Online Learning Environments enriched with audiovisual technologies and its impact on the construction of virtual communities in Higher Education in prison context

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(submitted: 03/09/2019; accepted: 04/11/2019; published: 30/04/2020)

Abstract

Access to education and training has been a growing concern to different international organizations, and the concern for socially vulnerable groups at risk of exclusion, such as the prison population, in particular, has been increasingly evident. In this context, and assuming that education and training in prisons must have a similar degree of demand as regular educational institutions, Online Education, mediated by digital platforms, is an opportunity for inmates to acquire knowledge and skills. In fact, the integration of digital platforms in the context of imprisonment can be a very appropriate tool to revitalize the educational experience. It is precisely the creation of learning environments enriched with audiovisual technologies that we intend to analyse, describing their impact on the creation and development of a virtual learning community, based on the qualitative analysis of the perceptions and narratives of seventeen students attending Higher Education in prisons and having as reference the pedagogical models developed by Garrison et al. (2000) and Moreira (2017). The results show that the design of the online environment anchored in these models and in the use of audiovisual technologies can have very positive effects in the creation and development of virtual learning communities in higher education in prison context.

KEYWORDS: Education in Prisons, Audiovisual Technologies, Online Learning, Virtual Learning Communities.

1. Introduction

The world is constantly changing as a result of globalization, which has led to the emergence of a “new society” based on information and knowledge, but also to the creation of new inequalities, adding to the vulnerability in which many people find themselves, as in the case of those in detention. It is, therefore, more and more urgent to rethink educational paradigms, educational communication processes, learning scenarios, and pedagogical models.

In fact, the right to education is related to the one of universalization (Bolívar, 2012). As such, ensuring the development of learning skills is directly related to the equity paradigm.

That is why learning programmes that shape the needs of its participants, in line with the ideas of equitable justice (Bolívar, 2012; Murillo and Hernández, 2011), truly contribute to bring different social groups together, to ensure that everyone is given access to Education,

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and, above all, to “give people the means to develop their skills and competencies that enable them to read the world and, on the basis of this critical analysis, to know how to face it and to develop themselves in a dignified way” (Hurtado, 2005, p. 7).

Access to education by detainees should, therefore, involve not only the development of skills in areas that may be useful for their reintegration in the community, but also in digital proficiency, which has been described by the European Commission (2003, 2005) as one of the most important competencies for real social integration, thus adapting their learning to labour market needs (Dias-Trindade, & Moreira, 2019).

By participating in Online and Digital Education, there is a possibility of solving the issues of distance and restrictions, promoting "not only learning by discovery, eventually even collaborative, but also the synchronization between individual development and context, promoting greater motivation, more dialogue, interaction and communication" (Dias-Trindade, & Carvalho, 2019, p. 52).

It is then crucial to find strategies that help citizens in detention to develop new learning skills by facilitating their reintegration into the community after release (Recommendation N. R(89)12, Committee of Ministers of the Council of Europe). That is why "it is required to rethink education's aims and methodologies, based on a concept of literacy that is in continuous evolution, related to the competencies required to read, understand and communicate" (Dias-Trindade, & Moreira, 2019, p. 99).

In this context, Online and Digital Education or modalities such as BLearning can achieve these goals, as they enable online and offline access to resources and learning activities. Indeed, Online Education has been recognised at the beginning of this century as very appropriate to respond to the challenges that the globalized world poses to the acquisition of knowledge and the development of digital and social skills (Garrison & Anderson, 2003; Moore et al., 2011). Considering the increasing importance that technologies have assumed in society, individuals in compliance with a sentence or judicial measures should have the opportunity to use digital platforms for educational purposes.

Considering the restrictions that these individuals have in terms of access to the attendance of educational activities in Higher Education institutions, some Online and Digital Education projects have been developed in prisons, such as Telfi (2004), ELIS (2004), PiPELinE (2005), LiCoS (2008), Virtual Campus (2009), Internet for Inmates (2010), or EPRIS (2015) and Digital Campus Educonline@pris (2018) in Portugal. All these projects have in common the desire to contribute not only to the development of new mechanisms that foster the acquisition of knowledge and skills, but also to promote social and digital inclusion.

With the intention of promoting the development of competencies, such as communication, collaboration, or problem solving, we developed a university extension program in a Portuguese prison based on the use of the digital platform Moodle as an educational tool. The choice of an active learning methodology supported by the use of audiovisual technologies clearly takes on the responsibility of developing education for and with Image, in order to allow students to be able to analyse different sources of information and to communicate through multimodal mechanisms.

Considering the potential of Online Education, enriched with audiovisual technologies, we developed this study with the objective of evaluating the impact of pedagogical practices based on the virtual models developed by Garrison et al. (2000) and Moreira (2017) in dimensions such as the ability to discuss and solve problems, or in the capacity to communicate or exchange opinions, from the qualitative analysis of their perceptions and narratives.

These practices seek to meet the needs of a specific group of students, in line with Hobhouse (1992) who argued that institutions are not good because they serve the majority, but because "they make the nearest possible approach to a good shared by every single person whom they affect" (p. 121). Considering the principle of social justice (Connell, 2012; Bolivar, 2012) as a process and as a democratic model that includes participation in different social and cultural institutions (Young, 1990) is the premise on which we seek to develop this programme.

2. Pedagogical models to create and develop virtual learning communities

In recent years, we have witnessed the emergence of several pedagogical models in virtual environments related to the development of learning communities that have allowed a reflection about the "new" roles that both teachers and students are called to play in different educational scenarios.

Among the existing models on creation and promotion of virtual learning communities, we highlight, for their actuality, adaptability and relevance, the model of Community of Inquiry (Garrison et al., 2000), the model of e-moderation (Salmon, 2000), Faerber’s model of interaction in virtual environments (2002), Henri and Basque’s model of collaboration in virtual environments (2003) and the pedagogical model centred on the "Deconstruction" of Moving Images (Moreira, 2017). From the referenced models, we will focus on the first one, because it is the one that has obtained a great empirical support, being studied all over the world, and because we based our study on its framework, as well as the last one as it is a model specifically built to develop learning activities centred on the pedagogical exploration of audiovisual resources.

The Community of Inquiry model elaborated by Garrison, Anderson and Archer for Online Education (2000), and later developed by Garrison and Anderson
(2003), is based on three basic dimensions: cognitive, social, and teaching presence. The cognitive presence corresponds to what students can construct and confirm meaning from a sustained reflection and critical discourse. Social presence corresponds to the ability of members of a community to project socially and emotionally through the medium of communication in use. Finally, the teaching presence is defined as being the direction, the design, the facilitation of the cognitive presence and the social presence in the sense of realizing significant learning outcomes. The existence of these elements and their interrelationships are crucial to the success of educational experiences. For Garrison and Anderson (2003), this model is based on a constructivist perspective of learning where construction of individual knowledge is largely due to the social environment.

In turn, the pedagogical model for designing e-learning activities centred on the "deconstruction" of moving images is one whose lines of strength and theoretical principles are based on learning: constructivist, collaborative, and grounded in communities of practice; based on interaction, assuming it as a principle underlying the pedagogical process, determining not only motivation, encouragement and mutual trust, but also regulatory evaluation of the teaching-learning process and feedback; promoter of the concept of multiliteracies understood as the need to help students develop new skills of discursive analysis, to the point of enabling them to transmit and represent their world through models or new multimodal formats; and humanist, where the student takes an active role, engaging and committing himself to his learning process and where the teacher assumes the role of a moderator that accompanies, motivates, and dialogues, fostering and mediating a positive human interaction (Moreira, 2017).

The pedagogical discourse and its theoretical elaboration were decidedly interested in the subject, given that they realized how the central concept of learning was enriched and became more ubiquitous, in a process of transformation that is also changing the very concept of education, ever more digital and networked.

3. Methodology

In line with the objective defined in the introductory section, this study seeks to answer the following question: can the pedagogical models under analysis promote the creation and development of virtual learning communities and transversal competencies even in a context of great social vulnerability, such as the case of a prison environment?

The nature of the study and the research project model (Fig. 1) led us to consider an approach such as Action Research (AR) as its empirical basis is associated with an action or with the solving of a collective problem in which researchers and participants engage in a cooperative and participative way (Thiollent, 2005).

Distinct from other research methods of social and educational areas that look only to describe the context studied, this method seeks to promote organizational change by involving all stakeholders in learning and reflection cycles about the problem at study (Cassel & Johnson, 2006).

The choice of this methodology is justified, especially, because, as Altrichter, Posch and Somek (1996) state, it “lies in the will to improve the quality of teaching and learning as well as the conditions under which teachers and students work in schools. Action research is intended to support teachers, and groups of teachers, in coping with the challenges and problems of practice and carrying through innovations in a reflective way” (p. 4).

As Eden and Huxham (1996) refer, from the analysis of all the information gathered and the results obtained, it will then be possible to present information in an active and participative way, where "all people speak for themselves. The stories are first-person 'I' stories" (McNiff & Whitehead, 2009, p. 53).

The sample consisted of a group of seventeen inmate students from a Porto Prison (EPP) and represents all the students that were then attending undergraduate degrees in the form of DL and e-learning, at Universidade Aberta (Portugal). This particular prison was chosen because it has the largest prison population frequenting distance higher education courses in Portugal. This prison is classified as a High Security prison and its accommodation space is spread over four pavilions, with both individual cells and cell blocks. It has a Drug Free Unit, a Security Section and a Health Unit that allows for a range of specialist and inpatient consultations. It also has a sports field and a gym and is equipped with work rooms and a school, where inmates can frequent elementary, secondary and higher education. Table 1 presents the students’ characteristics, according to variables that can give us a clear picture of the
respondents’ profile. These students are pre-trial or convicted prisoners awaiting transfer to other prison facilities.

The study aims to analyse the impact of pedagogical practices based on the virtual models developed by Garrison et al. (2000) and Moreira (2017) in dimensions such as the ability to discuss and solve problems, or in the capacity to communicate or exchange opinions, from the qualitative analysis of the students’ perceptions and narratives. Because of the nature of this subject, it was important to conduct a qualitative study in which direct speech is used in an interpretative approach in order to contextualize and explain the views of respondents inside a prison in Portugal.

To obtain data for the study, semi-structured interviews were conducted. To analyse the data obtained, a research technique was used to decode the semi-free and apparently mixed statements: content analysis (Bardin, 1977; Vala, 1986).

The analysis of the data collected from interviews was based on two alternating phases: a vertical analysis of each interview was made; a horizontal or comparative analysis was made using the “constant comparative analysis” method (Miles & Huberman, 1994) to identify common and different aspects of the representations and perceptions of respondents. These data are also shown in figures, along the text, to explain the relevance of some of their opinions. This information organizational model was chosen because it will allow us to study the respondents’ views in a systematic and analytical way and will give us a more adequate view of their overall ideas.

Considering the scope and purpose of the study, as well as the documentary analysis of some relevant norms in the context under study, our source of inspiration to build our instrument was the Community of Inquiry Survey Instrument (CoI) developed by Garrison and collaborators (2000), later adapted to the Portuguese population by Moreira and Almeida (2011). Thus, the three dimensions that constitute the CoI were those that we defined for our instrument (Table 2). The first - Cognitive Presence- representing the ability of group members to construct meanings through dialogical communication, sustains reflection and critical discourse; the second -Social Presence- representing the participants’ ability to project themselves socially and emotionally through the visualised films; and the third - Teaching Presence- representing the teacher’s ability to define direction, design, and facilitation of cognitive and social presence towards the achievement of learning outcomes.

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<td>Perception of Doubt</td>
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Table 1 – Participants (Source: Prepared by the authors).

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Table 2 – Codification of the COMMUNITY OF INQUIRY model (Source: Prepared by the authors)
Based on these categories, we defined a series of open questions that constituted the corpus of the interviews.

4. Presentation and discussion of results

As previously stated, this study aims at knowing the representations of inmate students in relation to the impact of the pedagogical models presented here, for the creation and development of a virtual learning community, especially with respect to the communicational dynamics created among that community.

Thus, in the first category -Cognitive Presence- related to students’ ability to discuss, solve problems and integrate new knowledge, there were sixteen positive records and only one negative one, which suggests that the majority of students consider that the practice developed allowed the exchange of information, connection and application of new ideas.

This dimension is associated with the capacity to construct meanings from reflections and communication (Garrison & Arbaugh, 2007), competencies mirrored in the words of student -ES14- when he states that it was possible "to align different points of view about the same phenomenon", despite the different experiences of each participant, denouncing the sharing among all in the construction of their knowledge. Garrison, Anderson and Archer (2000) indicated that the cognitive presence was operationalized in four stages, starting with the initial event (visualization of the audiovisual resource), then exploration (the "deconstruction" of moving pictures) that leads to the development of critical thinking, reflection and discourse, followed by the integration of these ideas in the formation of new knowledge until the last stage, of application of this knowledge or, as stated by student -ES2-, from the discussion and assimilation of ideas "there is an increased capacity to [...] take advantage of them as knowledge", that is, to apply them in new contexts, for instance, educational, or, in the case of these students, in future professional contexts.

It should be noted that this student's idea is aligned with a sociological film perspective, which assumes that "certain cultural experiences, associated with a certain way of seeing films, end up interacting in the production of knowledge, identities, beliefs, and worldviews of a large contingent of social actors" (Duarte, 2002, p. 19).

Student -ES12- in turn considers that:

"[...] being a method with different resources from those we are accustomed to was more captivating and led me to think and to rethink the truths that I had about certain subjects" (UR12).

This approach and pedagogical action of the teacher proves to be extremely important, because it allows the student to, as highlighted, have an active participation in the learning process, building his own knowledge.

However, not all statements go towards building the learning community. As we can see in the second record unit, student -ES10- states that despite considering the strategy interesting, he did not particularly like it, maybe because he prefers more classical approaches, without the use of the digital, and closer to an explanatory pedagogy, which suggests that we should consider not just a closed view of a technology, pedagogy or pedagogical model, but consider different pedagogical possibilities, in a plural dimension.

With regard to the second category, Social Presence, also with seventeen records, the classification of the record units shows a very high number of perceptions with a very positive tendency (sixteen), which clearly indicates that the students consider that the models and the methodology made it possible to strengthen the bonds of affection among the classmates, forming a solid learning community, where the members of this virtual community expressed themselves freely and where they were encouraged to collaborate and share information.
and knowledge with autonomy, creativity and in a very active way.

As can be seen in the third record unit, the student -ES11- underlines the importance of collaborative work and of a virtual learning community for the success of the training when he refers to the "ability to communicate openly", the "exchange of arguments between the group" and the fact that they "respect the opinions discussed" as positive aspects of the adopted pedagogical strategy. Picciano (2002) states precisely that social presence becomes less important if there are no collaborative activities where students can benefit from the different perspectives that will surely exist.

Also, student -ES5-, in the first record unit, underlines the facility to communicate "openly" in this space without prison bars, respecting different opinions, despite cultural differences and diversity of thought among the elements of this community with even elements from different nationalities who, despite some linguistic barriers, didn't restrain themselves from participating:

"ES12- "Of course, as a foreigner, my ability to communicate is smaller, but I didn't stop participating, on the contrary... it was a very interesting experience." (UR29)

Most testimonies collected underlie these advantages, suggesting the development of competencies related, for example, with communication, collaboration, and discussion of different ideas and points of view, which implied the "social presence" advocated by the pedagogical models and the deconstruction of pre-conceived ideas:

"ES7- "I always expressed my opinion openly, exchanged arguments with the group members, seeking to always respect them all". (UR24)

Also noteworthy is that, as can be seen in the third record unit, there is a student -ES9- who apparently was not comfortable with the social implication strategy, stating that the environment was not the right one for discussion, and therefore, he decided not to intervene in the discussions. To be noted, however, that this is an isolated opinion that seems to be connected with the student not wanting to expose himself to the group.

The last dimension -Teaching Presence- is, as seen by Garrison, Anderson and Archer (2000), fundamental for a relevant educational experience to occur and is, therefore, necessary to design the process, monitor and mediate learning. In this category, it should be noted that all students positively felt the teacher's action in the construction of knowledge.

As we can see in the three record units, the students report that the teachers' presence was very important because they guided the discussions, raising questions that invited reflection and collaborative work. In addition, they also emphasized that the teachers created an environment conducive to the exchange of opinions. For student -ES2-, the teachers had an important presence that made

"discussion easy and creat[ed] very healthy environments".

This statement demonstrates the importance of the teaching presence in the “facilitation” of learning, in directing both cognitive and social processes and, therefore, in the development of meaningful learning. It should be noted that this student is referring to the teachers as "advisors" and facilitators of the process of acquiring knowledge. This role of teacher-advisor, teacher-facilitator, teacher-mediator is related to a new learning culture intrinsic to the proposed models, which presupposes that teachers rather than just transmitting or dictating information, should promote in their students competencies in searching, selecting and interpreting available information, assuming themselves as mediators, moderators, and facilitators (Salmon, 2000).

Another interesting testimony is the one from student -ES6- when he states that

"the teachers assumed the role of moderators and were always guiding the discussions in an oriented way. Even though it seemed they gave no opinions, they were influencing and guiding the discussions in the digital space". (UR40)

These perceptions and the others not transcribed here, as they are very similar, reveal that one of the major potentials for implementing this methodology, using digital technologies, has to do with the interactivity and interaction that can be established among the different participants. In this interaction process, one can see that the teacher is responsible for identifying relevant knowledge and proposing experiences that lead to critical thinking and reflection.
5. Conclusions

The result of our study, and answering our initial question, reveals that the implemented pedagogical practices based on the virtual models developed by Garrison et al. (2000) and Moreira (2017) can have very positive effects on the creation of virtual learning communities, with impact on the development of competencies such as collaboration, communication, creativity or critical thinking.

Through the analysis of students’ perceptions in both Cognitive and Social Presence dimensions, we were able to conclude that the pedagogical strategy, using digital tools and audiovisual resources, allowed to create a favourable environment, promoter of a process of critical thinking, where information and knowledge were shared, with autonomy and creativity. With regard to the dimension Teaching Presence, we can conclude that the students consider that this was a very important element in the process, as the teacher sought to implement and develop the virtual community and guide the learning of its members.

Based on these perceptions, we can then affirm that these pedagogical practices, based on visualisation of films and anchored by constructivist pedagogical models, allow the formation and development of consistent virtual learning communities, even considering that the members of these communities are confined to a physical space, but can be "set free" with the digital and navigate to other spaces and times with the help of cinema. However, in spite of these evidences, a careful reading of the results also indicates that there is a minority of students who did not feel very comfortable communicating in such a virtual learning space, indicating the need to create alternative and personalised educommunication spaces that respond to the needs of all the students. With this in mind, we have started a new research cycle based on the concept of personal learning environments supported by bLearning systems that allow, for example, the creation of hybrid learning communities, combining face-to-face and virtual environments, modalities, tools and digital technologies.

Regardless of these limitations, we think that this study is a positive example of adapting education to the needs of those who are on the verge of exclusion and social futility in situations of extreme social or risk vulnerability, seeking, on the one hand, to find ways to approach these citizens, in a context of reclusion, of greater equity and social justice and, on the other hand, to reduce possible forms of discrimination by accessing, or not, education (Young, 1990; Honneth, 2010).

In summary, we are convinced that if education is to fulfil its purpose of building a more just and democratic society, it will have to foster awareness of the conditions of oppression and ways of eradicating injustices in these contexts of imprisonment and of mobilizing social justice critique, to denounce and announce new educational policies of inclusion.

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Moreira J.A., Dias-Trindade S.

DOI: https://doi.org/10.1016/S1096-7516(00)00016-6


