PERCEPTION OF STUDENTS IN VIRTUAL CLASSES ON THE USE OF DIGITAL STORYTELLING IN THE TEACHING OF ENTREPRENEURSHIP

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summary

Nowadays, there is a consensus on the importance given to entrepreneurship for economic growth and job creation. In this context, entrepreneurship education is of particular relevance. In fact, even though there are currently several studies applied to entrepreneurship teaching methodologies in face-to-face classes, this subject remains underestimated with regard to virtual classes, where physical distance may make the use of some reported and current methodologies unfeasible in several studies on this subject. matter. Thus, this work aims to frame what is meant by Digital Storytelling, reinforcing its relevance for the development of entrepreneurial skills, taking into account its particularities and most appropriate technologies, and, still, present a study on the application of this methodology in a virtual class of entrepreneurship at the Open University. The results of the study of survey of students' perceptions suggest benefits in the application of Digital Storytelling in the teaching of entrepreneurship in virtual classes.

Key words: digital storytelling, entrepreneurship, virtual teaching, methodology.

1. Introduction

Entrepreneurship is currently a fashionable concept, as its contribution to economic growth and social development is recognized. Digital Storytelling, in turn, is a lesser known term, although in recent years it has gained greater dimension, mainly due to its use in a didactic context.

In this sense, it is essential to understand how to apply the Digital Storytelling methodology to the teaching of entrepreneurship. Although this methodology is increasingly used in several areas ranging from theater, media, education to marketing, there are still few scientific studies with the collection of quantitative data that demonstrate this relevance. This situation becomes

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even more evident when we refer to the teaching of entrepreneurship in virtual classes. The aim of this study is to analyze the perception of students of virtual classes in the use of the digital Storytelling methodology in the teaching of entrepreneurship. It is intended to answer the following research question: What is the perception of virtual class students in the use of the digital Storytelling methodology in the teaching of entrepreneurship? To this end, the methodology in question is applied to students in the Entrepreneurship course unit (included in the 3rd year, 1st semester, academic year 2015-16, in the Minor Study Plan in Business Management, in the Management degree, from Universidade Aberta) .

This article is divided into two main parts. The literature review seeks to conceptually validate the research question formulated and presents a literature review on the concept of Digital Storytelling, the elements and process of Digital Storytelling, the structure and different types of digital narratives, the various resources that can be used in the creation of digital stories and, still presents the importance of teaching entrepreneurship, as well as the positive contribution of Digital Storytelling for teaching in general and for teaching entrepreneurship in particular. The second part presents the empirical study and the respective analysis and discussion of results. Finally, the final considerations of this study are presented.

2. Literature review

2.1. Digital Storytelling Concept

Storytelling it consists of the art of storytelling, thus being a concept composed of three elements: narrator, story and audience. This technique involves chaining events in a logical, properly structured and appealing way, being the oldest means of transmitting knowledge across generations. The stories told have undeniably influencing human values and behaviors.

The storyteller is an ancestral figure who has helped people better understand the world around them. No one can say for sure when the first story was told. However, the scientific community is consensual (Campbell, 1991; Boyd, 2010; Duarte, 2010) to point to prehistory as the period when this technique of communicating and sharing knowledge was used for the first time.

Throughout time, man has been telling stories, but the way to do it has been changing. It started with cave paintings in the caves, then moved on to oral histories, then books began to be used and more recently, electronic media were used. In fact, the advancement of technologies has allowed audiovisual elements such as sounds, images and videos to be digitally incorporated

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into Storytelling, thus giving rise to the Digital Storytelling concept. The following table presents some definitions of the Digital Storytelling concept.

Author	Definition
Meadows (2003)	"(…) Short and personal multimedia stories, told from the heart."
Armstrong (2003)	"(…) Tell stories and share information through multimedia."
Digital Storytelling Association (2002)	"Digital Storytelling is the modern expression of the ancient art of storytelling (...) using digital media to create stories to tell, share and preserve. The power of digital stories comes from the combination of images, music, narrative and voice, thus giving a deep dimension and vivid colors to the characters, situations and perspectives. "
Mellon (1999)	"(…) Application of multimedia software techniques in storytelling."

Table 1 - Digital Storytelling definitions

In general, one can then define Digital Storytelling as the act of telling small stories, using multimedia resources, namely audio, image and video.

The origin of this concept dates back to the late 1980s, when Joe Lambert, Nina Mullen and Dana Atchley helped create the Digital Storytelling movement as co-founders of the Center for Digital Storytelling, a non-profit organization based in California .

Since the early 1990s, the Center for Digital Storytelling has held numerous workshops where it has trained and assisted people interested in creating and sharing stories about themselves, about other people, places, or even about the communities where they live (Robin, 2008). As the Digital Storytelling movement consolidated and gained the interest of an increasing number of people, the Digital Storytelling Association was created with representatives from different countries (Gakhar, 2007).

2.2. Elements and process of Digital Storytelling

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There are different studies carried out on the elements of Digital Storytelling. In any case, an approach with great influence and that deserved special attention in the past was the Center for Digital Storytelling, which through Joe Lambert (2003) identified the following 7 elements for an effective Digital Storytelling:

1. Point of view - the narrative must demonstrate the author's purpose of choosing the story in question, as well as his perspective on it;

2. Dramatic question - the narrative must unfold around a dramatic question launched initially, which should only be answered at the end of the story to ensure the audience's attention and curiosity;

3. Emotional content - the narrator should use emotions to reinforce the audience's connection with the story;

4. The gift of your voice - the narrator must take special care with the diction, that is, he must articulate and pronounce the words in a way that is understandable to those who are listening to him. In addition, the tone of voice should not be monotonous, otherwise the story will be told without vividness;

5. The power of the "soundtrack" (The power of the soundtrack) - the use of music and other carefully selected sounds and at an adequate volume (moderate and temporarily lower volume in the moments of narration), will stimulate emotions in the audience;

6. Economy (Economy) - the story must be short (approximately 3 minutes) and told without overloading the audience with too much content (text, images, videos, music and other sound effects);

7. Pacing - the speed with which the narrative unfolds must vary (slower or faster) depending on the moment and situations of the story, to create dynamism and ensure the interest of the audience.

Meanwhile, the Center for Digital Storytelling changed its approach in the workshops held, because, instead of referring to the 7 elements of Digital Storytelling, it started to present the 7 steps of Digital Storytelling. This transformation was not limited to a simple change of words, as Lambert (2013) intended to reformulate his approach to better reflect the path that must be taken in the process of creating digital history.

Before presenting each of the 7 steps, it is useful to refer to the concept of Story Cyrcle (perhaps the most relevant aspect in this new approach by Lambert), which consists of group meetings between the storyteller and other people who help him (through their ideas, opinions and questions) to clarify the story in question and find the best way to convey it to the audience. The final word will always belong to the storyteller, who, after the group session ends, should reflect

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alone on the matter and decide whether or not to follow any or some of the opinions expressed in the Story Cyrcle.

Following are the 7 steps of Digital Storytelling developed by Lambert (2013):

- Step 1, Understanding the essence of the story (Owning Your Insights) - Story Cyrcle should ask the storyteller a set of questions to help you identify the subject of the story and clarify its true meaning (What story do you want? tell? What do you think the story means? Why this story? Who is the story for? ...);

- Step 2, Understanding Emotions (Owning Your Emotions) - when identifying the emotions of the story, the narrator will be able to choose those he wants to convey to the audience, as well as how to do it. In this sense, Story Cyrcle should ask the storyteller a set of questions to help him understand his emotional charge (What emotions did he feel when telling the story? What emotions will help the audience better understand the story? ...) ;

- Step 3, Finding the moment - The Story Cyrcle should ask the storyteller a few questions to help identify the moment in the story that illustrates the essence of the story (What was the moment when things started Can you describe the moment in detail? Is there more than one moment in history to choose from? ...). Basically, this is the key moment in the story that allows the audience to understand what it is about. In addition, the storyteller must know how to use that moment (or moments, as some stories present more than one relevant moment, namely in situations of major changes in events) to shape the narrative;

- Step 4, See the story (Seeing your story) - the images give another dimension to the story and your choice must be taken care of so that there is a symbiosis between the visual elements and the narrative. The Story Cyrcle should therefore ask a set of questions to the storyteller to assist in the choice and eventual creation of visual effects (either through implicit or explicit images) to be incorporated into digital history (What images come to mind when thinking at the moment story change? Why this image? Can the audience understand the meaning of the story without this image? ...);

- Step 5, Hearing the Story (Hearing Your Story) - in digital stories, the voice is not limited to telling the narrative, because it captures the character of the storyteller in a unique way. The use of ambient music and / or other sounds should be considered to facilitate the transmission of emotions to the audience. It is in this context that Story Cyrcle should ask the storyteller some questions to assist him in this process (In addition to the voice, would the story be reinforced with the use of sound elements?

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> Would the use of ambient sound or music highlight the point of turning of the story? ...);

- Step 6, Structure the story (Assembling your story) - how to structure the story? Where to start? How to combine the elements of video and audio? These are some questions to ask in the Story Cyrcle to facilitate the organization of the story. Regarding the information itself, it must be made available gradually (so that the public can absorb it) and presented at the right moment (the scenes may not follow the chronological order of events, this being a technique to captivate the audience's attention). An important element is for the storyteller to analyze the audience's reaction during the narrative. In this way, a process of "editing in real time" will be possible, that is, the storyteller will be able to add or remove information to the story, or modify the moment in which he presents it,

- Step 7, Sharing the story (Sharing you story) - in this last step, particular attention should be paid to the audience, because if the story teller knows who the audience is and the knowledge he has about himself and the story in question , then he can decide the depth to give in its contextualization. Again, Story Cyrcle can help the storyteller by asking him some questions (What is the audience? What was the purpose in creating the story? ...). Finally, the story can be presented to one person, to a small group of individuals, or shared online to as many people as possible.

These steps reflect the path that, in Lambert's (2013) perspective, must be followed in the process of creating Digital Storytelling. The environment in which they were developed was the Story Cyrcle in the workshops held by the Center for Digital Storytelling. In any case, Lambert (2013) says that the important thing is that storytellers interact with other people in order to share ideas and work with these 7 steps together.

Porter (2005) also presents 7 steps in the process of creating a digital story:

- Step 1, Writing the narrative script - use the brainstorming method to help write the narrative script. The structure and type of the narrative will be further developed;

- Step 2, Plan the project (Planing the project) - create the storyboard, that is, a script consisting of a sequence of very simple drawings, accompanied by sound indications and text to preview the audiovisual work;

- Step 3, Organizing the project folders (Organizing project folders) - the last phase of pre-production consists simply of creating folders to organize the different files that may be used in the creation of the digital story;

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- Step 4, Creating the voice narrative (Making the voiceover) - the production phase begins, at which point the narrative script initially written is now recorded in audio format, with the voice of the story teller;

- Step 5, Collection and preparation of audiovisual resources (Gathering and preparing media resources) - the production phase ends with the collection, creation and / or editing of images, videos, music, sound effects and other elements, with the aim of reinforcing the message transmitted by voice. These files must be saved in the folders created in Step 3;

- Step 6, Putting it all together - this is the moment of post-production, when digital programs are used to join and edit the different audiovisual elements;

- Step 7, Applause, applause (Applause, applause) - finally the digital story can be shared with family and friends, used in classes, or published online.

2.3. Narrative: structure and types

After presenting the 7 steps of the Digital Storytelling process (both from Lambert's and Porter's points of view), it is advisable to deepen the theme related to the narrative. At this level Ohler (2007) highlights the importance of looking at a narrative scheme (Figure 1), before starting to write.
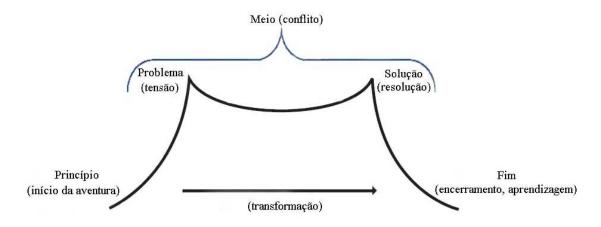

Figure 1 - Structure of a story (adapted from Dillingham, 2001 and Ohler, 2007)

For Ohler (2007) the "normal" life of the character (or characters) in the story is presented to the public, being interrupted by a significant event that starts the adventure. The character is then faced with a certain problem for which a solution must be found. The attempt to solve this problem and the tension it generates, will provoke conflict situations, which will be responsible for some kind of personal transformation in the character (acquisition of new skills, maturity,

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etc.) that will prove to be decisive to solve the problem initial. With this, the story moves towards its end, and this does not necessarily have to be a "happy ending".

Regarding the types of digital narrative, Robin (2006) aggregates them into three major groups:

1. Personal narratives - a story that revolves around personal experiences in the author's life. It is possibly the most popular type of digital narrative, and can have a high emotional charge and a strong connection, both for the storyteller and the audience. In this group, several subcategories of personal narratives can be identified, such as those presented by Lambert (2003) and which include stories about what the author does in life, stories that honor important people or places in his life, stories about an event remarkable in their respective lives, as well as stories that focus on adventures, challenges, achievements, situations of overcoming, loves and friendships in the author's life;

2. Stories that inform or instruct - although most digital stories inform and often instruct the audience, the narrative in this category is created specifically with the aim of transmitting educational content in areas as diverse as health, economy, technology, among others;

3. Digital stories that examine historical events - as the name suggests, this group includes narratives that focus on historical events. Other types of narratives may include historical information, but only to give context to the narrative and not to be at the heart of it, as it is in this case.

2.4. Equipment and programs to be used in Digital Storytelling

There are now several resources that facilitate the creation of digital stories without requiring high technical knowledge. In terms of equipment, the computer, smartphone, video camera, camera, scanner, microphone, among others, stand out. Regarding the software, there are many options for creating and editing text, sound, image and video, as well as for the final assembly of the audiovisual elements used.

To write the script for the narrative it is recommended to use a word processor. Microsoft Word is possibly the best known program, but there are free alternatives such as AbiWord, Jarte, or Atlantis Word Processor. The choice of the letter font should deserve attention. Too thin fonts and handwritten fonts can make your visibility difficult. Word processors already provide a vast font file. In any case, it is possible to use some sites such as DaFont or Netfontes, to choose a different font. In addition to the font, particular attention should be paid to the font size and

color (the text and the background must have contrasting colors) so that the words can be read easily.

With regard to the audio component, the voice of the narrator, background music and / or other sound effects must be considered. WavePad and Adobe Audition are the best paid audio editing programs. Among the free options are Wavosaur, Ocenaudio and Audacity. These programs allow you to edit the sounds in files that are later incorporated into a final file that brings together all the audiovisual elements. A simpler option in terms of narration is to record the voice of the narrator directly on the video or on the slides, and Windows Movie Maker or Microsoft PowerPoint can be used for that purpose. Voice recording should preferably be performed with an external microphone, because the devices' internal microphones pick up too much background noise that can compromise sound quality. As for ambient music and other sound effects, there are several sites on the Internet, such as the Free Music Archive, Jamendo, SoundCloud, or AudioMicro that provide a vast archive of music tracks or different effects for free (some under a Creative Commons license). sound.

In terms of images, the difficulty lies in the choice. There are several online sites that provide numerous free images with high quality and organized by categories. Pixabay is just one of several possible examples. In any case, the creator of the digital story can choose to use photographs that he himself obtained with his camera or smartphone, which allows him to give a personal stamp in this process. Once you have the necessary images, it is time to edit them. Adobe Photoshop is undoubtedly an essential name in image editing programs, due to the features it offers. Corel PaintShop Pro is also a valid alternative, although both entail paying licenses. In the category of free programs, GIMP as well as Paint.NET stand out. There is also the possibility of the images being edited directly in the program that will make the final assembly of the elements (for example Microsoft PowerPoint), but in this case the available options are much more limited. In the process of choosing and editing images, care must be taken, namely selecting figures with good resolution. At this level, 72 pixels per inch (Pixels Per Inch - PPI) seem to be sufficient for this purpose, although the ideal value to be used is the subject of much discussion, because it depends on the screen resolution of the device used by those viewing the image. digital history. It should also be noted that the choice of the appropriate brightness and contrast should not be neglected in this process, as they improve the details of the image.

As for video editing, it can be said that the digital era brought the ease of non-linear editing. The amount of software in this area is also quite high. Paid programs include CyberLink PowerDirector, Corel VideoStudio Pro, Adobe Premiere Elements, Final Cut Pro and iMovie. In

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free programs, highlight Windows Movie Maker, VirtualDub and Wax. One aspect that deserves special attention when editing videos is the transitions between the scenes. Transition effects should be avoided as they tend to distract the audience. In this sense, preference should be given to dry cuts (simple cuts that do not use transition effects).

For the final assembly of the various audiovisual elements, you can use some of the programs already mentioned, such as the popular Windows Movie Maker or Microsoft PowerPoint. Other options can and should be considered, such as Prezi, Emaze, or PowToon, all of which are free programs.

Finally, it should be noted that in the programs identified in this chapter, their most recent versions were considered at the time of writing. The choice of the programs in question resulted from the authors' analysis, based on the intrinsic quality of those programs, their notoriety in the market and the respective price.

2.5. Digital Storytelling and the teaching of Entrepreneurship

Currently, there is a consensus on the importance attributed to entrepreneurship for the creation of wealth and employment in countries. In this context, entrepreneurship education is particularly relevant and universities increasingly assume this purpose, not only through the inclusion of Entrepreneurship disciplines in their study plans, but also through the development of extracurricular programs on this theme (Carvalho et al ., 2015). However, in our perspective, the teaching of entrepreneurship must include methodologies that encourage practice and reflection on its meaning and possibility of implementation.

In fact, teaching entrepreneurship is not an easy task. It is not enough to transfer knowledge, since it is necessary to find the appropriate didactics for teaching this discipline. In schools and management departments (where in general the Entrepreneurship disciplines are most offered), it is tried that students relate to companies and entrepreneurs through events and open classes, study visits or even applied and developed work with companies real. However, the concept of studying entrepreneurship differs from country to country and from university to university (Klamma et al., 2006). We can find some approaches to the teaching of entrepreneurship, the most classic (subject to some criticism) betting on the development of the business and business plan (Collins et al., 1989, Jonassen and Mandel,

Some approaches anchored in constructivist theories of learning are based on the approaches of Vygotsky (1962) and Bateson (1973), where teaching is seen as an active, constructive and personal process. In this perspective, teaching does not just mean knowledge transfer, which is based on experiences that can even be associated with real-world problems (Lave and Wenger,

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1991). Virtual teaching environments, due to their characteristics, can favor the creation of collaborative and constructivist teaching approaches. In this context, the use of Digital Storytelling in virtual classes of Entrepreneurship can be a relevant tool to achieve the desired goals and results. This methodology makes it possible to make content that can be more abstract more evident and facilitates the discussion of the topics of history involving a comprehensive group of students (Pounsford, 2007). Students are more available to hear the stories and experiences of their peers and to participate with their experiences, learning a set of concepts more easily (Miley, 2009; Sandars, et al., 2008; Dillard and Reynolds, 2010). In fact, the creation of digital stories by students is beneficial not only in teaching entrepreneurship, but in teaching in general. The use of this methodology reinforces in students what Brown, Bryan and Brown (2005) call "Twenty-first Century Literacy" and which results from the combination of: Students are more available to hear the stories and experiences of their peers and to participate with their experiences, learning a set of concepts more easily (Miley, 2009; Sandars, et al., 2008; Dillard and Reynolds, 2010). In fact, the creation of digital stories by students is beneficial not only in teaching entrepreneurship, but in teaching in general. The use of this methodology reinforces in students what Brown, Bryan and Brown (2005) call "Twenty-first Century Literacy" and which results from the combination of: Students are more available to hear the stories and experiences of their peers and to participate with their experiences, learning a set of concepts more easily (Miley, 2009; Sandars, et al., 2008; Dillard and Reynolds, 2010). In fact, the creation of digital stories by students is beneficial not only in teaching entrepreneurship, but in teaching in general. The use of this methodology reinforces in students what Brown, Bryan and Brown (2005) call "Twenty-first Century Literacy" and which results from the combination of: In fact, the creation of digital stories by students is beneficial not only in teaching entrepreneurship, but in teaching in general. The use of this methodology reinforces in students what Brown, Bryan and Brown (2005) call "Twenty-first Century Literacy" and which results from the combination of: In fact, the creation of digital stories by students is beneficial not only in teaching entrepreneurship, but in teaching in general. The use of this methodology reinforces in students what Brown, Bryan and Brown (2005) call "Twenty-first Century Literacy" and which results from the combination of:

- Digital literacy - the ability to communicate with a growing community to discuss issues, gather information and seek help;
- Global literacy - competence to read, interpret, respond and contextualize messages from a global perspective;
- Technological literacy - the ability to use computers and other technologies to improve learning, productivity and performance;

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- Visual literacy - ability to understand, produce and communicate through visual images;
- Information literacy - ability to find, evaluate and synthesize information.

Basically, Digital Storytelling can be a powerful teaching methodology that promotes a set of fundamental skills in students in the 21st century that are especially important for any entrepreneur.

3. Empirical Study

3.1. Framework

The empirical study aims to answer the research question: What is the perception of students of virtual classes in the use of the Digital Storytelling methodology in the teaching of entrepreneurship? To achieve the objective of the study, the Digital Storytelling methodology was applied to the Entrepreneurship curricular unit included in the 3rd year, 1st semester, in the Minor Study Plan in Business Management, of the degree in Management at Universidade Aberta (UAb). The Entrepreneurship discipline worked for the first time in the 2015-16 academic year at UAb, being offered in a virtual format exclusively in e-learning.

UAb is the only Portuguese public university offering distance learning courses. This assumes as a fundamental mission to train students who, for various reasons, were unable, in their own time, to start or pursue university studies. On the other hand, UAb seeks to meet the expectations of those who, having eventually obtained higher education, wish to reconvert or update it, which means that, by vocation, we try to meet the expectations of an adult audience, with experience of life and usually already engaged in the exercise of a profession.

In this context, the students in the UAb Entrepreneurship discipline are mostly student workers (residing in Portugal or in other countries). These factors naturally influence the type and nature of methodologies to be implemented in the teaching of this topic.

3.2. The discipline of Entrepreneurship at the Open University

The Entrepreneurship discipline aims to provide a reference framework that supports the study of themes associated with entrepreneurship, namely, with regard to the different definitions of this topic and the concepts related to the entrepreneur and his profile. In addition, environments that favor entrepreneurship and its relationship with economic development are also discussed. Considering that entrepreneurship can develop in different scenarios, emphasis will be given to social entrepreneurship and corporate entrepreneurship. Finally, the entrepreneurial process and strategies that enable the growth and consolidation of a business, as well as exit strategies, will

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be analyzed. It should be noted that this discipline is linked to another discipline called Business Project,

The Entrepreneurship discipline in the 1st semester of 2015-16 had 99 students enrolled, divided into two virtual classes. However, to enhance the discussion, it was decided to create a "meta-course" or central space where all discussions and forums took place.

3.3. Methodology: Digital Storytelling in the discipline of Entrepreneurship (Universidade Aberta)

The Digital Storytelling activity was one of the works subject to continuous evaluation[3](e-Folio A) required from students who chose continuous assessment (the majority, 74 students). This activity consisted ofin the realization of an individual presentation, preferably on video, using the Digital Storytelling methodology (for which material was made available in the virtual class) with the objective that each student would share with the class in a creative and argumentative way one of the following situations to choose:

A1 - A case of national or international business entrepreneurship;

A2 - A case of a national or international entrepreneur;

A3 - A case of social entrepreneurship;

A4 - A relevant case related to the theme of entrepreneurship.

Videos should not exceed 3 minutes and as such students were encouraged to makean objective, rigorous, creative and stimulating analysis. Then, in their own forum, students commented and discussed their colleagues' presentations.

At the end of the semester (during January 2016), a questionnaire (see Appendix 1) was sent to the virtual room through the Google Docs support to analyze the students' perceptions about the use of this methodology.

The questionnaire was answered by 37 students, which is equivalent to 50% of students in a continuous assessment regime. The next section analyzes the results.

3.4. Analysis and discussion of results

This section presents the analysis of the results of the questionnaire made to the students concerned. It appears that about 54% of the students are male and 46% female (Figure 2).

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[3] Students in continuous assessment must do two assignments during the semester called e-Folio A and e-Folio B and at the end of the semester a face-to-face exam called p-Folio.

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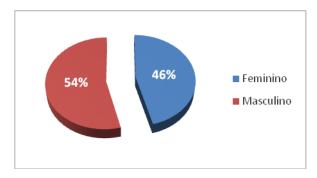

Figure 2 - Gender of respondents

Regarding age, most respondents are between 30 and 39 years old (38%). Then the group aged between 40 and 49 years old (27%) and the group aged between 20 and 29 years old (19%) respectively. Only 16% are over 49, with no students under 20. These results confirm the age trend registered at the UAb.
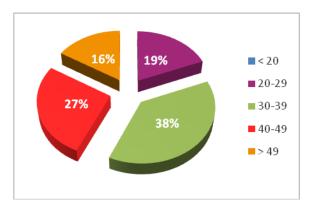

Figure 3 - Age of respondents

Regarding the students' experience in using the Digital Storytellyng methodology, about 92% of respondents did so for the first time. Regarding the form and information collected to make its use feasible for the first time, 85.3% said they used the information made available on the platform by the teaching team, 55.9% conducted their own research on the Internet, 32.4% learned through the interventions of teachers and colleagues in the forums and 5.9% mentioned having used other sources of information.

Afterwards, an attempt was made to ascertain, from the students' perspective, which skills had been stimulated by the use of this methodology. Of the respondents, 86.5% referred to a stimulation of proactivity and 83.8% assumed to have stimulated creativity. With regard to computer skills, 67.6% said it was useful to develop them.

As for motivation, a factor considered fundamental in the case of distance learning (where dropout rates are quite high) 73% of respondents assumed that this activity was stimulating. In

terms of autonomy, 75.7% assumed that this methodology improved their ability to acquire knowledge autonomously.

In comparative terms with other traditional methods of distance learning, it was questioned whether the Digital Storytelling methodology allowed to acquire knowledge more easily, more difficult, or if it presented an equal level of ease in acquiring knowledge. At this point the answers were divided, considering 51.4% who facilitated, 37.8% who were equal and 10.8% who hindered learning.

Still in comparative terms and taking as reference another work (e-Folio B) with the same evaluation quote, but developed in a more classic way (evaluate possible business ideas according to indications given in a statement and submit the file in the virtual class), 48.6% of the respondents showed preference for evaluation through the performance of "traditional works", 29.7% expressed a preference for the Digital Storytelling methodology and 21.6% reported being indifferent between the two options. It should be noted that the fact that the Digital Storytelling methodology involves recording a video, led many students to do it for the first time, with resistance or few skills in the use of new technologies, which led to a greater time of dedication to this process. .

On the other hand, in the virtual room, students do not know or publicly expose themselves (they only show a small photo), which does not prevent any nervousness in this process caused by the lack of experience. It is believed that there was some confusion or even overlap between the Digital Storytelling methodology and the preparation and posting of the video. These conclusions are validated to some extent by 62.2% of respondents who said they had difficulties in using this methodology. Additionally, an attempt was made to understand the degree of difficulty experienced by these students and in this context 69.6% reported medium difficulty, 21.7% indicated mild difficulty and only 8.7% mentioned having experienced high difficulty. The main reason pointed out by the students for the difficulties they had was the fact that they did not feel totally comfortable with the use of the computer program (associated as it was foreseen to the recording and not to the process itself). This reason was indicated by 66.7%, closely following the difficulties related to the choice of the narrative to be used (that is, the development of this methodology) with 58.3% of the respondents indicating this reason. These figures show that some students identified the two reasons (and not just one) as the reasons for their difficulties. closely following the difficulties related to the choice of the narrative to be used (that is, the development of this methodology) with 58.3% of respondents pointing out this reason. These figures show that some students identified the two reasons (and not just one) as the reasons for their difficulties. closely following the difficulties related to the choice of the

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narrative to be used (that is, the development of this methodology) with 58.3% of respondents pointing out this reason. These figures show that some students identified the two reasons (and not just one) as the reasons for their difficulties.

In view of the difficulty in using the Digital Storytelling methodology, 76.2% said that interactions in forums with colleagues and teachers were useful for solving the problems faced, which corroborates the importance of this methodology in terms of collaborative learning and in network. In the same vein, it is relevant to note that 86.5% of students answered affirmatively to the question "Did the visualization of their colleagues' work allow them to acquire new knowledge?". This value shows that even in the face of the difficulties demonstrated by some students with the preparation of the video and their inexperience with this type of methodology, the truth is that a large majority believe that this form of learning had positive impacts on the acquisition of knowledge and skills. new skills.

Regarding the tools used to record and edit the digital story, it can be seen that the software that deserved the students' preference was Movie Maker (51.4%). Regarding hardware, 29.7% used the computer's webcam and 18.9% used their mobile phone, after which there was some dispersion by other tools.

In terms of additional open comments, interest in this methodology was assumed, but two types of difficulties were also mentioned:

1. Difficulty of some students in the field of support technology for recording and posting the video, which ended up consuming more time for the preparation of the respective work, when compared to traditional works;
2. Difficulty for many students to speak publicly (even in asynchronous format), because for most it was the first time they did it in the course, hence they feel little prepared for the task.

4. Final considerations

This study fits the theme of Digital Storytelling in the context of teaching entrepreneurship in virtual classes, having been applied in concrete in the students of the Entrepreneurship curricular unit (included in the 3rd year, 1st semester, academic year 2015-16, in the Minor Study Plan in Business Management, in the Management degree, at the Open University. The class works on an e-learning and the use of this type of methodology was an innovation in this context.

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The questionnaire applied to the students made it possible to verify their perceptions about the Digital Storytelling methodology, answering the research question. The results suggest that this methodology enables the development of relevant entrepreneurial skills, such as proactivity, autonomy and creativity. At the same time, it enabled collaborative learning among peers, by facilitating problem solving jointly and through mutual help between students and with the support of teachers. It was also found that many students reported difficulties in terms of the use of support technology for recording as well as in the public presentation of the work.

Future studies will aim to further develop the evaluation of this methodology, trying to purge the negative effect of technology on the students' perception in terms of results. In addition, we also want to better understand which technologies are most appropriate for teaching entrepreneurship in virtual classes, a topic that is deficiently explored.

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Annex 1

Questionnaire on Digital Storytelling methodology

Dear students,

The teaching team requests your collaboration in answering a short questionnaire on the Digital Storytelling methodology, which was used in the elaboration of e-Folio A. The answers given in the survey are confidential.

* Required

1) Gender *

☐ Male

☐ Feminine

2) Age *

☐ <20

☐ 20-29

☐ 30-39

☐ 40-49

☐ > 49

3) Was it the first time you used the Digital Storytelling methodology? *

☐ Yes

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☐ No

4) If you answered "Yes" to question 3, how did you learn to use this methodology? (You can choose more than one item)

☐ Information made available on the platform by the teaching team

☐ Interventions by teachers and colleagues in the forums

☐ Internet research itself

☐ Other: _____

5) Did the Digital Storytelling methodology stimulate your proactivity? *

☐ Yes

☐ No

6) Did the Digital Storytelling methodology stimulate your creativity? *

☐ Yes

☐ No

7) Was the Digital Storytelling methodology motivating? *

☐ Yes

☐ No

8) Did the Digital Storytelling methodology improve your computer skills? *

☐ Yes

☐ No

9) Did the Digital Storytelling methodology improve your ability to acquire knowledge autonomously? *

☐ Yes

☐ No

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10) How do you evaluate the Digital Storytelling methodology in the acquisition of knowledge, when compared to the traditional means of teaching? *

☐ The Digital Storytelling methodology makes it possible to acquire knowledge more easily than traditional teaching methods

☐ The Digital Storytelling methodology makes it possible to acquire knowledge in a more difficult way than traditional teaching methods

☐ The Digital Storytelling methodology and the traditional means of teaching make it possible to acquire knowledge just as easily

11) Between a work using the Digital Storytelling methodology (as it was done in e-Folio A) and a more traditional work (as it was done in e-Folio B), which one deserves your preference as an evaluation method? *

☐ Digital Storytelling Methodology

☐ Traditional means of teaching

☐ It's indifferent

12) Did you have difficulties in using the Digital Storytelling methodology? *

☐ Yes

☐ No

13) If you answered "Yes" to question 12, what is the degree of difficulty?

☐ Slight difficulty

☐ Medium difficulty

☐ High difficulty

14) If you answered "Yes" to question 12, please indicate the difficulty (s) encountered?   (You can choose more than one item)

☐ Difficulty in choosing the narrative to use

☐ Difficulty in the domain of the computer program

☐ Other: _____

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15) If you answered "Yes" to question 12, did the interaction in the forums with teachers and colleagues allow you to overcome the difficulty (s)?

☐ Yes
☐ No

16) Were the 8 MB of limit space allowed by the platform for the submission of e-Folio A sufficient to send a file with the desired quality? *

☐ Yes
☐ No

17) Did the visualization of your colleagues' work allow you to acquire new knowledge? *

☐ Yes
☐ No

18) Which Digital Storytelling tool (s) and what device (s) did you use to create e-Folio A? * (You can choose more than one item)

☐ *Movie Maker*
☐ *Debut Video Capture*
☐ *iMovie*
☐ *Power point*
☐ Mobile Phone
☐ Video camera
☐ *Webcam* computer
☐ Other: _____

19) Additional comments on the Digital Storytelling methodology   (Optional answer)

_____
_____
_____
_____