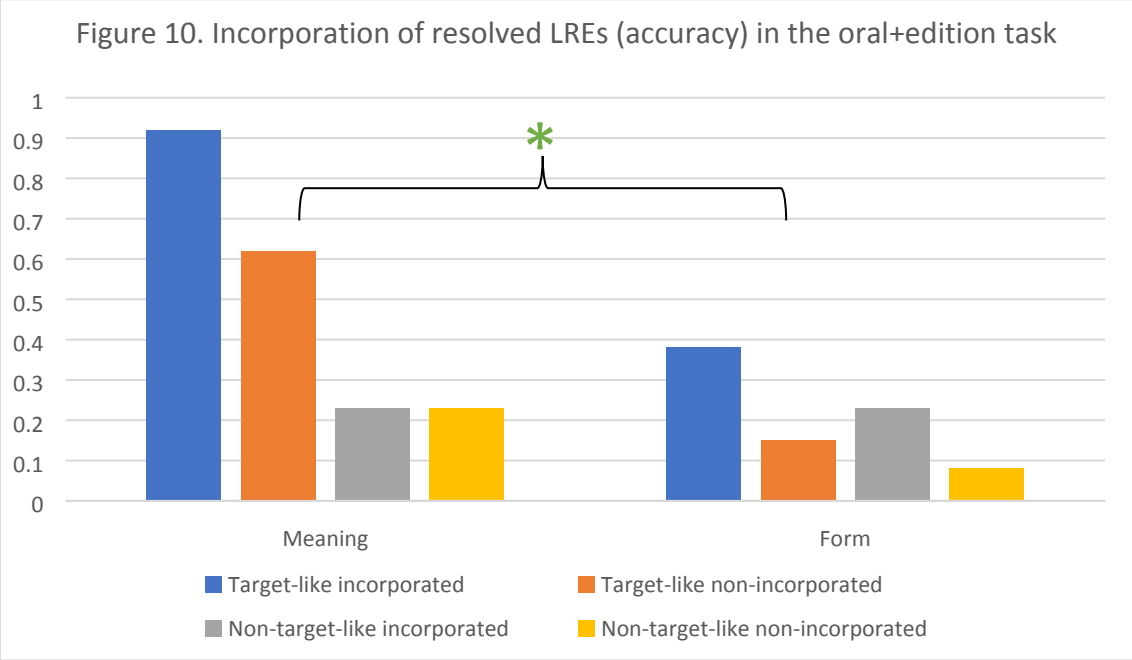
Figure 10. Incorporation of resolved LREs (accuracy) in the oral+edition task
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
*
Meaning
Form
Target-like incorporated
Target-like non-incorporated
Non-target-like incorporated
Non-target-like non-incorporated

Task modality and language-related episodes in young learners: An attempt to manage accuracy and editing

Abstract

Task modality (oral vs. writing) has been found to affect the production, nature and resolution of the language-related episodes (LREs) produced by adult learners in collaborative interaction (Adams & Ross-Feldman, 2008; García Mayo & Azkarai, 2016; Niu, 2009; Payant & Kim, 2019), a finding also attested in very recent and still limited research with young learners (Authors, forthcoming; García Mayo and Imaz Agirre, 2019), a population that deserves greater attention in the literature. Besides, previous research has not yet considered the incorporation of LREs in the final output of both oral and written tasks. Nor has it controlled for the differential levels of accuracy that the oral vs. the written modality demand, or the opportunity for revising the output equally in both modalities. Besides, little is known about learners' motivation towards tasks of different modality. This paper fills these gaps by examining the effect of task-modality on the production of LREs by 10-to-12 year-old schoolchildren performing an oral+writing task and an oral+editing task, as well as its effect on their task motivation. Task modality effects were evinced in terms of nature and incorporation of LREs, the written mode leading to greater focus on form and incorporation of accurately resolved LREs. The possibility of editing the oral output resulted in enhanced target-likeness of resolved LREs. As for task motivation, learners perceived both tasks as equally motivating.

Introduction

The impact of collaborative work on attention to language has often been operationalized as Language Related Episodes (LREs) (Swain and Lapkin, 1998). Among the various factors which can interact, task modality has been the central focus of inquiry in some research within the interactionist framework of second language acquisition. This variable has been found to exert an influence on the frequency, nature and resolution of the LREs produced by adult second language learners, findings pointing to the written modality as advantageous (Adams & Ross-Feldman, 2008; García Mayo & Azkarai, 2016; Niu, 2009; Payant & Kim, 2019). As for young learners, research on modality effects on LREs is still in its infancy, even though the scarce empirical evidence also suggests that the written modality is more beneficial than the oral one (García Mayo & Imaz Agirre, 2019), and there is supportive evidence of some effect of the written modality on language development, as indicated by the incorporation of resolved LREs in the final written product (AUTHOR 2 & AUTHOR 1, forthcoming). On a different matter, most investigations have not controlled for the differential level of accuracy that the oral and the written modality inherently demand as a consequence of their respective on-line and off-line

nature. Likewise, previous research has not ruled out the effect of the differences between the two modalities as regards the chances to edit the output. Besides, very little is known about the interplay between task modality and learner's' motivation when performing collaborative tasks.

As part of a larger project on the benefit of collaborative task-based interaction for foreign language learning in young schoolchildren, this paper attempts to fill in the aforementioned gaps in the literature by reporting a study on the production, nature, outcome and incorporation of LREs by young learners' (aged 10-12) of English when performing an 'oral+writing' task vs. an 'oral+editing task' after being urged to attend to accuracy in both conditions. Likewise, it adds to the scarce research on young learners' attitudes towards collaborative tasks.

This paper is organized into seven sections. The first three sections introduce the theoretical framework by, first, focusing on LRE research within the interactionist theory and sociocultural theory to, second, centre on the literature on the impact of task modality, and third, give an account of the research on task motivation. The state-of-the-art is followed by the fourth section, which presents the research questions of the study. The fifth and sixth section continue with the description of the methods employed and the results, respectively. The final section closes with a discussion of the findings and the main conclusions drawn from them.

Theoretical perspectives on Language Related Episodes

As stated by Myles (2013), social approaches such as the Interactionist framework and Sociocultural Theory to the study of Second Language Acquisition are concerned with the impact of external ingredients such as input/interaction/output and the social context. In particular, the Interaction Hypothesis (Long, 1983, 1996) is a social theoretical framework that incorporates aspects from the Input Hypothesis (1982, 1985) and the Output Hypothesis (Swain, 1985, 1995, 2005). The constructs, input, interaction, feedback (sometimes also included within interaction) and output have been integrated and referred to as the Interaction Hypothesis. The Interaction Hypothesis claims that interaction among learners or among learners and native speakers fosters L2 learning because during interaction learners receive comprehensible input (modified input) which constitutes evidence of what is possible in a given language (i.e. positive evidence), feedback or information about what is not desirable in a given language (negative evidence), and learners are pushed to produce more target-like output.

Apart from the three basic constructs, Gass and Mackey (2007) refer to Language Related Episode (LRE) as another component of this approach. According to Gass and Mackey (2007, p. 185), LREs refer to instances where learners consciously reflect on their own language use, as illustrated in (1). They comprise a variety of discourse moves such as requests for assistance,

negotiation sequences, as well as explicit and implicit feedback and constitute evidence of learners' attention to form (Gass & Mackey, 2007).

LREs have also been the target of Sociocultural Theory. Under this theoretical perspective, "speakers (or writers) are using language as a cognitive tool to mediate their own thinking and that of others" (Swain & Watanabe, 2013, p. 1). In particular, they constitute the unit of analysis to operationalize the construct 'collaborative dialogue', which is usually defined as dialogue in which speakers are engaged in problem solving and knowledge building (Swain, 2000). During collaborative dialogue learners may "form and test hypotheses about appropriate and correct use of language, as well as reflect on their language use" (Swain & Watanabe, 2013, p. 3). Thus, they represent learning in progress.

(1) CHI1: his o her? [his or her?]
CHI2: es his. [it is his]

The incidence, nature and resolution of LREs seems to depend on a wide array of factors: L2 proficiency (i.e. Leeser, 2004; Williams, 1999); task-type (i.e. García Mayo, 2002; Storch, 1998, 2001); gender (i.e. Azkarai, 2015; Ross-Feldman, 2005, 2007); pairing method (i.e. Mozaffari, 2016); engagement level (i.e. Storch & Aldosari, 2013); number of participants (pairs vs. groups) (i.e. Fernández Dobao, 2014; García Mayo & Zetiler, 2017; Villareal Olizola & Munarriz, forthcoming); and task-modality (i.e. Adams & Ross-Feldman, 2008; García Mayo & Azkarai, 2016; Niu, 2009; Payant & Kim, 2019). As regards task-modality, a call for more research has been particularly made in the literature, where most studies have targeted adult learners, except for García Mayo and Imaz Agirre (2019), AUTHOR 2 and AUTHOR 1 (forthcoming) and Gutiérrez-Mangado and Basterrechea (forthcoming) with young learners. Taking into account that research along these lines is still limited, and even more in English as a Foreign Language (henceforth EFL) contexts, and that differences exist between adults and children in their engagement in the language learning process (Mackey & Gass, 2005; as cited in Oliver & Azkarai, 2017), this line of studies will contribute to test the efficacy of similar tasks used in prior studies with adult learners and in turn to maximize children's opportunities for learning (García Mayo, 2017). The next section reviews the main findings of these investigations.

The impact of task-modality on LREs

Research on the effect of task modality on the production of LREs (Adams & Ross-Feldman, 2008; García Mayo & Azkarai, 2016; Niu, 2009; Payant & Kim, 2019) suggests that the written modality leads to greater language awareness and precision than the oral modality (Wolff, 2000), since the additional processing time that writing allows for, as compared to the immediacy of speaking, results in enhanced chances for learners to reflect on and to monitor their outcome (Gass, Behney, & Plonsky, 2013; in Payant & Kim, 2019). However, until very recently there was a dearth of investigations comparing both modalities in the literature with young learners (AUTHOR 2 & AUTHOR 1, forthcoming; García Mayo & Imaz Agirre, 2019). The vast majority of investigations conducted with young learners in the last two decades have examined either oral tasks (i.e. Mackey & Oliver, 2002; Oliver, 2000; Pinter, 2007) or written tasks (i.e. Azkarai & Kopinska, 2020; Coyle & Roca de Larios, 2014; Hidalgo & García Mayo 2019) and just a handful have devoted their attention to LRE production.

In the case of adult learners, Adams & Ross-Feldman (2008) opened up this line of research with their study on the use of past tense and locative prepositions by forty-four upper-intermediate learners of English who were working in the United States. These adult learners spoke different L1s (Spanish, Chinese, Amharic, Arabic, French, Vietnamese, Bengali), had received limited exposure to English in their countries, and were having restricted access to interactions with native speakers of English while in the States. They performed two tasks that incorporated both an oral and a written component, but half of them carried out the speaking and writing part simultaneously while the other half completed the writing part after the speaking one. The order of administration exerted an influence on the resolution of LREs, as dyads performing the tasks sequentially resolved significantly more LREs than dyads performing them successively. Task modality, however, had an effect on the amount of LREs, since learners produced significantly more LREs revolving around locatives in the writing component. This trend also emerged, though not to a significant extent, in the case of the LREs about past tense. As for the types of LREs, no statistically significant differences were found in the categories analysed –focus (meaning vs. form), complexity (complex, simple), directness (direct vs. indirect), and resolution (resolved vs. unresolved)–, but for both language features examined the writing component yielded a greater number of form, complex, direct, and resolved LREs.

The study by Niu (2009) examined sixteen upper intermediate learners of English at a Chinese university as they performed a reconstruction task collaboratively. After reading a 481-word passage individually, half of the same-gender dyads produced the outcome in a spoken form whereas the other half did so in a written mode. The latter were given 25 minutes in total to reach an agreement and rewrite the story, whereas the former had 15 minutes to reconstruct the text (without taking any notes) plus 10 further minutes to retell the story. She found that dyads

that completed the task with a collaborative written component produced more LREs overall, as well as more lexis-related, grammar-related and discourse-related LREs than those who did so with a collaborative oral output. Besides, they also provided more explanations and justifications in their discussions of the languages forms to be used in the reconstructed text. No differences were found, however, between the two different modalities as concerns the resolution of the LREs.

García Mayo & Azkarai (2016) explored the role of task modality on the nature (meaning vs. form), resolution (unresolved vs. resolved; target-like resolved) and engagement (elaborate vs. limited) of the LREs produced by forty-four Spanish learners of English enrolled at different university degrees. Same-proficiency (elementary, lower intermediate and upper intermediate) dyads performed two collaborative tasks which required the production of both an oral and a written output (dictogloss, text-editing) and two collaborative tasks that required the production of an oral-only output (picture placement, picture differences). All four tasks were comparable in terms of the amount of time needed to complete them (around 6 minutes on average). The analysis of the data revealed that the incidence of LREs was greater in the tasks that comprised a written component than in the oral-only tasks. Likewise, writing tasks yielded more resolved LREs than oral ones. Besides, form-focused LREs were more frequent in the oral+written tasks whereas meaning-focused LREs were more prevalent in the oral-only tasks. As for the relationship between task modality and the level of engagement of the LREs, no effect was found.

Payant & Kim (2019) approached the study of task modality in a different way. They asked their ten Spanish/English bilingual learners of French at an intermediate level university course to perform two decision-making tasks containing both an oral phase where dyads had to come to an agreement and a written phase where they had to produce a written output jointly. Subsequently, in an attempt to measure language development, learners completed a series of tailor-made post-tests based on the LREs they had produced during the completion of the tasks. The comparison of the oral and the written phases revealed that a greater number of LREs and target-like resolutions was achieved during the writing phase. Besides, whereas the speaking part yielded more lexis-based than form-based LREs, the proportions of these two types of LREs were more balanced in the written component. As for the results of the post-tests, learners' performance did not lead to task modality effects, both modalities reaching about 75% of accurate answers.

As for the research with young learners, García Mayo & Imaz Agirre (2019) recently conducted a study with sixty-two 11-12 year-old Basque/Spanish children who were asked to perform two tasks which differed in the modality of the final outcome –oral vs. written. First, they completed

an oral picture-ordering task with visual input and oral output. Second, they carried out a decision-making task with written and visual input as well as oral and written output. These beginner learners of English paired up into three different groups (proficiency-matched, teacher-selected, and self-selected) and their interaction was analysed in terms of LRE frequency, nature (lexis-based vs. form-based) and outcome (unresolved vs. correctly resolved). Results indicated that modality did not have an effect on the incidence and nature of LREs, as no differences were found between the number of LREs produced in each task, lexis-based LREs always being more frequent than form-based ones. The authors argue that, unlike adults, younger learners may be in need of vocabulary in order to move the tasks forward. However, modality played a role in terms of the outcome of the LREs, resolved LREs being produced to a greater extent in the oral+writing task than in the oral one.

Along the same lines, AUTHOR 2 & AUTHOR 1 (forthcoming) explored the role of modality in a study with 50 Spanish/Basque bilingual learners of English who were in their 5th and 6th Grade of Elementary School (aged 10-12). These beginner learners carried out two collaborative tasks –an oral task comprising a picture ordering phase and a story-telling phase, and an oral+writing task including a decision-making phase and a note-writing phase–. But unlike García Mayo & Agirre (2019), AUTHOR 2 & AUTHOR 1 (forthcoming) included certain methodological amendments in their research design, such as the control of the different levels of accuracy that both tasks demand and the examination of the incorporation of LREs in the written outcome of the oral+writing task (as in Basterrechea & García Mayo, 2013) in an attempt to capture language learning. The production of LREs was examined in terms of amount, nature (meaning-focused vs. form-focused), resolution (unresolved vs resolved; target-like vs. non target-like resolutions) and incorporation (incorporated vs. non-incorporated resolutions) of LREs. They found that modality played a role, since the oral+writing task yielded a significantly greater amount of LREs, form-focused LREs and resolved LREs than the oral task. Additionally, children tended to incorporate the 'target-like resolved LREs' in the final written product, which evinced language development somehow for the written mode. However, no modality differences were found in the case of meaning-focused LREs, a finding which can be explained by the low-proficiency level of these learners, who clearly need to search for vocabulary to move both tasks forward. The authors also noted that the LREs that these young beginner learners produced were not as elaborated as those in the literature with adult learners.

In sum, although the written modality has been proven to offer more learning opportunities (higher incidence of LREs, of form-focused LREs, and of resolved LREs) than the oral modality, and some incipient research with young learners also seems to point in the same direction, more research is needed with young learners to be better informed about how to offer

this particular learner population the best learning conditions. The young learner literature on the topic is particularly scant and child learners may not behave as adult ones in some respects (Oliver & Azkarai, (2017). The research review here, for instance, has pointed out some age differences regarding learners' focus on meaning or their elaboration of the LREs. Besides, it is worth noting that previous investigations have disregarded some methodological issues which could be affecting the production of LREs, namely the procedural framing of tasks such as the inherent possibilities offered by the oral vs. the written modality to attend to language accuracy or to edit the output as a consequence of their differential on-line and off-line nature. Moreover, research experimentally comparing the incorporation of resolved LREs in the written vs. the oral product is mandatory. The present paper thus reports on a follow-up study of AUTHOR 2 & AUTHOR 1's (forthcoming), and makes up a further step in task-based interaction research in as much as it controls learners' opportunities to monitor and edit the outcome of the task in both modalities.

Task motivation

A further dimension which is worth investigating is learners' affective dimension in task performance, as learners' enjoyment with the tasks they are carrying out may condition their level of engagement with them (Dörnyei & Kormos, 2000) and thus their learning opportunities (Shak & Gardner, 2008). Some research exists that suggests that collaborative, meaningful, complex and challenging tasks are preferred over individual, decontextualized, simple and easy ones (Baleghizadeh & Farhesh, 2014; Julkunen, 2001; Kopinska & Azkarai, 2020; Oliver & Bogachenko, 2019; Van Gorp & Bogaert, 2006). There is also some evidence suggesting that young learners perceive the incorporation of an oral and a written component within the same task as a positive aspect (Calzada & García Mayo, 2020). AUTHOR 2 & AUTHOR 1 (forthcoming) recently explored the interplay between task modality and learners' motivation more experimentally by gathering data from schoolchildren's motivation before and after the completion of an oral task vs. an oral+writing task. They found that learners' motivation improved from the pretest to the posttest phase for both tasks. As regards modality, it was found that it played no major role in motivation at any time. All in all, research on the impact of modality on task motivation is still an underexplored topic, and further research that broaches this issue with a variety of populations, learning contexts, tasks and procedures is timely.

Research questions

In the light of the findings of previous investigations on task-modality, this paper will examine the incidence, nature, resolution and incorporation of LREs in two tasks that differ in the modality of the final outcome but offer equal opportunities to revise and edit this product. In addition, it will shed light on the attitudes these learners show towards this type of tasks. The following research questions guided the study:

1. Are there any differences between the two tasks in terms of nature, resolution and incorporation of LREs in the final product of the task?
2. What are the most common types of LREs (in terms of nature, resolution, and incorporation) in each task?
3. Are there any differences between the two tasks as regards student motivation either at the pre-task and post-task stage?

Methodology

Participants

Participants were Basque-Spanish bilingual learners of third language (L3) English in their 5th and 6th year of primary education in a state school in the Basque Country. All of them started learning English at the age of 4 in pre-primary education and at the age of 8, they were enrolled in a Content and Language Integrated Learning (henceforth CLIL) programme. In these school years, learners were receiving 2 to 4 hours of CLIL instruction per week and 3 hours of EFL instruction. At the moment of testing, 5th year learners had received 777 hours of exposure to English, and 6th graders 962 hours. As for their English proficiency, they were considered beginners (A1-A2)[1] according to the Key English Test (KET) (UCLES, 2014) administered at the outset of the study.

Instruments and procedure

Participants were first administered the KET during class time and subsequently matched in pairs on the basis of their scores in this test. Thirteen proficiency-matched dyads pair up to perform two tasks in English which are part of a wider project on the use of collaborative tasks among young learners: an oral task in which the final product was delivered in oral mode and an oral task in which participants had to submit a written product. So as to improve the

[1] Basic users according to the Common European Framework of Reference for languages http://www.coe.int/t/dg4/linguistic/Source/Framework_en.pdf

shortcomings of previous research on task-modality (Adams & Ross-Feldman, 2008; García Mayo & Azkarai, 2016; Niu, 2009; Payant & Kim, 2019), two decisions were made in the project. First of all, instructions were kept constant in both modalities. Specifically, learners were asked to attend to accuracy in both tasks. Likewise, in the case of the second task, and so as to have the same opportunity for revising their production as in the first task, learners were asked to reflect on their output and edit their production.

Tasks were completed by children in the same order, that is, first the oral-only task and then the oral+written task. In attempt to avoid participants' boredom, each task was administered in a different session. Prior and after the completion of each task, learners were individually requested to complete a motivation scale. In particular, they were asked to grade their motivation from 0 to 10 (see Al-khalil, 2016), and to justify their decision by selecting one of the reasons provided by the investigator. In the present paper, the data from the quantitative scale will be examined.

The first collaborative task was made up of two phases and the pictures were specifically designed for this study. During the first phase, learners were provided with a picture of a boy in a park who has found a lost dog and a set of possible owners together with a town map in which their work places were portrayed. In this case, they were asked to make and justify their decisions as regards the owner of the dog. Then, in the second phase they were requested to write down a short note for the boy informing the boy about the owner of the dog and the reasons underlying their decision, as well as the best way for the boy to take the dog back to its owner. Tasks like this one have been administered in previous investigations with EFL adults (García Mayo & Azkarai, 2016) and more recently with child EFL CLIL learners (García Mayo & Imaz Agirre, 2019).

The second collaborative task also consisted of two different phases. In the first phase, learners were asked to have a look at a set of 5 pictures and to think about a possible story depicted in them. Then, they were asked to record the story sentence by sentence. More specifically, they were instructed to describe what was illustrated in each picture, to stop the recorder after each sentence and to rewind it so as to listen to their production and to edit it in case they thought there was something wrong. No pen or paper was provided, so students could only rely on the oral channel to fulfill the task. Storytelling tasks have been widely employed in previous research with both adults and children (i.e. Alegría de la Colina & García Mayo, 2009; COLLEAGUE & AUTHOR 1, 2018, 2019; García Mayo & Hidalgo Gordo, 2017; García Mayo & Lázaro Ibarrola, 2015; AUTHOR 1, 2020; Storch & Aldosari, 2010). However, to our knowledge, the possibility of editing their oral production has not been attested in previous studies. As aforementioned, this study is part of a bigger project in which we have offered a

comprehensive understanding of modality effects in the same cohort of students by comparing different tasks and modalities. In particular, we have followed up prior research with adults by designing similar tasks for children, so as to investigate whether these tasks are beneficial to them or need to be adapted somehow. This gains support in the light of children's differential behaviour in their approach to the learning process (Oliver & Azkarai, 2017). Even if in this study, as explained above, we have included some procedure amendments, tasks still differ in type, as happened in prior research (i.e. García Mayo y Azkarai, 2016). The first task is a decision-making task, while the second one is a storytelling task. More specifically, the present study is a follow up of the work by AUTHORS (in press), where the very same decision-making task was compared to a storytelling task without the possibility of editing.

The two collaborative tasks were carried out in a quiet room from their school and supervised by one of the researchers. Even if both tasks were performed in the presence of one of the researchers, they were requested to act naturally, making use of all their resources at hand and to always seek their partner's help rather than the investigator's help if any doubts concerning vocabulary arose. Participants were given as much time as needed for task fulfillment. On average, learner pairs employed about 15 minutes to complete both collaborative tasks.

Before data-collection, the research team ensured that the task was appropriate for the learners tested by having several meetings with the school teachers. In addition, it was pilot tested with similar age children so as to uncover any would-be problems that could emerge during the performance of both tasks and to provide any necessary adaptations.

Data analysis

Participants' task-based interaction was audio and videotaped, transcribed and codified into CHILDES (McWhinney, 2000). All turns in which students engaged in language discussion or self-correction were identified as LREs and classified following Adams & Ross-Feldman (2008) and García Mayo & Azkarai (2016). Two independent coders performed this task. Any divergence was solved jointly by the two coders on a case-by-case basis. In other words, LREs were first subdivided into two main categories, *meaning-focused*, which includes word meaning and word choice (2), and *form-focused*, which comprises episodes related to phonology, morphosyntax, prepositions, and spelling as can be observed in (3):

(2) *CHI1: and all have the same eh (..) eh how do you say eh *apellido* [surname]?
*CHI2: but eh.
*CHI3: surname *creo* [think].

(3) *CHI2: has got the t-shirt with a glass and a snake. *(CHI2 writes)*
*CHI2: *ay lo tacho*? [Shall I cross it out?]. *(whispering)*
*CHI1: eh with is (.) is with eh eich.
*CHI2: ah.
*CHI3: xxx *hache* xxx *al final* [h at the end]. *(whispering)*

Then, outcome was taken into account and each of the main categories of LREs were classified as *resolved* (4) in those cases in which the LRE reached a resolution or *unresolved* (5) in the cases where the LRE was left unresolved:

(4) *CHI2: the dog go.
*CHI1: goes.
*CHI2: goes.

(5) *CHI1: do you go to cental clinic and (.) *después era* [later was] eh (.) *cómo era después?* [How did you say later?].
*CHI2: *pero ya esto o esto?* [but now is it this or this?]. *(pointing at different parts of the map)*

Finally, for those LREs that were considered *resolved*, following Payant & Kim's (2019) classification, a distinction was further made so as to see whether the LRE was resolved in a *target-like* (6) or in a *non-target-like* (7) manner:

(6) *CHI2: *cómo se dice pescar?* [how do you say to fish?]. *(whispering)*
*CHI1: fish.
*CHI2: *no pescar pescar* [no, to fish to fish]. *(whispering)*
*CHI1: fishing. *(whispering)*
*CHI2: fi fishing fish.

(7) *CHI1: eh and the and one of the children eh of the childrens eh (.) fish a boat.

Likewise, *resolved* LREs were broken down into *incorporated* (8) and *non-incorporated* (9), depending on whether the resolution that dyad members reached was included (or not) in the eventual product of the task (written in the first task and oral in the second task):

(8) *CHI2: and he fish another.
*CHI3: yes another. *(CHI3 nods)*
[Final oral output: 'then eh the boy fish another boat and the other boy laughs']

(9) *CHI1: you can and (.) you (.) can (.) go eh.
*CHI1: *cruzando* crossing] *(whispering)*
*CHI2: cross. (whispering)
*CHI1: no cross *es enfadado* [is angry]. *(whispering)*
*CHI2: xxx. *(whispering)*
*CHI1: and you can go.
*CHI1: you can go. *(whispering)*
*CHI2: crossing the (.) roads.
*CHI1: *pasar* [pass]. *(whispering)*
[Final written output: 'Take the dog to vet clinic and you can go walking three roads, two to the left and one straigth']

As for the analysis of the data on motivation, means and standard deviations were calculated based on the assessment that every single student had to make of their motivational state both immediately before and immediately after the completion of each task. For such purpose, participants were provided with a Likert scale ranging from low (1 point) to high (10 points) motivation.

Regarding statistical analyses, results were analyzed by means of SPSS 24 (IMB Corp., 2010). Both descriptive and inferential analyses were computed. In the case of descriptive analyses, means and standard deviations were calculated. With respect to inferential analyses, as the data did not meet the criteria for normal distribution, Wilcoxon's Signed Rank tests were performed for intertask and intratask comparisons. Statistical significance was indicated at a .05 (*) and .01(**).

Results

The presentation of the results from the oral+writing vs. the oral+editing task in this study is structured as follows. Firstly, we will inform about learners' performance regarding the amount of instances in which they stop to discuss language issues during their interaction in each task (Table 1) to later delve into the nature, resolution and incorporation of the LREs produced (Table 2). Secondly, we will report the intra-task analyses performed in order to compare the number of meaning-based vs. form-based, resolved vs. unresolved, target-like vs. non-target-like and incorporated vs. non-incorporated LREs (Figures 1-10). Thirdly, the data regarding learners' motivation both before and after the completion of each task will be displayed (Table 3).

Table 1. *Mean number of LREs in each task. Standard deviations in parentheses and Wilcoxon's Signed Rank Test results by task-type*

Task-type	Mean number of LREs (SD)	Z	P
Oral+writing task	8.00 (3.96)	-2.204	0.028
Oral+editing task	3.77 (3.40)		

As can be seen in Table 1, learners differed in the quantity of LREs produced in each modality, as the mean number of LREs produced in the oral+writing task was above double the mean number of LREs produced during the oral+editing task (8.00 vs 3.77). As indicated by the Wilcoxon signed-rank test, this difference was statistically significant.

Table 2. *Mean and absolute number of LREs in each task: nature, resolution and incorporation. Standard deviations and percentages in parentheses.*

			Task-type			
			Oral+writing task		Oral+editing task	
			Mean (SD)	Number (%)	Mean (SD)	Number (%)
Nature		Meaning	4.31 (2.42)	56 (53.85%)	2.85 (2.76)	37 (75.51%)
		Form	3.69 (2.78)	48 (46.15%)	0.92 (1.04)	12 (24.49%)
Resolution	Meaning	Resolved	3.85 (2.45)	50 (89.29%)	2.00 (2.27)	26 (70.27%)
		Unresolved	0.46 (0.66)	6 (10.71%)	0.85 (0.00)	11 (29.73%)
	Form	Resolved	3.46 (2.63)	45 (93.75%)	0.92 (1.03)	12 (100%)
		Unresolved	0.23 (0.43)	3 (6.25%)	0.00 (0.00)	0 (0%)
Resolution (accuracy)	Meaning	Target-like	3.31 (2.01)	43 (86%)	1.54 (1.66)	20 (76.92%)
		Non-target-like	0.54 (0.96)	7 (14%)	0.46 (0.77)	6 (23.08%)
	Form	Target-like	3.00 (2.30)	39 (86.67%)	0.54 (0.77)	7 (58.33%)
		Non-target-like	0.46 (0.51)	6 (13.33%)	0.38 (0.65)	5 (41.67%)
Incorporation of resolved	Meaning	Incorporated	3.08 (2.29)	40 (80%)	1.15 (1.62)	15 (57.69%)
		Non-	0.77 (0.72)	10 (20%)	0.85 (0.89)	11 (42.31%)

LREs			Incorporated	2.92 (2.29)	38 (84.44%)	0.62 (0.87)	8 (66.67%)
	Form		Incorporated	0.54 (0.77)	7 (15.56%)	0.31 (0.63)	4 (33.33%)
			Non-incorporated				
Incorporation of resolved LREs (accuracy)	Meaning	Target-like	Incorporated	2.62 (2.06)	34 (79.07%)	0.92 (1.32)	12 (60%)
			Non-incorporated	0.69 (0.75)	9 (20.93%)	0.62 (0.76)	8 (40%)
		Non-target-like	Incorporated	0.46 (0.96)	6 (85.71%)	0.23 (0.43)	3 (50%)
			Non-incorporated	0.08 (0.27)	1 (14.29%)	0.23 (0.43)	3 (50%)
	Form	Target-like	Incorporated	2.54 (2.02)	33 (84.62%)	0.38 (0.76)	5 (71.43%)
			Non-incorporated	0.46 (0.66)	6 (15.38%)	0.15 (0.37)	2 (28.57%)
		Non-target-like	Incorporated	0.38 (0.50)	5 (83.33%)	0.23 (0.59)	3 (60%)
			Non-incorporated	0.08 (0.00)	1 (16.67%)	0.15 (0.37)	2 (40%)

Table 2 displays the rest of the intra-task analyses performed. It can be seen that, while no significant differences between the two tasks were found with regard to the incidence of meaning-based LREs, the incidence of form-based LREs was significantly greater in the oral-writing task than in the oral+editing task (3.69 vs. 0.92, z=-2.601, p=.009).

When the resolution of the LREs was explored, it was discovered that the LREs which had been resolved were far more abundant in the oral+writing task than in the oral+editing task, this holding true for both meaning-based (3.85 vs. 2.00, z=-2.071, p=.038) and form-based (3.46 vs. 0.92, z=-2.486, p=.013) LREs. However, no statistical support was found in the case of unresolved LREs.

As for the accuracy of those resolved LREs, there were just one type of inter-task comparison yielding statistically significant differences, namely that of contrasting the LREs resolved in a target-like fashion, which was numerically superior in the oral+writing task than in the oral+editing task for both meaning-based (3.31 vs. 1.54, z=-2.461, p=.014) and form-based (3.00 vs. 0.54, z=-2.587, p=.010) LREs. The production of non-target like LREs did not lead to any statistically significant difference between the two task modalities.

When it comes to the incorporation of the resolved LREs, the inter-task analyses performed indicated that the rate of incorporated LREs was statistically greater in the oral+writing task than in the oral+editing task for both meaning-based (3.08 vs. 1.15, z=-2.522, p=.012) and form-based (2.92 vs. 0.62, z=-2.591, p=.010) LREs. However, no support from inferential statistics was found in the case of the inter-task comparisons of non-incorporated LREs.

Regarding the accuracy of the resolved LREs incorporated in the final product of the task, it was shown that the target-like LREs were the only ones which had been incorporated to a larger extent in the oral+writing mode than in the oral+editing mode. This tendency was observed for both meaning-based (2.62 vs. 0.92, z=-2.516, p=.012) and form-based (2.54 vs. 0.38, z=-2.590, p=.010) LREs. In contrast, the incorporated LREs which had not been resolved accurately did not result in task modality differences. Besides, no inter-task differences were found when either the target-like or the non-target like LREs which had not been incorporated were analysed.

Once we have presented the findings as to the inter-task analysis, let us proceed to give an account of the intra-task analyses performed. Regarding the nature of LREs, meaning-focused episodes turned out to be more abundant than form-focused ones in both the oral+writing (Figure 1) and the oral+editing task (Figure 2). However, it is in the oral+editing task that this difference reached statistical significance (2.85 vs. 0.92, z=2.834, p=.005).

[Insert Figure 1 here]

[Insert Figure 2 here]

Regarding the resolution of LRES in the oral-writing task (Figure 3), resolved episodes were significantly more frequent than unresolved ones. This tendency was observed in both meaning-focused (3.85 vs. 0.46, z=-2.861, p=.004) and form-focused (3.46 vs. 0.23, z=-2.947, p=.003) LREs.

[Insert Figure 3 here]

As for the resolution of LREs in the oral+editing task (Figure 4), resolved LREs occurred with a higher frequency than unresolved ones, though this difference was statistically significant only in the case of form-focused LREs (0.92 vs. 0.00, z=-2.401, p=.016). In fact, in the episodes where learners focused on form unresolved LREs were not attested, a finding which can explain why the difference between unresolved meaning- and unresolved form-focused LREs was statistically significant (0.85 vs. 0.00, z=-2.232, p=.026) too.

[Insert Figure 4 here]

When it comes to the target-likeness of resolved LREs in the oral-writing task (Figure 5), epidodes which were resolved in an accurate manner significantly excelled over those which were not, both when learners' interaction focused on meaning (3.31 vs. 0.54, z=-2.829, p=.005) and on form (3.00 vs. 0.46, z=-2.825, p=.005).

[Insert Figure 5 here]

With regard to the accuracy of resolved episodes in the oral+editon task (Figure 6), the rate of target-like resolutions in meaning-focused LREs was significantly greater than that of inaccurate resolutions (1.54 vs. 0.46, z=-2.511, p=.012). Nevetheless, the comparison of both correctly and incorrectly resolved form-focused LREs did not result in a statistically significant difference.

[Insert Figure 6 here]

Concerning the incorporation of those LREs which were resolved in the oral+writing task (Figure 7), the analyses indicated that most of these LREs were incorporated in the final written product. The difference between incoporated and non-incorporated episodes reached statistical significance for both meaning-focused (3.08 vs. 0.77, z=-3.296, p=.001) and form-focused (2.92 vs. 0.54, z=-3.443, p=.001) LREs.

[Insert Figure 7 here]

As relates to the incorporation of those LREs which were resolved in the oral+editing task (Figure 8), no statistical differences were found between incorporated and non-incorporated episodes. Nevertheless, the number of non-incorporated meaning-focused LREs outscored that of non-incorporated form-focused LREs in a significant way (0.85 vs. 0.31, z=-2.111, p=.035).

[Insert Figure 8 here]

Concerning the interplay between the accuracy and the incorporation of the episodes which were resolved in the oral+writing task (Figure 9), the only statistically significant difference discovered was the one between the incorporated and the non-incorporated LREs which were resolved in a target-like fashion, a finding which held true for both meaning-focused (2.62 vs. 0.69, z=-2.512, p=.012) and form-focused (2.54 vs. 0.46, z=-2.770, p=.006) episodes.

[Insert Figure 9 here]

As for the interaction between the target-likeness and the incorporation of the resolved LREs in the oral+editing task (Figure 10), the Wilcoxon tests did not reveal any significant difference within the various LRE types either within the episodes centered on meaning or those on form. However, the number of target-like meaning-focused episodes which were not incorporated in the final oral product turned out to be significantly higher than the number of non-incorporated target-like form-focused episodes (0.62 vs. 0.15, z=-2.121, p=.034).

[Insert Figure 10 here]

The last type of analyses carried out concerned children's attitudes towards the two tasks. Table 3 displays the results of the motivation scale that individual learners completed immediately before and after each task. As can be observed, there are no significant differences between the two tasks either before or after their completion. However, the motivation score was significantly higher 'after' than 'before' in the oral+writing task (7.75 vs. 9.19), a finding which is also true in the case of the oral+editing task (8.00 vs. 9.23). In both cases, learners showed a good affective state at the pre-test phase and ended up with an even higher motivation after accomplishing the tasks.

Table 3. Student motivation before and after the completion of each task

	Oral+writing task	Oral+editing task	Wilcoxon
Pre-task motivation			
Mean	7.75	8.00	z=-1.172
Standard Deviation	2.06	2.41	p=0.241
Post-task motivation			
Mean	9.19	9.23	z=-0.230
Standard Deviation	1.05	1.27	p=0.818
Wilcoxon	z=-2.924 p=0.003**	z=-2.026 p=0.043*	

Discussion and conclusion

In this section, findings will be discussed according to the three research questions of the study. With respect to the first research question (*Are there any differences between the two tasks in*

terms of nature, resolution and incorporation of LREs in the final product of the task?), the intergroup analysis showed a significantly higher number of LREs, more form-focused LREs, as well as a greater number of resolved LREs and more correctly resolved LREs (in both meaning- and form-related LREs) in favour of the oral+writing task. In addition, the oral+writing task promoted more incorporated LREs in the final product that had been resolved in a target-like way. Thus, the oral+writing task seems to be a more powerful task in that under similar conditions as regards attention to accuracy and the possibility of editing the final product as the oral task, this task allows the learner to notice formal aspects of the foreign language, leads them to include their target-like resolutions with greater frequency, and fosters an even higher rate of accuracy in the resolution of LREs. These results are in line with the ones reported in our previous investigation (AUTHOR 2 & AUTHOR 1, forthcoming) with the same sample in which we compared an oral task with no possibility of editing the final product to the oral+writing task reported in the present paper. They also match the findings obtained in previous research with adult learners (Adams & Ross-Feldman, 2008; García Mayo & Azkarai, 2016; Niu, 2009; Payant & Kim, 2019), as well as with young learners (García Mayo & Imaz Agirre, 2019). The fact that the oral+writing task has a writing component makes it more visual and perceptible, which could lead the learner to raise more grammatical issues and to incorporate their language discussions in the final product. In other words, learners are more prone to attend to grammar aspects while writing. As claimed by Wolff (2000, as cited in Niu, 2009, p. 387), writing helps raising language awareness better than speaking as (i) it requires learners to express their thoughts more precisely and therefore are pushed to reflect on how to use more accurate language, and (ii) sounds in writing are transformed into something more visible, substantial and learnable. Likewise, as suggested by Williams (1999, as cited in Adams and Ross-Feldman, 2008, p. 246), writing tasks "may be perceived by the learners as having a more language-oriented goal than tasks that required only speaking, perhaps because they are forced to confront language as an object as well as a tool for communication".

Nevertheless, the analysis of the results also indicated that, unlike our previous study (AUTHOR 2 & AUTHOR 1, forthcoming), the oral task of the current study, which granted the editing of the final product, did not promote more unresolved LREs or non-target-like resolutions. In these conditions, and in particular, the opportunity offered to check their final oral product has contributed to increase these young learners' resolution rate in a more immediate task as well as to upsurge the accuracy of resolutions.

As regards the second research question (*What are the most common types of LREs (in terms of nature, resolution, and incorporation) in each task?*), the intra-task analysis showed that even if learners were requested to attend to accuracy in both tasks and even if both modalities granted the possibility of editing their final product, the oral task did not promote either the attention to

more grammatical aspects or the incorporation of target-like resolutions in the final outcome. In this respect, these results reinforce the ones reported in our previous study with the same sample (AUTHOR 2 & AUTHOR 1, forthcoming), as well as prior research with both adult (Adams & Ross-Feldman, 2008; García Mayo & Azkarai, 2016; Niu, 2009; Payant & Kim, 2019) and young learners (García Mayo & Imaz Agirre, 2019). In contrast, and unlike our previous study (AUTHOR 2 & AUTHOR 1, forthcoming), the opportunity offered in the oral task for revision and editing lead to a growth in the accuracy of learners' resolutions of meaning-related episodes (i.e. the main focus of this communication-oriented task). What these results seem to evince is that task-modality may have an impact on the nature of LREs and on the incorporation of target-like resolutions in the final product, but not at the level of the resolution. In other words, a writing component, which might be more visual and perceptible, demands greater attention to formal aspects and facilitates the incorporation of target-like resolutions. On the contrary, the possibility of revising and editing the final product boosts more accurate resolutions irrespective of an oral or written output.

At this point, it is also worth mentioning that the LREs produced in both modalities were not so elaborated, as learners tend to resolve those episodes without further justifications or with scant metalinguistic explanations as can be observed in (10) from the oral+writing task and (11) from the oral task:

(10)*CHI2: going at the park.
*CHI1: go to the park and.
*CHI2: eh.
*CHI1: to the park.

(11) *CHI2: one boy eh (.) bot a (.) bot eh (..) bot bat eh (.) eh *cómo se dice encontrar?* [how do you say to find?] *(looking at the investigator)*
*CHI2: Markel *cómo se dice encontrar*? [how do you say to find?]
*CHI1: eh find.
*CHI2: find a (..) shoes.

The lack of metalanguage could be explained by young and low proficient learners' still developing metalinguistic awareness (Muñoz, 2017; Tellier & Roehr-Brackin, 2017). It is also worth mentioning that a strong oral component and a special emphasis on vocabulary characterizes primary education in Spain (Muñoz, 2017).

As an answer to the third research question (*Are there any differences between the two tasks as regards student motivation either at the pre-task and post-task stage?*), the intertask analysis did

not report the existence of statistically significant differences in either condition, which confirmed previous research findings with young learners (AUTHOR 2 & AUTHOR 1, forthcoming). Thus, both tasks were equally motivating and attractive for the learner, probably because they share some of the characteristics of engaging tasks (e.g., collaborative, meaningful, complex, challenging), as reported in previous literature (Baleghizadeh & Farhesh, 2014; Julkunen, 2001; Kopinska & Azkarai, 2020; Oliver & Bogachenko, 2019; Van Gorp & Bogaert, 2006). The descriptive analysis also indicated that the degree of motivation was particularly high at the pre-task stage and increased even more at the post-task stage. These results corroborate the findings obtained in other studies that have looked into the degree of motivation and engagement among young learners when performing different focus-on-form tasks (Shak & Gardner, 2008; Muñoz, 2017).

This paper has contributed to the scarcity of research on task-modality effects and young learners by comparing similar tasks employed in the literature with adult learners. In particular, the comparison of the tasks administered seems to evince task modality effects in terms of the nature and incorporation of LREs, as tasks that incorporate a writing component lead to more attention to formal aspects and to incorporate accurate resolutions in the final output. It has also attested how the possibility of revising and editing the final product (either written or oral) helps increase the accuracy resolution rate. Likewise, the analysis of the results obtained in this study has shown the lack of extensive discussions about form both in the case of tasks that demand the submission of an oral or a written final product.

In the light of the results obtained, four main pedagogical implications may be drawn. First, the incorporation of this type of tasks might be beneficial for the learner as they contribute to the promotion of their learning opportunities. In addition, the analysis of task motivation revealed that both tasks were stimulating and attractive, since participants' motivation rates were high before the performance of each task and even higher in the post-task stage, all of which could enhance their attention. Second, teachers might better adopt tasks that incorporate a writing component if they want to draw learners' attention to aspects more related to grammar and to incorporate those language episodes that could have been resolved in a target-like way in their final product. Third, learners should be offered the possibility of revising and editing their productions during oral tasks as this is clearly geared towards accuracy. In these conditions, learners might benefit from the availability of cognitive resources during a longer period of time in an oral mode (see Kuiken & Vedder, 2012). Fourth, even if additional time to reflect on their output might be beneficial, teachers' efforts should also be directed towards bringing about more elaborated language discussions in this age range by boosting metalinguistic awareness, which has been positively correlated with accuracy (see Tellier & Roehr-Brackin, 2017). In this

respect, more focused tasks could be implemented so as to help the learner notice grammar features, to promote more elaborated discussions, and a greater noticing of gaps (see Roehr-Brackin, 2018; Roehr-Brackin & Tellier, 2019; Tellier & Roehr-Brackin, 2017).

For further research, it would be convenient to control for the type of the tasks designed for each modality. In the present study, as in prior adult and child research, 'task modality' and 'task type' variables cut across one another, the written modality comprising a decision-making task and the oral one a story-telling task. We acknowledge that this is a limitation and that reported findings might be the result of the blurring effect of both factors jointly. Future empirical designs could also vary the order of administration of the different tasks administered in the same project, even though in the light of the motivation data in the present study this variable did not seem to have an effect on the results obtained. Likewise, further studies should take into account a deeper analysis of the elaboration and complexity of the LREs produced by young learners in such controlled conditions, as well as a look into other variables such as the use of the L1 in the LREs or the patterns of interaction between the two members of the pair. Finally, the addition of tailor-made posttests to measure language development more objectively should be welcome.

Acknowledgement

Withheld until acceptance

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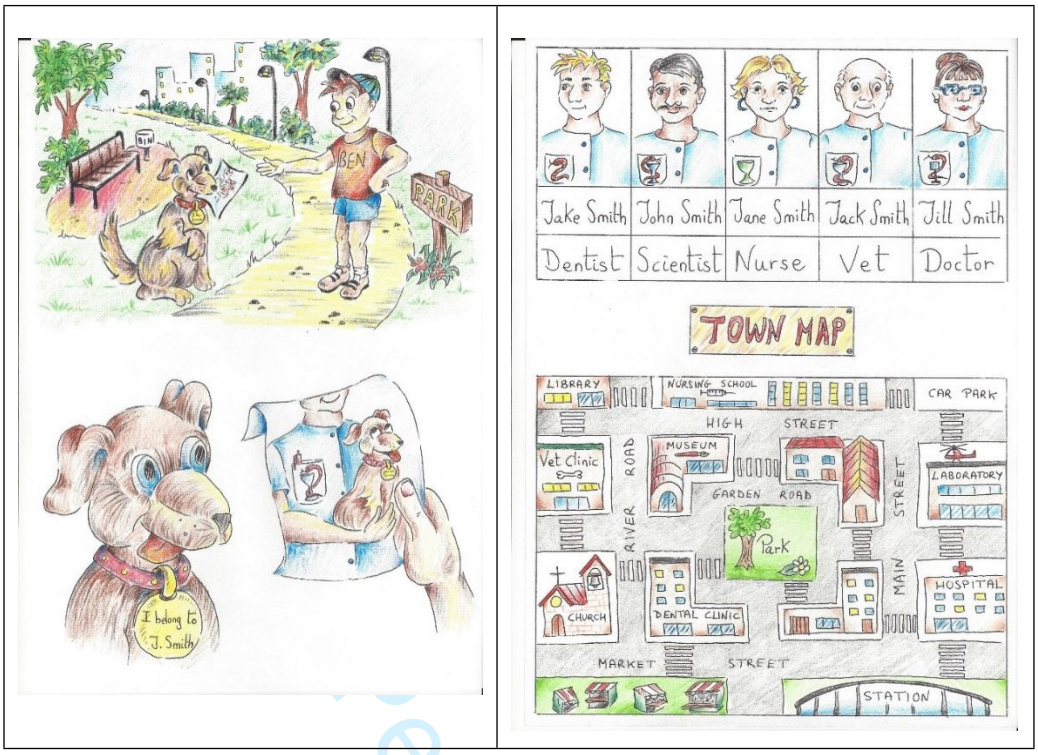
Appendix 1



Alberto San Emeterio Bolado©

Appendix 2

Task modality and language-related episodes in young learners: An attempt to manage accuracy and editing

Abstract

Task modality (oral vs. writing) has been found to affect the production, nature and resolution of the language-related episodes (LREs) produced by adult learners in collaborative interaction (Adams & Ross-Feldman, 2008; García Mayo & Azkarai, 2016; Niu, 2009; Payant & Kim, 2019), a finding also attested in very recent and still limited research with young learners (Authors, forthcoming; García Mayo and Imaz Agirre, 2019), a population that deserves greater attention in the literature. Besides, previous research has not yet considered the incorporation of LREs in the final output of both oral and written tasks. Nor has it controlled for the differential levels of accuracy that the oral vs. the written modality demand, or the opportunity for revising the output equally in both modalities. Besides, little is known about learners' motivation towards tasks of different modality. This paper fills these gaps by examining the effect of task-modality on the production of LREs by 10-to-12 year-old schoolchildren performing an oral+writing task and an oral+editing task, as well as its effect on their task motivation. Task modality effects were evinced in terms of nature and incorporation of LREs, the written mode leading to greater focus on form and incorporation of accurately resolved LREs. The possibility of editing the oral output resulted in enhanced target-likeness of resolved LREs. As for task motivation, learners perceived both tasks as equally motivating.

Introduction

The impact of collaborative work on attention to language has often been operationalized as Language Related Episodes (LREs) (Swain and Lapkin, 1998). Among the various factors which can interact, task modality has been the central focus of inquiry in some research within the interactionist framework of second language acquisition. This variable has been found to exert an influence on the frequency, nature and resolution of the LREs produced by adult second language learners, findings pointing to the written modality as advantageous (Adams & Ross-Feldman, 2008; García Mayo & Azkarai, 2016; Niu, 2009; Payant & Kim, 2019). As for young learners, research on modality effects on LREs is still in its infancy, even though the scarce empirical evidence also suggests that the written modality is more beneficial than the oral one (García Mayo & Imaz Agirre, 2019), and there is supportive evidence of some effect of the written modality on language development, as indicated by the incorporation of resolved LREs in the final written product (AUTHOR 2 & AUTHOR 1, forthcoming). On a different matter, most investigations have not controlled for the differential level of accuracy that the oral and the written modality inherently demand as a consequence of their respective on-line and off-line

nature. Likewise, previous research has not ruled out the effect of the differences between the two modalities as regards the chances to edit the output. Besides, very little is known about the interplay between task modality and learner's' motivation when performing collaborative tasks.

As part of a larger project on the benefit of collaborative task-based interaction for foreign language learning in young schoolchildren, this paper attempts to fill in the aforementioned gaps in the literature by reporting a study on the production, nature, outcome and incorporation of LREs by young learners' (aged 10-12) of English when performing an 'oral+writing' task vs. an 'oral+editing task' after being urged to attend to accuracy in both conditions. Likewise, it adds to the scarce research on young learners' attitudes towards collaborative tasks.

This paper is organized into seven sections. The first three sections introduce the theoretical framework by, first, focusing on LRE research within the interactionist theory and sociocultural theory to, second, centre on the literature on the impact of task modality, and third, give an account of the research on task motivation. The state-of-the-art is followed by the fourth section, which presents the research questions of the study. The fifth and sixth section continue with the description of the methods employed and the results, respectively. The final section closes with a discussion of the findings and the main conclusions drawn from them.

Theoretical perspectives on Language Related Episodes

As stated by Myles (2013), social approaches such as the Interactionist framework and Sociocultural Theory to the study of Second Language Acquisition are concerned with the impact of external ingredients such as input/interaction/output and the social context. In particular, the Interaction Hypothesis (Long, 1983, 1996) is a social theoretical framework that incorporates aspects from the Input Hypothesis (1982, 1985) and the Output Hypothesis (Swain, 1985, 1995, 2005). The constructs, input, interaction, feedback (sometimes also included within interaction) and output have been integrated and referred to as the Interaction Hypothesis. The Interaction Hypothesis claims that interaction among learners or among learners and native speakers fosters L2 learning because during interaction learners receive comprehensible input (modified input) which constitutes evidence of what is possible in a given language (i.e. positive evidence), feedback or information about what is not desirable in a given language (negative evidence), and learners are pushed to produce more target-like output.

Apart from the three basic constructs, Gass and Mackey (2007) refer to Language Related Episode (LRE) as another component of this approach. According to Gass and Mackey (2007, p. 185), LREs refer to instances where learners consciously reflect on their own language use, as illustrated in (1). They comprise a variety of discourse moves such as requests for assistance,

negotiation sequences, as well as explicit and implicit feedback and constitute evidence of learners' attention to form (Gass & Mackey, 2007).

LREs have also been the target of Sociocultural Theory. Under this theoretical perspective, "speakers (or writers) are using language as a cognitive tool to mediate their own thinking and that of others" (Swain & Watanabe, 2013, p. 1). In particular, they constitute the unit of analysis to operationalize the construct 'collaborative dialogue', which is usually defined as dialogue in which speakers are engaged in problem solving and knowledge building (Swain, 2000). During collaborative dialogue learners may "form and test hypotheses about appropriate and correct use of language, as well as reflect on their language use" (Swain & Watanabe, 2013, p. 3). Thus, they represent learning in progress.

(1) CHI1: his o her? [his or her?]
CHI2: es his. [it is his]

The incidence, nature and resolution of LREs seems to depend on a wide array of factors: L2 proficiency (i.e. Leeser, 2004; Williams, 1999); task-type (i.e. García Mayo, 2002; Storch, 1998, 2001); gender (i.e. Azkarai, 2015; Ross-Feldman, 2005, 2007); pairing method (i.e. Mozaffari, 2016); engagement level (i.e. Storch & Aldosari, 2013); number of participants (pairs vs. groups) (i.e. Fernández Dobao, 2014; García Mayo & Zetiler, 2017; Villareal Olizola & Munarriz, forthcoming); and task-modality (i.e. Adams & Ross-Feldman, 2008; García Mayo & Azkarai, 2016; Niu, 2009; Payant & Kim, 2019). As regards task-modality, a call for more research has been particularly made in the literature, where most studies have targeted adult learners, except for García Mayo and Imaz Agirre (2019), AUTHOR 2 and AUTHOR 1 (forthcoming) and Gutiérrez-Mangado and Basterrechea (forthcoming) with young learners. Taking into account that research along these lines is still limited, and even more in English as a Foreign Language (henceforth EFL) contexts, and that differences exist between adults and children in their engagement in the language learning process (Mackey & Gass, 2005; as cited in Oliver & Azkarai, 2017), this line of studies will contribute to test the efficacy of similar tasks used in prior studies with adult learners and in turn to maximize children's opportunities for learning (García Mayo, 2017). The next section reviews the main findings of these investigations.

The impact of task-modality on LREs

Research on the effect of task modality on the production of LREs (Adams & Ross-Feldman, 2008; García Mayo & Azkarai, 2016; Niu, 2009; Payant & Kim, 2019) suggests that the written modality leads to greater language awareness and precision than the oral modality (Wolff, 2000), since the additional processing time that writing allows for, as compared to the immediacy of speaking, results in enhanced chances for learners to reflect on and to monitor their outcome (Gass, Behney, & Plonsky, 2013; in Payant & Kim, 2019). However, until very recently there was a dearth of investigations comparing both modalities in the literature with young learners (AUTHOR 2 & AUTHOR 1, forthcoming; García Mayo & Imaz Agirre, 2019). The vast majority of investigations conducted with young learners in the last two decades have examined either oral tasks (i.e. Mackey & Oliver, 2002; Oliver, 2000; Pinter, 2007) or written tasks (i.e. Azkarai & Kopinska, 2020; Coyle & Roca de Larios, 2014; Hidalgo & García Mayo 2019) and just a handful have devoted their attention to LRE production.

In the case of adult learners, Adams & Ross-Feldman (2008) opened up this line of research with their study on the use of past tense and locative prepositions by forty-four upper-intermediate learners of English who were working in the United States. These adult learners spoke different L1s (Spanish, Chinese, Amharic, Arabic, French, Vietnamese, Bengali), had received limited exposure to English in their countries, and were having restricted access to interactions with native speakers of English while in the States. They performed two tasks that incorporated both an oral and a written component, but half of them carried out the speaking and writing part simultaneously while the other half completed the writing part after the speaking one. The order of administration exerted an influence on the resolution of LREs, as dyads performing the tasks sequentially resolved significantly more LREs than dyads performing them successively. Task modality, however, had an effect on the amount of LREs, since learners produced significantly more LREs revolving around locatives in the writing component. This trend also emerged, though not to a significant extent, in the case of the LREs about past tense. As for the types of LREs, no statistically significant differences were found in the categories analysed –focus (meaning vs. form), complexity (complex, simple), directness (direct vs. indirect), and resolution (resolved vs. unresolved)–, but for both language features examined the writing component yielded a greater number of form, complex, direct, and resolved LREs.

The study by Niu (2009) examined sixteen upper intermediate learners of English at a Chinese university as they performed a reconstruction task collaboratively. After reading a 481-word passage individually, half of the same-gender dyads produced the outcome in a spoken form whereas the other half did so in a written mode. The latter were given 25 minutes in total to reach an agreement and rewrite the story, whereas the former had 15 minutes to reconstruct the text (without taking any notes) plus 10 further minutes to retell the story. She found that dyads

that completed the task with a collaborative written component produced more LREs overall, as well as more lexis-related, grammar-related and discourse-related LREs than those who did so with a collaborative oral output. Besides, they also provided more explanations and justifications in their discussions of the languages forms to be used in the reconstructed text. No differences were found, however, between the two different modalities as concerns the resolution of the LREs.

García Mayo & Azkarai (2016) explored the role of task modality on the nature (meaning vs. form), resolution (unresolved vs. resolved; target-like resolved) and engagement (elaborate vs. limited) of the LREs produced by forty-four Spanish learners of English enrolled at different university degrees. Same-proficiency (elementary, lower intermediate and upper intermediate) dyads performed two collaborative tasks which required the production of both an oral and a written output (dictogloss, text-editing) and two collaborative tasks that required the production of an oral-only output (picture placement, picture differences). All four tasks were comparable in terms of the amount of time needed to complete them (around 6 minutes on average). The analysis of the data revealed that the incidence of LREs was greater in the tasks that comprised a written component than in the oral-only tasks. Likewise, writing tasks yielded more resolved LREs than oral ones. Besides, form-focused LREs were more frequent in the oral+written tasks whereas meaning-focused LREs were more prevalent in the oral-only tasks. As for the relationship between task modality and the level of engagement of the LREs, no effect was found.

Payant & Kim (2019) approached the study of task modality in a different way. They asked their ten Spanish/English bilingual learners of French at an intermediate level university course to perform two decision-making tasks containing both an oral phase where dyads had to come to an agreement and a written phase where they had to produce a written output jointly. Subsequently, in an attempt to measure language development, learners completed a series of tailor-made post-tests based on the LREs they had produced during the completion of the tasks. The comparison of the oral and the written phases revealed that a greater number of LREs and target-like resolutions was achieved during the writing phase. Besides, whereas the speaking part yielded more lexis-based than form-based LREs, the proportions of these two types of LREs were more balanced in the written component. As for the results of the post-tests, learners' performance did not lead to task modality effects, both modalities reaching about 75% of accurate answers.

As for the research with young learners, García Mayo & Imaz Agirre (2019) recently conducted a study with sixty-two 11-12 year-old Basque/Spanish children who were asked to perform two tasks which differed in the modality of the final outcome –oral vs. written. First, they completed

an oral picture-ordering task with visual input and oral output. Second, they carried out a decision-making task with written and visual input as well as oral and written output. These beginner learners of English paired up into three different groups (proficiency-matched, teacher-selected, and self-selected) and their interaction was analysed in terms of LRE frequency, nature (lexis-based vs. form-based) and outcome (unresolved vs. correctly resolved). Results indicated that modality did not have an effect on the incidence and nature of LREs, as no differences were found between the number of LREs produced in each task, lexis-based LREs always being more frequent than form-based ones. The authors argue that, unlike adults, younger learners may be in need of vocabulary in order to move the tasks forward. However, modality played a role in terms of the outcome of the LREs, resolved LREs being produced to a greater extent in the oral+writing task than in the oral one.

Along the same lines, AUTHOR 2 & AUTHOR 1 (forthcoming) explored the role of modality in a study with 50 Spanish/Basque bilingual learners of English who were in their 5th and 6th Grade of Elementary School (aged 10-12). These beginner learners carried out two collaborative tasks –an oral task comprising a picture ordering phase and a story-telling phase, and an oral+writing task including a decision-making phase and a note-writing phase–. But unlike García Mayo & Agirre (2019), AUTHOR 2 & AUTHOR 1 (forthcoming) included certain methodological amendments in their research design, such as the control of the different levels of accuracy that both tasks demand and the examination of the incorporation of LREs in the written outcome of the oral+writing task (as in Basterrechea & García Mayo, 2013) in an attempt to capture language learning. The production of LREs was examined in terms of amount, nature (meaning-focused vs. form-focused), resolution (unresolved vs resolved; target-like vs. non target-like resolutions) and incorporation (incorporated vs. non-incorporated resolutions) of LREs. They found that modality played a role, since the oral+writing task yielded a significantly greater amount of LREs, form-focused LREs and resolved LREs than the oral task. Additionally, children tended to incorporate the 'target-like resolved LREs' in the final written product, which evinced language development somehow for the written mode. However, no modality differences were found in the case of meaning-focused LREs, a finding which can be explained by the low-proficiency level of these learners, who clearly need to search for vocabulary to move both tasks forward. The authors also noted that the LREs that these young beginner learners produced were not as elaborated as those in the literature with adult learners.

In sum, although the written modality has been proven to offer more learning opportunities (higher incidence of LREs, of form-focused LREs, and of resolved LREs) than the oral modality, and some incipient research with young learners also seems to point in the same direction, more research is needed with young learners to be better informed about how to offer

this particular learner population the best learning conditions. The young learner literature on the topic is particularly scant and child learners may not behave as adult ones in some respects (Oliver & Azkarai, (2017). The research review here, for instance, has pointed out some age differences regarding learners' focus on meaning or their elaboration of the LREs. Besides, it is worth noting that previous investigations have disregarded some methodological issues which could be affecting the production of LREs, namely the procedural framing of tasks such as the inherent possibilities offered by the oral vs. the written modality to attend to language accuracy or to edit the output as a consequence of their differential on-line and off-line nature. Moreover, research experimentally comparing the incorporation of resolved LREs in the written vs. the oral product is mandatory. The present paper thus reports on a follow-up study of AUTHOR 2 & AUTHOR 1's (forthcoming), and makes up a further step in task-based interaction research in as much as it controls learners' opportunities to monitor and edit the outcome of the task in both modalities.

Task motivation

A further dimension which is worth investigating is learners' affective dimension in task performance, as learners' enjoyment with the tasks they are carrying out may condition their level of engagement with them (Dörnyei & Kormos, 2000) and thus their learning opportunities (Shak & Gardner, 2008). Some research exists that suggests that collaborative, meaningful, complex and challenging tasks are preferred over individual, decontextualized, simple and easy ones (Baleghizadeh & Farhesh, 2014; Julkunen, 2001; Kopinska & Azkarai, 2020; Oliver & Bogachenko, 2019; Van Gorp & Bogaert, 2006). There is also some evidence suggesting that young learners perceive the incorporation of an oral and a written component within the same task as a positive aspect (Calzada & García Mayo, 2020). AUTHOR 2 & AUTHOR 1 (forthcoming) recently explored the interplay between task modality and learners' motivation more experimentally by gathering data from schoolchildren's motivation before and after the completion of an oral task vs. an oral+writing task. They found that learners' motivation improved from the pretest to the posttest phase for both tasks. As regards modality, it was found that it played no major role in motivation at any time. All in all, research on the impact of modality on task motivation is still an underexplored topic, and further research that broaches this issue with a variety of populations, learning contexts, tasks and procedures is timely.

Research questions

In the light of the findings of previous investigations on task-modality, this paper will examine the incidence, nature, resolution and incorporation of LREs in two tasks that differ in the modality of the final outcome but offer equal opportunities to revise and edit this product. In addition, it will shed light on the attitudes these learners show towards this type of tasks. The following research questions guided the study:

1. Are there any differences between the two tasks in terms of nature, resolution and incorporation of LREs in the final product of the task?
2. What are the most common types of LREs (in terms of nature, resolution, and incorporation) in each task?
3. Are there any differences between the two tasks as regards student motivation either at the pre-task and post-task stage?

Methodology

Participants

Participants were Basque-Spanish bilingual learners of third language (L3) English in their 5th and 6th year of primary education in a state school in the Basque Country. All of them started learning English at the age of 4 in pre-primary education and at the age of 8, they were enrolled in a Content and Language Integrated Learning (henceforth CLIL) programme. In these school years, learners were receiving 2 to 4 hours of CLIL instruction per week and 3 hours of EFL instruction. At the moment of testing, 5th year learners had received 777 hours of exposure to English, and 6th graders 962 hours. As for their English proficiency, they were considered beginners (A1-A2)[1] according to the Key English Test (KET) (UCLES, 2014) administered at the outset of the study.

Instruments and procedure

Participants were first administered the KET during class time and subsequently matched in pairs on the basis of their scores in this test. Thirteen proficiency-matched dyads pair up to perform two tasks in English which are part of a wider project on the use of collaborative tasks among young learners: an oral task in which the final product was delivered in oral mode and an oral task in which participants had to submit a written product. So as to improve the

[1] Basic users according to the Common European Framework of Reference for languages http://www.coe.int/t/dg4/linguistic/Source/Framework_en.pdf

shortcomings of previous research on task-modality (Adams & Ross-Feldman, 2008; García Mayo & Azkarai, 2016; Niu, 2009; Payant & Kim, 2019), two decisions were made in the project. First of all, instructions were kept constant in both modalities. Specifically, learners were asked to attend to accuracy in both tasks. Likewise, in the case of the second task, and so as to have the same opportunity for revising their production as in the first task, learners were asked to reflect on their output and edit their production.

Tasks were completed by children in the same order, that is, first the oral-only task and then the oral+written task. In attempt to avoid participants' boredom, each task was administered in a different session. Prior and after the completion of each task, learners were individually requested to complete a motivation scale. In particular, they were asked to grade their motivation from 0 to 10 (see Al-khalil, 2016), and to justify their decision by selecting one of the reasons provided by the investigator. In the present paper, the data from the quantitative scale will be examined.

The first collaborative task was made up of two phases and the pictures were specifically designed for this study. During the first phase, learners were provided with a picture of a boy in a park who has found a lost dog and a set of possible owners together with a town map in which their work places were portrayed. In this case, they were asked to make and justify their decisions as regards the owner of the dog. Then, in the second phase they were requested to write down a short note for the boy informing the boy about the owner of the dog and the reasons underlying their decision, as well as the best way for the boy to take the dog back to its owner. Tasks like this one have been administered in previous investigations with EFL adults (García Mayo & Azkarai, 2016) and more recently with child EFL CLIL learners (García Mayo & Imaz Agirre, 2019).

The second collaborative task also consisted of two different phases. In the first phase, learners were asked to have a look at a set of 5 pictures and to think about a possible story depicted in them. Then, they were asked to record the story sentence by sentence. More specifically, they were instructed to describe what was illustrated in each picture, to stop the recorder after each sentence and to rewind it so as to listen to their production and to edit it in case they thought there was something wrong. No pen or paper was provided, so students could only rely on the oral channel to fulfill the task. Storytelling tasks have been widely employed in previous research with both adults and children (i.e. Alegría de la Colina & García Mayo, 2009; COLLEAGUE & AUTHOR 1, 2018, 2019; García Mayo & Hidalgo Gordo, 2017; García Mayo & Lázaro Ibarrola, 2015; AUTHOR 1, 2020; Storch & Aldosari, 2010). However, to our knowledge, the possibility of editing their oral production has not been attested in previous studies. As aforementioned, this study is part of a bigger project in which we have offered a

comprehensive understanding of modality effects in the same cohort of students by comparing different tasks and modalities. In particular, we have followed up prior research with adults by designing similar tasks for children, so as to investigate whether these tasks are beneficial to them or need to be adapted somehow. This gains support in the light of children's differential behaviour in their approach to the learning process (Oliver & Azkarai, 2017). Even if in this study, as explained above, we have included some procedure amendments, tasks still differ in type, as happened in prior research (i.e. García Mayo y Azkarai, 2016). The first task is a decision-making task, while the second one is a storytelling task. More specifically, the present study is a follow up of the work by AUTHORS (in press), where the very same decision-making task was compared to a storytelling task without the possibility of editing.

The two collaborative tasks were carried out in a quiet room from their school and supervised by one of the researchers. Even if both tasks were performed in the presence of one of the researchers, they were requested to act naturally, making use of all their resources at hand and to always seek their partner's help rather than the investigator's help if any doubts concerning vocabulary arose. Participants were given as much time as needed for task fulfillment. On average, learner pairs employed about 15 minutes to complete both collaborative tasks.

Before data-collection, the research team ensured that the task was appropriate for the learners tested by having several meetings with the school teachers. In addition, it was pilot tested with similar age children so as to uncover any would-be problems that could emerge during the performance of both tasks and to provide any necessary adaptations.

Data analysis

Participants' task-based interaction was audio and videotaped, transcribed and codified into CHILDES (McWhinney, 2000). All turns in which students engaged in language discussion or self-correction were identified as LREs and classified following Adams & Ross-Feldman (2008) and García Mayo & Azkarai (2016). Two independent coders performed this task. Any divergence was solved jointly by the two coders on a case-by-case basis. In other words, LREs were first subdivided into two main categories, *meaning-focused*, which includes word meaning and word choice (2), and *form-focused*, which comprises episodes related to phonology, morphosyntax, prepositions, and spelling as can be observed in (3):

(2) *CHI1: and all have the same eh (..) eh how do you say eh *apellido* [surname]?
*CHI2: but eh.
*CHI3: surname *creo* [think].

(3) *CHI2: has got the t-shirt with a glass and a snake. *(CHI2 writes)*
*CHI2: *ay lo tacho*? [Shall I cross it out?]. *(whispering)*
*CHI1: eh with is (.) is with eh eich.
*CHI2: ah.
*CHI3: xxx *hache* xxx *al final* [h at the end]. *(whispering)*

Then, outcome was taken into account and each of the main categories of LREs were classified as *resolved* (4) in those cases in which the LRE reached a resolution or *unresolved* (5) in the cases where the LRE was left unresolved:

(4) *CHI2: the dog go.
*CHI1: goes.
*CHI2: goes.

(5) *CHI1: do you go to cental clinic and (.) *después era* [later was] eh (.) *cómo era después?* [How did you say later?].
*CHI2: *pero ya esto o esto?* [but now is it this or this?]. *(pointing at different parts of the map)*

Finally, for those LREs that were considered *resolved*, following Payant & Kim's (2019) classification, a distinction was further made so as to see whether the LRE was resolved in a *target-like* (6) or in a *non-target-like* (7) manner:

(6) *CHI2: *cómo se dice pescar?* [how do you say to fish?]. *(whispering)*
*CHI1: fish.
*CHI2: *no pescar pescar* [no, to fish to fish]. *(whispering)*
*CHI1: fishing. *(whispering)*
*CHI2: fi fishing fish.

(7) *CHI1: eh and the and one of the children eh of the childrens eh (.) fish a boat.

Likewise, *resolved* LREs were broken down into *incorporated* (8) and *non-incorporated* (9), depending on whether the resolution that dyad members reached was included (or not) in the eventual product of the task (written in the first task and oral in the second task):

(8) *CHI2: and he fish another.
*CHI3: yes another. *(CHI3 nods)*
[Final oral output: 'then eh the boy fish another boat and the other boy laughs']

(9) *CHI1: you can and (.) you (.) can (.) go eh.
*CHI1: *cruzando* crossing] *(whispering)*
*CHI2: cross. (whispering)
*CHI1: no cross *es enfadado* [is angry]. *(whispering)*
*CHI2: xxx. *(whispering)*
*CHI1: and you can go.
*CHI1: you can go. *(whispering)*
*CHI2: crossing the (.) roads.
*CHI1: *pasar* [pass]. *(whispering)*
[Final written output: 'Take the dog to vet clinic and you can go walking three roads, two to the left and one straigth']

As for the analysis of the data on motivation, means and standard deviations were calculated based on the assessment that every single student had to make of their motivational state both immediately before and immediately after the completion of each task. For such purpose, participants were provided with a Likert scale ranging from low (1 point) to high (10 points) motivation.

Regarding statistical analyses, results were analyzed by means of SPSS 24 (IMB Corp., 2010). Both descriptive and inferential analyses were computed. In the case of descriptive analyses, means and standard deviations were calculated. With respect to inferential analyses, as the data did not meet the criteria for normal distribution, Wilcoxon's Signed Rank tests were performed for intertask and intratask comparisons. Statistical significance was indicated at a .05 (*) and .01(**).

Results

The presentation of the results from the oral+writing vs. the oral+editing task in this study is structured as follows. Firstly, we will inform about learners' performance regarding the amount of instances in which they stop to discuss language issues during their interaction in each task (Table 1) to later delve into the nature, resolution and incorporation of the LREs produced (Table 2). Secondly, we will report the intra-task analyses performed in order to compare the number of meaning-based vs. form-based, resolved vs. unresolved, target-like vs. non-target-like and incorporated vs. non-incorporated LREs (Figures 1-10). Thirdly, the data regarding learners' motivation both before and after the completion of each task will be displayed (Table 3).

Table 1. *Mean number of LREs in each task. Standard deviations in parentheses and Wilcoxon's Signed Rank Test results by task-type*

Task-type	Mean number of LREs (SD)	Z	P
Oral+writing task	8.00 (3.96)	-2.204	0.028
Oral+editing task	3.77 (3.40)		

As can be seen in Table 1, learners differed in the quantity of LREs produced in each modality, as the mean number of LREs produced in the oral+writing task was above double the mean number of LREs produced during the oral+editing task (8.00 vs 3.77). As indicated by the Wilcoxon signed-rank test, this difference was statistically significant.

Table 2. *Mean and absolute number of LREs in each task: nature, resolution and incorporation. Standard deviations and percentages in parentheses.*

			Task-type			
			Oral+writing task		Oral+editing task	
			Mean (SD)	Number (%)	Mean (SD)	Number (%)
Nature		Meaning	4.31 (2.42)	56 (53.85%)	2.85 (2.76)	37 (75.51%)
		Form	3.69 (2.78)	48 (46.15%)	0.92 (1.04)	12 (24.49%)
Resolution	Meaning	Resolved	3.85 (2.45)	50 (89.29%)	2.00 (2.27)	26 (70.27%)
		Unresolved	0.46 (0.66)	6 (10.71%)	0.85 (0.00)	11 (29.73%)
	Form	Resolved	3.46 (2.63)	45 (93.75%)	0.92 (1.03)	12 (100%)
		Unresolved	0.23 (0.43)	3 (6.25%)	0.00 (0.00)	0 (0%)
Resolution (accuracy)	Meaning	Target-like	3.31 (2.01)	43 (86%)	1.54 (1.66)	20 (76.92%)
		Non-target-like	0.54 (0.96)	7 (14%)	0.46 (0.77)	6 (23.08%)
	Form	Target-like	3.00 (2.30)	39 (86.67%)	0.54 (0.77)	7 (58.33%)
		Non-target-like	0.46 (0.51)	6 (13.33%)	0.38 (0.65)	5 (41.67%)
Incorporation of resolved	Meaning	Incorporated	3.08 (2.29)	40 (80%)	1.15 (1.62)	15 (57.69%)
		Non-	0.77 (0.72)	10 (20%)	0.85 (0.89)	11 (42.31%)

LREs			Incorporated				
	Form		Incorporated	2.92 (2.29)	38 (84.44%)	0.62 (0.87)	8 (66.67%)
			Non-incorporated	0.54 (0.77)	7 (15.56%)	0.31 (0.63)	4 (33.33%)
Incorporation of resolved LREs (accuracy)	Meaning	Target-like	Incorporated	2.62 (2.06)	34 (79.07%)	0.92 (1.32)	12 (60%)
			Non-incorporated	0.69 (0.75)	9 (20.93%)	0.62 (0.76)	8 (40%)
		Non-target-like	Incorporated	0.46 (0.96)	6 (85.71%)	0.23 (0.43)	3 (50%)
			Non-incorporated	0.08 (0.27)	1 (14.29%)	0.23 (0.43)	3 (50%)
	Form	Target-like	Incorporated	2.54 (2.02)	33 (84.62%)	0.38 (0.76)	5 (71.43%)
			Non-incorporated	0.46 (0.66)	6 (15.38%)	0.15 (0.37)	2 (28.57%)
		Non-target-like	Incorporated	0.38 (0.50)	5 (83.33%)	0.23 (0.59)	3 (60%)
			Non-incorporated	0.08 (0.00)	1 (16.67%)	0.15 (0.37)	2 (40%)

Table 2 displays the rest of the intra-task analyses performed. It can be seen that, while no significant differences between the two tasks were found with regard to the incidence of meaning-based LREs, the incidence of form-based LREs was significantly greater in the oral-writing task than in the oral+editing task (3.69 vs. 0.92, z=-2.601, p=.009).

When the resolution of the LREs was explored, it was discovered that the LREs which had been resolved were far more abundant in the oral+writing task than in the oral+editing task, this holding true for both meaning-based (3.85 vs. 2.00, z=-2.071, p=.038) and form-based (3.46 vs. 0.92, z=-2.486, p=.013) LREs. However, no statistical support was found in the case of unresolved LREs.

As for the accuracy of those resolved LREs, there were just one type of inter-task comparison yielding statistically significant differences, namely that of contrasting the LREs resolved in a target-like fashion, which was numerically superior in the oral+writing task than in the oral+editing task for both meaning-based (3.31 vs. 1.54, z=-2.461, p=.014) and form-based (3.00 vs. 0.54, z=-2.587, p=.010) LREs. The production of non-target like LREs did not lead to any statistically significant difference between the two task modalities.

When it comes to the incorporation of the resolved LREs, the inter-task analyses performed indicated that the rate of incorporated LREs was statistically greater in the oral+writing task than in the oral+editing task for both meaning-based (3.08 vs. 1.15, z=-2.522, p=.012) and form-based (2.92 vs. 0.62, z=-2.591, p=.010) LREs. However, no support from inferential statistics was found in the case of the inter-task comparisons of non-incorporated LREs.

Regarding the accuracy of the resolved LREs incorporated in the final product of the task, it was shown that the target-like LREs were the only ones which had been incorporated to a larger extent in the oral+writing mode than in the oral+editing mode. This tendency was observed for both meaning-based (2.62 vs. 0.92, z=-2.516, p=.012) and form-based (2.54 vs. 0.38, z=-2.590, p=.010) LREs. In contrast, the incorporated LREs which had not been resolved accurately did not result in task modality differences. Besides, no inter-task differences were found when either the target-like or the non-target like LREs which had not been incorporated were analysed.

Once we have presented the findings as to the inter-task analysis, let us proceed to give an account of the intra-task analyses performed. Regarding the nature of LREs, meaning-focused episodes turned out to be more abundant than form-focused ones in both the oral+writing (Figure 1) and the oral+editing task (Figure 2). However, it is in the oral+editing task that this difference reached statistical significance (2.85 vs. 0.92, z=2.834, p=.005).

[Insert Figure 1 here]

[Insert Figure 2 here]

Regarding the resolution of LRES in the oral-writing task (Figure 3), resolved episodes were significantly more frequent than unresolved ones. This tendency was observed in both meaning-focused (3.85 vs. 0.46, z=-2.861, p=.004) and form-focused (3.46 vs. 0.23, z=-2.947, p=.003) LREs.

[Insert Figure 3 here]

As for the resolution of LREs in the oral+editing task (Figure 4), resolved LREs occurred with a higher frequency than unresolved ones, though this difference was statistically significant only in the case of form-focused LREs (0.92 vs. 0.00, z=-2.401, p=.016). In fact, in the episodes where learners focused on form unresolved LREs were not attested, a finding which can explain why the difference between unresolved meaning- and unresolved form-focused LREs was statistically significant (0.85 vs. 0.00, z=-2.232, p=.026) too.

[Insert Figure 4 here]

When it comes to the target-likeness of resolved LREs in the oral-writing task (Figure 5), epidodes which were resolved in an accurate manner significantly excelled over those which were not, both when learners' interaction focused on meaning (3.31 vs. 0.54, z=-2.829, p=.005) and on form (3.00 vs. 0.46, z=-2.825, p=.005).

[Insert Figure 5 here]

With regard to the accuracy of resolved episodes in the oral+editon task (Figure 6), the rate of target-like resolutions in meaning-focused LREs was significantly greater than that of inaccurate resolutions (1.54 vs. 0.46, z=-2.511, p=.012). Nevetheless, the comparison of both correctly and incorrectly resolved form-focused LREs did not result in a statistically significant difference.

[Insert Figure 6 here]

Concerning the incorporation of those LREs which were resolved in the oral+writing task (Figure 7), the analyses indicated that most of these LREs were incorporated in the final written product. The difference between incoporated and non-incorporated episodes reached statistical significance for both meaning-focused (3.08 vs. 0.77, z=-3.296, p=.001) and form-focused (2.92 vs. 0.54, z=-3.443, p=.001) LREs.

[Insert Figure 7 here]

As relates to the incorporation of those LREs which were resolved in the oral+editing task (Figure 8), no statistical differences were found between incorporated and non-incorporated episodes. Nevertheless, the number of non-incorporated meaning-focused LREs outscored that of non-incorporated form-focused LREs in a significant way (0.85 vs. 0.31, z=-2.111, p=.035).

[Insert Figure 8 here]

Concerning the interplay between the accuracy and the incorporation of the episodes which were resolved in the oral+writing task (Figure 9), the only statistically significant difference discovered was the one between the incorporated and the non-incorporated LREs which were resolved in a target-like fashion, a finding which held true for both meaning-focused (2.62 vs. 0.69, z=-2.512, p=.012) and form-focused (2.54 vs. 0.46, z=-2.770, p=.006) episodes.

[Insert Figure 9 here]

As for the interaction between the target-likeness and the incorporation of the resolved LREs in the oral+editing task (Figure 10), the Wilcoxon tests did not reveal any significant difference within the various LRE types either within the episodes centered on meaning or those on form. However, the number of target-like meaning-focused episodes which were not incorporated in the final oral product turned out to be significantly higher than the number of non-incorporated target-like form-focused episodes (0.62 vs. 0.15, z=-2.121, p=.034).

[Insert Figure 10 here]

The last type of analyses carried out concerned children's attitudes towards the two tasks. Table 3 displays the results of the motivation scale that individual learners completed immediately before and after each task. As can be observed, there are no significant differences between the two tasks either before or after their completion. However, the motivation score was significantly higher 'after' than 'before' in the oral+writing task (7.75 vs. 9.19), a finding which is also true in the case of the oral+editing task (8.00 vs. 9.23). In both cases, learners showed a good affective state at the pre-test phase and ended up with an even higher motivation after accomplishing the tasks.

Table 3. Student motivation before and after the completion of each task

	Oral+writing task	**Oral+editing task**	Wilcoxon
Pre-task motivation			
Mean	7.75	8.00	z=-1.172
Standard Deviation	2.06	2.41	p=0.241
Post-task motivation			
Mean	9.19	9.23	z=-0.230
Standard Deviation	1.05	1.27	p=0.818
Wilcoxon	z=-2.924 p=0.003**	z=-2.026 p=0.043*	

Discussion and conclusion

In this section, findings will be discussed according to the three research questions of the study. With respect to the first research question (*Are there any differences between the two tasks in*

terms of nature, resolution and incorporation of LREs in the final product of the task?), the intergroup analysis showed a significantly higher number of LREs, more form-focused LREs, as well as a greater number of resolved LREs and more correctly resolved LREs (in both meaning- and form-related LREs) in favour of the oral+writing task. In addition, the oral+writing task promoted more incorporated LREs in the final product that had been resolved in a target-like way. Thus, the oral+writing task seems to be a more powerful task in that under similar conditions as regards attention to accuracy and the possibility of editing the final product as the oral task, this task allows the learner to notice formal aspects of the foreign language, leads them to include their target-like resolutions with greater frequency, and fosters an even higher rate of accuracy in the resolution of LREs. These results are in line with the ones reported in our previous investigation (AUTHOR 2 & AUTHOR 1, forthcoming) with the same sample in which we compared an oral task with no possibility of editing the final product to the oral+writing task reported in the present paper. They also match the findings obtained in previous research with adult learners (Adams & Ross-Feldman, 2008; García Mayo & Azkarai, 2016; Niu, 2009; Payant & Kim, 2019), as well as with young learners (García Mayo & Imaz Agirre, 2019). The fact that the oral+writing task has a writing component makes it more visual and perceptible, which could lead the learner to raise more grammatical issues and to incorporate their language discussions in the final product. In other words, learners are more prone to attend to grammar aspects while writing. As claimed by Wolff (2000, as cited in Niu, 2009, p. 387), writing helps raising language awareness better than speaking as (i) it requires learners to express their thoughts more precisely and therefore are pushed to reflect on how to use more accurate language, and (ii) sounds in writing are transformed into something more visible, substantial and learnable. Likewise, as suggested by Williams (1999, as cited in Adams and Ross-Feldman, 2008, p. 246), writing tasks "may be perceived by the learners as having a more language-oriented goal than tasks that required only speaking, perhaps because they are forced to confront language as an object as well as a tool for communication".

Nevertheless, the analysis of the results also indicated that, unlike our previous study (AUTHOR 2 & AUTHOR 1, forthcoming), the oral task of the current study, which granted the editing of the final product, did not promote more unresolved LREs or non-target-like resolutions. In these conditions, and in particular, the opportunity offered to check their final oral product has contributed to increase these young learners' resolution rate in a more immediate task as well as to upsurge the accuracy of resolutions.

As regards the second research question (*What are the most common types of LREs (in terms of nature, resolution, and incorporation) in each task?*), the intra-task analysis showed that even if learners were requested to attend to accuracy in both tasks and even if both modalities granted the possibility of editing their final product, the oral task did not promote either the attention to

more grammatical aspects or the incorporation of target-like resolutions in the final outcome. In this respect, these results reinforce the ones reported in our previous study with the same sample (AUTHOR 2 & AUTHOR 1, forthcoming), as well as prior research with both adult (Adams & Ross-Feldman, 2008; García Mayo & Azkarai, 2016; Niu, 2009; Payant & Kim, 2019) and young learners (García Mayo & Imaz Agirre, 2019). In contrast, and unlike our previous study (AUTHOR 2 & AUTHOR 1, forthcoming), the opportunity offered in the oral task for revision and editing lead to a growth in the accuracy of learners' resolutions of meaning-related episodes (i.e. the main focus of this communication-oriented task). What these results seem to evince is that task-modality may have an impact on the nature of LREs and on the incorporation of target-like resolutions in the final product, but not at the level of the resolution. In other words, a writing component, which might be more visual and perceptible, demands greater attention to formal aspects and facilitates the incorporation of target-like resolutions. On the contrary, the possibility of revising and editing the final product boosts more accurate resolutions irrespective of an oral or written output.

At this point, it is also worth mentioning that the LREs produced in both modalities were not so elaborated, as learners tend to resolve those episodes without further justifications or with scant metalinguistic explanations as can be observed in (10) from the oral+writing task and (11) from the oral task:

(10)*CHI2: going at the park.
*CHI1: go to the park and.
*CHI2: eh.
*CHI1: to the park.

(11) *CHI2: one boy eh (.) bot a (.) bot eh (..) bot bat eh (.) eh *cómo se dice encontrar?* [how do you say to find?] *(looking at the investigator)*
*CHI2: Markel *cómo se dice encontrar*? [how do you say to find?]
*CHI1: eh find.
*CHI2: find a (..) shoes.

The lack of metalanguage could be explained by young and low proficient learners' still developing metalinguistic awareness (Muñoz, 2017; Tellier & Roehr-Brackin, 2017). It is also worth mentioning that a strong oral component and a special emphasis on vocabulary characterizes primary education in Spain (Muñoz, 2017).

As an answer to the third research question (*Are there any differences between the two tasks as regards student motivation either at the pre-task and post-task stage?*), the intertask analysis did

not report the existence of statistically significant differences in either condition, which confirmed previous research findings with young learners (AUTHOR 2 & AUTHOR 1, forthcoming). Thus, both tasks were equally motivating and attractive for the learner, probably because they share some of the characteristics of engaging tasks (e.g., collaborative, meaningful, complex, challenging), as reported in previous literature (Baleghizadeh & Farhesh, 2014; Julkunen, 2001; Kopinska & Azkarai, 2020; Oliver & Bogachenko, 2019; Van Gorp & Bogaert, 2006). The descriptive analysis also indicated that the degree of motivation was particularly high at the pre-task stage and increased even more at the post-task stage. These results corroborate the findings obtained in other studies that have looked into the degree of motivation and engagement among young learners when performing different focus-on-form tasks (Shak & Gardner, 2008; Muñoz, 2017).

This paper has contributed to the scarcity of research on task-modality effects and young learners by comparing similar tasks employed in the literature with adult learners. In particular, the comparison of the tasks administered seems to evince task modality effects in terms of the nature and incorporation of LREs, as tasks that incorporate a writing component lead to more attention to formal aspects and to incorporate accurate resolutions in the final output. It has also attested how the possibility of revising and editing the final product (either written or oral) helps increase the accuracy resolution rate. Likewise, the analysis of the results obtained in this study has shown the lack of extensive discussions about form both in the case of tasks that demand the submission of an oral or a written final product.

In the light of the results obtained, four main pedagogical implications may be drawn. First, the incorporation of this type of tasks might be beneficial for the learner as they contribute to the promotion of their learning opportunities. In addition, the analysis of task motivation revealed that both tasks were stimulating and attractive, since participants' motivation rates were high before the performance of each task and even higher in the post-task stage, all of which could enhance their attention. Second, teachers might better adopt tasks that incorporate a writing component if they want to draw learners' attention to aspects more related to grammar and to incorporate those language episodes that could have been resolved in a target-like way in their final product. Third, learners should be offered the possibility of revising and editing their productions during oral tasks as this is clearly geared towards accuracy. In these conditions, learners might benefit from the availability of cognitive resources during a longer period of time in an oral mode (see Kuiken & Vedder, 2012). Fourth, even if additional time to reflect on their output might be beneficial, teachers' efforts should also be directed towards bringing about more elaborated language discussions in this age range by boosting metalinguistic awareness, which has been positively correlated with accuracy (see Tellier & Roehr-Brackin, 2017). In this

respect, more focused tasks could be implemented so as to help the learner notice grammar features, to promote more elaborated discussions, and a greater noticing of gaps (see Roehr-Brackin, 2018; Roehr-Brackin & Tellier, 2019; Tellier & Roehr-Brackin, 2017).

For further research, it would be convenient to control for the type of the tasks designed for each modality. In the present study, as in prior adult and child research, 'task modality' and 'task type' variables cut across one another, the written modality comprising a decision-making task and the oral one a story-telling task. We acknowledge that this is a limitation and that reported findings might be the result of the blurring effect of both factors jointly. Future empirical designs could also vary the order of administration of the different tasks administered in the same project, even though in the light of the motivation data in the present study this variable did not seem to have an effect on the results obtained. Likewise, further studies should take into account a deeper analysis of the elaboration and complexity of the LREs produced by young learners in such controlled conditions, as well as a look into other variables such as the use of the L1 in the LREs or the patterns of interaction between the two members of the pair. Finally, the addition of tailor-made posttests to measure language development more objectively should be welcome.

Acknowledgement

Withheld until acceptance

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Appendix 1

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Appendix 2