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Digital Storytelling: Activating Communicative, Narrative and Digital Competences in Initial Teacher Training

Relatos digitales: activando las competencias comunicativa, narrativa y digital en la formación inicial del profesorado

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Abstract

Digital storytelling is a narrative technique with a great educational potential, as it adopts creative formula, which integrates multi-format information to communicate ideas, using a technological support. This research shows the level of communicative, narrative and digital competence linked to the creation of digital storytelling in digital environments, reached by students of the Degree of Primary School Teacher (N=143). With this purpose, a rubric composed of 28 indicators was used, 12 indicators referred to the communicative competence (written and oral communication), 6 to the narrative and 10 to the digital. The results demonstrate that most students have a great ability using the computer application, whilst almost a third shows a medium-low level of communicative competence. Some difficulties were detected in screenplay creation and its adaptation to the linguistic register previously chosen -poor vocabulary and inaccurate punctuation-, as well as pronunciation's defects when saying the dialogues, as some of them were not able to transmit expressiveness to the story. Regarding narrative competence, only a 40% are original in resolving the plot and creating characters. Certainly, this kind of experiences provides a motivating scene to develop narrative and creative skills in digital environments and offers numerous opportunities for future teachers' training.

Resumen

Los relatos digitales constituyen una técnica narrativa con gran potencial educativo al adoptar fórmulas creativas que integran información multiformato e instrumentos tecnológicos para comunicar ideas. Esta investigación evalúa el nivel de competencia comunicativa, narrativa y digital ligado al diseño de relatos en entornos digitales, alcanzado por estudiantes del Grado de Maestro de Primaria (N=143) -tras participar en una experiencia de creación colaborativa-, utilizando una rúbrica integrada por 28 indicadores: 12 relacionados con la competencia comunicativa (comunicación escrita y oral), 6 con la narrativa, y otros 10 específicos con la digital. Los resultados evidencian que si bien presentan gran destreza con las tecnologías, casi un tercio registra niveles medio-bajos en la competencia comunicativa. Se detectan dificultades en la elaboración y adaptación del guión escrito de los relatos al registro elegido -pobre vocabulario y precaria puntuación-, junto a limitaciones en la dicción al locutar los diálogos, no logrando imprimir expresividad al relato. Respecto a la competencia narrativa, solo un 40% muestra originalidad al resolver las tramas y construir personajes. Sin duda, este tipo de experiencias innovadoras ofrece un escenario idóneo para desarrollar habilidades narrativas y creativas en contextos digitales, y brinda numerosas oportunidades para la formación de los futuros docentes.

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Introduction

Storytelling has always been a source of learning of different natures, especially those related to the acquisition of both oral and written linguistic skills (Fernández-Paz, 2000). Therefore, according to Franco & Alonso (2011), creating tales displays both the creative and expressive talents of students and is a didactic strategy of a high educational value, which entails major a motivational component. These possibilities are leveraged at school by multiplying practical experiences that are useful to develop not only imagination but also creativity both in childhood and primary education (Chuquimamani & Alosilla, 2008) and to promote other major cognitive processes related to the creation of plots featuring characters inserted in specific space and time coordinates that condition the storytelling (Escudero & León, 2007).

The creation and publication of storytelling in today's society is not only carried out through print media or oral channel. Digital media offer a way to create, share and enjoy fiction narratives created through different ways. For this reason, an increasing number of researchers are interested in reading and writing processes on the Net and the presence of literature on Web 2.0 (Cassany, 2012; Rovira, 2011; Lluch, 2014). On the other hand, Information and Communications Technologies (ICTs) and the tools of Web 2.0 more specifically used in the educational sphere (Paredes, 2005), combined with audiovisual language (Milesi, 2006) are promoting the use of new instruments to increase the potentiality of conventional didactic strategies (Cáceres, 2010). New multimedia narrative ways have thus emerged in the educational sphere of this intersection literary storytelling and digital media, which are created from the convergence of the diversity of interactive digital resources that enable methods of collaborative design (Rodríguez-Illera & Londoño, 2009). In this sense, the creation of digital storytelling is an innovative educational experience, because ICTs become of service to the most conventional narrative practices; it is also highly motivational, because it promotes the development of expression and communication skills through the combination of linguistic, iconic and technical elements.

In this context, digital storytelling can be defined as a narrative technique that makes easy the introduction of ideas and communication and/or knowledge transfer in a particular way to organise and present information of a multi-format nature, supported by the use of technological and digital media (Villalustre & Del Moral, 2014). Command of this didactic strategy requires both technological skills to properly use ICTs and applying audiovisual language and also the necessary communicative and narrative skills to create storytelling with expressiveness. Due to all the foregoing, the digital storytelling was considered a suitable practice of the initial training of Primary Education teachers, because it enables their training for their professional performance in the feature by developing their communication skills through the incorporation of technological resources for educational purposes.

Conceptual framework

Digital storytelling: driving learning and competences in future teachers

Whilst Meadows (2003) identifies digital storytelling with storytelling dealing with issues of personal interests published on the Internet with no specific educational purposes, Van Gils (2005) believes digital storytelling is a powerful didactic resource that promotes effective involvement of students in their own learning process. Combs and Beach (1994) use them to promote learning in the field of social science, introducing concepts such as democracy, cultural diversity or participative citizenship, to improve communication skills, to increase motivation to learn from the past and the present, to create consistent links from shared experiences, etc.

Rodríguez-Illera & Londoño (2007) believe that Web 2.0 tools have transformed digital

storytelling in optimal learning strategies to create practical projects focusing in learners, by generating multimodal ways of communication in the classroom. Sylvester & Greenidge (2009) emphasise that their digital nature helps to promote media and technological literacy. Tsou, Wang & Tzeng (2006) believe they are suitable creative and artistic ways to learn languages. Villalustre & Del Moral (2014) believe that they promote troubleshooting, searching and presenting original and creative alternative responses, etc. Burgess (2006) -from the principles of the community media movement and referring tot their modes of creation- believes they are cultural instruments that promote collaborative social construction through participation of individuals to share experiences, generating innovative narrative ways as hypertextual fiction, storytelling through interactive games, etc. In this sense, Lankshear & Knobel (2007a) believe digital storytelling have a sociocultural nature, because they allow to create, transfer and convey contents in different formats for a specific social context through use of tools and resources from Web 2.0. Likewise, it is accepted that these new social practices generated on the Web develop new ways of thinking and participating, by generating digital storytelling through collaboration in flexible, open, free spaces (Lankshear & Knobel, 2007b).

On his part, Gregori-Signes (2014), Sylvester & Greeenidge (2009) state digital storytelling makes communication in digital media easy, and that it is a different way to tell stories because it includes multimodal discourses and combines and reuses different elements, so that it can be read and commented on on the Net. According to Cassany (2012), they are cooperative, versatile texts because they adopt different discursive ways and genres, which also offer interesting opportunities in terms of language teaching because they activate communication skills referred to the oral and written use (Gregori-Signes, 2008, 2014; Alcantud, 2010; Sylvester & Greenidge, 2009; Reyes, Pich & García-Pastor, 2012; Tsou, Wang & Tzeng, 2006). In addition to promoting the communicative competence, especially the narrative skill -related to storytelling-, they also promote multi-literacies and encourage the creation of genuine messages with real purposes and recipients. Therefore, their didactic use is suitable to the communicative approach when teaching language, activating the communicative competences, the digital competence and the artistic skills (Gregori-Signes, 2014). In this sense, there are projects aimed at their didactic exploitation such as: "*Creando Historias Digitales*" (Rodríguez-Illera & Londoño, 2010) for students of Secondary Education, the practical community of the University of Houston (http://digitalstorytellingtelling.coe.uh.edu), or Berkeley's Center for Digital storytelling (http://storytellingcenter.org), dedicated to storytelling for educational and social purposes.

The success of the didactic resources stands at the teachers' qualification, not only to teach their students to tell stories, offering them incentives enabling them to tell creative storytelling and promote their communicative competence (Ohler, 2006), but also to use digital tools enabling the creation thereof. Hence the need to provide some training that meets the demands of school 2.0. In this sense, the European Higher Education Area (EHEA) is committed to the teachers' training, providing them both with specific and generic competences that qualify them for their future professional performance, which includes helping them to discover the educational potential of ICTs to optimise the teaching and learning processes and the acquisition of new knowledge (Del Moral & Villalustre, 2010). Likewise, the design of digital storytelling offers a great opportunity for media and technological literacy (Sylvester & Greenidge, 2009). Therefore, given the educational value of storytelling, this study analyses how the creative process of its design can especially contribute to the development and boosting of the communicative, narrative and digital competences of future primary education teachers.

Competences activated when designing digital storytelling: indicators to measure them

Communicative competence

The concept of communicative competence, introduced by the ethnography of communication (Hymes, 1971; Gumperz & Hymes, 1972) can be defined as "an individual's ability to effectively convey meaning within significant cultural contexts" (Gumperz & Hymes, 1972, p. 3), which covers both having a linguistic code and other knowledge of a social and cultural nature that speakers need to communicate efficiently in different contexts (Saville-Troike 1982, quoted by Lomas, 2015). This competence is an essential skill for teachers, because it affects the efficiency of the processes of teaching and learning directly, which has to be exercised at the early stages of their training (Domingo, Gallego, García & Rodríguez, 2013). Storytelling activities can be useful in this regard.

In order to identify the aspects that define communicative competence, different typologies have been proposed (Canale & Swain, 1980; Van Ek, 1986; Bachman, 1995; Council of Europe, 2002). In spite of diversity, almost all of them differentiate a grammatical or linguistic dimension that refers to the knowledge and the correct use of the code; a sociolinguistic dimension where all the rules of the code are included, based on social and cultural conventions; and a discursive or textual dimension that refers to the comprehension and production of coherent and cohesive messages, structures according to the relevant textual model (narrative, descriptive, dialogue, etc.). Likewise, the Common European Framework of Reference for Languages (Council of Europe, 2002) subdivide these dimensions into others, offering a detailed taxonomy that will be used to identify the indicators aimed at assess the communicative competence.

Given that the design of digital storytelling involves different components of the communicative competence -on one hand, the use of written language (script drafting) and oral language on the other hand (dialogues and voice over)-, indicators related to written communication (WC) and oral communication (OC) have been taken into account for the assessment thereof. The former (WC) include several aspects related to the linguistic dimension of the communicative competence, i.e., to the knowledge and correct use of the written language's code (1.2 to 1.5) (Table 1): vocabulary use, grammatical and orthographic correctness and proper use of verb tenses. Two more indicators are also included; one is related to

Table 1. Indicators that contribute to explain the communicative competence (CC) related to digital storytelling design

COMMUNICATIVE COMPETENCE (CC)	
DIMENSIONS	INDICATORS
1. Written communication (WC)	1.1 Written production of the characters' dialogues
	1.2 Use of proper vocabulary
	1.3 Grammatical and orthographical correctness
	1.4 Selection of verb tenses in line with action
	1.5 Correct use of punctuation marks
	1.6 Linguistic register in line with the narration (tale, joke...)
2. Oral communication (WC)	2.1 Perfect image-locution match (voice over)
	2.2 Correspondence of the characters' dialogues and gestures
	2.3 Proper interaction pace of the characters' dialogues
	2.4 Proper diction and pronunciation in dialogues
	2.5 Intonation and voice inflection in line with topic
	2.6 Emotional and affective embodiment of the story

Source: Prepared by the authors.

the sociolinguistic dimension (use of a proper register) and another one is related to the discursive or textual dimension (drafting of dialogues). On their hand, the indicators that contribute to explain OC highlight aspects related to the sociolinguistic and pragmatic competences defined in the Framework -the latter is subdivided into the discursive and functional competences-. This way, indicators that are taken into account in the functional competence are included, as the latter "involves the use of spoken discourse and of the texts written in the communication for specific functional purposes" (Council of Europe, 2002, p. 122), which refer more specifically to the organisation of oral interactions (2.1 and 2.3) (Table 1). Indicators related to the expressive use of intonation (2.5 and 2.6) are also included. Indicator no. 2.2 (correspondence between dialogues and gestures) is related to the sociolinguistic competence, because it requires some knowledge and use of the non-verbal language's code in a given context. In last place, indicator no. 2.4 (diction and correct pronunciation) refers to the linguistic competence, since it is related to phonological correctness (correct articulation of phonemes, prosody).

Narrative competence

Narrative competence (NC) is the "ability to decrypt and create discourses that refer to a picture of reality built as a time structure" (Lomas & Vera, 2005, p. 9) or the ability to understand and create storytelling. In spite it can be included in the communicative competence -in the discursive competence, more specifically, since it is related to the ability to create messages adapted to a narrative textual model-, given the importance given to the narrative competence in this educational experience, it has preferably been assessed independently, segregating it from other skills of a communicative nature and setting some specific indicators (Table 2).

As far as production is concerned, narrative competence involves high-level cognitive and linguistic skills, as well as the ability to sequence events, to create cohesive texts, to use an accurate vocabulary, to convey ideas without any extralinguistic medium, to understand cause-effect relationships and structure storytelling according to the guidelines of the universal storytelling scheme for easier understanding (Paul & Smith, 1993, quoted by Del Valle, Breca & Guaita, 2009). More generally, according to textual linguistics, this competence involves the ability to organise the resulting text according to the characteristics of the narrative superstructure (Van Dijk, 1992). Therefore, storytelling through verbal language or other codes (comic or audiovisual storytelling) is an optimal instrument to boost this narrative competence. In order to value this instrument, six indicators related to the construction of storytelling are taken into account: the organisation of turning points to articulate the storytelling correctly; the storytelling's internal coherence; the creation the storytelling's of characters and sets and the creation of the characters' discourse (3.1 to 3.4); the degree of creativity (3.5) and the adaptation to the storytelling's communicative purpose

Table 2. Indicators that contribute to explain the narrative competence (NC) related to digital storytelling design

NARRATIVE COMPETENCE	
DIMENSION	INDICATORS
3. Narrative competence (NC)	3.1 Harmonious introduction of the story's turning points
	3.2 Internal coherence of the story (introduction, climax and dénouement)
	3.3 Consistency in the characters' creation
	3.4 Proper planning of scenes and discourse
	3.5 Creative closure of the plot proposed
	3.6 Visible communicative purpose (moral, denunciation, reflection)

Source: Prepared by the authors.

Table 3. Indicators that contribute to explain the digital competence (DC) related to the use of tools to create and publish digital storytelling online

DIGITAL COMPETENCE	
DIMENSION	INDICATORS
4. Digital competence (DC)	4.1 Proper use of computer programmes and their tools
	4.2 Careful structuring of the audiovisual project
	4.3 Correct assignment of characters and scenes
	4.4 Basic use of locution software
	4.5 Mobility and postures of those characters relevant to the action
	4.6 Proper selection of planes and camera angulation
	4.7 Sound and onomatopoeias are coherent with the narration
	4.8 Storytelling pace in line to make understanding easier
	4.9 Films inserted in the electronic portfolio of the group (site)
	4.10 Specification of the creative process (making of)

Source: Prepared by the authors.

(communicating lessons, promoting reflection, values, etc.) (3.6) (see Table 2).

Digital competence

Obviously, digital storytelling involves the activation of the digital competence, which is based on the acquisition and development of skills to search, obtain, process and communicate information, as well as to transform it into knowledge (Ilomäki, Kantosalo & Lakkala, 2011). It is associated to the ability to search, select, register and process information, in combination to the command of languages, techniques and strategies inherent to each medium, such as the audiovisual, the digital- and the multimedia (Krumsvik, 2014). On its hand, the European Commission (2006) also relates it to the ability to use technologies safely and critically, justifying the need to train citizens so that they are able to obtain, assess, store, produce, present and exchange information, as well as to communicate and participate in collaborative networks through the Internet.

The Institute for Educational Technologies of the Ministry of Education of Spain sets forth that the digital competence must be part of the teachers' qualification -both initial and permanent- by promoting training practices to integrate new technologies didactically (ITE, 2011). Kushnir & Manzhula (2012) emphasise that the training of teachers must be aimed at the command of basic specific languages (textual, iconic, visual, graphic and sound), at the acquisition of skills to decrypt and transfer information to different situations ans contexts, and to the creation of multi-format resources and materials, built on different languages and media, to promote the expressive and creative ability through the use of digital tools. Therefore, the assessment of digital competence -acquired through storytelling design- is based on the formulation of ten indicators (Table 3): five of them refer to the use of digital tools used to create and publish them on the web and the remaining five are related to the practical embodiment of the command of audiovisual language.

Finally, by using all of them, a total of 28 indicators have been identified. Said indicators help -to a great extent- to set the keys to assess the level of the competences that individuals can acquire thanks to training practices that focus on the design of digital storytelling.

Methodological framework

This research tries to prove the educational potential of the design of digital storytelling through a case study by assessing the level of the communicative, narrative and digital competences attained by trainee teachers, after participating in an experience of storytelling in a digital format. To that end, an assessment rubric that covers the indicators that make up

the aforesaid competences was used, setting three levels to classify the individuals based on their limitations so that actions aimed at bridging can subsequently be proposed.

Aim of the study

The research was aimed at: a) determining the level of the communicative and narrative competences acquired by first year students of the Degree of Teacher of Primary Education through digital storytelling design with a programme to create 3D animation stories, b) verifying the digital competence developed, linked both to the use of the digital tool selected and to the embodiment of knowledge inherent to the audiovisual language -intrinsic to the format requested- to present the storytelling, as well as their ability to publish it on the web, and c) estimating subsequently their level of communicative-narrative competence linked to digital storytelling design in virtual environments.

Tool selected for digital storytelling design

Digital storytelling can be created through different techniques and programmes.

In this research, the free version of *Xtranormal-3D storytelling Online Movie Maker* was selected to create 3D animations but it is no longer operational, so it could be replaced by other tools with similar specifications such as *Go-animate for schools, Voki Classroom, Powtoon, ToonDoo,* etc. to replicate the experience. Without the need to have advanced computer skills, all the foregoing allows to secure the expertise related to the creation of a *story-board* that provides guidelines for previously selected actions and characters' dialogues, placing them in different sets to create plots similar to the scripts of animated films. The tool used has an intuitive interface and has four work environments:

1. Sets: offers a gallery of sets to place the action
2. Actors: a range of characters can be chosen to feature in the storytelling. You can choose between creating dialogues or monologues.
3. Sounds: allows to select background or mood music.
4. Story: environment to create the *story-board*, to organise and select the type of and select the scene type and camera angulation for each scene by pressing the *cameras* button manually, or automatically by making the program to do it randomly by pressing the *auto-cameras* button. By pressing the *motions* button, the postures and movements of the characters can be selected, as well as their pauses by pressing the *pauses* button or their faces by pressing the *faces* button. You can decide if they are pointing somewhere by pressing the *points* button and, in last place, the direction in which the characters' face is set can be selected by pressing the *look-ats* button. Scenes can be emphasised by using the *sounds* button to add onomatopoeias.

There are also text boxes to insert the characters' dialogues to reproduce the written script verbally. Voice-over is presented by the robotic reading of what is written litera-

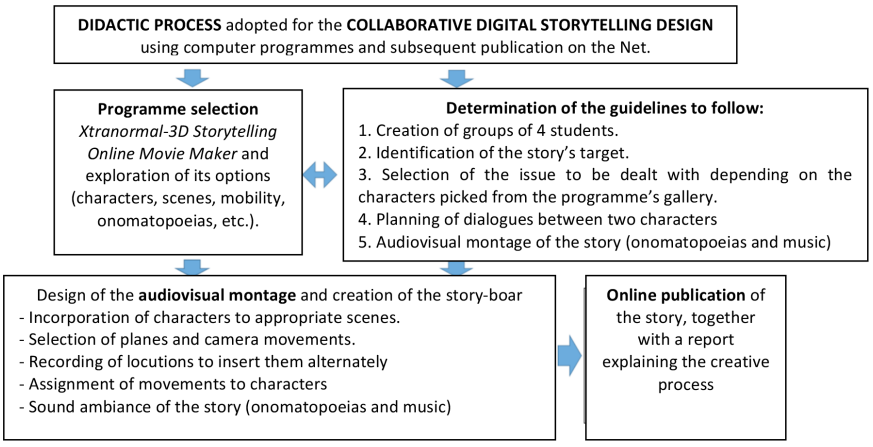
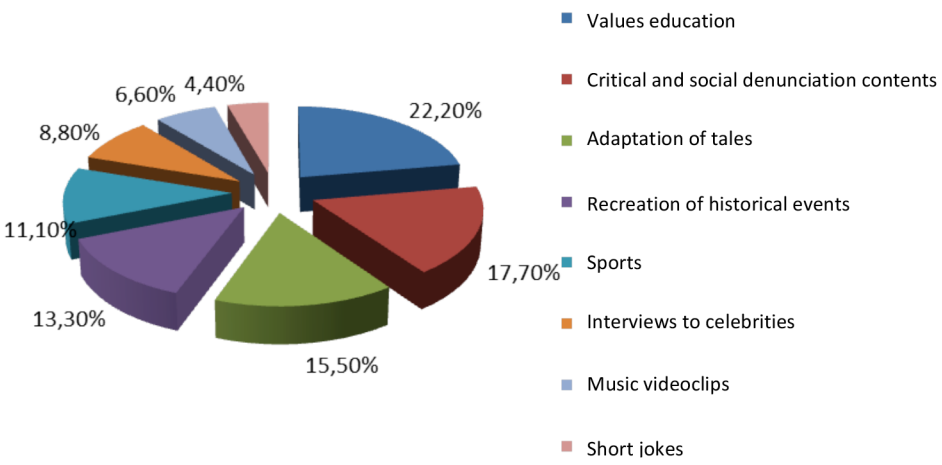


Figure 1 Didactic process adopted to design digital storytelling collaboratively using *XTranormal-3D* and subsequent online publication.
Source: Prepared by the authors.



Graph 1. Distribution of topics of the storytelling created

Source: Prepared by the authors.

lly, transforming it into audible dialogues, although sometimes intonation thereof is not modulated or realistic enough. For this reason, the programme enables dubbing the characters by using a microphone or uploading and audio file previously created. These functions make it an optimal and motivating tool to boost the communicative, narrative and digital competences of the future teachers through digital storytelling.

Context and participating sample

The educational experience was carried out with first year students of the Degree of Teacher of Primary Education of the Faculty of Teachers' Training and Education of the University of Oviedo (year 2012-13) and the sample (N=143) represented 66.35% of the total population of students enrolled in first year of the aforesaid degree (214). It was proposed as a compulsory practice for groups (maximum: 4 students) as part of the subject of Information and Communication Technologies applied to Education, supervised by the teachers of that subject. The practice consisted on creating a flash fiction of digital animation. It should be said that this activity was brand new for them, since none knew the programme or had previously participated in digital storytelling, so they all started from scratch. The experience was carried out throughout six sessions. The first two sessions were used to explore the programme. During the two following sessions, they had to make up a storytelling with two main characters from the programme's gallery, lasting for one minute approximately. Finally, the last two sessions were dedicated to audiovisual edition of storytelling using the programme (Figure 1) and to publish it online together with a report where the process steps were explained, which was subsequently assessed by using a rubric that will be described below.

In total, 45 digital storytelling dealing with different issues were created, replicating educational or familiar subjects, multicultural stories, language teaching, values education, fight against discrimination, historical-informative storytelling, critical contents and social denunciation, stories or tales, flash fictions displaying a critical view against television or the media, music videos or videoclips, cartoons, etc. (Graph 1). This variety of proposals was both aimed at primary education and secondary education students, for all audiences or adults only, etc., depending on the issues dealt with.

The strategy shared by the majority to start the storytelling was based on planning a dialogue between two characters -selected from the programme's resource gallery- and the stories were articulated around them and the

context they were in, which was conditioned by the programme's resources. Nevertheless, the issues and shapes dealt with were original and creative, which resulted in storytelling of a great communicative value. Some of the formulas used to incorporate storytelling are shown below:

a. Recreation of historical events

Example: Einstein (scientist) and Napoleon run into each other in a wax museum.

Initial question: What would they say each other? and how would they start this conversation?

Solution: First-person account of the highlights in each one's opinion and valuation of their implications nowadays.

b. Interview to famous athletes

Example: A journalist interviews tennis player Kournikova in a TV studio

Initial question: How are you facing your new challenges in the world championship?

Solution: Valuation of the personal effort to be successful

c. Values education when two friends get back together after a long time

Example: a journalist and an Olympian in a stadium.

Initial question: How did you get there?

Solution: First-person account of their careers, the sacrifices and efforts they made to fulfil their dreams.

d. Music videoclip when two fiction characters meet in a real context.

Example: two robots (boy and girl) having a drink in a disco.

Initial question: they start a conversation about the music they like.

Solution: they listen to music and speak about their tastes.

Figure 2. Screenshot of different digital storytelling created by the university students.

Methodology: rubric to assess the competences acquired

After articulating the theoretical constructs that define the communicative, narrative and digital competences, it was intended to measure the level students proved to acquire on completion of their digital storytelling. To that end, the assessment rubrics in line with those competences were revised. Therefore, the guidelines of the Common European Framework of Reference for Languages (2010) were taken into account firstly and generally to assess the communicative competence. More specifically, different models of rubrics used to assess it in different educational phases were revised (Ramos, 2010; Sotomayor, Ávila & Jéldrez, 2015), and especially those aimed at assessing higher education students (Cáceres & Santana, 2014; Domingo, Gallego, García, & Rodríguez, 2010; Domingo, Gallego & Rodríguez, 2013; Gallego & Rodríguez, 2013; Juárez, 2013). Despite the diversity of models of rubrics in place, most of them take into account skills related to the production and reception of messages, as well as the oral and written dimension of language, although there are also proposals that focus on the assessment of any of the four basic skills (speaking, writing, comprehension and reading).

In this sense, we can find assessment rubrics adapted to different types of assignments and

textual genres (Ramos, 2010; Sotomayor, Ávila & Jéldrez, 2015), which enable a higher level of specificity and accuracy when assessing the communicative competence. Moreover, some rubrics to assess students of teaching are detected (Domingo, Gallego, García, & Rodríguez, 2010; Domingo, Gallego & Rodríguez, 2013; Gallego & Rodríguez, 2013), with indicators and descriptors that are adapted to the training needs of future teachers, offering instruments that are reasonably suitable to assess the communicative assignments of the teacher degrees. Nevertheless, indicators from other rubrics were used to assess storytelling, such as those related to correctness, proper vocabulary use, coherence, command of paralinguistic codes, use of the relevant textual structure (dialogue and storytelling), etc., adapting them to the assignment proposed.

As far as the assessment of the digital competence is concerned, the indicators included in the assessment rubric use, on one hand, the standards of Information and Communication Technologies (NETS) as a theoretical reference. These standards were developed by the *International Society for Technology in Education* (ISTE, 2008) and specify the following, which shall be developed by the students: 1) creativity and innovation; 2) communication and collaborative; 3) research and information handling; 4) critical thinking, troubleshooting and decision-making; 5) digital citizenship y 6) ICTs operations and concepts. On the other hand, the indicators proposed by Almas and Krumsvik (2007) were adopted, which assess the digital competence by taking four dimensions into account: 1) informational, which means: finding, assessing, organising and transforming information; 2) technological, which means: organising and managing of hardware and software, as well as processing data in different formats; 3) multimedia, which means: understanding and creating

Table 4. Rubric adopted to measure the communicative competence (CC), the narrative competence (NC) and the digital competence (DC) acquired through digital storytelling

ASSESSMENT RUBRIC: COMMUNICATIVE COMPETENCE (CC), NARRATIVE COMPETENCE (NC) AND DIGITAL COMPETENCE (DC) ACQUIRED THROUGH DIGITAL STORYTELLING

1. Communicative Competence (CC)	***Low (1-4)***	***Intermediate (5-6)***	***High (7-10)***
a. Written Communication (WC) Indicators 1.1 to 1.6 (Table 1)	Not valid or devoid of quality. Contains errors. Not relevant. No coherence.	It has quality but also some mistakes regarding grammar, accentuation, punctuation, vocabulary.	Remarkable high quality. No errors. Correct and proper use of verb tenses. Appropriate.
b. Oral Communication (OC) Indicators 2.1 to 2.6 (Table 1)	No synchrony. Diction & intonation are poor/ confusing. No voice inflections. Inexpressive	Appropriate pace. It has synchrony. Intonation and diction are relevant. Expressive.	Perfect synchrony. Very appropriate pace. Good intonation and diction. Very expressive.
2. Narrative Competence (NC)	***Low (1-4)***	***Intermediate (5-6)***	***High (7-10)***
Indicators 3.1 to 3.6 (Table 2)	Hasty. Not interest. Dull, hardly creative. No planning. Lacking message-aim.	Coherent. Correct but plot is simple. Message is not clear.	Script is coherent, characters are consistent. Interesting plot. Planning. Clear, intentional message.
3. Digital Competence (DC)	***Low (1-4)***	***Intermediate (5-6)***	***High (7-10)***
Indicators 4.1 to 4.10 (Table 3)	Not valid or devoid of quality. Contains many technical errors. Not relevant or understandable. Incoherent. Hardly creative.	It has quality but also some mistakes. Few technical errors. Relevant. Easy to understand. Creative.	Remarkable high quality. No errors. Correct montage. Appropriate pace-storytelling. Understandable. Very creative.

Source: Prepared by the authors.

multimedia messages; and 4) communicative, which means: presenting and disseminating information, as well as participating in digital citizenship.

Nevertheless, since the rubric had to be adapted to the specific features of the assignment and the textual modalities used (audiovisual script, multimedia storytelling), it was necessary to design an *ad hoc* model, because none of the rubrics used exactly suited the aspects that were intended to be assessed in this experience. For this reason, a specific analytical rubric was created, selecting and adapting those indicators mentioned by different authors (Ávila & Jéldrez, 2015; Moreno, 2012; Villalustre & Del Moral, 2014), because they were considered relevant to assess this assignment.

More specifically, the communicative competence (CC) was assessed through the two dimensions taken into account: the written communication (CE) and the oral communication (CO), as well as the narrative competence (NC), determining the learning achievements from the 18 indicators described above (heading 1.2). Likewise, to measure the digital competence, the ten indicators specified above were taken into account. Finally, three levels were in all of them (high=grade between 7 and 9, average=grade between 5 and 6 and low=grade between 1 and 4), in an attempt to qualitative assess the individuals more easily (Table 4).

Therefore, the result shows the level attained by the students in terms of communicative-narrative competence (CNC) from the addition of the CC and the NC dimensions –related to digital storytelling design-, which in combination with that attained in terms of digital competence (DC) -also referred to storytelling design-, originated a new variable that could be called communicative-narrative competence for storytelling design in digital environments (CNCDE).

$$CCNED = CCN + CD$$

Results

Related to the communicative competence (CC)

Upon completion of storytelling, the level of communicative competence attained by the university students was assessed from the breakdown of their scores in the different dimensions that contribute to define it. Table 5 shows their distribution depending on the level attained in the indicators related to written Communications (WC).

The creation of the script required the practical application of different knowledge and skills related to the oral and written use of language: the production of a text -a dialogue in this case- requiring a correct use of written language (including orthography, punctuation, vocabulary use, etc.), and of a register in line with the context and the message's purpose and a good articulation of the text so that it was coherent and cohesive. In this sense, it was noted that whilst 77.7% of individuals has a high level of orthographical and grammatical correctness as shown in their digital storytelling, the remaining 22.3% of individuals repeatedly make mistakes because they do not use upper cases or accents correctly. Similarly, the proportion of individuals with a high level (71.2%)

Table 5. Percentage distribution of individuals based on the level attained in the indicators linked to the WC upon assessing them through the rubric

Communicative Competence (CC)			
1. Written Communication (WC)	***High***	***Intermediate***	***Low***
Written creation of the characters' dialogues	66.6%	22.2%	11.2%
Use of proper vocabulary	62.2%	26.6%	11.2%
Orthographical and grammatical correctness	77.7%	11.2%	11.1%
Selection of verb tenses in line with action	71.2%	17.7%	11.1%
Correct use of punctuation marks	66.7%	22.2%	11.1%
Linguistic register in line with the narration (tale, joke...)	62.3%	33.3%	4.4%
TOTAL Written Communication (WC)	***67.7%***	***22.2%***	***10.1%***

Source: Prepared by the authors

Table 6. Percentage distribution of individuals based on the level attained in the indicators linked to the OC upon assessing them through the rubric

Communicative Competence (CC)			
2. Oral Communication (OC)	***High***	***Intermediate***	***Low***
Perfect image-locution match (voice over)	71.1%	24.4%	4.5%
Correspondence of the characters' dialogues and gestures	62.2%	33.4%	4.4%
Proper interaction pace of the characters' dialogues	71.2%	24.4%	4.4%
Proper diction and pronunciation in dialogues	62.2%	35.5%	2.3%
Intonation and voice inflection in line with topic	66.7%	31.1%	2.2%
Emotional and affective embodiment of the story	62.3%	35.5%	2.2%
TOTAL Oral Communication (OC)	***65.9%***	***30.7%***	***3.4%***

Source: Prepared by the authors

slightly decreases as far as the correct use of verbal forms is concerned. They pay less attention when it comes to create written dialogues and to use punctuation marks: the proportion of individuals with a high level decreases to 66.7% in both cases because, often due to contagion of their way of expression on the social media, they omit exclamation/question marks, etc. The proportion of individuals with a high level (62.3%) keeps decreasing on analysing the vocabulary used, because it is not always in line with the storytelling and is sometimes too simple, which similarly happens when adapting the linguistic register to the genre chosen for their storytelling. Likewise, despite the fact that the stories created by the different groups were easy, the global average of individuals with a low level in written communication remains constant (10.1%).

Table 6 below shows how individuals behave on analysing the oral communication (OC) of their digital storytelling, where, unlike the case of written communication, the proportion of individuals with a low level 3.4%) slightly decreases. The skills to illustrate the pictures orally and also to determine the pace of the dialogues have the highest levels (71.2%). Obviously, proper intonation and inflection of voice can contribute to better understand storytelling. Likewise, adequate command and artistic use of the voice's paralinguistic codes (tone, volume, pace, intonation) are essential to provide expressibility to any oral narration whatsoever. Nevertheless, 31.1% has an intermediate level in these skills. The further difficulty that entails pronouncing correctly, keeping the pace of the dialogues and the gestures of the characters, getting to provide them with the relevant emotion, are activities that require the coordination of motor, gestural and affective aspects that condition the discourse's expressibility. Therefore, almost one third (33.4%) has an intermediate level.

Related to the narrative competence

The narrative competence of individuals, embodied in digital storytelling, was measured through the assessment of the six indicators related to their ability to create the script and the *story-board* collaboratively, an assignment that is closely related to their creative capacity. The most representative data are shown in Table 7 below.

Creating a digital storytelling requires planning what you want to say and determine

Table 7. Percentage distribution of individuals based on the level attained in the indicators that define the NC upon assessing them through the rubric

Narrative Competence (NC)			
3. Narrative Competence (NC)	***High***	***Intermediate***	***Low***
Harmonious introduction of the story's turning points	44.4%	44.4%	11.2%
Internal coherence of the story (introduction, climax and dénouement)	44.4%	44.4%	11.2%
Consistency in the characters' creation	40.1%	48.8%	11.1%
Proper planning of scenes and discourse	53.4%	44.4%	2.2%
Creative closure of the plot proposed	40.1%	33.3%	2.2%
Visible communicative purpose (moral, denunciation, reflection)	44.4%	44.4%	11.2%
TOTAL Narrative Competence (NC)	**44.4%**	**43.4%**	**12.2%**

Source: Prepared by the authors

the space and time coordinates where action is to take place (scenes), activities that involve a great organisational component on which the structure and coherence thereof relies on. Therefore, upon assessing the students' performances, it was noted that the sample polarised, since 53.4% (high level) did a good advance planning job, whilst 44.4% (intermediate level) showed lack of consensus in the preliminary decision-making process, and a marginal 2.2% had a low level, who improvised.

Assignments such as organising the facts told, their presentation, their internal coherence and identifying the script's turning points, which involve a greater cognitive effort by the students are linked to the storytelling's planning, as well as the need to reach prior agreements to move forward, to determine the communicative objective or purpose of the narration -whether it is a tale with a moral or a storytelling with plenty of demands or claims- or if the storytelling promotes reflection, etc. In all cases, the individuals with a high and intermediate level represent 44.4% and those with a low level amount to 11.2%, since some of them intend to convey a message at all costs, falling into the trap of didactism and omitting other narrative resources.

Creating the main characters of a storytelling has to be consistent and to rely on certain physical and psychological aspects that may change throughout the storytelling and play a key role therein. This activity requires a certain degree of maturity and creativity on the part of students to assimilate existing schemes or to create their own. Only 40.1% of them have a high level, compared to 48.8% with an intermediate level and 11.1% having a low level. Finally, when assessing their creativity to resolve the script proposed, it was found that many reproduce stereotyped stories, representing 33.3% (intermediate level), those with a low level (2.2%) are very predictable and shut down the storytelling abruptly and those with a higher score (40.1%) shut down their storytelling in an original way.

The dimensions that make up the communicative competence (CC) and the narrative competence (NC) merge because they are closely linked, creating one only variable called Communicative-Narrative Competence (CNC). Its results are shown in Table 8. As can be seen, almost 60% of the students attain a high level in the development thereof. Nevertheless, there are substantial differences in terms of narrative competence, which is slightly less when compared to their level of written and oral communication. After all, it involves cognitive processes of a nature that is superior to mere correctness in written and oral communication -which is assumed in the case of university students- such as the creativity ability to tell stories with an educational purpose, embellished with all kinds of stylistic devices through construction of coherent characters.

Related to the digital competence linked to the creation of digital storytelling

In this case, digital storytelling involves using the online tool *XTranormal-3D* and all its functionalities related to the knowledge on audiovisual language in order to use them properly to record sounds (voice over, onomatopoeias, etc.), to insert dialogues, to select scenes and characters from predetermined galleries, to provide the characters with mobility depending on their actions, to choose the planning and the simulated camera movements that better

Table 8. Percentage distribution of individuals based on the level attained in the indicators that globally define the communicative-narrative competence (CNC)

	Communicative-narrative Competence (CNC)		
	High	***Intermediate***	***Low***
1. Communicative Competence (CC)			
a. Written Communication	67.7%	22.2%	10.1%
b. Oral Communication	65.9%	30.7%	3.4%
2. Narrative Competence (NC)	44.4%	43.4%	12.2%
TOTAL Communicative-narrative Competence (CNC)	**59.4%**	**32.1%**	**8.5%**

Source: Prepared by the authors

suit the storytelling, etc. For this reason, the command shown in their productions was assessed together with their ability to publish them on the web in group electronic portfolios in order to identify the level of digital competence as a whole.

Table 9. Percentage distribution of individuals based on the level attained in the indicators that define the digital competence (DC) linked to storytelling

Digital Competence (DC)			
	High	***Intermediate***	***Low***
Proper use of computer programmes and their tools	88.8%	11.2%	0%
Careful structuring of the audiovisual project	48.8%	48.8%	2.4%
Correct assignment of characters and scenes	77.7%	22.3%	0%
Basic use of locution software	80%	17.7%	2.3%
Mobility and postures of those characters relevant to the action	88.8%	11.2%	0%
Proper selection of planes and camera angulation	84.5%	13.3%	2.2%
Sound and onomatopoeias are coherent with the narration	71.2%	26.6%	2.2%
Storytelling pace in line to make understanding easier	62.3%	37.7%	0%
Films inserted in the electronic portfolio of the group (site)	100%	0%	0%
Specification of the creative process (making of)	84.4%	4.4%	11.2%
TOTAL Digital Competence (DC)	**78.7%**	**19.3%**	**2%**

Source: Prepared by the authors

In this sense, Tale 9 shows they great command of the technological resources and the competences of an instrumental nature on the part of the students. Nevertheless, over half of them (51%) has an average-low level when structuring their audiovisual project; in other words, they do not have the prior planning competence that is to condition other competences that are closely linked to technical aspects of an audiovisual nature, such as the relevance and synchronisation of sound and onomatopoeias with the narration, the adaptation of pace for a better understanding of the storytelling, etc.

Likewise, upon finishing their digital storytelling, the students had to publish them in a website together with a description of the whole creative process to create the storytelling or *making of*. While all the students met the first technical requirement, 11.2% had a low level when specifying the phases of their storytelling's design. Once again, they are the least competent students from a narrative point of view, unable to describe the planning and organisation determined, which is the result of their improvisation. Nonetheless, globally the digital competence has the best results, because almost 79% has a high level.

Communicative-narrative competence to design storytelling in digital environments

Finally, the generic level of competences attained by the students when creating storytelling using technological resources was measured. In other words, both the communicative-narrative competence and the digital competence related to the performance of the aforesaid assignment were measured. The new variable called Communicative-narrative Competence for storytelling design in Digital Environments (CNCDE) is the result of the addition of the communicative-narrative competence (CNC) and the digital competence, related to the use

Table 10. Distribution of individuals based on their level of Communicative-narrative Competence to design storytelling in Digital Environments (CNCDE)

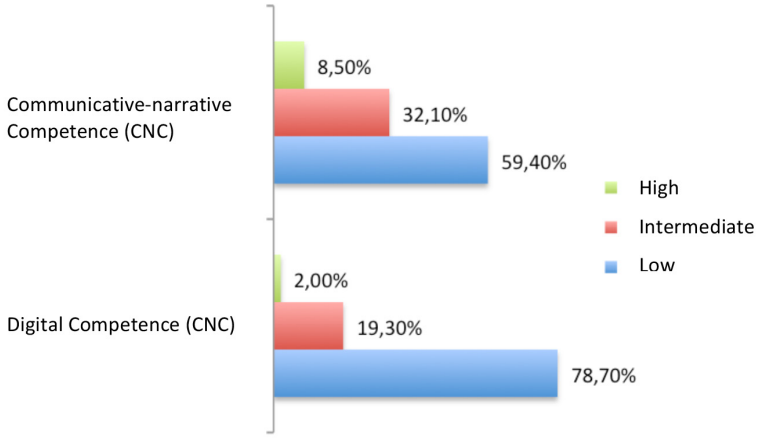
Communicative-narrative Competence to design storytelling in Digital Environments (CNCDE)			
	High	***Intermediate***	***Low***
1. Communicative-narrative Competence (CNC)	59.4%	32.1%	485%
2. Digital Competence (DC)	78.7%	19.3%	2%
TOTAL Communicative-narrative Competence to design storytelling in Digital Environments (CNCDE)	**69%**	**26%**	**5%**

Source: Prepared by the authors

of tools to create storytelling using computer tools.

CCNED= CCN + CD

Table 10 shows some positive overall data, because 69% of the university students have a high level. Undoubtedly, using the computer tool and its functionalities to create storytelling, whilst it does not bridge the gaps detected in the narrative skills, it does contribute to create attractive productions featuring 3D characters in colourful scenes that, with the dialogues and the more or less careful audiovisual recreation (planning and sound) -although not always original- resulted in valuable collaborative storytelling.



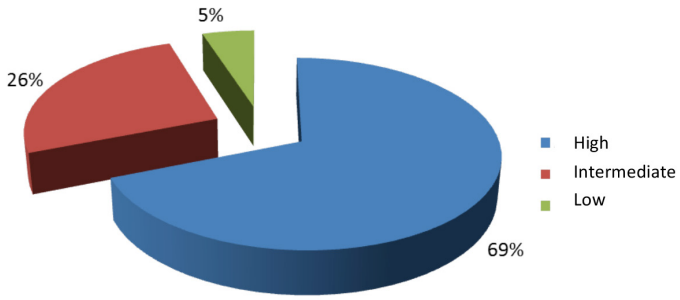
Graph 2. Percentage distribution of individuals based on the level attained in the communicative-narrative (CNC) and digital (DC) competences
Source: Prepared by the authors

Nevertheless, 26% of the students attained an intermediate level and 5% a low level in the development of the communicative-narrative competence in digital environments, which underlines the need to put greater emphasis to deal with these limitations detected in the future teachers of primary education, especially with the communicative and narrative aspects.

Discussion

Despite the fact that the issues dealt with in storytelling could be freely chosen, a combination of circumstances of a technical nature -related to the limitations of the free version of the computer programme (predetermined characters)- and those due to the didactic bias the students provided their storytelling with -inherent to their profile- resulted in many storytelling (22.2%) being built around the conveyance of messages of apology for peace, respect for the environment, etc., whilst 15.5% were adaptations of tales, recreation of historical events (13.3%), interviews to athletes (11.1%) or the celebrities (8.8%). In other words, approximately 71% dealt with recurrent, predictable issues depending on the characters chosen, compared to the remaining 29% who picked more original formulas, such as critical contents of social denunciation, jokes or music videoclips.

When assessing the communicative-narrative competence, made up of the variables written communication (WC) and oral communication (OC), as well as of the narrative competence (NC) itself, it was found that a great proportion (67.7%) of the students attained a high level of development of the written communication, especially in terms of orthographical and grammatical correctness through digital storytelling. On its part, as far as oral communication (OC) is concerned and unlike the case of written communication, the proportion of students with a low level (3.4%) decreases, notably due to the correct intonation and the voice inflection adopted by the students when they told their storytelling. As far as the narrative competence related to the storytelling's planning, the organisation of the facts told, their presentation, the internal coherence and the identification of the turning plots of the script, are concerned, a significant decrease is found among those students with a high level (44.4%) compared to the results obtained in the variables written communication (67.7%) and oral communication (65.9%).



Graph 3. Distribution of individuals based on their level of Communicative-narrative Competence to design storytelling in Digital Environments (CNCDE)
Source: Prepared by the authors

In this sense, the pressing need for training of the future teachers to increase their narrative skills is clear, because more than 65% has an average-low level. Storytelling assessment shows their limitations to create stories taking into account the different narrative modalities chosen to create significances through use of different argumentative strategies.

According to the results obtained, it is noted that, although more than 50% of the future primary education teachers has a high level in written communication (67.7%) and oral communication (65.9%) skills, their capacity to create a narrative discourse is reduced, probably due to the fact that they have not strengthened other skills specifically related to the creation of storytelling through description, interpretation, reflection, critical thinking, etc. Hence the need to set training measures and proposals to encourage students to be able to use their creativity and imagination to convey ideas, elaborate descriptions, formulate, solve problems, etc. Storytelling is a complex activity that requires selecting and integrating different types of knowledge. Therefore, it is important to help them develop their narrative thinking.

On the other hand, alter making a comparative analysis of the levels attained by the university students in terms of digital competence (DC) and communicative-narrative competence (CNC), substantial differences are found, because more than 78% of them has a high level of digital competence focused not only in using the technological tools to design and publish their storytelling on the web, but also in knowing and applying the audiovisual language. This shows that the students stand out for their digital skills, unlike for their communicative-narrative competence to produce a coherent, attractive discourse.

In last place, on making an overall assessment of the communicative-narrative competence for storytelling design in digital environments (CNCDE) acquired by the university students, it is found that 69% has a high level. Despite the limitations detected in their narrative ability, a great proportion of them have excellent results upon creating their digital storytelling. To a great extent, it is due to the development of the digital competence, which generated not only greater motivation and involvement on the part of the students, but also the implementation of a combination of knowledge, skills and abilities aimed at emphasising the communicative, aesthetic and technical potential of the technological tool used, as well as at making their storytelling visible through their publication on the web.

Conclusions

In short, we can say that digital storytelling shares elements with other types of narrations and, similarly to other forms of multimodal storytelling (picture book, comic, cinema and television), digital storytelling allows exercising and assessing different competences through different analysis and creative activities. In this case, in first place, the communicative competence related to the oral and written use of language has been exercised through dialogue locution and voice over activities and script drafting, respectively. In second place, the narrative competence has been developed, which in turn requires a combination of different skills related to the creation of credible characters, logical articulation of a story's sequence of events, the selection of the plot structure, correct management of information, etc., as well as a proper combination of different languages (iconic, verbal, musical...) that are

the discursive support of digital storytelling. In last place, knowledge and skills that are part of the digital competence have been implemented through use of specific computer programmes and/or tools.

To that end, this experience of creating digital storytelling carried out in initial primary education teacher training offered a motivating sphere both to develop communicative, narrative and creative skills in digital contexts and to assess them. Undoubtedly, the ease to use technological resources available to new generations of university students, called digital, turn them into advanced users who easily adapt and assimilate their multimodal languages, which can be deduced from the high level (78%) attained in digital competence -of a clear instrumental nature-. Nevertheless, these results do not match those related to the communicative-narrative competence and the narrative competences especially (44.40%) because they involve an additional major cognitive efforts, which is a concern and requires a corrective response, because it can negatively affect their academic results (Geva & Siegel, 2000), as they are related to the ability to interpret and rebuild information. Therefore, because of the conviction that these narrative resources are useful for training, and in an attempt to bridge such gaps, different actions aimed at activating the aforesaid competence are proposed below:

- Analysis of audiovisual storytelling.
- Creation of storytelling that promote expression and communication skills, imagination and fantasy, through true or fictional stories.
- Transformation of storytelling, such as famous tales, proposing changes in the story or in the plot structure.
- Proposing problematic situations with multiple solutions, implementing the narrative ability to exercise inventiveness.
- Promotion of storytelling of tales, stories, legends, morals, etc. as a way of expression, interpretation and acquisition of values.
- Creation of storytelling to help to convey and interpret emotions.

Finally, we can say that the creation of digital storytelling is essential yo combine different languages and communicative purposes and that, compared to other forms of multimodal storytelling, they contribute to acquiring digital competences and offer greater ease of dissemination through use of the Net as communication channel. Therefore, proper creation and production of storytelling on the part of future primary education teachers does not only directly influence the execution thereof, but also the implementation of other assignments of a linguistic nature. For this reason, a special emphasis was given o promoting the communicative-narrative competence in the experience described.

References

Almas, A. G., & Krumsvik, R. J. (2007). Digitally Literate Teachers in Leading Edge Schools in Norway. *Journal of in-Service Education, 33*(4), 479-497.

Alcantud, M. (2010). El relato digital educativo como herramienta de incorporación de las nuevas tecnologías a la educación superior: una experiencia práctica en Filología Inglesa. *Lenguaje y Textos, 31*, 35-47.

Bachman, L. (1995). Habilidad lingüística comunicativa. In M. Llobera (coord.), *Competencia comunicativa. Documentos básicos en la enseñanza de lenguas extranjeras* (pp. 105-127). Madrid: Edelsa.

Burgess, J. (2006). Hearing Ordinary Voices: Cultural Studies, Vernacular Creativity and Digital Storytelling. *Continuum: Journal of Media & Cultural Studies*, *20*(2), 201-214. doi: 10.1080/10304310600641737

Cáceres, M. T. (2010). Desarrollo transversal de la comunicaciónlingüística: análisisdenecesidades y propuestas de tarea para el diseño curricular. *RAEL: Revista Electrónica de Lingüística Aplicada, 9,* 147-167. Retrieved from http://dialnet.unirioja.es/servlet/articulo?codigo=3584219

Cáceres, M. T., & Santana, Y. (2014). La rúbrica de un taller de escritura para enseñar a sinohablantes en el contexto universitario europeo: estudio de caso. *Porta Linguarum, 21*, 227-244.

Canale, M., & Swain, M. (1980). Theoretical bases of communicative approaches to second language teaching and testing. *Applied Linguistics, 1*(1), 1-47.

Cassany, D. (2012). *En línea. Leer y escribir en la red*. Barcelona: Anagrama

Chuquimamani, N. R., & Alosilla, C. G. (2008). Las experiencias de los niños deben ser valoradas e incorporadas al aprendizaje. *Revista Iberoamericana de Educación, 45*(5), 1-10. Retrieved from http://rieoei.org/expe/2408Valer.pdf

Combs, A., & Beach, D. (1994). Stories and storytelling: Personalizing the social studies. *The Reading Teacher, 47*, 464–471. Retrieved from http://www.jstor.org/stable/20201292

Comisión Europea (2006). Recomendación del Parlamento Europeo y del Consejo de 18 de diciembre de 2006 sobre las competencias clave para el aprendizaje permanente. *Diario Oficial de la Unión Europea, 394*, 10-18. Retrieved from http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:394:0010:0018:ES:PDF

Consejo de Europa (2002). *Marco Común Europeo de referencia para las lenguas: aprendizaje enseñanza, evaluación*. Madrid: MECD/Anaya e Instituto Cervantes. Retrieved from http://cvc.cervantes.es/ensenanza/biblioteca_ele/marco/

Del Moral, M. E., & Villalustre, L. (2010). Formación del profesor 2.0: desarrollo de competencias tecnológicas para la escuela 2.0. *Magister, 23*, 59-70.

Del Valle-Abraham, M., Brenca, R. M., & Guaita, V. (2009). Las destrezas narrativas en niños de 5 años: propuesta de un instrumento de evaluación clínica del lenguaje. *Revista Chilena de Fonoaudiología, 9*(1), 7 - 25.

Domingo, J., Gallego, J.L., García, I., & Rodríguez, A. (2010). Competencias comunicativas de maestros en formación. *Profesorado. Revista de Currículum y Formación del Profesorado, 14*(2), 303-323.

Domingo, J., Gallego, J. L., & Rodríguez, A. (2013). Percepción del profesorado sobre la competencia comunicativa en estudiantes de Magisterio. *Perfiles Educativos, 35*(142), 54-74. doi:10.1016/S0185-2698(13)71849-X

Escudero, I., & León, J. A. (2007). Procesos inferenciales en la comprensión del discurso escrito. Influencia de la estructura del texto en los procesos de comprensión. *Signos, 40*(64), 311-336. Retrieved from http://www.scielo.cl/scielo.php?pid=S0718-09342007000200003&script=sci_arttext

Fernández-Paz, A. (2000). Estrategias para contar cuentos y escribir relatos en la escuela primaria. *Textos de didáctica de la lengua y la literatura, 25*, 23-34

Franco, C., & Alonso, J.M. (2011). Diferencias entre cuentos conocidos y desconocidos en la estimulación de la creatividad infantil. *Aula Abierta, 39*(2), 113-122.

Gallego, J. L., & Rodríguez, A. (2013). Evaluación de la competencia comunicativa de alumnos de Magisterio. *REVALUE, 2*(1), 110-132. Retrieved from http://revalue.mx/revista/index.php/revalue/article/view/56

Geva, E., & Siegel, L. (2000). Orthographic and Cognitive Factors in the Concurrent Development of Basic Reading Skills in Two Languages. *Reading and Writing: An Interdisciplinary Journal, 12*, 1-30.

Gregori-Signes, C. (2008). Integrating the Old and the New: Digital Storytelling in the EFL Language Classroom. *GRETA, 16*, 43-49. Retrieved from http://www.uv.es/~gregoric/DIGITALSTORYTELLING/DS_files/Gregori_GRETA_16_2008_43_49.pdf

Gregori-Signes, C. (2014). Digital Storytelling and Multimodal Literacy in Education. *Porta Linguarum, 22*, 237-250. Retrieved from http://www.ugr.es/~portalin/articulos/PL_numero22/16%20%20Carmen%20Gregori.pdf

Gumperz, J. J., & Hymes, D. H. (Eds.) (1972). *Directions in Sociolinguistics. The Ethnography of Communication*. Nueva York: Basil Blackwell.

Hymes, D. H. (1971). *On Communicative Competence*. Philadelphia: University of Pennsylvania Press.

Ilomäki, L., Kantosalo, A. y Lakkala, M. (2011). What is Digital Competence. *Linked portal. Brussels: European Schoolnet (EUN)*, 1-12.

International Society for Technology in Education (ISTE) (2008). *National Educational Technology*

Standards for Students. Washington DC: International Society for Technology in Education.

Instituto de Tecnologías Educativas del Ministerio de Educación (ITE) (2011). Competencia digital. Madrid: Ministerio de Educación. Retrieved from http://recursostic.educacion.es/blogs/europa/media/blogs/europa/informes/Competencia_Digital_Europa_ITE_marzo_2011.pdf

Juárez, P. (2013). Capacidad comunicativa. In J. Alsina (Coord.), *Rúbricas para la evaluación de competencias*. *Cuadernos de Docencia Universitaria* (pp. 57-68). Barcelona: ICE-Octaedro.

Krumsvik, R. J. (2014). Teacher Educators' Digital Competence. *Scandinavian Journal of Educational Research*, *58*(3), 269-280.

Kushnir, N., & Manzhula, A. (2013). Formation of Digital Competence of Future Teachers of Elementary School. In V. Ermolayev, H. C. Mayr, M. Nikitchenko, A. Spivakovsky & G. Zholtkevych (Eds.), *ICT in Education, Research and Industrial Applications* (pp. 230-243). London: Springer.

Lankshear, C., & Knobel, M. (2007a). Researching New Literacies: Web 2.0 Practices and Insider Perspectives. *E-Learning and Digital Media*, *4*(3), 224-240.

Lankshear, C., & Knobel, M. (2007b). Sampling "the New" in New Literacies. *A New Literacies Sampler, 29*, 1-24.

Lluch, G. (2014). Jóvenes y adolescentes hablan de lectura en la red. *Ocnos, 11*, 7-20. doi:10.18239/ocnos_2014.11.01

Lomas, C. (2015). Fundamentos para una enseñanza comunicativa del lenguaje. In C. Lomas (Coord.), *Fundamentos para una enseñanza comunicativa del lenguaje* (pp. 9-23). Barcelona: Graó.

Lomas, C., &Vera, M. (2005). Cine y Literatura. *Textos de Didáctica de la Lengua y de la Literatura*, *40*, 9-18.

Meadows, D. (2003). Digital Storytelling: Research-Based Practice in New Media. *Visual Communication*, *2*(2), 189-193. Retrieved from http://wiki.commres.org/pds/%20Research-based%20practice%20in%20new%20media.pdf

Milesi, L. (2006). La cultura audiovisual y el aprendizaje lingüístico: Aportes para una nueva propuesta curricular. *Lectura y vida: Revista Latinoamericana de Lectura*, *27*(39), 52-61.

Moreno, T. (2012). La evaluación de competencias en educación. *Sinéctica*, *39*, 1-20.

Ohler, J. (2009). The World of Digital Storytelling. *Educational Leadership, 63*(4), 44-47. Retrieved from http://imoberg.com/files/World_of_Digital_Storytelling_The_Ohler_J._.pdf

Paredes, J. (2005). Animación a la lectura y TIC: creando situaciones y espacios. *Revista de Educación*, *1*, 255-279. Retrieved from http://www.revistaeducacion.mec.es/re2005/re2005_19.pdf

Ramos, J. M. (2010). La evaluación de la expresión oral y escrita a través de rúbricas en primero de ESO. *Lenguaje y Textos*, *32*, 71-79.

Reyes, A., Pich, E., & García-Pastor, M. D. (2012). Digital Storytelling as a Pedagogical Tool within a Didactic Sequence in Foreign Language Teaching. *Digital Education Review*, *22*, 1-18. Retrieved from http://files.eric.ed.gov/fulltext/EJ996780.pdf

Rodríguez-Illera, J. L. y Londoño, G. (2009). Los relatos digitales y su interés educativo. *Educação, Formação & Tecnologias*, *2*(1), 5-18. Retrieved from http://eft.educom.pt/index.php/eft/article/view/81/62

Rodríguez-Illera, J. L. & Londoño, G. (2010). Los relatos digitales como textos multimodales. In *Actas de las 18 Jornadas de Bibliotecas infantiles, juveniles y escolares: El ebook y otras pantallas, nuevas formas, posibilidades y espacios para la lectura*. (pp. 73-83). Salamanca: Fundación Germán Sánchez Ruipérez.

Rodríguez-Gallego, M. R. (2012). Cómo evaluar la competencia comunicativa a través de rúbricas en educación superior. *Didac*, *60*, 27-31.

Rovira, J. (2011). Literatura infantil y juvenil en internet: de la Cervantes Virtual a la LIJ 2.0. Herramientas para su estudio y difusión. *Ocnos, 7*, 137-151. doi: 10.18239/ocnos_2011.07.11

Sotomayor, C., Ávila, N., & Jéldrez, E. (Coords.) (2015). *Rúbricas y otras herramientas para desar-*

rollar la escritura en el aula. Santiago de Chile: Santillana del Pacífico.

Sylvester, R., & Greenidge, W. (2009). Digital Storytelling: Extending the Potential for Struggling Writers. *The Reading Teacher, 63*(4), 284-295. doi:10.1598/RT.63.4.3

Van Dijk, T. (1992). *La ciencia del texto*. Barcelona: Paidós.

Van Ek, J. (1986). *Objectives for Foreign Language Learning*. Estrasburgo: Council of Europe.

Van Gils, F. (2005, February). Potential applications of digital storytelling in education. In *3rd Twente Student Conference on IT*. University of Twente, Faculty of Electrical Engineering, Mathematics and Computer Science, Enschede, February 17–18. Retrieved from http://wwwhome.ctit.utwente.nl/~theune/VS/Frank_van_Gils.pdf

Tsou, W., Wang, W., & Tzeng, Y. (2006). Applying a Multimedia Storytelling Website in Foreign Language Learning. *Computers & Education, 47*, 17–28. doi:10.1016/j.compedu.2004.08.013

Villalustre, L., & Del Moral, M. E. (2014). *Digital storytelling*: una nueva estrategia para narrar historias y adquirir competencias por parte de los futuros maestros. *Revista Complutense de Educación, 25*(1), 115-132.