Storytelling Techniques Through ICT and CLIL to Stimulate Second Language Output: An Innovative Proposal

Técnicas de *storytelling* a través de las TIC y AICLE para estimular la producción lingüística en la segunda lengua: Una propuesta de innovación

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Abstract

The flexibility of CLIL, together with the need for scaffolding tools, lends itself to the incorporation of diverse ICT in the bilingual classroom. In this context, digital storytelling may be incorporated as an additional tool in the CLIL teacher's toolbox to stimulate foreign language output. This article will analyze the potential benefits of introducing storytelling techniques through the online software, *Storyjumper* following the "story mountain" format consisting of beginning, climax and resolution. The quasi-experimental study has been carried out in two classes of 5th Primary in Spain through Google Classroom and Meet with two main goals: foster creativity, which may lead to unguided language output in learners of an additional language and stimulate oral and written language production.

Keywords: CLIL, digital storytelling, ICT, bilingual education, language output.

Resumen

La flexibilidad de la metodología AICLE junto a la necesidad de herramientas de andamiaje facilitan la incorporación de distintas TIC en el aula bilingüe. En este contexto, el relato

digital debería ser incorporado como una herramienta adicional de los profesores de AICLE para estimular la producción de la lengua extranjera. En el siguiente artículo analizaremos los beneficios potenciales de las técnicas de narración a través del software en línea, *Storyjumper,* siguiendo el formato de las historias compuestas por una introducción, un nudo y un desenlace. El estudio cuasiexperimental se ha llevado a cabo en dos clases de 5º de primaria a través de Google Classroom y Meet con dos propósitos: fomentar la creatividad, que podría traer consigo una producción lingüística no guiada en los alumnos cuya segunda lengua es el inglés y estimular la producción oral y escrita.

Palabras clave: AICLE, relato digital, TIC, educación bilingüe, producción lingüística

1. INTRODUCTION

Storytelling is the ability to tell a story dramatizing and using your body language for the audience to take part (Aparicio and Pérez 20). It is frequently used as "a means of instruction mainly addressed to the preschool stage" (Farrell *Storytelling: A Guide for Teachers* 38).

Through this study, we aim to highlight the potential benefits of storytelling within Primary education, in this case through English as an additional language using ICT. Storytelling has been used because, as (Collins & Copper 9-10) emphasize, this technique may aid the development of complex cognitive structures which, in turn, aid foreign language learning and the use of communication strategies. The use of these strategies can enable the learner to express themselves despite not having the necessary language knowledge to do so (Mariani 6).

This study, furthermore, draws on the use of digital storytelling. As (Robin and Pierson 1-8) believe, digital storytelling has captured the imagination of both students and teachers and the act of crafting meaningful stories has elevated the experience for students and teachers. As highlighted by Lynch and Fleming:

> The flexible and dynamic nature of digital storytelling, which encapsulates visual and sensory elements, utilizes the multitude of cognitive processes that underpin learning-from verbal linguistic to spatial, musical, interpersonal, intrapersonal, naturalist and bodily-kinesthetic (7).

2. STORYTELLING IN CLIL

Storytelling can be a pleasurable experience; often managing to captivate the audience through the use of images and voices, which may aid assimilation of the message. These features constitute a useful resource for foreign language learning, as they act as scaffolding, thereby facilitating understanding of new language input (see, for example, Gibbons 96-126). Further scaffolding may be achieved through developing cross curricular skills and the integration of different school subjects which, rather than treating content as an isolated fact, considers it as part of a real context, integrated with other disciplines and applicable to the outside world. This approach, sometimes known as *pluriliteracies* (Coyle 277-297) is used to foster greater assimilation of content and deeper learning. The use of stories within a CLIL learning context can be analyzed through the 4 C's, which refer to Content, Cognition, Communication and Culture:

1.Stories to introduce content: they can encourage active engagement within different disciplines such as Science, History, Geography, leading to integrated knowledge and the possibility of deeper learning (Meyer & Coyle 199-222).

2.Stories through cognition: writing stories may enable learners to develop and associate previous schema with new events, thus providing a means to new-concept acquisition which, "creates specific neural wiring that supports schema or skills formation" (Jackson *The pedagogy of confidence: Inspiring high intellectual performance in urban schools* 96). Furthermore, as (Kellerman 139-258) and (Meyer 195-215) state, stories present multiple shapes, from the linguistic and the semantic perspective, which can be complemented with the use of images and sounds.

3.Stories to foster communication: stories increase the students' ability to introduce and use contextualized new vocabulary. Moreover, their use of images, sounds and appealing topics potentially awaken students' interest, creating verbal or non-verbal reactions in their audience.

4.Stories to introduce culture: Stories are an accessible means of introducing pupils to other countries, cultures and values, offering a richer vision of the world. The introduction of culture in the foreign language classroom can be reinforced by the use of ICT (Dema & Moeller 75-91).

3. DIGITAL STORYTELLING

The term digital era refers to students having their own capability to construct a given future, able to express what they know while using their knowledge critically and creatively.

Within a CLIL learning context, the incorporation of ICT has been documented to notably enhance acquisition of social, cultural and communicative skills (García Laborda 101-117; Livingstone 9-24; Milán 79-98). This is arguably in line with research, which has shown CLIL learners to display a higher digital competence than non CLIL learners (Nieto Moreno de Diezmas 25-85). Furthermore, the successful use of technological tools and digital resources in the classroom can create a more dynamic learning environment favoring the incorporation of other methodologies such as, for example, project based, cooperative and active learning.

Digital storytelling (DST) is the process of creating a short and engaging story which combines different technological modes such as pictures, sounds, texts and narration. DST weaves with traditional narrative because it includes all the components of traditional stories: scene, plot, characters, topic, conflict and resolution of the problem. Alexandre and Levine describe it as:

> A collection of pauses, to let the audience think or to indicate a change in the topic; interruptions, to indicate excitement; the ending of a topic before its full resolution, to produce a cliff hanger; vocal intonation, pacing, and pitch; sound effects and music (54).

As opposed to storytelling, which offers a rich listening and communicating experience, DST is a more visual experience, scaffolding understanding and thereby reaching a wider audience. However, certain elements need to be considered when creating a digital story. An engaging digital story needs to attract the attention of the audience from the outset, often starting with an opening hook, question or hypothesis to "grab" the reader's attention, requiring the reader to continue reading to find out more and/or solve the mystery. Since stories are told from a character's viewpoint, they often have an emotional dimension that can draw the audience in more easily. This effect can be further amplified by choosing images and special sound effects which convey the message effectively.

In terms of stimulating language output, digital stories, as (Hwang et al. 215-241) suggested, provide students with further opportunities to practice language structures

and forms, as they use language through a variety of modes such as verbal, audio and visual.

4. DIGITAL TAXONOMY TO EASE SCAFFOLDING

Nowadays, there is a greater importance of developing language and learning strategies autonomously. Back in 1978, Vygotsky stated in his Zone of Proximal Development, that if a student has the appropriate support, he will obtain the necessary self-assurance to carry out the task by himself. Every child has a different ZPD, as each child has different experiences and skills compared to others, requiring the teacher to discover the level of support, or scaffolding, needed by each individual. Effective scaffolding techniques vary according to students' needs and enable successfully completion of otherwise complex tasks, as Maybin, Mercer and Stierer state:

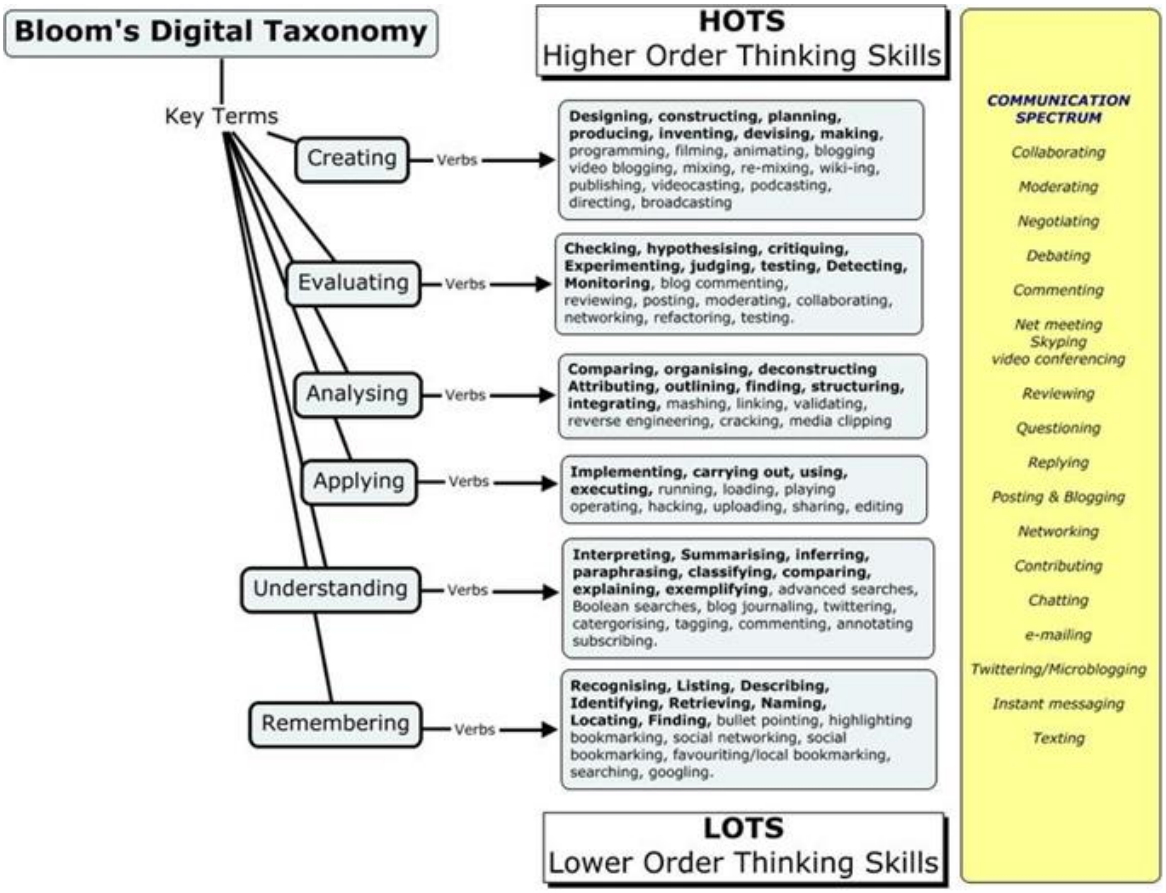
> [Scaffolding] is not just any assistance which helps a learner accomplish a task. It is help which will enable a learner to accomplish a task which they would not have been quite able to manage on their own, and it is help which is intended to bring the learner close to a state of competence which will enable them eventually to complete such a task on their own. (188)

For this intervention, we will base the process of scaffolding on Bloom's Taxonomy where objectives are defined through tasks to reach specific goals. A one-hour session was given to each class to familiarize themselves with *Storyjumper* teaching them how to sign in, how to create their E-book, share the E-book with family and friends through social networks, how to choose backgrounds, avatars, and add messages and their own voices. In addition, as the students were required to base their story on the story mountain structure (beginning, climax and resolution), examples were provided during this initial session to serve as modelling. To foster students' ZPD, students could freely choose their group members creating a channel for peer support, and teacher guidance was provided during the classes and via e-mail to carry out the task. Bearing in mind that the students were already familiar with ICTs, they advanced quickly from using Lower to Higher Order Thinking Skills when creating their own digital story.

Here we can see an example of the process of story creation, in terms of the thinking skills required: Once the students start making up the story, they need to Remember words because they have to locate the story, describe the characters and then Understand it, by comparing different situations or providing examples. The next step is Applying this information by editing the sentences or adding images to make it more clarifying. These

previously mentioned steps (Remembering, Understanding and Applying) correspond to the LOTS. Once they are ready for deeper learning, they Analyze the situation, by organizing the plot or comparing the characters. Students Evaluate how the characters feel towards a specific circumstance. The final objective is Creating a story, with planning, producing, inventing, animating and broadcasting, thereby achieving a final product. The student has advanced from Lower to Higher Ordering Thinking Skills, potentially achieving deep and critical understanding. Teacher and peer support has been gradually reduced, enabling the student to become increasingly more autonomous.

Figure 1. *Bloom's Digital Taxonomy Concept Map (Shafer, K. G., 2010)*



4.1. *Storyjumper* as the tool for digital stories creation

Storyjumper was selected among the wide array of digital storytelling tools (e.g., *Storyboard, Storybird, Wakelet*) as free registration allows full usage (users can buy hard copies of their books) and it offers an unlimited use of royalty free avatars, pictures, special effects along with the possibility of personalization through the addition of one's

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Año V, Número 5, 127-147 ISSN 2531-159X

voice and images from the internet. The process is sufficiently versatile for both beginners and more advanced users. It is also worth highlighting that in times of change within mainstream education with its shift into online learning due to the Covid19 pandemic (Royal Decree 463/2020, article 9.1), *Storyjumper* is also compatible with Google Classroom which avoids individual pupil registration in the platform as teachers can add existing classes. This feature allows teachers to add and keep track of pupils' work.

5. METHODOLOGY

Sixty-two 5th year Primary students from a bilingual school in Madrid, Spain, were asked to create a story using the editing platform *Storyjumper,* linked with Google Classroom. Instruction took place over 6 sessions through Google Meet in May and June 2020 when classes were necessarily online due to the Covid 19 pandemic (Royal Decree 463/2020, article 9.1).

The first class included reviewing and discussing conventional storytelling features such as structure using the "Story mountain", commonly found discourse markers (then, suddenly…) and the frequent use of the past tense. In the second class, through screensharing, pupils were introduced to the main features of *Storyjumper*. In subsequent classes, any difficulties and questions that arose from the use of *Storyjumper* which could not be answered by the teacher were solved through pupil collaboration; pupils who had managed to solve that difficulty shared their screen and explained. As pupils handed in their work, they were offered the chance to tell their story to the peers through screensharing. This was taken up by 15 pupils. In the following table, we can see the overall format of these sessions:

Table 6: Example of class instruction to implement *Storyjumper* in digital storytelling

Session	*Class format*	*Classwork*	*Individual homework*
1	Online (Google Meet)	Reviewing and discussing conventional storytelling features	-
2	Online (Google Meet)	Introduction to *Storyjumper* through screen sharing	-

Verbeia 2021. Monográfico
Año V, Número 5, 127-147 ISSN 2531-159X

3	Online (Google Meet)	Pupil collaboration in resolving questions and difficulties. Pupils presented their stories through screensharing	Story writing using
4	Online (Google Meet)	Pupil collaboration in resolving questions and difficulties. Pupils presented their stories through screensharing	*Storyjumper*
5	Online (Google Meet)	Pupil collaboration in resolving questions and difficulties. Pupils presented their stories through screensharing	
6	Online (Google Meet)	Pupil collaboration in resolving questions and difficulties. Pupils presented their stories through screensharing	

Students were free to choose their topic and plot, with the proviso that finished work would be shared online with their peers. The chosen platform allowed students to incorporate avatars, sound effects, voices, pictures and hypertext to add extra information. Throughout the story, written texts feature narrations and dialogues between different characters, giving into a wider approach to the FL to foster oral and aural skills.

The pupils' stories were shared via Google Classroom into their virtual subject database using an institutional Gmail account for each pupil. This enabled the teacher to monitor and manage uploads and contributions more effectively and offer feedback.

6. DISCUSSION

Of the 62 stories, we have included here examples from those that have included more conventional storytelling features (i.e. the "story mountain" structure and opening hooks) and have managed to achieve what could be considered as well-rounded, attractive and entertaining Digital Stories for the authors' age (10-11 years old). Likewise, some traditional storytelling features will be analyzed. As we can see in the following example, the story begins with a hooking question that engages the audience from the outset "*Would you believe me if I told you that there is a possibility that you have superpowers?*" The narrator, who is generally omniscient, knows the characters very well but will sometimes turn into a second person narrator answering some questions as if she was part of the audience with *"Yeah"*.

Following the patterns of oral tradition, this story is meant to be told but as it is displayed in a written format there is a combination of informal language like *"yeah, you're, hold on, gonna…"* with more formal structures such as, *"there is a possibility that you have superpowers."*

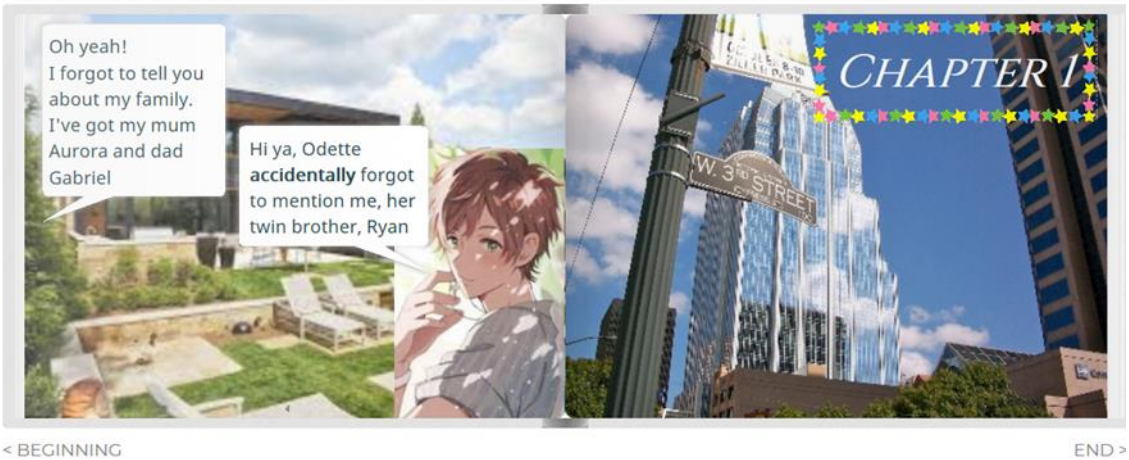
The main character is in the forefront looking straight at the audience inviting us to take part in the story. As in the majority of stories, she will introduce herself and set a place; she lives in Austin and her name is Odette. To increase the audience's interest, she says *"believe me you are not gonna get bored"*. See figure 2.

Figure 2. Image of the "Gem Crown"



She will then introduce her other family members; her brother will play the role of the narrator by introducing himself.

Figure 3. Image of the "Gem Crown"



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Año V, Número 5, 127-147
ISSN 2531-159X

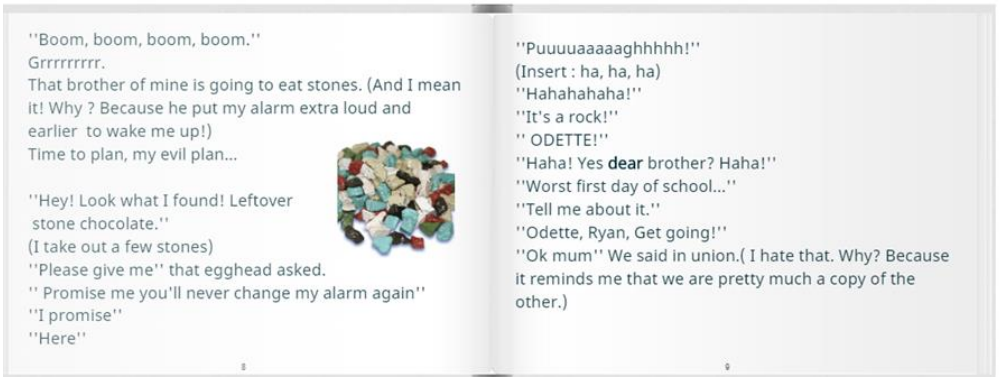
Although there is a frequent use of the simple past and the simple present, the narrator will do a flashforward to year 2070. Parenthesis are used when there is a need to clarify something like UK that stands for University of Knowledge or the real tone of a sentence *"Don't ask me if that was sarcasm cause not even I was sure".* The narration is interwoven with the dialogues to make it more dynamic *"Am I overreacting?"* with *"Odette!" "Yes, mum!"*

Figure 4. Image of the "Gem Crown"



In the same vein, she will introduce dialogues with her brother throughout the narration to make it more realistic and dynamic. As a reflection of oral speech, there is an overuse of exclamation marks *"Hey!, Look What I found!, It's a rock!"* that express surprise, or call the audiences' attention and onomatopoeic expressions due to a lack of special effects like *"Boom, boom, boom", "Grrrrrr" "Puuuuuuuuuuuuaaaaaaaaaaaaaaaghhhhhhhhhhhhhh"* with the aim of engaging the audience more into the story. As an omniscient narrator, the audience will witness how she plays a joke on her brother giving him stones instead of chocolate, as you can see in figure 5.

Figure 5. Image of the "Gem Crown"



The next figure corresponds to the confrontation stage which is the arrival to the new school and how she felt the first day. Her first impression seemed to be successful because she met a partner who was *"smart and funny"* she then adds *"we had a blast"*. The two last figures display a more thorough description with the use of adjectives *"horrible, girl with brown hair and black eyes, smart and funny"*, giving the reader a more objective perspective.

Figure 6. Image of the "Gem Crown"

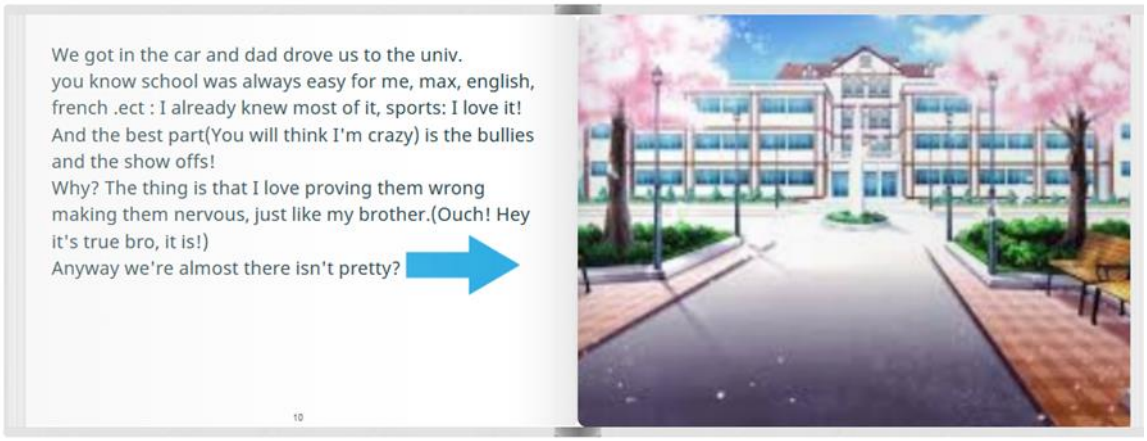
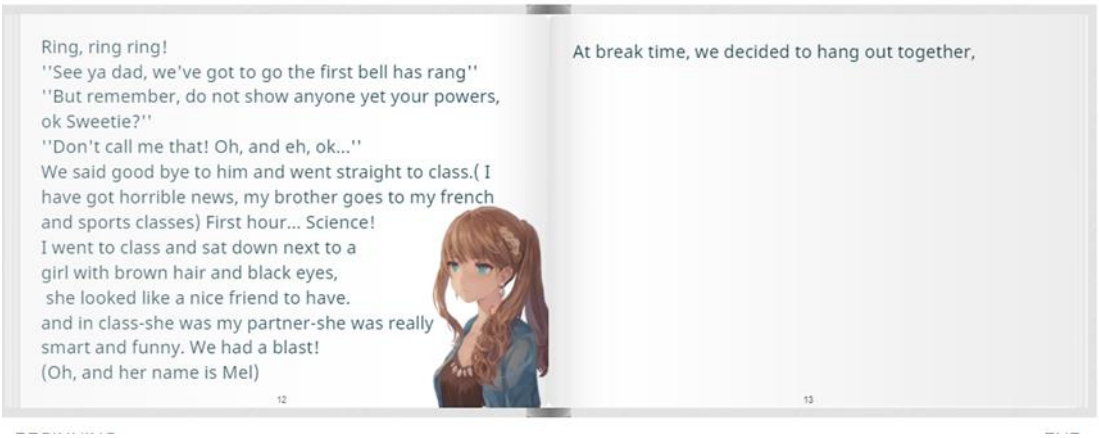


Figure 7. Image of the "Gem Crown"



The following story starts with a hooking question in the cover, as can be seen in Figure 8.

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Año V, Número 5, 127-147 ISSN 2531-159X

Figure 8. Image of "What does Cats do at midnight?"



Allusions to time and place are not precise which implies further mystery *"It was a beautiful day"* but then become more accurate: *"My cats go away from [sic] house at midnight"*.

Figure 9. Image of "What does Cats do at midnight?"



Clara will be the omniscient narrator who will discover a great secret, *"Her cats can talk!"* and the narration is interwoven with dialogues with her pets, as we can see in the following figure. This changes to more formal and longer sentences reproduced by the narrator, *"Claudia liked what her cats do, so she asked her cats to go with them on [sic]*

ISSN 2531-159X

midnight to help them hunt," with shorter sentences as part of the dialogues with the cats in figure 11.

Figure 10. Image of "What does Cats do at midnight?"



Figure 11. Image of "What does Cats do at midnight?"

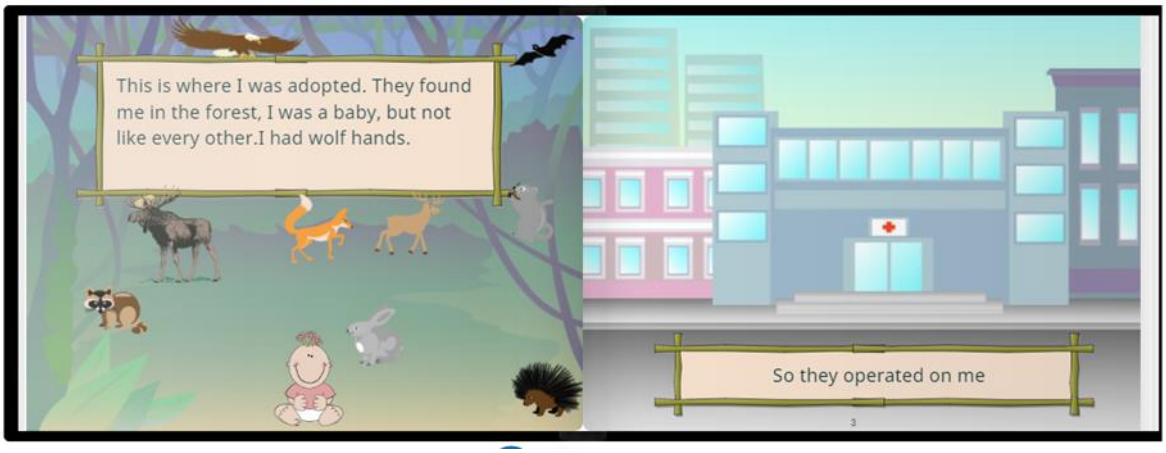


Another feature of storytelling is the great use of repetitions of key words as *cats, midnight, love, well* due to their didactic purpose. The story follows the structure of introduction, through the question posed at the beginning, climax, when she discovers that her cats could talk and end when she gets to the conclusion after hunting together that she can make a perfect team with her pets, as we can see in the figure above.

The next story entitled "Howling Spirit" starts with the opening hook, *"I was a baby, but not like every other, I had wolf hands"*. Throughout the story, the reader finds out why the main character is half human-half wolf.

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Año V, Número 5, 127-147 ISSN 2531-159X

Figure 12. Image of "The Howling Spirit"



In this story, there is a prevalence of deictic elements to refer to place, *"This is the Orphanage", "This is my bedroom",* to animals *"This is my dog Laika"* and to people *"This is me"*, which in all cases are close to the narrator and are cataphoric, because they will be referred to after as *orphanage, bedroom, Laika* and *me*. Presumably, these elements are included to help the reader navigate the story.

Figure 13. Image of "The Howling Spirit"



Another feature of storytelling is the use of sequence connectors to keep the action going chronologically *"so they operated [sic] me"*, *"so she decided to be both a human and a wolf"* but also to express opposed ideas or situations: *"But then I heard somebody calling me…"* "*But then a bear attacked them", "Even though he hurt Jane"*.

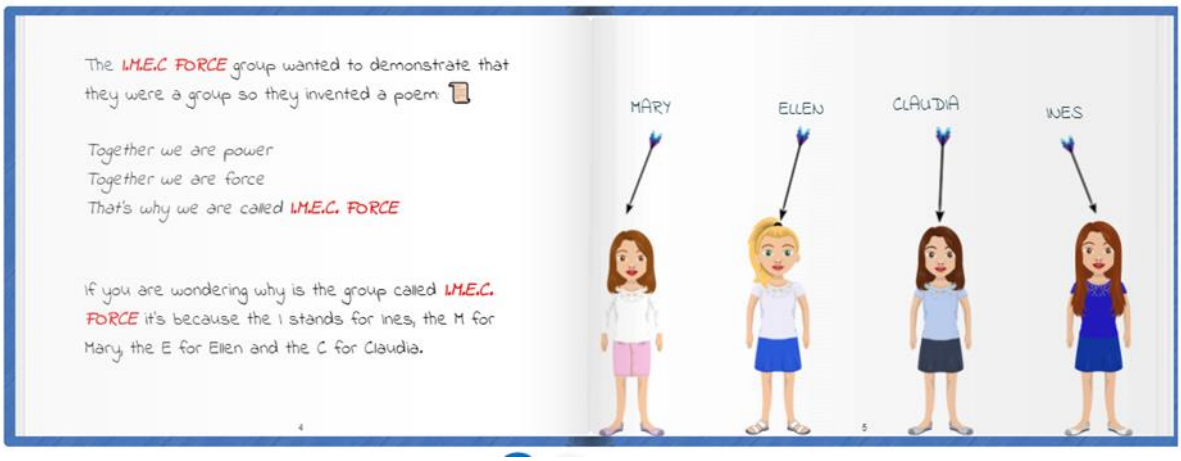
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Figure 14. Image of "The Howling Spirit"



The following story entitled "A Deep Sleep" starts with the narrator directly addressing the audience with *"I will tell you a story about my friends"*. This is followed by the name of the group which is an acronym I.M.E.C. Force to increase the readers' interest and the mystery unfolds in the following pages. This acronym stands for the names of the characters, I for Inés, M for Mary, E for Ellen and C for Claudia as you can see in the following figure.

Figure 15. Image of "A Deep Sleep"



The authors have included repetitions and rhymes which ease memorization, in this case corresponding to the motto of the group *"Together we are power, together we are force, That's why we are called I.M.E.C. FORCE"*.

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Año V, Número 5, 127-147 ISSN 2531-159X

The turning point in the story is when a new girl called Emma wants to join the group, but she does not feel happy from the beginning. In this case, the words quoted by the narrator *"she looked like she was forced, I mean look at her face"* are supported by images (see figure 16).

Figure 16. Image of "A Deep Sleep"



As the story is in a written format, some parts that need to be emphasized or should remain unknown are written in capital *letters "SOMETHING WAS GOING ON WITH HER"* (see figure 17) and *"IT LOOKED LIKE A WICHES (sic) HOUSE!!!"* (see figure 18). This would be extrapolated to the oral format by increasing the tone of voice.

Figure 17. Image of "A Deep Sleep"



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Año V, Número 5, 127-147 ISSN 2531-159X

Figure 18. Image of "A Deep Sleep"



The following story called "The War" fosters cross curricular skills because the content focuses on WWI. In contrast to the previous stories, the main character is the narrator who will describe the beginning of the war, the number of deaths and the trace in the third person. The lack of dialogue between characters makes the story more impersonal and because attention is focused on content with a more objective register. CALP terminology (*war, fight, civilians, trace* and *empire)* is combined with more common BICS language, (*people, started, peace, countries, day*, etc). The content is scaffolded for the reader through its association with a real life context with the photograph.

Figure 19. Image of "The War"



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Año V, Número 5, 127-147 ISSN 2531-159X

7. CONCLUSIONS

The stories presented in the article provide an example of the use of CLIL methodology through the 4 C's. Regarding Content, some stories deal with the topic of Science related to animals, while others talk about History. Sharing these stories with peers could potentially help to widen students' knowledge. The use of repetitions and key concepts may foster a deeper understanding that is complemented with images and sounds, making it a richer experience. The C for Communication has taken place between the narrator, generally omniscient and the audience, who was invited from the outset to take part in the story, through a written and or/ oral format. Fostering communication has been facilitated through students being able to choose their favourite topics and share them with the rest of the class. These have been accompanied by images and sounds which making it more visually and aurally appealing. The C for Culture has been introduced in all cases by using ICT tools and highlighting values such as respect for others, love for animals, the importance of friendship, the meaning of war, the first day of school, the family, etc.

The stories analysed share inherent features of storytelling- starting with an opening hook to engage the audience from the outset; repeating key words or ideas with a didactic and entertaining purpose; combining narration in the third person with dialogues to make it more realistic and dynamic; mixing informal language through the use of (exclamation marks, fillers, colloquial expressions, abbreviations, short sentences) with more standard language (longer sentences); and following the structure of beginning, climax and confrontation. Another feature of storytelling is the use of rhymes to ease memorization and the prevalence of sequence connectors (*so, then, after*) to keep the action going in a chronological order. Most stories, as they are narrations, are expressed in the simple past tense because the action has already taken place, which in some cases, combined with the simple present give the action a closer and more vivid impression.

Following Bloom's Taxonomy Digital Map, all the stories analysed start in the LOTS (Low Order Thinking Skills) by remembering words or concepts adapted to different contexts to end up creating a digital story in the HOTS (High Order Thinking Skills) after editing, evaluating and comparing, through this editing platform. As a result, this process allows students to work more autonomously, in an attractive and dynamic digital environment.

This small-scale quasi experiment aims to highlight the potential benefits of incorporating digital storytelling into the classroom to encourage unguided language output in a way that is enjoyable and confidence boosting for the pupils. Despite this, we are aware of the

limitations of the study. Further larger-scale interventions with extensive data analysis are required to determine the extent of the benefits of incorporating digital storytelling into standard CLIL classrooms. These interventions could take place online or face-to face, provided schools have the necessary access to technology in classrooms. We believe that elaborating research into the use of ICT to stimulate and scaffold unguided writing in CLIL contexts is fundamental as writing in foreign languages in remains a challenge for many pupils.

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