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Topic familiarity and story continuation in young English as a foreign language learners' writing tasks

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Abstract

Prior research demonstrates that primary and secondary school teachers often find teaching young learners to write in a second language a slow and effortful process. Moreover, students in this age range lack the motivation to write. Therefore, it is important to explore the EFL writing pedagogy suitable for young learners. The present study investigated how story continuation (with or without reading input) under different topic familiarity conditions serves as a viable pedagogical means for secondary school students. Ninety-one Chinese students in four intact classes of comparable proficiency levels were assigned four writing task conditions in a 2 × 2 factorial design. Group 1 (Fam) was provided with the beginning of a familiar story in L1 Chinese and was required to complete the story in L2 English. Group 2 (UnFam) had the same task as Group 1, with an unfamiliar story. Group 3 (Fam+Input) was initially provided with the complete familiar story in Chinese (the same story as Group 1) as reading input and were then instructed to write the story in English with the reading material taken away. Group 4 (Unfam+Input) received the full unfamiliar story in Chinese (the same story as Group 2) as input before writing. Again they were not allowed to refer to the reading in the composing

process. The results revealed that the young learners who wrote on familiar topics (Groups 1 and 3) produced longer texts and demonstrated greater lexical diversity than those with unfamiliar stories (Groups 2 and 4), although topic familiarity did not affect their writing quality or lexical sophistication. As for the story continuation conditions, students who completed writing the story without the L1 reading input on the topics (Groups 1 and 2) developed longer compositions and better writing quality than those with such input (Groups 3 and 4), although their lexical profiles (both lexical diversity and lexical sophistication) remained uninfluenced. Pedagogical implications for EFL writing among young learners were also discussed in the present study.

Keywords: topic familiarity; reading input; L2 writing; story continuation; writing quality; text length; lexical diversity; lexical sophistication

1. Introduction

Young learners often develop their literacy simultaneously in both their mother tongue and a second language (L2, which is usually English). Such a bilingual learning mode constitutes both a challenge and an opportunity for these young learners and their teachers. It is reported that children have a preference for their first language (L1) in learning literacy (including writing), which may demotivate them in terms of English learning (Bui & Teng, 2021; Man et al., 2018). On the other hand, it has been demonstrated that if skills in the two languages being learned are coordinated and aligned (Pickering & Garrod, 2004), literacy development in one language may benefit from that in the other. English writing is an important literacy skill; however, primary and secondary school teachers often report that teaching young learners to write in an L2 is a slow and effortful process (Copland et al., 2014). Moreover, secondary school students generally lack the motivation to write in English (Lee et al., 2018). Copland et al.'s (2014) global survey identified the following two challenges encountered by the English as a foreign language (EFL) teachers of young learners: teaching learners to write correctly and teaching them to write creatively. The former concerns language forms, while the latter pertains to a focus on meaning expression. It appears that teaching writing for the sake of writing is far from adequate, and a certain integration of reading and writing involving both L1 and L2 literacy skills is required.

Prior research demonstrates that topic familiarity significantly improves language comprehension (Bügel & Buunk, 1996; Leeser, 2007) and oral production (Bui, 2014; Qiu, 2020). Therefore, it is reasonable to envisage such an effect on EFL writing as well, which is the focus of investigation in the present research. In addition, a series of studies in the Chinese context (Peng et al., 2020; Wang &

Wang, 2015; Zhang, 2017) have consistently reported that having EFL students complete the second half of a story based on English reading input assisted linguistic accuracy and general writing quality owing to the effects of language alignment (Pickering & Garrod, 2004). However, whether L1 input, which may appear more manageable to young learners, could achieve similar outcomes in EFL writing has not been explored so far. It appears that topic familiarity and story continuation can serve as two potential pedagogical means for assisting young learners in both form and meaning expression in EFL writing. The present study, therefore, investigated how topic familiarity and L1 input (with story continuation in L2 English) could be used for enhancing EFL composition among secondary school students in China.

2. Literature review

In the context of the research objectives stated above, this section first discusses the cognitive constraints encountered by young students during their writing tasks. Next, the literature on related topics is explored to demonstrate how the integration of reading and writing, along with topic familiarity, could be employed to mitigate these cognitive constraints. Finally, based on the gaps identified in the literature, two general research questions are formulated.

2.1. Writing and cognitive constraints among young learners

Kellogg's (1996, 2001) model of working memory (WM) in writing explains that the general writing processes involve three basic stages, namely formulation, execution, and monitoring. The *formulation stage* includes the *planning* and *translating* processes; in the former process, the writer sets the goal and gathers ideas, while in the latter, the writer translates the intention and message into a linguistic blueprint. The *execution stage* comprises the *programming* and *executing* processes, which turn the linguistic plan retrieved from the *translating* process into actual texts either by hand or typing. The final stage is *monitoring*, which comprises *reading* and *editing*. The writer reads the text produced so far to evaluate and incorporate necessary revisions in this stage. Kellogg (1996, 2001) attempted to establish a connection between these three stages and WM, claiming that its components, particularly the central executive (CE), affect writing processes. This model has important implications in teaching EFL writing to young learners as these learners tend to have a shorter attention span and weaker WM capacity (Bui & Yu, 2019). As Becker (2006) argued, expert writers tend to possess better overall memory capacity along with a developed set of skills to produce and revise texts effectively and may, therefore, operate automatically.

Such skills ease any overload on their CE in the WM as they write. The author contrasted good writers with learners who lack practice in idea *planning* and linguistic *translating* in Kellogg's (1996, 2001) terms. It could be further hypothesized that the disadvantages of this sort may be worsened by the following two factors: the young age of learners and timed writing tasks. The present study is an attempt to investigate these variables and explore ways of mitigating the cognitive and class implementation constraints (e.g., timed writing) imposed on Secondary One (Grade 7) students.

2.2. Reading-writing integration

There is general agreement that reading and writing, as literacy skills, develop interdependently, although research on the nature of this interdependency or the interactions between reading and writing is scarce (Graham & Hebert, 2010). EFL students are encouraged to write from sources (Braine & May, 1995), in which the source reading materials serve different purposes intended to improve ESL writing. Reading input may be cited as supporting details for university students' argumentative essays or provided as content generation guides during brainstorming or planning the write-up. For instance, the TOEFL writing test requires the individuals undertaking the test to read certain texts provided to them and then compose their writings in response to/referring to the reading input. Writing a book review and a critique of a literary work are other common practices involving reading-writing integration. In slight contrast to these conventional approaches, Wang and Wang (2015) proposed a relatively new EFL pedagogy of writing continuation. The authors used English stories with their endings omitted as the reading input and asked the students to complete the story in English. In addition to content, language alignment (Pickering & Garrod, 2004) between the input materials and student essays was observed; the students demonstrated imitation of the style, tone, and logic of the original English writing. In contrast, the input of the same story in Chinese induced significantly more L1 transfer errors. Zhang's (2017) study corroborated the findings of Wang and Wang (2015) as she found that students in writing continuation tasks with English input outperformed those with Chinese input in terms of EFL accuracy and content alignment. A recent study by Peng et al. (2020) further investigated how linguistic complexity of the input material and its match and mismatch with student proficiency levels affect performance in EFL writing continuation tasks. The authors reported that simplified EFL reading input, which matched the proficiency level of the students, resulted in more automatic alignment and greater improvement in writing fluency and accuracy compared to original (more complex) input material. One may then wonder if L1 input is beneficial for beginners and young,

low proficiency learners. L1 reading may familiarize learners with the content, which could assist them in idea generation; however, it would not assist in alignment with the target language. A summary of the above studies suggests that providing suitable input materials that allow students to continue writing the ending of a story or an essay is an effective and feasible approach to teaching EFL writing. Unfortunately, to the best knowledge of the present authors, no study so far has investigated the effects of story continuation writing tasks on young EFL learners' performance. The present study, therefore, is an attempt to fill this gap by examining Secondary One EFL students' writing continuation task performance.

2.3. Topic familiarity

An important factor pertinent to reading-writing integration in EFL teaching is *topic familiarity* as it acts as a potential mediator in the effectiveness of the reading input. Topic familiarity was one of the task-internal factors used for preparing learners for an L2/ESL performance in Bui's (2014) task-readiness framework. Topic familiarity is generally defined as one's prior knowledge of, and, therefore, familiarity with, a certain subject matter (Bui, 2014; Qiu, 2020). Prior research, building on the concept of schema, has consistently demonstrated the importance of topic familiarity in language comprehension (Kintsch, 1988; Lee, 2007). Familiarity with a certain topic facilitates learner understanding of a text or a speech in a top-down manner; that is, it reduces the need of attending to the larger structure and assists the learner in focusing on the details. Such positive effects of topic familiarity were reported by several reading comprehension studies (Bügel & Buunk, 1996; Chang, 2006; Chen & Donin, 1997; Lee, 2007; Leeser, 2007). Moreover, topic familiarity aids learners in listening comprehension as well (Long, 1990; Markham & Latham, 1987; Schmidt-Rinehart, 1994). The time pressure on listeners demands greater WM capacity, because of which topic familiarity has a greater weightage in efficient and accurate L2 listening compared to reading comprehension. In contrast, L2 production research, in general, has not paid enough attention to the effects of topic familiarity. Skehan et al. (2012) argued that topic familiarity was an important consideration in their framework of task-based language production. Bui (2014) observed that prior knowledge of a certain subject assisted the L2 speakers in gaining higher fluency and slightly greater accuracy, but not higher linguistic complexity. Bui (2019) further reported that topic familiarity led to higher lexical diversity and lexical sophistication in the L2 speaking tasks of university students. Moreover, Qiu and Lo (2017) discovered that students were behaviourally and cognitively more engaged in the EFL speaking tasks involving familiar topics; the students also exhibited a more positive affective response to such topics. Although a few studies

on the effects of topic familiarity on L2 speech production have been reported in the past decade, research directly concerning the effects on EFL writing is limited. One exception is the study by Teddick (1990), who observed that writing performance in the task involving a field-specific (therefore, a more familiar) topic was superior to that involving a general topic. In addition, the field-specific topic appeared superior in terms of discriminating the learners of different proficiency levels in EFL writing. Besides the aforementioned study, there has been little research concerning how topic familiarity influences EFL writing, not to mention such research on young learners.

2.4. Research gaps and research questions

As revealed in the above subsections, a review of the relevant literature demonstrated that the effects of topic familiarity and L1 reading input for story continuation in English on EFL writing had been under-investigated. Based on these research gaps, the following two research questions (RQs) were formulated to guide the present research:

RQ1. What are the effects of topic familiarity on young EFL learners' writing performance?
RQ2. What are the effects of EFL story continuation (versus complete L1 reading input) tasks on young EFL learners' writing performance?

3. Methodology

3.1. Participants

Learners from four intact Secondary One (S1 or Grade 7) classes in a middle school in Shenzhen, China, participated in the present study. Prior to commencing the research, consent forms containing an explanation of the project's nature were distributed to the parents and the students, who were also informed that the participation was voluntary and irrelevant to their academic evaluation at the school. Moreover, they were assured that their identities would remain confidential and that they could withdraw from the study whenever they wished to. Among the 98 students enrolled in the included four classes, consent for participation was obtained from 91 students (47 males and 44 females) and their parents. These participants were aged 12-13 years during data collection. All students were native Mandarin Chinese speakers (Putonghua), although 17 students reported themselves to be Mandarin-Cantonese bilinguals. The students had

learned English since Primary One, with a learning history of seven years. According to their English teacher, they usually wrote one short English narrative composition of 100-150 words in the class every two weeks.

3.2. Study design

The four intact English classes (the students were combined into two bigger classes for other subjects) were selected randomly from the Secondary One division in the school. The students were randomly assigned to four task conditions presented in Table 1. Considering the age of the students and their familiarity with the narrative genre, two fairy tale stories were selected as the writing prompts. A general communicative context for the writing tasks was provided at the beginning of the instruction, which stated: *You have entered the final round of a storytelling competition and will be performing tomorrow. Please write the story script as long and as creatively as possible to win the competition.* The purpose of such a writing prompt was to contextualize the students and encourage them to achieve a non-linguistic outcome (winning the competition).

Group 1 (Fam) (*N* = 24) was allowed ten minutes to read the beginning of *Little Red Riding Hood* (a familiar topic) in L1 Chinese and to plan the content of the rest of the story. The participants were then allowed 40 minutes to complete writing the story in English. Group 2 (UnFam) (*N* = 24) was assigned the same task procedure as Group 1, although with an unfamiliar topic, *The Pied Piper of Hamelin*. While Group 1 and Group 2 were only provided with the topic and the beginning of the fairy tales, Group 3 and Group 4 received the complete text of their respective stories. Group 3 (Fam+Input) (*N* = 22) was instructed to read the complete, familiar story of *Little Red Riding Hood* in Chinese and then plan the subsequent writing within ten minutes. Then, the students were allowed 40 minutes to write the story. Group 4 (UnFam+Input) (*N* = 21) followed the same procedure as Group 3, although with an unfamiliar topic, *The Pied Piper of Hamelin*. All the instructions and reading materials, whether the beginning or the complete texts of the stories, were taken away before the actual writing session. Students in all conditions were encouraged to write as much as they could and be creative (see Appendices A-D for the instruction and input materials).

In order to ensure that the effects of the independent variables (topic familiarity and story continuation) were not dampened by the varying English proficiency levels of the students, all the input materials, including the partial and complete story input, were in Chinese. Moreover, a survey was conducted before the writing session to confirm that all participants were familiar with the story of *Little Red Riding Hood* and none with the story of *The Pied Piper of Hamelin*. Therefore, the two selected stories were contrasting in their degrees of topic familiarity.

Table 1 presents the study design. The four groups constituted a 2 × 2 factorial design with two independent variables, namely topic familiarity (familiar topic, *N* = 46 distributed in Group 1 and Group 3 versus unfamiliar topic, *N* = 45 distributed in Group 2 and Group 4) and story continuation conditions (story continuation, *N* = 48 distributed in Group 1 and Group 2 versus complete story input, *N* = 43 distributed in Group 3 and Group 4).

Table 1 Study design

Groups	*N*	Topic condition	Story continuation condition
1. Fam	24	Familiar	Title + beginning in L1 Chinese (story continuation in English)
2. UnFam	24	Unfamiliar	
3. Fam+Input	22	Familiar	Title + full story in L1 Chinese (rewriting in English)
4. UnFam+Input	21	Unfamiliar	

The dependent variables were the length of the composition, the overall writing quality, and the lexical performance (including lexical diversity and lexical sophistication). Syntactic complexity was not included in the analysis as these Secondary One students in the concerned school could produce only simple sentences and had not yet begun learning sub-clauses at the time of the research. Considering the age range (12-13 years) and the English proficiency of the participants, it was assumed that the number of words produced, the lexical profile, and the overall writing quality (which included grammar, punctuation, ideas, and creativity) would be the appropriate criteria for evaluating the compositions. In particular, writing quality was assessed by two teachers based on the criteria set out in the recognized local public examination (see Table 2). The component of creativity, which may be more subjective than language (e.g., grammatical errors), was assessed based on the adapted *Guilford Measures*, which include *flexibility* (types of responses), *originality* (the unusualness of the responses), and *elaboration* (the detail of the responses). The two teachers involved in the assessment reached a high level of agreement in terms of the writing quality of the student compositions (Cronbach's α = .94) on a 15-point scale. Lexical diversity (*D*) is a corrected type-token ratio that represents the range of the different words used in a text and the degree to which one avoids returning to the same set of words. Lexical diversity, therefore, reflects the breadth of lexical knowledge (Bui, 2019). In contrast, lexical sophistication (*Lambda*) describes the extent to which L2 learners employ low-frequency words, such as *purchase* versus *buy*, which reflects the depth of lexical knowledge (Bui, 2019). Table 2 delineates the operationalization of the dependent variables included in the present study.

Table 2 Dependent variables

Variable	Methods	Sample studies
Text length	The number of words produced during the 40-minute writing session.	Bui and Yu (2019)
Writing score	Rated anonymously and independently by two experienced EFL teachers according to the Shenzhen Senior High School Entrance Examination standard as described in Bei (2009). With a full score of 15, if there was a discrepancy of 2 points or above between the two raters, a third rater's opinion was sought, and the average of the two closest scores was adopted.	Bei (2009)
D	An index of lexical diversity obtained through the VocD subroutine of the CLAN program by Brian MacWhinney.	Bui (2019)
Lambda	An index of lexical sophistication obtained through the P-Lex program by Paul Meara.	Meara and Bell (2001)

Besides the quantitative analyses, a "quick and dirty" discourse analysis following the conventional story structure including the beginning, the development, the climax, the ending, and the moral for a fairy tale (Stevens et al., 2010) was conducted to examine whether qualitative differences in writing existed between the four groups.

3.3. Pre-test

An English midterm examination was conducted two weeks prior to data collection as a pre-test to ensure comparable English proficiency levels across the four classes/groups of learners. The examination evaluated items related to grammar, listening, reading, and writing, which provided the most recent estimate of the students' EFL proficiency. Table 3 shows the means of the general English proficiency levels and the writing abilities of the four groups of students. An ANOVA test indicated that they did not differ in either the overall score ($F(3, 87) = .11$, $p = .95$) or the writing component of the test ($F(3, 87) = .49$, $p = .69$).

Table 3 Pre-test results and grouping

Group	*N*	Total exam score	Composition score in the exam
1. Fam	24	79.44 (17.03)	9.81 (2.77)
2. UnFam	24	78.60 (17.01)	8.77 (3.33)
3. Fam+Input	22	81.30 (15.43)	9.52 (2.96)
4. UnFam+Input	21	79.65 (16.16)	9.26 (3.30)

Note. Standard deviations in parentheses

3.4. Statistical procedures

Since the present study had a factorial design involving two independent variables, which formed four independent groups, the data were analyzed using a

two-way ANOVA as it allowed analyzing not only the main effects of each independent variable but also any potential effects of the interaction among these variables. The reason for using an ANOVA rather than a MANOVA was that the correlation between the text length and the writing score (r = .63, p < .01) may violate the assumption of multicollinearity in MANOVA. A series of K-S tests of normality (p = .16-0.38) and Levene's tests of equality of variances (p = .21-.70) were conducted on each dependent variable, which revealed that none of the data violated the assumptions of ANOVA. The statistical significance level was set at .05. The partial eta squared (η_p^2) was adopted as an index of effect sizes to indicate the magnitude of the effects in the present study. Following Pallant (2013, p. 218), the values of .01, .06, and .138 were considered as small, medium, and large, respectively.

4. Results

This section discusses the influence of topic familiarity and writing continuation on text length, writing quality, and lexical performance. Table 4 presents the results of the average length of texts produced in the four timed writing tasks (10-minute reading and planning + 40-minute writing), which could be considered an indication of both writing fluency and the amount of information generated. The young learners wrote compositions of significantly greater length on the familiar story (*Little Red Riding Hood*) compared to the unfamiliar one (*The Pied Piper of Hamelin*), with a medium effect size (η_p^2 = .13) which was close to the threshold of .138 for a "large" effect as defined by Pallant (2013). Topic familiarity appeared to drive these young students to write more fluently. Surprisingly, the students provided with the complete story in Chinese were outperformed by those who read only the beginning of the story and had to exercise their creativity to continue writing the remaining parts, although with a relatively small (nonetheless significant) effect size (η_p^2 = .05). No interaction effect was observed, and the main effects of the two independent variables were distinct. Discourse analysis (see Subsection 3.2) revealed one of the reasons being the number of morals at the end of the story. It was observed that 28 among 46 (60.87%) students with familiar story writing completed the story with a moral. In contrast, only 16 among 45 (35.56%) students who wrote on the unfamiliar story did so. A Mann-Whitney U test, deemed suitable for categorical data like this, revealed a significant difference between the two familiarity conditions (Z = 2.40, p = .02) in terms of the number of endings with the moral of the story.

Table 4 Results of text length

	Tasks	*N*	*M* (*SD*)	Sig.	TFxSC interaction
Topic familiarity (TF)	Familiar topic	46	172.78 (62.99)	$F = 12.63$ $p < .01$ $\eta_p^2 = .13$	$F = 1.00$ $p = .32$ $\eta_p^2 = .01$
	Unfamiliar topic	45	128.22 (57.37)		
Story continuation (SC)	Full-text input	43	137.44 (50.26)	$F = 4.24$ $p = .04$ $\eta_p^2 = .05$	
	No full-text input	48	162.67 (72.65)		

Different from text length, writing quality did not appear to be affected by topic familiarity. As visible in Table 5, there was no significant difference between writing on the familiar or unfamiliar topic in terms of writing scores ($p = .43$). In contrast, the young learners in the story continuation groups scored significantly higher when they were provided with the topic and the beginning of the story but not the complete text. The writing quality in the more creative writing continuation tasks appeared to be higher, with a medium effect size ($\eta_p^2 = .07$). No interaction effect was observed between topic familiarity and story continuation.

Table 5 Results of writing quality

	Tasks	*N*	*M* (*SD*)	Sig.	TFxSC interaction
Topic familiarity (TF)	Familiar topic	46	9.59 (3.23)	$F = .63$ $p = .43$ $\eta_p^2 = .01$	$F = .08$ $p = .78$ $\eta_p^2 = .001$
	Unfamiliar topic	45	9.04 (3.60)		
Story continuation (SC)	Full-text input	43	8.40 (3.62)	$F = 6.29$ $p = .01$ $\eta_p^2 = .07$	
	No full-text input	48	10.15 (3.01)		

As presented in Table 6, topic familiarity exerted a significant impact on lexical diversity, with a medium effect size ($p = .02$, $\eta_p^2 = .06$). In comparison to writing on an unfamiliar topic, writing on the familiar one enabled the young learners to mobilize a wider range of lexical items. On the other hand, the two story-continuation groups and the L1 complete-text groups did not differ in terms of lexical diversity. It appeared that providing young learners with L1 reading materials did not have a significant impact on their lexical diversity in English as a foreign language.

Table 6 Results of lexical diversity (*D*)

	Tasks	*N*	*M* (*SD*)	Sig.	TFxSC interaction
Topic familiarity (TF)	Familiar topic	46	34.24 (11.09)	$F = 5.57$ $p = .02$ $\eta_p^2 = .06$	$F = .32$ $p = .57$ $\eta_p^2 = .00$
	Unfamiliar topic	45	29.22 (9.26)		
Story continuation (SC)	Full-text input	43	30.95 (12.74)	$F = .55$ $p = .46$ $\eta_p^2 = .01$	
	No full-text input	48	32.48 (8.00)		

The second lexical measure employed in the present study was lexical sophistication, indexed by the *Lambda* value. This measure presented an intriguing contrast to lexical diversity. Neither topic familiarity nor story continuation influenced lexical sophistication (see Table 7). Two points are worth noting here. First, the *Lambda* values appeared to be quite similar across all groups. Second, these values were consistently low in different task conditions among these young learners.

Table 7 Results of lexical sophistication (*Lambda* value)

	Tasks	*N*	*M* (*SD*)	Sig.	TFxSC interaction
Topic familiarity (TF)	Familiar topic	46	1.36 (.47)	$F = .04$ $p = .85$ $\eta_p^2 = .00$	$F = 1.51$ $p = .22$ $\eta_p^2 = .02$
	Unfamiliar topic	45	1.37 (.43)		
Story continuation (SC)	Full-text input	43	1.35 (.44)	$F = .13$ $p = .72$ $\eta_p^2 = .00$	
	No full-text input	48	1.37 (.45)		

5. Discussion

A recapitulation of the results discussed in Section 4 reveals that prior knowledge of the story, termed topic familiarity, significantly motivated these young learners to produce longer texts using diverse vocabulary. However, topic familiarity did not influence the general writing scores or lexical sophistication. On the other hand, story continuation appeared to increase the length of the written texts and enhance the writing quality, while having no impact on lexical diversity or lexical sophistication in the writing of these junior high school students. The findings of the present study, summarized in Table 8, will be discussed in this section regarding the effects of topic familiarity and story continuation (versus L1 complete story input) on different measures evaluated in the present study. In addition, the pedagogical implications for teaching EFL writing to young learners will be presented based on these findings.

Table 8 The general pattern of the findings

	Topic familiarity	Story continuation
Text length	✓	✓
Writing quality	X	✓
Lexical diversity	✓	X
Lexical sophistication	X	X

Note. ✓ indicates a significant, positive effect, and X means no significant effect was found

5.1. Topic familiarity

According to Kellogg's (1996, 2001) model of WM in writing, there are three stages of composition in the writing process, namely, formulation, execution, and monitoring. These stages impose demands on WM resources. As Bui and Yu (2019) argued, EFL learners, especially younger learners, are bound to encounter greater challenges even in simple writing tasks. This is because their WM capacity and the coordination between the two slave systems (phonological loop and visuospatial sketchpad) in WM are not as developed as in adults. Such limited WM capacity is further complicated by the time constraint imposed in the writing tasks, such as the 40-minute writing session in the present study. Topic familiarity, one of the two potential solutions investigated in the present research to assist in alleviating the processing constraints among young learners, appeared to have a significant influence. A familiar story provides learners with a schema when writing on the same topic. Such a schema involves a general story structure: the beginning, the development, the climax, the ending, and even the moral that is usually included as part of the story. In addition, the schema includes detailed content at the immediate disposal of the learners. All this appears to reduce the pressure during the formulation stage in Kellogg's (1996, 2001) terms, especially in the process of the *planning* sub-component of this stage, where the writer conceives an intention, gathers ideas, and decides on the appropriate tone and formality. Since the ideas are readily available from the prior encounter with the story, two related advantages emerge for young learners' writing on familiar stories. First, learners may generate richer content and a fuller structure, as evidenced by the texts of much greater length and the significantly higher proportion of the endings with the moral of the story. Second, they can achieve increased writing fluency (Bei, 2009) compared to those lacking prior knowledge of the story. The significantly larger number of words (172.78 versus 128.22 words produced in 40 minutes) was indicative of the decreased demand for during-task planning while writing, which allowed shifting the focus from *planning* the content to *translating* the ideas into a linguistic plan in the formulation stage and then *executing* this plan in the execution stage.

Topic familiarity increased not only the text length but also the lexical diversity. Higher lexical diversity implies a tendency to avoid recycling the same set of words in the text (Skehan, 2009). It also serves to demonstrate the breadth of lexical knowledge of the learner (Bui, 2019 online). As the findings indicated, students writing a familiar story proved to employ a wider range of words than their counterparts writing an unfamiliar story. The willingness to mobilize a more diverse set of words could again be attributed to the reduced pressure of *planning*, which enabled the remnant attention to be focused on *translating* the

ideas into language in the execution stage. Such increased attention capacity during *translating* assumes particular importance for EFL learners as their foreign language lexicon is characterized by limited size and a less organized structure (Skehan, 2009) in terms of lexical storage. Furthermore, EFL learners are prone to engage in an inefficient lexical retrieval process (Bui, 2019). Additional attentional resources saved from the previous *planning* process allowed these young learners better opportunities in lexical encoding during the *translating* process to thoroughly search and select a wider range of, and probably more appropriate, lexical items in the timed English writing tasks. The outcome was, therefore, a composition comprising a higher ratio of different words and less repetitive lexical items (cf. Skehan et al., 2012).

However, topic familiarity did not appear to influence the writing quality or lexical sophistication, which was slightly contrasting to the findings of Bui's (2014) topic familiarity study on speaking tasks. In Bui's study (2014), the university L2 English students were able to speak more fluently with significantly higher lexical sophistication when assigned familiar tasks. This discrepancy could be due to two reasons. First, there was a huge gap in terms of age and proficiency between the student populations in the two studies. The limited size of their English mental lexicon must have thwarted any attempts to retrieve rare words even when there was more time available for writing. In contrast, the university students were better in this regard. Second, the requirement for composing the complete story felt more urgent to students rather than the concern for linguistic formality, which typically requires low-frequency words in such timed conditions and in their awareness for doing so. In other words, these young learners struggled for meaning expression to complete the tasks within the allowed time limit and, therefore, they tended to use the most common words they knew, as suggested by the low *Lambda* values ranging from 1.35 to 1.37. The sophisticated words were simply neither within their capacity nor their priority during these writing tasks.

5.2. L1 reading input versus story continuation

As discussed in subsection 2.2, prior research has affirmed the facilitative effect of English reading input that matches the proficiency levels of the learners on their EFL writing performance. However, for beginners in foreign language learning, L1 reading input could serve as a potential means to reduce the tension occurring during idea generation and might work similarly to topic familiarity. It may also assist with the transition of the learner's attention from the *planning* process to the *translating* process in the execution stage as it provides immediate familiarization with the story. Unfortunately, the findings in the present research did not support this view; on the contrary, students' performance was

comparatively inferior in terms of the length of composition and the writing quality. These young learners produced more words that were compiled into essays of higher quality when they engaged in story continuation compared to when they relied on the complete L1 text of the stories. There are three possible reasons for this, that is, the nature of the input, the creativity of young learners, and the teacher's implementation strategies of the study design.

The first reason concerns the input material presented in L1 Chinese. Zhang (2017) compared the effects of English reading input and Chinese reading input in writing continuation tasks among Chinese EFL learners and observed that English reading input exerted an overall better influence compared to the Chinese reading input in terms of English accuracy and content. The results in the present study were consistent with Zhang's findings in that providing the L1 input of the complete story that had to be read in ten minutes did not have any positive influence on these young learners' language or content; rather, these learners performed worse than those who only received the topic and the beginning of the story. It appears that the complete text limited these young learners' idea generation, as evidenced by the length of the essays. In addition, these young learners had to recall the L1 reading material and translate it into English, which was a challenging task, both linguistically (Eckstein et al., 2011) and cognitively (Wilson & Korn, 2007). Arguably, the learners encountered difficulty in expressing the L1 input in English, even though it reduced the requirement to come up with the content. As Zhang (2017), and Wang and Wang (2015) argued separately, L1 input hampers both language alignment and content alignment in EFL writing. The Chinese reading materials interfered with these young students' proper English expression, given their limited syntactic and lexical knowledge. This effortful process further compromised the language and the overall writing quality.

The second reason concerns creativity arising from story continuation compared to complete-text input among the young learners. The two teachers involved in the assessment considered creativity in the writing quality scoring system from the perspectives of originality, flexibility, and elaboration, as mentioned in the Methodology section. Without the restriction of the L1 input of the stories, these young learners could exercise their discretion in designing the plots in the case of the unfamiliar story (originality) or adding more elements (elaboration) in the case of the familiar story. The longer texts produced by the learners in the two story-continuation tasks were evidence of more details. The higher writing quality was partly due to having more room for creativity as the learners were allowed to extend the topics in imaginative ways suitable for their age. This finding might be of particular interest to teachers and students of lower grades, where the learners are characterized by imagination and curiosity (Kupers et al., 2019).

The teacher's study design implementation strategy *per se* may constitute the third possible explanation for the lack of positive influence of L1 reading input on the young learners' English story writing. The learners in the L1 complete-text input groups were observed to spend most of the assigned time comprehending the stories (even for the familiar story). On the other hand, the story continuation group students used the ten-minute preparation time to plan their writing prior to the 40-minute writing session. Most of the students in the two story-continuation groups noted down their main points or outlines they were going to develop in the instruction worksheet (see Appendices A and B) while few students in the complete-text groups did so. The learners in the latter groups were occupied with L1 reading during the ten minutes and lacked the opportunity to plan their English writing. They had to conduct the *planning* and *translating* (from the Chinese content into English expression) process "on the fly," which consumed a large portion of their working memory capacity. It was, therefore, less probable that they could reserve sufficient remnant attentional resources for more innovative ideas and appropriate lexical encoding.

5.3. Pedagogical implications

On the basis of the findings of the present research, three pedagogical recommendations, two more manifest and one more latent, could be provided. The first recommendation is that teachers may begin with familiar stories for young learners in their English writing tasks. Composing on familiar topics would allow learners to write longer texts with greater fluency and assist them in activating and retrieving more lexis compared to that previously learned. Therefore, it appears that topic familiarity could enhance a certain degree of confidence in EFL writing among young learners. The second recommendation concerns the teacher's implementation strategies for story writing in the classroom. It appears that, for younger learners, allowing a certain degree of creativity (Kupers et al., 2019) is desirable, and story continuation serves as a viable means for this. Explicit L1 content scaffolding may not be necessary. The third suggestion is not immediately discernible from the current data, although it may be relevant here; while L1 input appears restrictive for young learners, English reading input may be more facilitative (Peng et al., 2020; Wang & Wang, 2015; Zhang, 2017) as it enables content and language alignment among the EFL learners. However, to what extent this hypothesis works for the young learners, such as those in the present study, warrants further research.

6. Conclusion

The present research explored the effects of topic familiarity and story continuation on EFL writing among young learners. The findings confirmed that topic familiarity significantly increased the length as well the lexical diversity of the compositions, and not the writing quality or lexical sophistication. The story continuation groups outperformed the L1 complete-text input groups in terms of the length of writing and the writing quality, although the two input conditions did not influence lexical diversity and lexical sophistication. It appears that topic familiarity may be used to encourage young learners to write longer texts, probably incorporating more details. L1 reading input is not encouraged as it appears to jeopardize creativity and English expression, resulting in lower writing fluency and writing quality. Future research should investigate the effects of English reading input in combination with topic familiarity in the EFL writing performance among young learners.

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APPENDIX A

Group 1 Little Red Riding Hood + beginning of the story in Chinese with instruction

要求： 请你在阅读故事开端之后, 用英文续写故事, 尽量发挥创意, 把故事写完整。

故事开端：

小红帽

有一个可爱的小姑娘, 头上总是戴着一顶红色的天鹅绒小红帽, 大家都叫她小红帽, 大家都叫她"小红帽"。

一天, 小红帽的妈妈让他给生病的奶奶送些好吃的, 并嘱咐小红帽说："路上不要贪玩, 快去快回啊"！小红帽边答应边跑出家门。

(以下请你用十分钟准备, 然后英文把故事细节写完整。 十分钟后本提示会被老师收回。请注意：故事越长, 分数越高)

There was a lovely little girl...

APPENDIX B

Group 2 The Pied Piper of Hamelin + beginning of the story in Chinese with instruction

要求： 请你在阅读故事开端之后, 用英文续写故事, 尽量发挥创意, 把故事写完整。

故事开端：

翰姆林的魔笛手

在遥远的翰姆林王国中, 某天城内受鼠患之害, 国王很是担心, 于是派人赴城外找寻一位魔笛手。这位魔笛手真是厉害, 只要稍加一吹他的魔笛, 王国内的鼠群, 就会着迷似的, 跟着魔笛手的美妙音符四处游行。

(以下请你用十分钟准备, 然后英文把故事细节写完整。 十分钟后本提示会被老师收回。请注意：故事越长, 分数越高)
In the remote kingdom of Hamelin...

APPENDIX C

Group 3 Little Red Riding Hood + complete story in Chinese with instruction

要求：请用阅读以下故事, 并发挥创意, 以英文重写故事。十分钟后故事文本会被老师收回。请注意：故事越长, 分数越高)

小红帽

一天, 小红帽的妈妈让他给生病的奶奶送些好吃的, 并嘱咐小红帽说："路上不要贪玩, 快去快回啊"！小红帽边答应边跑出家门。

一路上, 小红帽一会儿闻闻花香, 一会又听听鸟鸣, 这时迎面走来了一隻灰狼, 他和小红帽搭讪道："小红帽, 你要去哪儿"？小红帽回答：我要给生病的奶奶送东西吃, 那隻灰狼问：你奶奶家住左哪儿啊, 小红帽又回答, 森林的边上, 三棵大橡树下面。

狼盘算了一会儿, 接着说："小红帽, 森林的深处很野花, 如果你摘些送给你的奶奶, 她一定高兴极了"。小红帽觉得是个好主意, 转身向森林跑去, 狼见小红帽跑的很远, 于是撒腿就到小红帽的奶奶家, 假装是小红帽, 骗开了奶奶家的门, 张开大嘴巴把小红帽的奶奶吞了肚子。

过了一会儿。小红帽打开奶奶的门口到灰狼假扮成她奶奶的那裡, 突然, 一个猎人从小红帽的奶奶过走过, 干好看见了灰狼的尾巴, 一抢把灰狼打死了, 那个猎人对小红帽说"那只是一隻灰狼"后来猎人發现灰狼的肚子有东西在动, 然后, 猎人拿着剪刀把灰狼的肚皮剪开, 家然, 跳了小红帽的奶奶。

APPENDIX D

Group 4 The Pied Piper of Hamelin+ complete story in Chinese with instruction

要求：请用阅读以下故事, 并发挥创意, 以英文重写故事。十分钟后故事文本会被老师收回。请注意：故事越长, 分数越高)

翰姆林的魔笛手

在遥远的翰姆林王国中, 某天城内受鼠患之害, 国王很是担心, 于是派人赴城外找寻一位魔笛手。 这位魔笛手真是厉害, 只要稍加一吹他的魔笛, 王国内的鼠群, 就会着迷似的, 跟着魔笛手的美妙音符四处游行。
走着, 走着, 这些鼠群, 最终被引导至城外的小河畔旁；随着笛声, 一群群老鼠, 就鱼贯的跃入河中。 王国内从此再也没有鼠患了。

但贪心的国王, 却没有依照当初所答应的条件, 支付魔笛手应有的酬劳。 魔笛手在一气之下, 发誓要翰姆林王国付出代价。
就在一晚, 魔笛手依然吹奏着美丽的音符, 但这次, 不是老鼠们着迷, 而是翰姆林内的孩童们兴奋。 这些调皮的小孩子, 听到美妙的笛声, 彷佛着了迷般, 各个手舞足蹈, 雀跃的追随魔笛手出城门, 慢慢的来到一个洞口外。

但此时, 有两位小朋友落了单；一个是瘸子, 另一个则是聋子, 两个小朋友因为某种残障, 所以迟迟无法跟上队伍, 远远地被甩在阵容外。 但随着时光流逝, 两位还是龟速的赶上队伍。

怎知原本浩浩荡荡的队伍, 最后只剩下几个小朋友还在洞口外, 其余的人, 都被魔笛手的迷幻乐曲, 给蛊惑至一个大山洞内。

躲在草丛旁的两位小朋友见状, 深觉大事不妙, 于是赶紧往后跑；回城后, 火速告知国王失踪孩童的下落, 国王终于发现自己一时的贪心, 酿成大祸；于是亲自赴洞口旁找魔笛手。 支付他一笔不斐的酬劳, 于是孩童们再度回到国王的怀抱中。