Denise Maria Sapelli
Centro Universitário Sociesc de Blumenau
Centro Universitário de Brusque
denisem.sapelli@gmail.com

Gisele Baumgarten Rosumek
Centro Universitário Sociesc de Blumenau
gisele.baumgarten@gmail.com

Maria José C. de Souza Domingues
Universidade Regional de Blumenau
mariadomingues@furb.br

UFRGS   **PPGIE**

PORTO ALEGRE
RIO GRANDE DO SUL
BRASIL

Co-Participation and Co-Creation in Higher Education: use of ICT in the interdisciplinary project "Voz Delas"

Coparticipação e Cocriação no Ensino Superior: o uso das TICs no projeto interdisciplinar "Voz Delas"

Abstract

The implementation of ICTs in the educational environment is one of the biggest challenges related to pedagogical and technological innovation, since its use as an educational resource can influence the way of teaching. The purpose of this article is to describe an undergraduate teaching experience, based on collaborative learning through co-participation and co-creation, which used different digital resources and platforms. The stages of construction of co-creation and co-participation took place in four phases, during 4 months, developed by 40 students. The result of the whole process would culminate in the production of an exhibition (physical and virtual) with photos and texts about women in journalism in Blumenau. In conclusion, the introduction of ICTs and virtual learning environments in the traditional teaching model can improve the interaction in the teaching-learning process. The activities developed showed the possibilities of using ICTs as a potential for co-participation and co-creation, with students' contact with the virtual environment creating different possibilities for enriching their knowledge.

Keywords: Digital Convergence. Collaborative Learning. Communication and Information Technologies.

Resumo

A implementação das TICs no ambiente educacional é um dos maiores desafios relacionados à inovação pedagógica e tecnológica, uma vez que seu uso como recurso educacional pode influenciar na forma de ensinar. O objetivo deste artigo é descrever uma experiência de ensino na graduação, baseada na aprendizagem colaborativa por meio da coparticipação e cocriação, que utilizou diversos recursos e plataformas digitais. As etapas de construção da cocriação e coparticipação aconteceram em quatro fases, durante 4 meses, desenvolvido por 40 alunos. O resultado de todo o processo culminaria na produção de uma exposição (física e virtual) com fotos e textos sobre a mulher no jornalismo de Blumenau. Em conclusão, a introdução de TICs e ambientes virtuais de aprendizagem no modelo tradicional de ensino pode melhorar a interação no processo de ensino-aprendizagem. As atividades desenvolvidas mostraram as possibilidades de utilização das TICs como potencial de coparticipação e cocriação, tendo o contato dos alunos com o ambiente virtual criado diferentes possibilidades de enriquecimento de seus conhecimentos.

Palavras-chave: Convergência Digital. Aprendizagem Colaborativa. Tecnologias de Informação e Comunicação.

1. Introduction

Recently, the education segment has gone through new experiences due to the use of Information and Communication Technologies (ICTs). The moment we live in, technology develops very quickly, and as a result, the flow of information takes place at great speed. We are living in times of cyberculture when technologies of continuous connection enhance mobile and ubiquitous communication.

ICTs bring to students the process of being responsible for their learning. ICTs help to place students at the center of the teaching and learning process. Implementing ICTs in the educational environment represents, by itself, one of the biggest challenges related to both pedagogical and technological innovation. The use of ICTs in education is not only about its exploitation and mastery, since these technologies can also influence teaching and how they constitute educational resources. In this way, these new technologies can establish working tools, means of discovery and constitution of concepts and also, problem solving tools.

Gatti (2002) points out that education ends up involving a complex interaction of all the factors that are involved in the existence of human beings. Education encompasses individuals and their own experiences in contact, since education alone is a contextualized process of (re)building knowledge, developing autonomy and responsible freedom. For Almeida (2013), this refers to reframe the ideas of Dewey, Piaget, Vygostky, Freire, Schön, in contexts with the presence of technologies in a perspective of interaction, reflection and co-creation.

So far, however, there has been little discussion about ICTs. The development of studies in the area of ICTs has still received limited attention from researchers. Thus, the aim of this experience report paper is to contribute to the development of research in the area and to describe a teaching experience, based on collaborative learning through co-participation and co-creation, with the use of ICTs, in an Interdisciplinary Project discipline (with a Project Based Learning - PBL), through the use of various digital resources and platforms. We present the results of student participation, publications, and suggestions for improvements for upcoming activities, using ICTs.

The 42 participants of this study formed a research community, using asynchronous ICTs (Google Drive) to consolidate the categories of co-participation and co-creation. The results show that the ICTs were able to support the project and achieve the objectives, because, despite the distance and the participants having only 2 hours of classes a week, they managed to build knowledge on the topic.

2. ICT's in Education

The evolution of scientific knowledge, whether in culture, in life in society, has increasingly demanded that we are updated and better prepared to deal with daily activities, from the pulsating knowledge that arises from everyday life, education, the world or the job market. Thus, it becomes important to identify and interpret this information, through education and action, in order to transform reality, which is understood as a complete system that is in continuous movement.

Castells (1999) shows that we are living what the author defines as a network society, when referring to the new profile of society in the era of digital ICTs, arising from the convergence and interaction between the new technological paradigm and the new organizational logic of multiple cultural contexts. The term network society has come to be an expression in current use to identify the civilizational time of the information age.

This new communication space created and mediated by computers is called cyberspace by Lévy (2000). And it is also in this context that the concept of cyberculture is manifested, which designates "the set of (material and intellectual) techniques, practices, attitudes, ways of thinking and values that develop together with the growth of the cyberspace" (LÉVY, 2000, p. 17). It is interesting to note that there is a convergence of the networked society with the guiding principles of cyberculture - which are interconnection, creation of virtual communities, and collective intelligence. Castells (2004) demonstrated that online social interaction plays an increasingly important role in social organization, because through this interaction virtual communities can be constituted, which despite having different characteristics from physical communities, are also intense and effective in uniting and mobilizing.

Thus, cyberculture operates in the web of social, economic, and human connections, giving rise to an individual linked to millions of others, communicating with them, simultaneously accessing and creating knowledge; sharing and receiving knowledge; interacting with others to learn, teach, and relate. In these possibilities of intervention, modification and feedback, there are advantages of cyberculture. It changes the way of thinking and apprehending the world, the vision of society, the city and citizenship (SILVA; SOUZA, 2015).

Major changes have taken place during the history of the web. In Web 1.0 (first phase), the focus was on information research devices. After that, the focus became programs that enabled interaction and greater social relationship, which was characterized as Web 2.0, or Social Web (O'REILLY, 2005). For Spivack (2007), we are currently (2010-2020) on the Semantic Web (Web 3.0) and foreseeing the ubiquitous web (Web 4.0) for the following decade. Also, Berners-Lee (1996), the creator of the Web, predicts that the future is about ubiquitous web development. These designations are not mere enumerations, as they translate, as Halmann and Pretto (2011, p. 219) clearly explain, about the emergence of web. 2.0, "emerging epistemes in the production and dissemination of knowledge".

In fact, there has recently been a notable development in mobile technologies. The main highlights of which are inventions around smartphones and tablets, along with wireless networks, providing enhanced connectivity, mobility and ubiquity. Such developments have led the researcher Lúcia Santaella to acquire the conviction that the contemporary condition of our existence is ubiquitous (SANTAELLA, 2013). Santaella (2013) mentions that mobility and ubiquity are associated, as mobile technologies allow us to be in permanent contact - even on the move - with a plurality of places, simultaneously.

The use of technologies in meaningful contexts for learners indicates that they are immersed in interactive scenarios with the presence of technologies (FIGUEIREDO; AFONSO, 2006). Virtual scenarios of knowledge are situations in which apprentices are involved in and are located as inhabitants who interact with all the elements present, without stopping at the edges, borders or surroundings of the situation. Meaning originates in the context and in the social interaction with people, experiences, institutions and cultural objects, finally in the relations with the socio-historical context and in the intersubjective negotiation, generating qualitative leaps caused by the movement between the real and potential development level (VYGOTSKY, 2008).

Palloff and Pratt (2002) consider that in the perspective of hybrid teaching (online and face-to-face), even if the teacher's presence continues, there is scope for students to explore and use digital environments in a way to collaborate and create in partnership with their peers. Thus, it is observed that the focus is not only on the distribution of tasks and/or information, but on the sharing of ideas, creating an environment that allows collaboration, enabling the construction of knowledge - what we see on web 2.0. This allows students to assume

a central role in the learning process, learning through practice.

In this way, collaborative learning allows to create virtual learning environments, since it brings the sense of working and collaborating together. Dillenbourg (1999) describes that working together, aiming to share objectives is to collaborate. And this learning collaboratively involves more than one person who is trying to learn something together. Stahl, Koschmann & Suther (2006) have already reinforced that it is important to note that human relationships are favored through interactivity, enabling people to learn collectively and to create, with the different members of the group, forms of interaction, either through tasks, problem resolutions and discussions. The term interaction means for Silva (2003) the communication that takes place between sender and receiver understood as co-creation of the message, and this affects the pedagogical practice and the way of communicating in the classroom.

And in cyberspace there is a change in the relationship with taste, since human cognitive functions are transformed by computational interfaces. And it is in this configuration of the world that students meet and learn in the digital culture they live in. In this way, learning is no longer a process entirely under the control of the individual, done in an individualistic manner. Learning is also found outside of ourselves, in other people, in companies or in a database, and it is these external connections that enhance what we learn and end up being more important than our current state of knowledge (MATTAR, 2018).

Reflecting a complex, connected global society, mediated by technological advances and changing very quickly, connectivism is a social learning of what is in the network. Downes (2007) describes connectivism as knowledge distributed via a network of connections, and therefore, learning is having the capacity to build and cross these networks. As Mattar (2018, p. 210, our translation) states, "Connectivism or distributed learning is then proposed as a more suitable theory for a digital age, when action is needed without personal learning, using information outside of our primary knowledge."

According to Siemens (2005), connectivism is characterized as the improvement of how a student learns with the knowledge and perception acquired through the addition of a personal network. It is through these networks that he manages to have his point of view, based on the diversity of information and opinions that he perceives on the network, and, thus, he learns how to make decisions. Since it is impossible to experience everything, through the collaboration process (co-participation and co-creation), the student

can share and learn. In this way, Duke, Harpers, Johnston (2013) observe that connectivism can also be considered a learning theory because it assists the student's ability to acquire knowledge, by searching different sources and databases. It is also defined as actionable knowledge, where an understanding of where to find knowledge can be more important than answering how or what that knowledge encompasses.

The internet allows for easier interaction and democratization of content, expanding the dialogue between consumer and producer, in order to enhance, through donations as crowdfunding, the realization of projects such as exhibitions, reports. As Valiati (2013) argues, it represents, in itself, a great opportunity, since the consumer can become part of the project production process without the need for bureaucratic intermediation. Maurer and colleagues (2012) state that this practice involves collaborative and financial engagement, based on networks of people or institutions that invest in creative projects. Overall, if someone chooses to support a particular project, they are also collaborating. And when he collaborates, he becomes a co-creator and a creditor, including encouraging others to have the same attitude that he had.

To the extent that co-creation is applied, ties are tightened, facilitating not only the exchange of information, but also reducing uncertainties and enabling better post-purchase assistance for the product purchased. Co-creation makes the client create bonds not only with that product with which he collaborated, but also with that company that gave him this opportunity to participate.

3. Methods

3.1 Study context

The Interdisciplinary Social Communication Project - Advertising and Journalism is a discipline where students, in groups, apply the concepts of the semester related to the subjects that they are taking in an integrated way and develop an activity. The objective of the Interdisciplinary Project is to understand the relationship between the different contents taught in the course, in their respective qualifications, during the academic semester. It is also about exercising the practice of market research, collaborative work, and team building. This course is a field for using the PBL approach - Problem Based Learning or Project Based Learning. This approach starts from a problem-situation,

whether real or simulated, so that the students seek the knowledge needed to solve this problem-situation. When researching data, interacting in groups, formulating hypotheses and making decisions, the student becomes the protagonist of their learning (CASALE, KURI and SILVA, 2011).

PBL by itself has the characteristic of being interdisciplinary, as it mobilizes knowledge and collaboration between different disciplines and contents, facilitating students to establish relationships between different knowledge and practices (MASSON et. Al., 2012). Thus, the participants were students of the 2nd semester of the Advertising and Journalism undergrad courses. The interdisciplinary project had the specific objectives of: researching the history of journalism and of female participation in Blumenau, Santa Catarina, Brazil; report the stories of women who have worked in journalism in Blumenau; study research methodologies for the development of Exhibit design for the project exhibition. The result of the whole process would culminate in the production of an exhibition (physical and virtual) with photos and texts about women in journalism in Blumenau.

The project was coordinated by the professor responsible for the subject, with the help of the other teachers of the semester subjects: Processes and Techniques in Journalism; History of Journalism; Branding; Photojournalism and Innovation, Creative Industries, and Sustainable Processes.

3.2 ICTs Used

In order to agree on the research and production activities for the group, it was decided collectively, in the first face-to-face meeting, that the meetings would be face-to-face during the week (mandatory 2/hour meetings) and distance whenever necessary, supported by Google Drive multi-environments, Facebook, Facebook Messenger, email, Ilang and WhatsApp, as well as the university's virtual learning environment.

Google Drive (Figure 1 below) is a "cloud" data storage environment, for creation and sharing, worked for the group as the base technology, as a repository for files that are saved, edited, shared and synchronized via the web in a secure way and fast since it has good storage capacity, quick download and upload of files and the possibility of organizing files as if they were on the user's personal computer. The folder on the Google Drive was created by the professor who provided editing access to the members of the discipline.

Figure 1 – A Voz Delas Project – Interdisciplinary Project on Google Drive
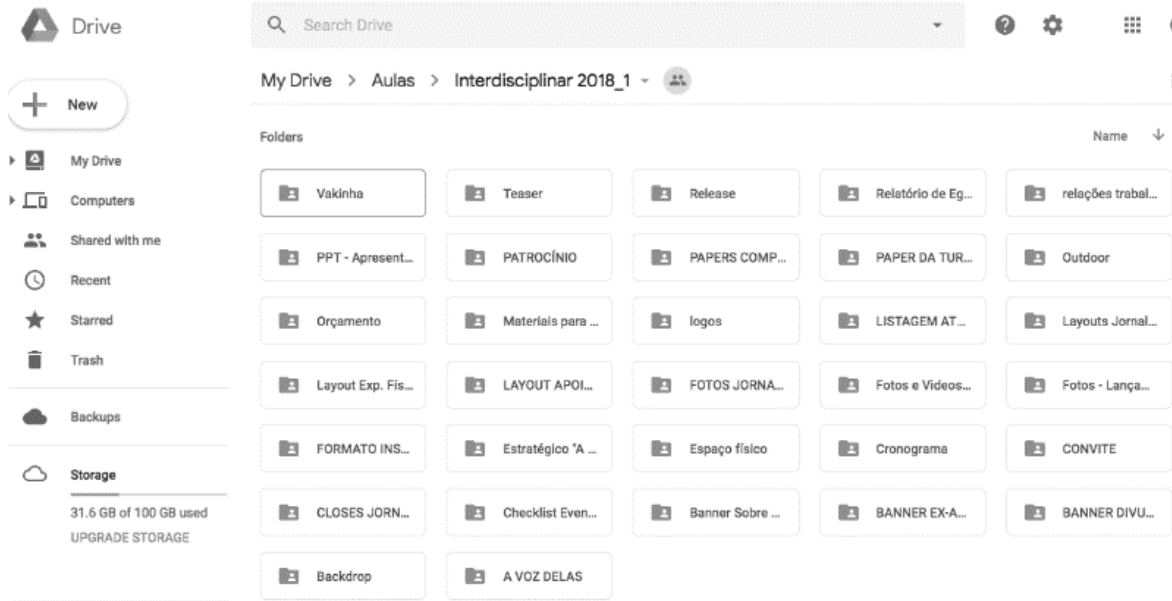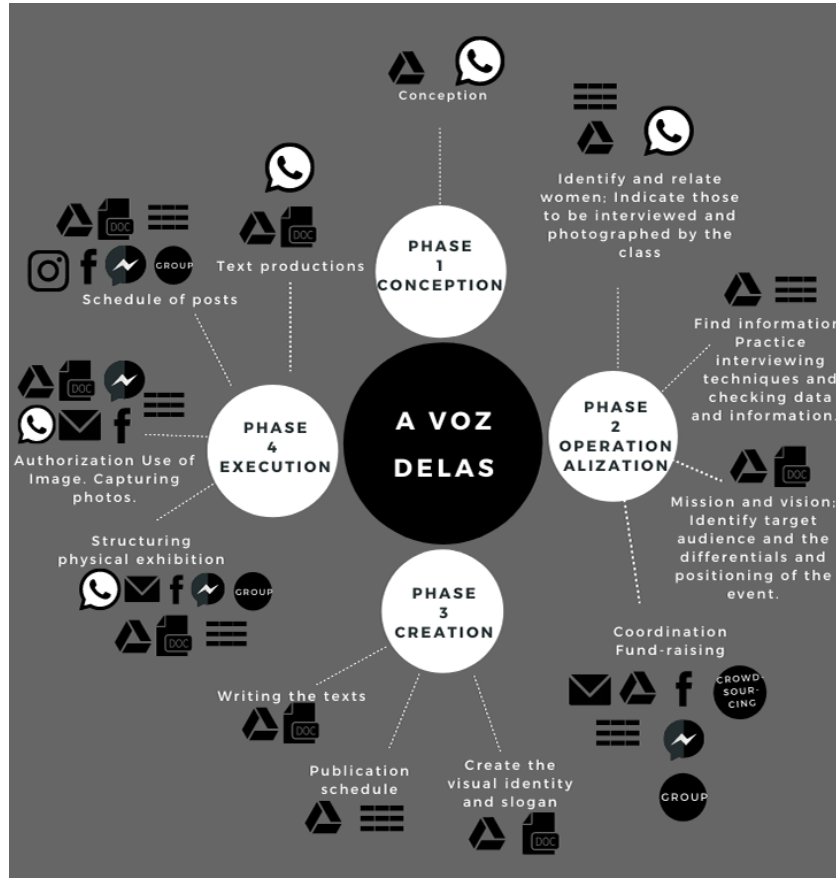

Source: Research data.

The social network Facebook, free and widely used in Brazil, served for two purposes. First, a private and secret group was created with the participating students, to organize activities and messages, in addition to exchanging messages with content published in the form of texts, photos, videos and files. Facebook's Messenger app was also used for instant conversations. Facebook was also one of the platforms for publishing posts in the exhibition gallery of journalists participating in the A Voz Delas Project.

E-mail, also an ICT resource used by the group, for exchanging messages and files, a format that has already been consolidated among internet users. It is important to highlight that, due to the development of ICTs, these multi-environments can be used in different devices connected to the internet - such as computer, tablet, cell phone, smartTV - anytime and anywhere. In the process of selecting these environments, it was considered to use a single virtual learning environment that, in theory, would bring together all the desired resources, such as Ilang. After a careful analysis of the needs of the project and the need for interaction, the professor noticed that it would be more appropriate to use specific environments, as the ones aforementioned, creating the experience of working with multi-environments and exploring the differentials of each environment. For example, Facebook Messenger enabled audio conversations faster and with greater quality; Google Drive made it easy to organize, create/co-create, share, download, upload and sync files. Facebook was the social media most used by students and everyone had the app installed on their smartphone, which allowed users to be connected to these environments full time, on cell phones, tablets and notebooks, making it an important multi-environment of communication via web; because of that, with great potential for use in Education.

In Figure 2, the objectives and the ICTs used during the development of the project are illustrated.

Figure 2 – ICTs used at each phase of project

Source: Research data.

4. Steps for the construction of co-creation and co-participation

4.1 Phase 1 - Conception of the idea

The interdisciplinary project A Voz Delas began at the beginning of the semester with the professors of the communication course at a private higher education institution in Blumenau. At that time, in that semester, the journalism and advertising students at the institution would have the Interdisciplinary Project discipline and it was necessary to decide which project should be aligned, adapting to the proposed disciplines. With the theme of female empowerment and gender issues as an agenda, it was decided to talk about women journalists in Santa Catarina, mainly in the Blumenau region. One of the practical disciplines that the students would have at that time was photojournalism, so it was decided that the project would be a physical and virtual photographic exhibition of women journalists in Blumenau.

With the beginning of classes, we gathered students to talk about the proposal and how the project would work. At first, the class, which was composed of 40 students, was divided into 10 teams and each team would be responsible for part of the exhibition. The interdisciplinary project discipline took place every Friday and brought together students from both courses, facilitating communication and project production. As soon as the students became aware of what the project would be, a folder was created on Google Drive where all the files produced referring to the exhibition would be stored. In addition, a group on the social network WhatsApp was also created to facilitate communication. During the first weeks, students from both courses had a brainstorm session to decide what the name of the exhibition would be, combined with extensive research on the internet on the production of photographic exhibitions that also culminated in the format held by our exhibition. Parallel to this, students of the journalism course researched the history of journalism in Brazil and, mainly, the history of journalism in Blumenau to understand the importance of women in the process of building this area/profession.

4.2 Phase 2 – Operationalization

In the operationalization phase, students, through the discipline of History of Journalism, identified and

listed which women were, and still are, highlighted in the history of the profession in Santa Catarina. In the discipline of Processes and Techniques in Journalism, this phase took 15 days of research, verification and checking to collect data. The list with the names of the women was available on a spreadsheet on Google Drive where students could access and check which journalists were chosen.

At first, more than a hundred names emerged. The students suggested which women should be interviewed and together with the professors decided to indicate which women should be interviewed and photographed for the exhibition. After research and survey, it was decided that 80 women journalists would be part of the exhibition. Parallel to this, students practiced writing and interviewing techniques for the execution of the project. They used Google Drive (Figure 3 below) and email to get organized.

In the Branding discipline, students were responsible for developing the event's mission, vision and values, in addition to identifying the target audience of this project and what would be the differential highlights of the exhibition. They used Google Drive and email to get organized.

Figure 3 – Google Drive Worksheet about Women Journalists for the A Voz Delas Project

Source: Research data

In the discipline of Innovation, Creative Industries and Sustainable Processes, students should choose an appropriate tool to make the project financially viable, as the initial idea was always to launch the exhibition for the external community, which would culminate in some expenses. During this period, students investigated and compared the advantages and disadvantages of the main tools that make this material available: Benfeitoria, Catarse and Vakinha. They used Google Drive and email to get organized.

In the Photojournalism's discipline, in the first month of class, students learned about the history of photography and photojournalism, in addition to the photographic techniques and components for producing a good image with the objective of thinking about the future exhibition.

The entire project was coordinated by the Interdisciplinary Social Communication Project discipline, which aimed to coordinate all the work carried out by the other disciplines and assist in the development of the exhibition, in addition to attracting sponsorship. It was in this discipline, too, that the following schedule was defined (suggested by the students and approved by the professor): of the 80 women chosen, only 20 would be part of the physical exhibit. The criterion of choice was given from the time of acting in the area as a journalist. However, these 80 women would be on the virtual exhibition through Instagram. They used Google Drive, the Facebook Group, Facebook Messenger and email to get organized.

4.3 Phase 3 - Project creation

From the data collection of which journalists would be part of the exhibition, students, in an interdisciplinary project, defined which social networks would be used for publication and dissemination of the event. It was defined, due to the research carried out by the students through Google and benchmarking on Instagram and Facebook would be the networks to make the virtual exhibition. With the choice of social networks and

journalists, teams were divided to begin the process of executing the images. In total, there were 23 journalism students, who were divided into 10 teams and each team was responsible for 9 to 13 journalists. This number changed as the work was being developed. This division was defined and filed in a spreadsheet in the discipline's drive, where each team was referenced by a color. All contact information and photo effectivity were posted in this file, which was on Google Drive. Thus, the professors would be able to monitor in real time the work that was being developed.

The students also decided on the format of the physical exhibition, which consisted of 20 banners measuring 40cmx60cm, colored and the type of support for hanging the material.

In addition, it was the students' responsibility to budget these pieces and, also, the opening ceremony (presentation) and cocktail that would be served on the day of the opening. For this purpose, WhatsApp and email were used, in addition to the phone. Parallel to this, a team was responsible for developing the invitation for the press and for the honored journalists. They used Canvas, Google Drive, Facebook (closed group) and Facebook Messenger.

At this stage, in the discipline of Branding, students created and developed the visual identity and slogan of the event. After a brainstorm promoted by the students (co-participation), 10 names for the exhibition emerged and A Voz Delas was defined as the name of the project and, from that, students began to develop brand communication to the public before, during and after the event. One of the purposes of this discipline was to develop the content and actions that aimed at interaction and engagement with the project's target audience. In this discipline, too, students developed the layout of each exhibition and the number of characters for the photo captions.

After getting used to the manual manipulation of photographic cameras, students in the photojournalism discipline began the process of executing the images for the exhibition. With the teams formed, students should contact the journalists pre-determined to the group, being responsible for explaining the project idea to possible interviewees. This contact was made mainly through Facebook and also through WhatsApp. With the interview scheduled, the students would need to work with two references for the exhibition, which were:

a) For physical exposure: the images should be colored, in a medium plane (framing from the waist up). The place to be photographed should be a place where the professional liked a lot or felt more comfortable. The highlight would be the journalist.

b) For virtual exposure: the images should be black and white, in the foreground (framing the shoulder line upwards). The place to be photographed should be a place where the professional liked a lot or felt more comfortable. The highlight would be the journalist. For this image, the reference researched and defined by the students was the profile of the account @umrostopordia, which aims to publish the photo of people's faces and, in the caption, tell their story. As the images were ready, students should post in the specific folder of the drive so that advertising students could continue their work, adjusting the photos to the requested standards and, when possible, working on the adjustments of light and shadow contrasts.

Every Thursday the students met in the discipline of photojournalism and, at the first moment of the class, a meeting was held to learn about the progress of the production of the images. Everything discussed at this meeting was recorded in a file on the project's drive so that all students and professors had access.

In addition to the images, students should listen to the story of these women and transform them into texts based on the information obtained, composing the historical rescue of these characters. In the virtual exhibition, the text should contain fifteen hundred characters, which is the maximum amount allowed by Instagram. As for physical exposure, from the developed layout, the text should have a specific number of characters (maximum 2000 characters). All production and verification of texts were developed in the discipline of Processes and Techniques in Journalism.

After the research carried out to choose a tool for fundraising, students, in the discipline of Innovation, Creative Industries and Sustainable Processes, created a collective financing for the project with the Vakinha Online tool, lasting 30 to 40 days. In this process, the objective was to support the disclosure of the financing in order to reach the funding target of R$ 900,00, Brazilian currency.

4.4 Phase 4 - Execution

The fourth and final step was the execution of the project. The students, in the discipline of Processes and Techniques in Journalism, in addition to finalizing the texts for the images, were also responsible for producing the release and sending the material to the press talking about the exhibition. In this part of the project, a specific team was created that was responsible for this material. The developed text was

saved in the discipline's drive for the visualization of all professors and possible adjustments.

In Branding, students followed the communication of the event's brand to the public before, during and after the event. In Innovation, Creative Industries and Sustainable Processes, students completed the collective financing and provided feedback to supporters with accountability and delivery of rewards.

One month before the exhibition took place, students in the discipline of photojournalism presented all the photos produced for the exhibition. This presentation was necessary to assess whether the images would be, within the technical, visual and ethical language learned throughout the semester. In addition, each team was responsible for authorizing the use of each journalist's image. This document was filed in a specific folder on the project's drive. In this discipline, academics should also take photos of the production's making of to post on Instagram stories, while the exhibition was not yet opened.

While the images were being produced, students in the Interdisciplinary Project discipline created and developed the publication schedule for the photos and texts for Instagram (see Figure 1) and Facebook. After research to develop the publication strategy, it was defined as follows. The posts would take place three times a week, in alphabetical order, containing the image, the text with the caption of the photo and the credit of who produced the material. Some journalists no longer lived in Blumenau, so the students depended on the professional to send the photo (according to the defined model) and the text. For more visualizations and greater reach of the target audience, students created the hashtag #avozdelas.

Before the launch of the virtual exhibition, the students were responsible for posts that contained small details of the journalists' faces (eyes and smiles) to pay attention to the audience of what the exhibition was about, to work as a teaser. The entire posting and disclosure schedule were made and developed in the classroom and subsequently published in the discipline's drive folder. Each team responsible for posting should follow this schedule. In addition, the students were responsible for the organization and logistics of the physical and virtual exhibition. This work consisted of sending invitations to the honored journalists. The students created a spreadsheet on the drive to update the names that were confirmed for the event. In addition, teams were formed to produce the decoration of the event, as well as the assembly and layout of the banners, organization of the images that would be projected on the multimedia, background music and the organization of the food that would be served on the event date, in the higher education institution. To facilitate communication, a WhatsApp group was created to organize all the details for the day of the event.

5. Discussion

Creating, sharing and editing environments, such as Google Drive, can assist in the development of critical thinking, and in this way, learning itself. Google Drive was used for the collective construction of the project, such as interview texts, journalists' photographs, timelines, and presentations. The students worked in small groups, according to the progress of the activities, with the objective of interacting, co-creating and co-producing collaborative texts, photographs and presentation script according to the themes developed. In total, 32 folders were created, shared by project members, for real-time editing and monitoring. Initially we had an excel spreadsheet with 100 women journalists to develop the research. However, the difficulty of contact with some and the refusal of others, meant that the project was carried out with 80 women journalists.

The current study identified 98 posts that were produced for publication on Instagram. In Figure 4, a snippet of the project on Instagram is provided. When accessing the QRCode, the reader is directed to the virtual gallery A Voz Delas.

Figure 4 – Instagram Profile A Voz Delas

Source: Research data

On Facebook, as illustrated by Figure 5, 85 posts were created, of which 5 were teasers (image of the journalists' eyes) and the rest of the honorees' posts.

When accessing the QR Code, the reader is directed to the A Voz Delas page on Facebook.

Figure 5 – Facebook Page A Voz Delas

Source: Research data

In the end, the project counted 22 spontaneous stories generated by the media in Blumenau and region. Of these, two interviews were on radio stations: Rádio Clube, which counted 24 minutes of interview and CBN Vale do Itajaí Radio[1], which added 12 minutes of conversation, totaling 37 minutes of radio interviews

about the project. In addition, the project was broadcast on two television channels: TV Legislativa de Blumenau[2] and Record News de Florianópolis, adding ten minutes of interviews. In printed newspapers, the project was

---

[1] https://cbnblumenau.com/noticia/338719/entrevista-com-denise-sapelli-marta-brod-e-ceolineia-schirley

[2] https://www.youtube.com/watch?v=EO68aR4DIYo

featured in two social columns: Fernanda Nasser[3] and Pancho, from Jornal de Santa Catarina, as well as news media sites in Blumenau and region.

As noted in Siemens (2005) and Duke, Harpers, Johnston (2013) students learned on their personal network, sharing and talking about the project and the decisions they had to make, which was very important in the context of Project Based Learning. Thus, with co-participation and co-creation, they improved their ability to share and learn more about the subject. They used to search many different sources and databases during the process for developing activities.

6. Final Considerations

The purpose of this paper was to describe a teaching experience based on collaborative learning through co-participation and co-creation. On digital platforms students created a physical and virtual exhibition of female journalists. As a result, they assumed a central role in the learning process, learning through practical and collaborative methodologies.

This experience report paper is only initial, and, as a suggestion, it is proposed that a study should be developed with students and professors that participated in the process.

It became evident in the experience that the contact of the students through the virtual environment has created different possibilities to enrich knowledge. As a conclusion, the introduction of ICTs and virtual learning environments in the traditional model of teaching can enhance the interactivity in the teaching and learning process. The contact with students through the virtual environment, in semi-face-to-face activities, has also been shown to be an alternative that assists in classes for the consolidation of knowledge.

The ICT tools used for the development of the A Voz Delas Project were free and available to students, but they were proprietary and had access to the students' personal data, which we can configure as limiting, as it can compromise students' privacy and also, from the research itself.

Referências

BERNERS-LEE, Tim. The World Wide Web: past, present and future. 1996. Disponível em: <http://www.w3.org/People/Berners-Lee/1996/ppf.html>. Acesso em: 22 jul. 2020.

CASALE, Adriana. KURI, Nídia P. SILVA, Antônio N. R. Mapas cognitivos na avaliação da Aprendizagem Baseada em Problemas. Revista Portuguesa de Educação, Braga, v.24, n.2, 2011. Disponível em: <http://www.scielo.mec.pt/scielo.php?script=sci_arttext&pid=S0871-91872011000200011>. Acesso em: 28 Mar. 18.

CASTELLS, Manuel. A sociedade em rede. Rio de Janeiro: Paz & Terra, 1999.

DILLENBOURG, P. What do you mean by "collaborative learning"? In: Collaborative learning: cognitive an computational approaches. Oxford: Elsevier. p. 1-19. 1999.

DOWNES, S. What connectivism is. 2007. Disponível em: <http://halfanhour.blogspot.com/2007/02/what-connectivism-is.html>. Acesso em: 22 jul. 2020.

DUKE, Betsy. HARPER, Ginger. JOHNSTON, Mark. Connectivism as a Digital Age Learning Theory. The International HETL Review, Special Issue, 2013.

FIGUEIREDO, A. D. AFONSO, A. P. Managing learning in virtual settings: the role of context. Coimbra: Universidade de Coimbra, 2006.

GATTI, Bernardete Angelina. A construção da pesquisa em educação no Brasil. Brasília: Plano, 2002.

HALMANN, Adriane; PRETTO, Nelson. Bordas de nuvens: episteme emergente na produção e difusão do conhecimento na web 2.0. Epistemologia, construção e difusão do conhecimento. Perspectivas em Ação. Salvador: EDUNEB, p. 219-248, 2011.

LÉVY, Pierre. Cibercultura. São Paulo: Editora 34, 2000.

MASSON, Terezinha Jocelen. MIRANDA, Leila Figueiredo de. MUNHOZ JR, Antonio Hortêncio. CASTANHEIRA, Ana Maria Porto. Metodologia de Ensino: aprendizagem baseada em projetos (PBL). In: XL Congresso Brasileiro de Educação em Engenharia, 2012, Belém/PA. Anais... Disponível em: <http://www.abenge.org.br/cobenge/arquivos/7/artigos/104325.pdf>. Acesso em: 30 Mar. 18.

MATTAR, João. Constructivism and connectivism in education technology: active, situated, authentic,

---

[3] https://www.nsctotal.com.br/colunistas/fernanda-nasser/jornalistas-de-blumenau-sao-homenageadas-com-exposicao-a-voz-delas

experiential, and anchored learning. RIED. Revista Iberoamericana de Educación a Distancia. Madri, v.21, n.2, p. 201-217, 2018.

MAURER, A. M et al. Yes, We also Can! O Desenvolvimento de Iniciativas de Consumo Colaborativo no Brasil. In: ENCONTRO DA ANPAD, XXXVI, 2012, Rio de Janeiro. Anais… Rio de Janeiro: ANPAD, 2012.

O'REILLY, Tim. What is Web 2.0: design patterns and business models for the next generation of software. 2005. Disponível em: <http://oreilly.com/web2/archive/what-is-web-20.html>. Acesso em: 22 jul. 2020.

PALLOFF, Rena M. PRATT, Keith. Construindo comunidades de aprendizagem no ciberespaço: estratégias eficientes para a sala de aula on-line. Porto Alegre: Artmed, 2002.

SANTAELLA, Lucia. Desafios da ubiquidade para a educação. Revista Ensino Superior Unicamp, v. 9, p. 19-28, 2013.

SIEMENS, George. Connectivism: a learning theory for the digital age. 2005. Disponível em: < http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.1089.2000&rep=rep1&type=pdf >. Acesso em: 22 jul. 2020.

SILVA, Bento Duarte, SOUZA, Karine Pinheiro. Coinvestigar A Distância Em Tempos De Cibercultura: Relato De Uma Experiência Sobre Coempreender. Revista da FAEEBA – Educação e Contemporaneidade, Salvador, v. 24, n. 44, p. 55-68, jul./dez. 2015

SILVA, Maria Graça. Mobilidade e construção do currículo na cultura digital. In: ALMEIDA, Maria Elizabeth; DIAS, Paulo; SILVA, Bento. Cenários de inovação para a educação na sociedade digital. São Paulo: Editora Loyola, 2013.

SILVA, M. Educação na cibercultura: o desafio comunicacional do professor presencial e online. Revista da FAEEBA: Educação e Contemporaneidade, Salvador, v. 12, n. 20, p. 261-271, jul./dez, 2003.

SPIVACK, Nova. Making sense of the semantic web. 2007. Disponível em: <http://novaspivack.typepad.com/nova_spivacks_weblog/2007/11/making-sense-of.html>. Acesso em: 22 jul. 2020.

STAHL, G. KOSCHMANN, T. SUTHERS, D. Computer supported collaborative learning: an historical perspective. Cambridge handbook of the learning sciences, Cambridge University Press, p. 409-426, 2006.

VALIATI. V. A. D. Crowdfunding e Indústria Cultural: as novas relações de produção e consumo baseadas na cultura da participação e no financiamento coletivo. Verso e Reverso, v. 27, n.64, p. 43-49, 2013.

VYGOTSKY, L. S. Pensamento e linguagem. 4 ed. São Paulo: Martins Fontes, 2008.

Acknowledgement