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BECOMING STORYTELLERS: IMPROVING ESL STUDENTS' ACADEMIC ENGAGEMENT AND 21ST CENTURY SKILLS THROUGH INTERACTIVE DIGITAL STORYTELLING

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ABSTRACT

21st Century education is rapidly changing due to the emerging of new media technologies that provide easy access to a great amount of information.
Accordingly, as today's students are immersed in a technological society, they need to be equipped with the skills necessary to interpret, synthesize and produce new information. Thus, today's educators and researchers face the challenge of making students become skillful users of new technologies so to increase their motivation and engagement by also improving their learning outcomes.
In particular, in the context of Second Language Acquisition (SLA), using technology appropriately could be a valuable approach to create a meaningful learning context where the acquisition of language and literacy skills is accompanied by that of digital skills.
To that end, Digital Storytelling (DST) seems to perfectly embody and meet the various educational needs of today's students because due to its dynamic feature of combining traditional storytelling with a variety of digital multimedia it provides opportunities for the improvement of learning skills including cooperative learning, motivation, and engagement.
In the light of CALL (Computer-Assisted Language Learning), Collaborative Learning (CL), and the Constructivist Paradigm (CP), this paper aims at addressing the potential of Interactive Digital Storytelling in enhancing ESL (English as a Second Language) students' academic engagement and 21st Century Skills.
Therefore, this paper describes the implementation of DST at "L'Orientale" University of Naples with 24 ESL students involving qualitative and quantitative methods of collecting data. Results showed that DST enhanced students' engagement with their studies and the reinforcement of their digital skills.

KEYWORDS

Digital Storytelling, CALL, Collaborative Learning, Constructivism, ESL, 21st Century Skills

1. INTRODUCTION

In May 2018 the Council of European Union adopted the "Recommendation on Key Competencies for Lifelong Learning" (2018), a document aiming at promoting the development of a series of skills for personal fulfillment, employability, social inclusion, and active citizenship. Among the eight skills that the Recommendation indicates as essential for today's students to acquire to live and work in today's world, there are Literacy, Multilingual, and Digital Skills.

As a result, the evidence is a need for meaningful technology integration in the curriculum able to help students acquire new and consolidate past knowledge by also transforming it into new information and products.

Actually, in recent years the growing capabilities of technology have turned the emerging CALL approach into a more and more valuable educational setting (Torsani, 2016) where the teaching and learning of languages can benefit from better processing and understanding of the material.

As students are heavy users of new technologies, teachers should be able to appropriately embed technology into the classroom so to make students turn into flexible learners able to adapt to new educational situations, take on different tasks, quickly solve problems, cooperate between them and develop their ideas about different topics.

In effect, researchers (Dexter et al., 1999) have stated that technology can be considered effective in educational settings only when it can engage students in their learning process.

Therefore, the emerging of DST as an instructional tool could be considered as a valuable support in the context of SLA especially when it comes to student motivation and engagement. In fact, despite traditional face-to-face teaching, in which each student communicates only with the teacher, DST helps students develop their personal and academic skills by fostering learning, motivation, and engagement due to its multimodality and peer-to-peer collaboration.

Although there already exist some studies involving the use of DST to foster learning in Italy, to the best of our knowledge, little research has been conducted with ESL students at Italian Universities to enhance their motivation and engagement.

Thus, this paper aims at exploring the use of DST in fostering ESL students' engagement[1] and the development of digital skills. Section 2 and 3 present the literature review and the theoretical framework supporting the study. Section 4, 5 and 6 describe the research questions, objectives and significance of the study. Section 7 states the statement of ethics. Section 8 presents the methodology used in collecting and analyzing data. Section 9 describes the implementation, results, and discussion. Section 10 draws conclusions and future work.

2. LITERATURE REVIEW

DST is usually defined as the art of telling stories with digital multimedia (Robin, 2008) but it is more than that as it involves a complex process of research, elicit of a specific topic, a conscious selection of material and mixing of different multimedia to finally create a powerful digital story.

Researchers (Robin, 2006; 2008) have shown that integrating DST into the curriculum could help teachers in transferring information by enhancing student engagement and providing better educational outcomes.

Moreover, not only storytelling is considered as a powerful tool for the transmission of knowledge since ancient times but, with the advances in new media technologies, it has become even more useful because by using different software to edit and mix a variety of digital multimedia (photos, images, videos, text, music, voice-over) stories can be created and presented in a more engaging way, thus stimulating students' language skills together with what has been defined as "21st Century Skills" that include digital skills, creativity, critical thinking, and motivation.

Also, DST engages students due to its *interactivity* because when students develop their digital stories they actively participate in the learning process thus shifting from teacher-centered to student-centered learning. This aspect is particularly important in enhancing L2 learners' motivation as being the co-constructor of your knowledge represents one of the most important factors in developing language proficiency.

In effect, several researchers (Castañeda, 2013; Pardo, 2014; Razmi et al., 2014) have demonstrated that L2 learners were extremely motivated in developing their language abilities thanks to the dynamism of DST and the fact that they were creating their artifacts.

Furthermore, when students are asked to create their digital stories in groups, even collaborative learning is enhanced as they feel they are working to reach the same goal, and so they help each other and confront themselves by limiting competition.

Actually, in the context of SLA, as the DST process is shared among the students, they can discuss the content and analyze their different points of view, thus enhancing their knowledge and social interaction.

[1] The term *engagement* is used in this study to indicate the enthusiasm that Digital Storytelling is able to arise into the students and the consequently commitment they have with their English studies.

3. THEORETICAL FRAMEWORK

This study has been developed by taking into account a series of theoretical paradigms, in particular: the CALL approach, the Cooperative Learning, and the Constructivist Theory.

DST perfectly fits in the context of CALL as it represents powerful instructional support to language teachers and students. In fact, by using DST teachers have the opportunity to explore a new way of teaching so to better engage students with their studies by also making them both active participants of the learning process and in the conditions of acquiring a second language in a meaningful and more interesting way than the one provided by face-to-face learning.

Actually, the CALL approach demands for the use of a student-centered learning that allows learners to work independently (Seljan et al., 2004) and DST seems to respond to this need as the creation of a digital story is a process that, despite being previously accurately explained by the teacher, has to be entirely made by the students that consequently learn how to do research, select material and combine digital and non-digital elements.

Moreover, the interactivity typical of the CALL approach (derived by the interaction between the human and the computer) is also provided by DST as students use different kinds of text, image, video, and audio-editing software to develop their stories.

Also, the Constructivist Theory emphasizes student-centered learning (Bruner, 1990; Ally, 2004) with students constructing their understanding of a given subject due to a series of tasks to accomplish.

To that end, DST helps students foster active learning and critical thinking because when constructing their digital stories they are exposed to different problems (e.g. choosing and selecting appropriate material to convey a specific meaning) and are asked to solve them by stimulating their minds (Harris, 2005).

Furthermore, Constructivism also involves Cooperative Learning which aims at making classroom activities social learning experiences due to peer-to-peer interaction (Gillies, 2016). In this way, DST provides a constructivist learning environment in which students have the opportunity to share and acquire present and new knowledge and confront and help each other by working in groups.

Besides, they enhance not only their academic but also their social skills by providing constructive feedback and supporting each other in the completion of the given tasks.

4. RESEARCH QUESTIONS

This study is based on three major research questions:

1. Are students effectively more engaged when Digital Storytelling is embedded in the classroom?
2. Can Digital Storytelling create an authentic learning environment that enhances student-centered and cooperative learning?
3. Can Digital Storytelling improve students' "21st Century Skills"?

5. OBJECTIVES OF THE STUDY

The main objective of the study was to explore the use of technology in ESL education with University students. In particular, the primary aim was to understand the potential of DST in enhancing ESL students' engagement with their studies together with the development of digital skills.

By enacting a Digital Storytelling Laboratory, students found themselves immersed in a meaningful educational environment in which they got involved mainly due to multimedia collaborative project-based tasks. In this way, they entirely worked with the English language from the perspective of each of the four traditional language skills (i.e. speaking, writing, listening, reading) by also acquiring knowledge of the usage of the different software necessary to create their digital stories.

Moreover, this investigation aims at shedding new light on the impact of DST on student engagement and motivation in the context of SLA.

6. SIGNIFICANCE OF THE STUDY

This study may help in acquiring a better understanding and perspective on the integration of technology into the curriculum, in particular, that of DST in creating a constructivist learning environment that could engage ESL Italian University students with their studies together with the development of digital skills.

7. STATEMENT OF ETHICS

During the Digital Storytelling Laboratory, the whole class has been treated with respect and sensitivity.

Indeed, mutual respect has always been demanded to the students between them and with the instructor.

Participants were assumed anonymity and were asked to sign an informed consent.

8. METHODOLOGY

Quantitative and Qualitative analyses were used to collect data. Qualitative data were collected through participant observation and oral interviews (cf. sections 9.2 - 9.3). Quantitative data were collected in the form of an online survey (cf. sections 9.1 - 9.2 - 9.3).

8.1 Participants and Context

This study lasted three months and was conducted between March and June 2019 as part of an Innovative Industrial Ph.D. Research Project.

To that end, a Digital Storytelling Laboratory was enacted at "L'Orientale" University of Naples, addressing 24 Bachelor's students (23 females and 1 male) in their second year of the course English Language and Linguistics of the Undergraduate's Degree in Comparative Languages and Literatures.

The Laboratory took place at the "Aula Informatica" of the same University where each student was assigned a computer with Internet access. Nevertheless, the DST process also sometimes required the additional use of students' personal computers.

The activity duration was two hours per week.

8.2 Data Collection and Analysis

Quantitative and Qualitative data were collected from 24 University students attending the Digital Storytelling Laboratory to understand if the production of digital stories could lead to ESL students' engagement and the development of digital skills.

Participant observation was conducted especially during the DST process during which the students had to cooperate between them to complete tasks and managed to do research and mix digital and non-digital material within the time required. In this way, it was possible to elicit whether students were able to execute the intended use of technology explained by the instructor.

Moreover, an online survey was conducted to investigate the influence of DST on ESL students' motivation and acquisition of digital skills that provided a deeper understanding of the integration of DST into the ESL curriculum.

9. IMPLEMENTATION, RESULTS AND DISCUSSION

The project was carried out between March and June 2019 and students attended the Digital Storytelling Laboratory as an additional course to their studies.

Since the beginning of the course, they showed great enthusiasm for a new, different, and more interactive approach to the English language.

The course was structured so that students could acquire the basic skills necessary to embark on the DST process.

Firstly, they were introduced into the field – completely new to them – and the instructor encouraged them to speak their minds to create a comfortable educational environment in which each student could express himself/herself without experiencing feelings of stress and enhance positive feedback.

Then, students were shown some different already existing digital stories so to create a sense of familiarity with the products and make them begin to think about the kind of artifacts they intended to produce.

Students worked in self-selected groups, each of whom were then asked to do accurate research to choose specific topics for the production of the digital stories which were subsequently discussed with the instructor and the other students. The topics of videos were sorted according to students' studies and themes they recognized as important in their lives.

After that, they were introduced to several kinds of text, image and video editing software to edit their stories. Although some students were already accustomed to several kinds of editing software, most of them showed to benefit from learning how to meaningfully introduce technology into their studies. Some others showed enthusiasm to practice their artistic attitude for something academic.

During the whole DST process, discussion about the chosen topics was enhanced. This helped students in developing their ideas about the different topics to increase their critical thinking and learn how to cooperate to reach the same goal.

At the end of the course, each group showed its digital story to the whole class and the instructor helped them to construct valuable feedback around the stories so to effectively underline what was good and what was needed to be better improved.

The digital stories were then released on the web[2] so to make students receive feedback on their work from a wider audience. This gave them a sense of satisfaction and success after working hard to produce their micro-films.

Based on the analysis of data, students enhanced their engagement with the English language together with 21st Century Skills. Students stated that DST was able to foster their engagement with the English language due to the following factors:

a) integration of technology, which helped to promote "21st Century Skills", in particular, Digital Literacy; b) promotion of student-centered and cooperative learning; c) enhanced creativity, knowledge about the chosen subjects and language learning.

9.1 Promotion of 21st Century Skills Through Technology

According to the participants, DST enhanced their motivation with their studies and helped them to develop their digital skills due to a series of different but interconnected factors.

First of all, they were immersed in an educational environment in which they could experience the English language not only from a traditional linguistic point of view but also by exploring different types of language registers as each group chose a different kind of story that required the usage of specific language styles. At the same time, they were more motivated to interact with subjects related to their course studies due to the interactivity of DST. Besides, having the possibility to explore a topic using several types of media directly led to interdisciplinarity so that students independently chose to investigate their topics from different perspectives expressing them by using mixed technologies.

Findings from the survey showed that students improved their ability in using technology with a purpose and not only as a way of entertainment:

Student A: I learned how to use programs to create the video but also improved my drawing skills.

Student B: It rarely happens to learn through the use of digital instruments, but thanks to this course I was able to learn new things through the use of digital tools.

Student C: It was really innovative to create a story through technology.

[2] An official YouTube Channel of the Unior Digital Storytelling Lab has been created to share the digital stories on the web. More information at: https://www.youtube.com/channel/UCNgmjdc_EPoGq8mlMdywFiw.

In effect, students were able to quickly learn how to use the needed software to create the stories, and many of them also had the opportunity to enhance their creativity by designing settings and characters by themselves.

Each time they faced a problem with technology, they found their solution online or searched for the help of the instructor during the Lab or beyond the classroom time by email.

The steps required for the creation of digital stories also enhanced students' problem-solving ability and social skills.

9.2 Student-Centered and Cooperative Learning

Students especially liked the idea of controlling their learning process, and the need to complete the tasks within the time required gave them a sense of responsibility which also led to better cooperation within and outside the working groups. Cooperation was experienced both as peer-to-peer and student-instructor interaction as during the whole Digital Storytelling Lab everything was previously explained and clarified by the instructor and students received continuous feedback when needed. On the contrary, cooperation with peers was also enhanced when students had to select the material for their digital stories and create and assembling digital media – which made them develop their critical thinking skills and the ability to research that they had quite never experienced.

Results showed that students benefited from the working-in-group experience, as explained by the following statements:

Student D: The most valuable thing I found in this Lab is the importance given to group work.

Student E: I found this course really helpful because it showed me how to better interact with others and it gave me a wider sense of responsibility.

Cooperation also seems to connect to student-centered learning because, as students affirmed in the oral interviews too, they not only learned about how to collaborate between them but this collaboration fostered their sense of responsibility as each storyteller had to do his/her part in the completion of the work.

In this way, students understood the importance of constructive feedback both in relation with the instructor and with their peers.

9.3 Creativity and Learning

Research findings also showed that doing accurate research on the chosen topics and combining text with media led students to a deeper understanding of the subject matter.

DST motivated students to interact with the chosen topics thanks to its multimodality:

Student F: Since it was a different way of telling a story, I had to think outside the box of my usual stories and find new ideas more fitting for the project.

Student G: I learned a lot because I had to think about a lot of strategies to make our project work.

In effect, creativity was particularly enhanced when students had to research, select and choose the appropriate material for their stories. Some groups decided to create characters and settings on their own, especially those students that already had some experience with graphic design software. During the oral interviews at the end of the course, these students said that this course allowed them to integrate academic content with their artistic attitudes which enhanced their motivation:

Student H: I felt excited about the discussion with the group about the topic of the video, that part was inspiring. I had fun in the making of the digital drawings too.

Also, the development of creativity seems to be connected to enhanced digital literacy and language learning.

Besides, students described the process of writing the story as a fundamental step that helped them not only to improve their knowledge about the chosen topic but also their language proficiency. Actually, everything was realized in English, from researching the topic to creating the digital story:

Student I: DST helped me releasing my creativity especially during the step of writing the script. I felt really stimulated in a way I've never been.

Student J: DST was able to help me learn how to write a script in English which could help me in the future.

Student K: We made researches in English and also we wrote and projected everything in English, not translating. This is a very good method to improve a language.

According to the findings, the choice of using DST improved students' motivation in handling the project which allows claiming that this practice could be a valuable resource for enhancing ESL students' engagement with their studies if appropriately integrated into the classroom.

Today's students are heavy users of new technologies and the ability to purposefully use them is essential for their social, learning and professional outcomes.

10. CONCLUSIONS AND FUTURE WORK

In our 21st Century technology-immersed society, today's educators face the challenge of engaging and motivating their students by giving them appropriate resources to express and construct meaning.

Thus, especially in the context of SLA, the need for enhancing student engagement and motivation has led many researchers to state the importance of integrating technology into the classroom (Jacobsen, 2001).

To that end, DST seems to be a powerful vehicle to make students construct their knowledge and develop the skills necessary to respond to today's educational needs.

This study explored the use of DST with ESL students at "L'Orientale" University of Naples whose results allow stating that if appropriately used, DST could be meaningful technological support to foster student engagement and motivation.

The research findings help to claim that DST is effectively powerful in fostering ESL students' motivation with their studies by enhancing student-centered and cooperative learning, in addition to the development of digital, social and learning skills. These skills fall into the recognized "21st Century Skills" that are considered fundamental to make students able to live and work in today's world and DST seems to help in constructing an authentic learning environment in which collaboration, communication, problem-solving, and language learning are actively interconnected.

Nevertheless, even though the findings show the positive impact of DST on ESL students' levels of engagement and acquisition of technology skills, further research needs to be carried out to understand if DST could also improve ESL students' academic performance.

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