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Songs, stories, and vocabulary acquisition in preschool learners of English as a foreign language



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ABSTRACT

Songs and stories are regarded as popular and effective resources in the preschool classroom, but questions remain as to what effect each has on incidental vocabulary acquisition when Spanish preschool children learn English as a foreign language (EFL). This study investigates the effects that listening to stories, songs and the combination of both have on EFL vocabulary growth. One group of children ($N = 17$) aged two and three years old were exposed to 15 target words embedded in one story, one song, and the combination of a story and a song. Descriptive measures were employed, as well as a one-way repeated measures ANOVA test with Time and Condition as intra-subject factors; video recordings were also conducted in order to check for behavioural learning patterns. Results indicate that the Story condition yielded the highest scores, while the Song condition was the least effective. Implications are taken into consideration for content planning and incidental vocabulary learning in preschool EFL contexts.

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1. Introduction

Vocabulary has been recognized as one of the most important components of language proficiency (Carter & Mc Carthy, 2014). In fostering lexical knowledge, two teaching strategies have been found to assist language development: direct and incidental instruction. Direct instruction focuses attention on the target item through instructional techniques while incidental vocabulary learning involves exposure to words embedded in a meaningful context (Penno, Wilkinson, & Moore, 2002).

At preschool level, a second language (L2) is experienced through activities that are engaging and fun, and learning is enhanced by kinesthesia and the association of words with actions. Two widely acknowledged resources that meet these prerequisites and which are believed to facilitate vocabulary gains in preschool children are songs and storytelling (Cameron, 2001; Murphey, 1992). The present study focuses on foreign language (FL) vocabulary acquisition through songs, stories, and the combination thereof, as well as individual observable behaviour in monolingual Spanish children aged 2–3 years old with minimal English experience.

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2. Review of the literature

2.1. L1 and L2 vocabulary acquisition by young learners

Children learn words to communicate. As they develop the need to talk about things and people in their daily lives, children acquire the linguistic signs for those referents. In doing so, three key processes occur: word-forms are isolated in the input, potential meanings are created, and the meanings are mapped onto forms (Rohde & Tiefenthal, 2000). During the first years of L1 acquisition, young children experience what is called a “vocabulary spurt”, that is, fast vocabulary growth in nouns referring to objects around them. Relevant to this phenomenon is their surprising ability to learn words after having been exposed to them only once, or what has been termed ‘fast mapping’ (Carey & Bartlett, 1978).

Lexical acquisition is also a crucial part of early L2 learning. In the case of young preschool learners, both the amount (Bowers & Vasilyeva, 2011) and the quality of L2 input children are exposed to (Weitz, Pahl, Flymann Mattsson, Buyl & Kalbe, 2010) has been positively related to vocabulary growth. Yet, while learning words in the first language is a rapid process, inquiry into this phenomenon with young L2 learners has shown that fast mapping as a word-learning strategy may be less effective. Although the 3-to-6-year-old preschool German children in a study by Rohde and Tiefenthal (2000) showed some ability to partially learn invented words after 24 h, Ellis and Heimbach (1997) found that limited exposure to new L2 words during listening tasks was insufficient to guarantee their acquisition by five-year old Japanese ESL learners. Similarly, Shintani (2011) reported that young Japanese ESL learners only acquired receptive and productive vocabulary over a longer five-week-period from participating in input-rich tasks Fig. 1.

Given the reduced exposure to the L2 generally associated with instructional contexts, the use of age-appropriate tools such as songs and stories, which provide children with meaningful input while engaging their attention, would seem to be indispensable for highlighting target lexis and language patterns. The repetition and visual imagery of stories and the rhythm, melody and gestures used with songs might actively contribute to promoting the children’s acquisition of new word meanings, by increasing the frequency and the salience of lexical items, since the more often a word appears and the more noticeable it is, the more likely it is to be perceived, even unintentionally. This combination of visual and verbal modalities finds theoretical support in the Dual-code Hypothesis (Paivio, 1971), which maintains that learning is facilitated when input is presented in multiple forms. Thus, dual-coding in the context of songs and storytelling activities would seem to be a relevant teaching strategy for foreign language learning.

2.2. Storytelling and songs

In the context of foreign language learning, both Ahrens (2011) and Ghosn (2002) recommend that teachers use stories as soon as possible as children find them captivating and easy to understand. This idea is availed by Krashen’s theory of comprehensible input, which supports storytelling, as stories can provide input which is beyond learners’ level of competence. (Krashen, 1985). At the same time storytelling provides contextual clues —gestures, pictures, intonation, etc.— that help learners understand the events narrated (Krashen, 1985). Songs also offer multiple pedagogical benefits for language learning, since melody, rhythm and intonation are thought to facilitate the development of children’s pronunciation and the retention of new structures and vocabulary (Forster, 2006). For young children songs are an enjoyable, interactive and pleasant way to learn. A broad array of vocabulary items can be taught through the repetition of popular songs, thus enhancing their potential retention in long-term memory (Murphey, 1992). However, very little research has considered the influence of stories and songs on young children’s second language vocabulary learning in foreign language contexts.

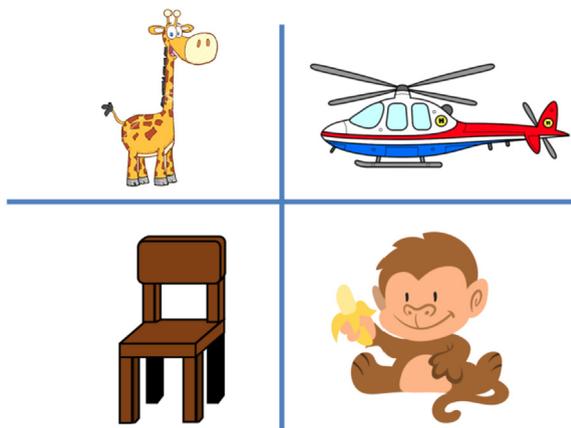


Fig. 1. Example of a sample flashcard.

2.3. Research into vocabulary acquisition with stories

Regarding storytelling, existing research with monolingual children and L2 learners has offered evidence that stories can be an effective vehicle for enriching vocabulary growth. Repeated reading of stories complemented with explanations of the target lexis has been found to promote young children's lexical development in both L1 (Penno et al., 2002) and L2 learning contexts (Collins, 2010), especially when expanded definitions of key lexis are provided in the children's L1 (Lugo-Neris, Wood Jackson, & Goldstein, 2010). Children's initial knowledge of vocabulary has also been highlighted as a determining factor in lexical acquisition from storybook reading, independently of the child's status as a first or second language learner of English, thus emphasizing the need to intensify vocabulary acquisition from an early age. There is, however, a need for more research on the use of stories with young language learners in instructional contexts where exposure to the target language is limited. Existing research has focused mainly on older children and on issues other than lexical acquisition, including the effects on learners' comprehension of stories narrated with and without interactional adjustments (Peñate & Bazo, 2001) or the benefits for language learning of creating and dramatizing stories in the classroom (Ahlquist, 2013). Studies on the relationship between storytelling and lexical growth with preschool EFL learners would seem to be needed.

2.4. Research into vocabulary acquisition with songs, and songs and stories combined

Research into the benefits of music and songs for lexical acquisition has provided less robust findings. Studies conducted with EFL learners have shown that songs can impact positively on the receptive, lexical knowledge of 5-year-old preschool learners in Spain (Coyle & Gómez Gracia, 2014) and the receptive and productive lexical knowledge of 8-to-11-year-old Taiwanese children (Chou, 2014). However, findings from research comparing songs and speech are less clear-cut. Gains in productive vocabulary by Chinese-speaking kindergartners from both songs and choral repetition was reported by Davis and Fan (2016), while Medina (1990) also found improvements in the receptive knowledge of Spanish second-grade ESL learners after exposure to both sung and spoken texts. Similarly, on assessing the acquisition of vocabulary by monolingual preschoolers through exposure to either stories or songs, Joyce (2011) found no differences between both presentation modes. This suggests that songs might be just as effective as spoken texts (Davis, 2017). However, in a study with French-speaking EFL learners aged between 3 and 5 years old, Leśniewska and Pichette (2014) found a significant advantage for stories over songs in promoting receptive vocabulary acquisition. This finding appears to contradict the commonly held assumption that songs benefit the acquisition of unknown English vocabulary more than stories.

Research on comparisons of stories and songs remains, therefore, underdeveloped. While there is abundant research on ESL learners and monolinguals (Collins, 2010; Joyce, 2011; Lugo-Neris et al., 2010; Medina, 1990) much less is known about EFL students. Differences in class sizes also make generalizations from available studies difficult, with some interventions in small groups (Leśniewska & Pichette, 2014; Lin, 2014; Collins, 2010) and others with a larger number of participants (Coyle & Gómez Gracia, 2014).

Given the dearth of research on vocabulary acquisition by preliterate EFL children in instructional contexts, and the contradictory evidence on the use of songs and stories in incidental vocabulary learning, this study attempts to examine the potential of both resources for enhancing early language learning.

2.5. Behaviour and L2 vocabulary acquisition

A key issue to emerge from research into the impact of stories and songs on young language learners concerns their individual behaviours and observed motivation. Stories and songs are believed to facilitate learning since they capture children's attention easily. However, children's responses to these activities have proved difficult to identify, measure and correlate to learning outcomes (Millonig, Stickler, & Coleman, 2017). In some cases what was thought to be a behaviour related to active learning did not draw the expected results. Coyle and Gómez Gracia (2014) and Leśniewska and Pichette (2014) found that actions showing motivation, such as copying gestures and moving to the rhythm, which would theoretically facilitate learning, may have hindered learning, by focusing the children's attention onto the actions themselves rather than on the new language. Fonseca-mora et al. (2011) associated an increase in motivation with an increase in English proficiency. Nevertheless, these findings were reported through the written responses to questionnaires given by older learners rather than by direct observation. Joyce (2011) and Chou (2014) also observed and took notes on learners' behaviour. Their observations showed that participants who paid close attention while on task achieved higher marks, despite not participating verbally or physically as much as other students.

The difference in age of the learners involved in these studies and the mixed results obtained suggests that the link between observable patterns of behaviour during storytelling and song-based activities and children's vocabulary learning is an issue that merits further enquiry.

3. Research questions

The questions that arose from the identification of these gaps in available research to date were as follows:

- i) What effect (if any) does exposure to target language input in the form of a) a story, b) a song, and c) a combination of story and song, have on the acquisition of lexis by young preschool EFL learners?
- ii) Does children's behavior during storytelling and song sessions affect the acquisition of new L2 vocabulary?

4. Method

4.1. Context of study and participants

The study took place in a preschool classroom of 22 children aged between 2 and 3 years old in a state school in Spain. All the participants were L1 Spanish speakers with no previous exposure to English except the 4 months they had been attending preschool prior to the study. During that time they had learnt basic vocabulary related to routines, colours, shapes, and Christmas. Absences meant that finally 17 of the initial 22 children fully participated in the research. Legal consent for the interviews and video recordings was obtained with written permission from the children's parents. Care was taken to ensure anonymity by withholding the children's names.

4.2. Study design

The study follows a pre-test, post-test and delayed post-test design with three different conditions: (i) story, in which the children are told a brief story (ii) song, in which they are exposed to a traditional children's song and (iii) song and story, during which they first listen to a new story and then to a related song. A total of 15 words, 5 for each condition, were chosen as target lexical items ([Appendix A](#)).

4.3. Data collection

The stories used in the study were written by the researchers while the songs were selected from a pool of popular songs for teaching English to young learners ([Appendix B](#)). The stories were simple and appealing and the songs had lively music with repetitive lyrics. Both resources could be accompanied by gestures and visuals. The plots were unambiguous and action oriented, and the length short enough for the age of the students ([Brown, 2004](#)).

The 15 target words chosen for the study were all nouns, as verbs ([Kersten & Smith, 2002](#)) and adjectives and adverbs ([Sandhofer & Smith, 2007](#)) were considered to be beyond the cognitive ability of the 2 and 3-year-olds. The words belonged to semantic fields the children were likely to be familiar with in their L1 (animals, food, illness), were between one and three syllables long and included five cognates (banana, chocolate, monkey, lion, kangaroo). The inclusion of these items was intended to explore whether the children showed sensitivity to word length and cognate status, since both these features have been hypothesized as influencing recall ([Chen, Ramírez, Luo, Geva, & Ku, 2012](#); [Gathercole & Baddeley, 2009](#)). In all three conditions, visuals, plastic toys, intonation and gestures were used to aid comprehension of the target lexis. Care was taken to use both visuals and gestures when presenting the key words so that all the conditions were comparable as regards the saliency of the target words. No explicit verbal explanations or definitions of the L2 items were provided in either the L1 or the L2. With the exception of the word 'balloon', which appeared more frequently than the other items, it was calculated that on average each target word would be presented between three and four times. Consequently, the story was told twice and the song sung three times. For the same reason, in the combination condition the story was told first, but only once. Immediately afterwards, the song was also sung once. The exact number of times each word appeared was later tallied more precisely while coding the video recordings ([Table 1](#)). In the dynamics of the classroom interaction, three words, in addition to balloon, (cake, doll, pill) slightly exceeded the average number of exposures so that number of occurrences of the target items was also considered when interpreting the results.

4.4. Procedure

All the teaching and testing sessions were conducted over a period of six weeks by the first author who was also a qualified teacher of young EFL learners. The research design involved an initial pre-test, one weekly teaching intervention (week 1: story; week 2: song; week 3: story and song) and an immediate post-test. The delayed post-test was conducted three weeks after each condition ([Table 2](#)). The same testing procedure as in the pre-test was employed for both tests.

4.5. Testing procedure

The children's recall of the target words was assessed using the standard method ([Dunn & Dunn, 2007](#)) of pointing at one of four colour cartoon images on a flashcard after having heard the target word. All the tests were researcher-made and the position of the target words was randomized across the test flashcards. No words with the same initial consonant were included on the same flashcard. All the picture items were different from those used during the teaching sessions, which prevented children from pointing at the correct lexical item by merely remembering the image.

Table 1
Frequency of encounters with each word in each condition.

Condition	Target word	Total number of encounters
Story	Balloon	17
	Snake	4
	Kangaroo	4
	Monkey	4
	Lion	4
Song	Doll	6
	Pill	9
	Bag	3
	Hat	3
	Bed	3
Combination	Cake	7
	Strawberries	4
	Bananas	4
	Chocolate	4
	Fish	4

Table 2
Study design.

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Day 1 Story mode: balloon, kangaroo, snake, monkey, lion	Day 1 Song mode: doll, bag, hat, bed, pill.	Day 1 Story plus Song chocolate, strawberries, cake, bananas, and fish	Delayed post-test of week 1 story condition	Delayed post-test of week 2 song condition	Delayed post-test of week 3 combination condition
Day 2 Post-test	Day 2 Post-test	Day 2 Post-test			

The scoring procedure was as follows: one point was awarded when a child identified the correct image for a target word and zero when an incorrect image was chosen. The points were counted for every child in each condition. The mean recall for every vocabulary item was, therefore, between zero and one, with a total recall score of 5 points per test. The internal consistency of the tests was confirmed by a Cronbach alpha coefficient of 0.91.

The pre-test took place four weeks prior to the teaching intervention. It was administered individually to each child in a quiet room in the presence of the class teacher to minimize any initial shyness the children might feel towards the researcher and to comply with ethical procedures. The children were instructed to point only at the picture corresponding to the word the researcher named. The procedure was performed twice to rule out random guesses. The target words were firstly tested in English and then in Spanish so that any failure to identify the target items would be attributed to a lack of L2 knowledge rather than conceptual L1 knowledge. It was considered unlikely that the children would encode the L2 words from a single exposure since, as suggested by Rohde and Tiefenthal (2000), 'fast mapping' as an L2 word learning strategy is less effective than in L1 acquisition. After the pre-test, the possibility of the children learning the target words during the intervening time before the interventions was unlikely, as two weeks of the four-week period coincided with the Christmas holidays. The English teacher was also asked not to teach the target words.

4.6. Video recordings

The teaching sessions were video recorded in order to examine the engagement of each child during the input presentation modes. The class teacher carried out the video recordings out of the children's field of vision so as not to distract them unnecessarily from the teaching activity. The children sat together on the carpet at the front of the class throughout the three interventions, which meant that all 17 children were always on camera. This grouping facilitated the analysis of their behaviour from the recorded material. As observational criteria, the children's behaviour, following Guilloteaux and Dornyi (2008), was operationalized as the degree of attention they paid to the teacher and the extent of their engagement in the instructional activity. It was considered that an engaged child would consistently look at the researcher and the pictures or objects presented, react to the events of the stories or move along with the songs; a disengaged child would look around the classroom or at different people, would not imitate the gestures or acknowledge the rhythm of the music, and might yawn or show other signs of boredom. The video recordings were recurrently analysed initially by the first researcher (between 15 and 20 viewings each). Notes were taken on each child's behaviour and their engagement across conditions was coded as either 'high', 'average' or 'low'. The preliminary results were then discussed collaboratively during further joint viewings of the videos with the remaining two researchers following procedures outlined by Smagorinsky (2008). The physical proximity of

the children in the classroom meant that tracking their focus of attention and any potential distractions during the teaching sessions was fairly straightforward, so interrater agreement for the video coding was high (0.92).

4.7. Data analysis

A one-way repeated measures ANOVA test was run, with the test scores as the dependent variable, and with Time (three levels: Time 1 pretest, Time 2 immediate post-test and Time 3 delayed post-test) and Condition (three levels: Story, Song and Combined) as intra-subject factors.

5. Results

i) What effect (if any) does exposure to target language input in the form of a) a story, b) a song, and c) a combination of story and song, have on the acquisition of lexis by young preschool EFL learners?

The ANOVA test showed both Condition ($F = 26.74$; $p = 0.00$; $\eta p^2 = 0.626$) and Time ($F = 46.46$; $p = 0.00$; $\eta p^2 = 0.74$) to be significant (Table 2). This suggests that there were statistically significant differences in the influence of the input mode on the children's ability to recall the lexical items, as well as changes in this ability over the three time periods covered by the pre- and the post-tests. A significant interaction was also found between Condition and Time ($F = 14.40$; $p = 0.00$; $\eta p^2 = 0.474$), which indicates that the input presentation modes affected the children's lexical recall scores differently across the post-tests.

Pairwise analyses (Table 3) indicated that, within the Condition factor, significant differences were found between the means of the children's vocabulary scores in the Story and Song conditions ($diff = 1.88$; $p < 0.00$), between those in Combination and Song ($diff = 1.24$; $p < 0.00$), and between Story and Combination ($diff = 0.64$; $p < 0.029$). These results showed that the Story condition proved superior both to the Song and the Combination conditions, and that the Combination condition was more effective than the Song condition in helping children recall the words presented to them.

Pairwise analyses across the three test periods (see Table 4) showed significant differences between the children's mean scores in the pre-test and those in both the immediate post-test ($diff = -1.74$; $p < 0.5$) and the delayed post-test ($diff = -1.61$; $p < 0.5$), with no significant differences found between the scores in the two post-tests.

These results were qualified by the interaction between Condition and Time, which was analysed by firstly comparing the three time periods within each presentation mode and, then, across modes (see Tables 5 and 6). In the Story condition, the pre-test was significantly inferior to both the immediate post-test ($diff = -2.88$; $p < 0.5$) and the delayed post-test ($diff = -2.52$; $p < 0.5$), while there were no significant differences between the two post-tests. Similar results were found in the Combination mode, with significant differences found between the pre-test and both the immediate ($diff = -1.94$; $p < 0.5$) and the delayed post-test ($diff = -1.88$, $p < 0.5$), but not between the immediate and the delayed post-tests. Finally, in the Song condition, no significant differences were found between the children's scores in any of the three tests. These results show that, after the interventions, the children's ability to learn the 5 target words embedded in both the Story condition and the Combination of story and song improved significantly, but this was not the case with the 5 words in the Song condition.

Table 3
Test of Within-Subjects Effects.

Source	Mean Square	F.	Sig.	Partial Eta Squared	
Condition	2	46.64	26.74	.00	.62
Time	2	48.02	46.46	.00	.74
Condition*Time	4	7.84	14.40	.00	.47

Note. Condition refers to Story, Song and Combination of story and song conditions. Time refers to the Pre-test (Time 1), the Immediate post-test (Time 2), and the delayed post-test (Time 3). * refers to the interaction between Condition and Time.

Table 4
Pairwise comparisons within the Condition factor.

Condition	Condition	Mean diff.	Std. Error	Sig.	95% Confidence Interval	
					Lower bound	Upper bound
Story	Song	1.88	.20	.00	1.44	2.31
	Combination	.64	.27	.02	.07	1.21
Song	Story	-1.88	.21	.00	-2.31	-1.44
	Combination	-1.24	.30	.00	-1.87	-.59
Combination	Story	-.64	.27	.02	-1.21	-.07
	Song	-1.24	.30	.00	.59	1.87

Note. Mean diff. = difference between means; Std Error = standard error; Sig. = degree of significance.

Table 5
Pairwise comparison within the Time factor.

Time	Time	Mean diff.	Std. Error	Sig.	95% Confidence Interval	
					Lower bound	Upper bound
1	2	-1.74	.22	.00	-2.22	-1.26
	3	-1.61	.23	.00	-2.11	-1.11
2	1	1.74	.22	.00	1.26	2.23
	3	.14	.11	.26	-.11	.39
3	1	1.61	.23	.00	-1.11	2.11
	2	-.14	.11	.26	-.39	.11

Table 6
Results of the interaction Condition*Time.

Condition	Time	Mean	Std. Error	95% Confidence Interval	
				Lower bound	Upper bound
Story	1	.471	.174	.102	.839
	2	3.35	.296	2.72	3.98
	3	3.00	.284	2.39	3.60
Song	1	.118	.081	-.053	.288
	2	.529	.259	-.019	1.07
	3	.529	.259	-.019	1.07
Combination	1	.353	.119	.100	.606
	2	2.29	.506	1.22	3.36
	3	2.23	.458	1.26	3.20

This advantage of the Story and Combination conditions in comparison to the Song condition does not mean that they were equally useful in helping children recall the target words. However, when the post-test results were compared across the Story and Combination conditions, the data indicated that in the Story condition the children recalled significantly more words both in the immediate ($diff = 1.06$; $p < 0.05$) and in the delayed ($diff = 0.77$; $p < 0.05$) post-tests than in the Combination condition.

The average scores both in the immediate and delayed post-tests for the Song condition were significantly lower than those in the immediate ($diff = -2.82$; $p < 0.05$) and delayed ($diff = -2.48$; $p > 0.5$) Story condition post-tests. This was also the case in the immediate ($diff = 1.76$; $p < 0.5$) and delayed ($diff = 1.70$; $p < 0.5$) Combination post-tests, which again highlights the superiority of the Story and Combination conditions over the Song condition.

In order to verify the words most frequently recalled by the children (see Table 7) the mean scores for each target word over the three test periods were also calculated. The lexical items with the highest mean recall scores included all five cognates, three from the Story, 'monkey' (post-test 1 $M = 1.00$, $SD = 0.00$, post-test 2 $M = 0.94$, $SD = 0.24$), 'kangaroo' (post-test 1 $M = 0.70$, $SD = 0.46$, post-test 2 $M = 0.53$, $SD = 0.51$) and 'lion' (post-test 1 $M = 0.64$, $SD = 0.49$, post-test 2 $M = 0.53$, $SD = 0.51$), together with 'banana' (post-test 1 $M = 0.64$, $SD = 0.49$, post-test 2 $M = 0.58$, $SD = 0.50$) and 'chocolate' (post-test 1 $M = 0.58$, $SD = 0.50$, post-test 2 $M = 0.65$, $SD = 0.49$) from the Combination condition. It was also true, however, that the number of children who seemed to know 'banana' in the pre-test was higher ($M = 0.47$, $SD = 0.51$) than for any of the other items. The remaining words in the Story ('balloon' and 'snake') and the Combination modes ('cake', 'strawberry' and 'fish') obtained higher mean scores respectively than any of the five words embedded in the Song. The lexical item with the lowest overall mean recall score was 'doll' in the Song condition (post-test 1 $M = 0.00$, $SD = 0.00$, post-test 2 $M = 0.11$, $SD = 0.33$) followed by 'pill' and 'bag' with similarly low scores.

ii) Does children's behavior during storytelling and song sessions affect the acquisition of new L2 vocabulary?

In order to answer this question, the lexical recall scores for each child across the three conditions were related to their observed behaviour during the teaching sessions (see Table 8). Two of the children with the highest scores (S4 and S10) and the two children with the lowest scores (S12 and S17) were selected to check for behavioural patterns that could provide information on the role of attention, and its potential correlation with learning outcomes.

In the Story condition, while S4 and S10 were attentive throughout, S12 and S17 made exaggerated facial gestures and sometimes looked away. Moreover, S12 yawned often and S17 frowned a few times as if not understanding. In the Song condition, S12 and S17 smiled a lot and copied some of the gestures, occasionally looking at the camera. In contrast, S4 and S10 neither moved to the rhythm nor made any gestures, but remained attentive to the researcher. In the song section of the Combination condition the same behaviour as before was repeated by S12 and S17 and, although S4 and S10 were less active

Table 7
Mean recall scores per word across tests and conditions.

Lexis	Pre-Test		Post-test2		Post-test 2	
	M	SD	M	SD	M	SD
Balloon	0.06	0.24	0.52	0.51	0.59	0.50
Snake	0.00	0.00	0.50	0.51	0.41	0.50
Kangaroo	0.11	0.33	0.70	0.46	0.53	0.51
Monkey	0.23	0.43	1.00	0.00	0.94	0.24
Lion	0.05	0.24	0.64	0.49	0.53	0.51
Doll	0.05	0.24	0.00	0.00	0.11	0.33
Pill	0.00	0.00	0.05	0.24	0.11	0.33
Bag	0.00	0.00	0.11	0.33	0.59	0.24
Hat	0.05	0.24	0.11	0.33	0.11	0.33
Bed	0.00	0.00	0.23	0.43	0.11	0.33
Cake	0.00	0.00	0.41	0.50	0.41	0.50
Strawberries	0.00	0.00	0.35	0.49	0.29	0.46
Banana	0.47	0.51	0.64	0.49	0.58	0.50
Chocolate	0.17	0.39	0.58	0.50	0.65	0.49
Fish	0.00	0.00	0.29	0.46	0.35	0.49

Table 8
Children's individual vocabulary test scores within and across conditions.

Student N = 17	Story			Song			Combination		
	Pre-test	Post-test	Delayed post-test	Pre-test	Post-test	Delayed post-test	Pre-test	Post-test	Delayed post-test
1	2	5	5	0	0	1	0	3	3
2	1	3	2	0	2	0	1	2	2
3	2	4	3	1	3	2	1	5	4
4	1	5	4	1	0	1	1	2	2
5	0	3	2	0	0	0	1	0	0
6	0	3	2	0	0	0	0	0	0
7	0	3	3	0	0	0	1	0	1
8	0	3	3	0	0	0	0	0	0
9	0	3	2	0	0	0	2	3	4
10	1	5	5	0	3	4	2	4	5
11	0	4	4	0	0	0	0	5	5
12	0	1	2	0	0	0	0	0	1
13	1	4	3	0	0	0	1	4	3
14	0	2	2	0	1	1	1	1	0
15	0	5	5	0	0	0	0	5	4
16	0	2	2	0	0	0	0	5	4
17	0	2	2	0	0	0	0	0	0
Total	8	57	51	2	9	9	12	39	38
%	9.4	67	60	2.3	10.5	10.5	7	45.8	44.7

in comparison, they swayed to the rhythm on some occasions; in the story section of this same condition, S12 and S17 appeared more unsettled than their counterparts (S4 and S10), who smiled and looked focused during the whole narration.

6. Discussion

The results of this study indicate a significant difference in L2 vocabulary growth depending on the condition in which the words were presented. Results show that the Story condition was the most effective way for children to learn new vocabulary, with the combination of Song and Story also achieving considerable success. On the other hand, the results for the Song condition were surprisingly low.

6.1. The story condition

In the immediate post-test, 67% of the target words were recalled in the Story condition. These findings suggest that children did more than just memorise or associate the words to the pictures, as the pictures used in the test were different from those used in the teaching conditions. In this way, they demonstrated a deeper understanding of word meanings. Although this ability has previously been reported with monolingual (Beck & McKeown, 2007) and L2 preschool learners (Collins, 2010), the present study registered a higher percentage of incidental vocabulary gains. Interestingly, when the children in the above-mentioned studies were provided with rich lexical instruction, such as word definitions, synonyms,

repetition and open-ended questions, the percentages rose to 50% and 66% respectively. This suggests that our preschool children might also have benefited even more if explanations of the target words had been provided.

The advantage found for the story presentation mode coincides with [Leśniewska and Pichette \(2014\)](#) who attributed the success of stories to the deeper processing behaviour shown by the children when focused on understanding meanings, as well as to the effects of animacy, in comparison to songs, where music was considered to be a distracting factor. [Suggate, Lenhard, Neudecker, and Schneider \(2013\)](#) suggest that the superiority of stories for learning vocabulary, in contrast to independent reading, might be based on the fact that storytellers capture children's attention better by adjusting prosody (intonation, tone, stress, and rhythm) when narrating stories orally. This may indicate a success pattern in which storytelling is more effective if supported with both linguistic and paralinguistic techniques. The integration of these elements in the story mode thus involved a combination of verbal and visual support that has been considered to provide comprehensible input ([Krashen, 1985](#)), and facilitate dual coding ([Paivio, 1971](#)).

Our results add to previous empirical research on stories as valuable tools for fostering vocabulary learning ([Lin, 2014](#); [Collins, 2010](#); [Penno et al., 2002](#); [Elley, 1989](#)), and confirm the value of this resource with preschool EFL learners.

6.2. The song condition

Despite the abundant literature that links music and songs to learning English and their potential for facilitating the retention of new vocabulary ([Fonseca Mora, 2000](#); [Forster, 2006](#); [Willis, 2013](#)), word recall in the Song condition was not significant. This seems to be in direct opposition, for example, to [Fonseca-Mora, Toscano-Fuentes, and Wermke \(2011\)](#) who argue that songs have the power to leave a deep memory trace because they tap into affective factors. However, their study was conducted with much older children, which suggests that age and proficiency may impact on learning outcomes.

A further explanation in line with our findings could be that, as [Coyle and Gómez Gracia \(2014\)](#) suggested, the use of action, gestures and onomatopoeias might have distracted children's attention from the word meanings. [Wallace \(1994\)](#) and [Racette and Peretz \(2007\)](#), on investigating the influence of melody on word recall, conclude that songs with a simple pattern and an easy-to-learn melody are better for acquiring new vocabulary. These findings might also be extrapolated to EFL learning by young children. While the melody in our chosen song was considered lively and appropriate for the children's age, the pace might have been too fast for the children to grasp the target words, which meant that the song would instead have become musical "noise" ([Medina, 1993](#), pp. 1–8). In this respect, [Danlan \(1975\)](#) argued that introducing several new stimuli simultaneously, such as unknown music and lyrics might produce an "overloading" which could impede learning.

An alternative explanation might be based on word choice; since the lexical items embedded in the song may not have been sufficiently relevant to the children given their very young age. [Tomasello \(2003, in Wong Kwok Shing, 2006\)](#) suggests that, along with high-frequency verbs, songs should focus on simple nouns that are present in a child's life, but words such as 'pill' or 'hat', which might be suitable for monolingual children, may not be as appropriate for preschool EFL students.

6.3. The combination condition

It seems logical to assume that the combination of story and song would yield better results than either of the modes on its own. This notion finds theoretical support in the Additivity Hypothesis ([Paivio, 1975](#)), which sustains that L2 input presented in multisensory modalities may leave a deeper trace in learners' memories, thus enhancing the possibility of acquisition. However, similar studies testing the efficacy of this combination compared to other methods of learning new words are difficult to find. In contrast to [Leśniewska and Pichette \(2014\)](#), who also introduced adjectives, the target lexical items in this study were all concrete nouns, which should have facilitated acquisition, access to imagery and retrieval of associated information ([Piaget, 1967](#) cited in [McCloskey, 2002](#)). However, the results showed that the Combination condition was still less beneficial than the Story condition on its own. As suggested by [Danlan \(1975\)](#), once again the children might have been "overloaded" when the input was given to them in the form of a story and a song together. Due to the rapid change of activity, they might have been asked to cope with more information than they were able to process at this age, and so a more progressive approach may have been pedagogically more effective.

It is also possible that some features of the words themselves, such as animacy and cognate status, as well as frequency of exposure, may have influenced the results. Within the category of nouns, animate things were better remembered than inanimate things, despite the fact that, for example, fruit or common objects such as 'bed' or 'bag' might be more common than zoo animals in a child's life. From a developmental point of view, the human brain better facilitates the recall of animate objects because they arouse the learner's attention ([Popp & Serra, 2015](#)). This theory seems to support the advantage found for the Story rather than for the Song condition, but does not explain why mean recall scores on both post tests for 'banana' or 'chocolate' in the Combination condition were similar to those for words such as 'monkey' 'lion' or 'kangaroo' The most likely explanation for this is related to the nature of the words themselves as Spanish-English cognates.

The literature on word cognation has provided conflicting evidence of young ESL learners' ability to use cognates as a vocabulary learning strategy. Some studies of young bilingual learners in the United States and Canada have reported that Spanish-speaking children do seem to use their L1 lexical knowledge to identify new English vocabulary ([Chen et al., 2012](#); [Garcia & Nagy, 1993](#), pp. 367–374). On the contrary, research by [Umbel, Pearson, Fernández, and Oller \(1992\)](#) and [Umbel and Oller \(1994\)](#) with Hispanic bilinguals reported that children correctly identified cognates and non-cognates at about the same

rate (68% vs. 67%, and 60% vs. 65%, respectively). Based on these findings, the authors concluded that children do not rely on awareness of cognates as a vocabulary learning strategy.

The question remains, then, as to whether the children in our study recognized words on the strength of their cognateness in Spanish (banana/banana; mono/monkey; chocolate/chocolate; león/lion; canguro/kangaroo). The findings here require careful interpretation. While cognates did obtain overall higher recall scores on the post-tests, it is also true that their pretest scores, except 'banana', were surprisingly low. It seems, then, that the children initially failed to identify as cognates those words which appeared to be phonetically similar, but which were, in reality, cross linguistically different in specific vowel sounds, syllable length and/or stress (e.g. chocolate; kangaroo, lion). For very young Spanish children, hearing for the first time the initially stressed, two-syllable, schwa sound in the L2 word/choc-lõt/may not have been immediately identifiable for them as the four-syllable L1 word/cho-co-la-te/, where stress falls on the penultimate syllable. Similarly, the differently stressed syllables and vowel sounds in/kangõ-roo/and/kan-gu-ro/or in/lai-øn/and (le-on/, may have made word recognition more difficult than expected. The very young age of the 3-year-old children in our study and their almost complete lack of previous L2 knowledge might also have been a confounding variable. Malabonga, Kenyon, Carlo, August and Longuit (2008) have suggested that recognition of cognates increases as children develop academically. In this respect, our results seem to corroborate the idea that although young children may not be explicitly aware of cognates, they do show sensitivity to them after several exposures (Méndez, Peña & Bedore, 2010). This is evident in the fact that cognates were more easily recalled than any of the other lexical items.

Frequency of exposure also seemed to influence word recall, but only in combination with presentation mode. The word 'balloon' (L1 'globo') in the Story, for example, which was heard three times more frequently than all the other lexical items, was later recalled by around half of the children. Although three additional words, 'doll' (9); 'cake' (7) and 'pill' (6) were also presented slightly more often, only 'cake' from the Combination mode was recalled by just under half the children while most learners failed to recall 'doll' and 'pill' from the Song. This finding partially supports those of Leśniewska and Pichette (2014) who found that both the source of input and the number of encounters with target words impacted on L2 lexical recall. In our case, this was only true for the Story and Combination modes, suggesting that songs alone may be less efficient for lexical recall than when accompanied by stories. Similarly, word length was not an important influence on recall since the shorter words in the Song (doll, pill, bag, hat, bed, fish) were recalled less than other similar ('snake' 'cake') or longer ('strawberries') items. It is possible that this was due to stronger semantic connections with word groups (animals, food) that were more familiar to the children and easier to remember from the context than articulatory or phonological features of the words themselves.

6.4. Learners' behaviours affect lexical growth

By observing learners' behaviour during the teaching sessions, we found that those children who appeared more quietly attentive to the researcher learned more words, while those who physically engaged more with stories and songs did not perform as well. These findings resemble those of Coyle and Gómez Gracia (2014) who suggested that imitating the teachers' gestures without simultaneously attending to the target words might compromise children's lexical recall. Ellis and Heimbach (1997) also identified selective attention to lexis as an effective word learning strategy. Although there does not seem to be a clear explanation so far for the link between behaviour and learning outcomes in EFL preschool children, recent research on attention focus and self-regulation may offer some insight. Fisher, Godwin, and Seltman (2014) found that children placed in a colourful class with a lot of wall decorations showed lower learning gains than those placed in a more spartan classroom. It seems that children's ability to ignore distractions and remain on task is easily over-taxed. This might possibly explain why in the present study the more active children did not achieve high scores in comparison with the quieter, more focused learners. A second possible reason is that the latter were better at self-regulation and, as a result, more able to respond appropriately to the environment surrounding them, maintain their attention, focus on the task at hand and ignore distractions (Bronson, 2000).

7. Conclusion

This research was conducted with the aim of examining the effect of different input presentation conditions on the acquisition of lexis by very young Spanish EFL learners in their first year of preschool. The results provide some evidence to suggest that incidental vocabulary learning through stories offers higher gains in comparison to listening to songs or through the combination of both resources. It also suggests that very young EFL children's behaviour in class seems to be an influencing factor in new language learning.

As a teaching resource, stories provide meaningful and comprehensible contexts, motivational and appealing characters and events, and opportunities for teachers to use linguistic and paralinguistic support, all of which facilitate the incidental acquisition of L2 lexis. Although songs are also considered to comply with these requirements, our findings suggest that teachers should take special care when considering the songs to be used and how to introduce them in class. Short songs with repetitive lyrics, easy to follow verses and a slow pace, as well as a focus on simple concepts present in a child's life, might work better with younger children (Wong Kwok Shing, 2006). Moreover, in order to increase learning gains, teachers might contextualise the target vocabulary before listening to the song and introduce children initially to the melody so as to avoid over-taxing their ability to pay attention to new input (Coyle & Gómez Gracia, 2014). Furthermore, our results indicate that

observing patterns of behaviour might also be helpful to identify children who could benefit from more individualised learning support, such as more intensive exposure to new vocabulary (Ehri, 2012).

8. Limitations of the study and further research

This study adds to the growing body of research exploring ways of enhancing lexical acquisition in young EFL learners. Importantly, this study was carried out in a real classroom and, as such, has its limitations. The small number of participants meant that the descriptive power of the statistical tests was less robust than it would have been with a larger sample size. Differences in the number of encounters with the target words in each condition and the uneven distribution of L1 cognates of varying syllable length and stress may have influenced recall scores. The teaching sessions were carried out by the researcher, who had more limited experience in preschool settings than the English class teacher, who declined to participate despite her familiarity with the children. All of these considerations should be contemplated in future research, which might consider exploring issues such as, productive lexical acquisition with EFL preschool children, different typologies of songs and stories and their effect on vocabulary growth, or the more detailed observation of the behavioural features of individual children during story and song sessions.

Appendix A

Conditions and target words

Story 'A balloon in the zoo'
Target words: balloon, kangaroo, snake, monkey and lion
Song 'Miss Polly had a dolly'
Target words: doll, bag, hat, bed, pill.
Story 'Baking a cake' and song 'Do you like ... ?'
Target words: chocolate, strawberries, cake, bananas, fish.

Appendix B

Stories and songs

Short story: a balloon in the zoo

Once upon a time a boy with a balloon went to the zoo. It was very windy and the balloon flew away, up up up into the sky. The balloon flew, flew and flew and fell into the snake's cage
The snake hit the balloon with his long tail and the balloon flew flew, flew away and fell into the kangaroo's cage
The kangaroo kicked the balloon with his strong legs and the balloon flew, flew and flew away and fell into the monkey's cage
The monkey pushed the balloon with his long arm and the balloon flew, flew and flew away and fell into the lion's cage
The lion caught the balloon with his claws and oh no!!!! The balloon burst

Short story: baking the cake

Once upon a time, Mum, Dad and Baby were in the kitchen. They wanted to make a delicious cake
Dad asked 'What do you like, Baby?'
Baby said 'I like strawberries'
Mum said 'Then let's put some strawberries in the cake'
Mum, Dad and Baby said 'Ummm, delicious'
Mum asked 'What do you like, Dad?'
Dad said 'I like bananas'
Mum said 'Then let's put some bananas in the cake'

Mum, Dad and Baby said 'Ummm, delicious'
 Baby asked 'What do you like, Mum?'
 Mum said 'I like chocolate'
 Baby said 'Then let's put some chocolate in the cake'
 Mum, Dad and Baby said 'Ummm, delicious'
 The cake was finished. It was very big and delicious
 Suddenly, Dad said 'I like fish'
 And he put a fish in the cake
 Mum and Baby said 'Oh, no, yucky!!!!'

Song: *Miss Polly had a doll*

Miss Polly had a doll who was sick, sick, sick
 So she called for the doctor to come quick, quick, quick
 The doctor came with his bag and his hat
 And he knocked on the door with a rat-a-tat-tat
 He looked at the doll and he shook his head
 And he said 'Miss Polly, put her straight to bed!
 He wrote on a paper for a pill, pill, pill
 'I'll be back in the morning with the bill, bill, bill'

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