

# IMPROVING ACADEMIC AND PROFESSIONAL ENGAGEMENT IN HIGHER EDUCATION ONLINE STUDENTS THROUGH VIDEO-MAKING: SCHOOL LIBRARIANS ON THE SCREEN

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## Abstract

There is an increasing offer of online training in higher education, which develops the interest in educational research and consolidates new conceptual practices applied to e-learning. This study seeks to reflect on the use of video creation by students as an active learning strategy, with a view to greater student involvement in a distance university. From the context of a curricular unit that uses different strategies beyond the traditional reading of documents, including active learning, it is intended that the student participates in a committed way, preparing future professional practices. Thus, the creation of videos was proposed as a powerful tool to engage students. The strategy was aligned with feedback. Achievements granted by the students who participated in the activity proved what the literature has stated: that the active learning approach based on videos positively achieves the objectives and results that aim at successful learning. Also, feedback reinforces student self-regulation, enabling insights that improve their experiential learning.

Keywords: Video-making, Active Learning, Distance Education, Higher Education.

## 1 INTRODUCTION

In recent years' higher education has seen several transformations, online higher education is no exception. Within the pandemic context, people sought alternative forms of learning, and distance learning suffered positive and negative consequences of this new perception of reality by civil society. There was a lack of preparedness (from students and institutions), low quality of interaction, lack of motivation, lack of class activities, and forceful adoption of e-learning. Also, opportunities emerged through a set of suggestions such as comprehensive emergency management plans for education, the introduction of student counselling and psychological support programs, and strategic plans for the quality of online learning content [1]. Some recommendations point to possible changes in traditional educational contexts, incorporating the benefits of virtual learning into traditional learning methods, as virtual learning cannot replace it. Nevertheless, the challenges also came to e-learning, where there is room for improvement, towards the need to attend to the growing number of students, characterized by diversity and specific demands [2], namely in the professional updates.

Currently, each individual participates in a digital culture, where he traces the particular trajectory that allows him to develop learning. That means learning happens and manifests itself in different ways, beyond the classroom - videos, social networks, posts. Therefore, the digital culture encourages new constructions and interactions. From an educational perspective, digital culture promotes new spaces for creation and autonomy in training processes, involving the cognitive, sensory, and conceptual domains in new forms of expression and communication [3]. In this sense, the school, and the classroom, as constant interactions promoters, can contribute to experimentation, development, and maturation, which leads to reflection, even in e-learning environments.

In this context, active methods gained relevance, since they place the student at the center of learning. Student-centered learning requires the meaningful and self-regulated use of the available learning resources based on printed, digital, multimedia, or other information. The role of teachers as creative professionals requires, to achieve student-centered focus, a highly deliberate form of teaching that promotes active participation, leading to pedagogical innovation [4]. Several studies advocate the introduction of active learning in teaching strategies, including higher education [5]–[7], explaining that active learning is iterative, dialogical, and mostly collaborative; it is about the doing of understanding and, hence, about the application of knowledge in new and authentic situations. In other words, active learning is an umbrella term that encompasses student-centered teaching methods that engage

students in some activity, based on research and documenting that people learn better when actively involved than when they passively receive knowledge [8]. In summary, good learning processes can be carried, from active methods, which ensure student involvement and participation, as this activates the development of transversal competencies. That implies a change in pedagogical strategies towards student-centered, interdisciplinary, and continuous assessment activities [9].

In the present work, a new activity, using videos, takes the stage in an online librarian's master's course. Future information professionals and school librarians must be aware of the principles and general characteristics of information organization, description, even as information provision and access, following international standards. At the same time, they have responsibility for supporting learning and educational development, experiencing the growing impact of academic convergence on both their practice and their professional identity [10]. They have to develop technical skills and also educational ones.

Through efficient management of library collections, it is possible to retrieve information at the research moment. However, for the documentation to acquire a tangible value for its users, manifested by the possibility of using it, the school librarian needs to explain, throughout information literacy, all the procedures. That supports the proposed activity: explaining information retrieval in the library to a primary or secondary school student' through a video prepared by his teacher-librarian.

The study addresses the implementation of an active teaching method, in the discipline "Organization and Information Management" included in the study plan of the Master in Information Management and School Libraries, at Universidade Aberta, based in Lisbon. The teaching is entirely online, taught at a distance. Preferred students are professionals teaching qualified, who intend to exercise coordination functions in school libraries, and other professionals who want to intervene and develop projects in the area of school libraries. This study aims to describe and explain this training activity that uses an active learning method - the development of an educational video in this disciplinary area - analysing and understanding how students adhered to this methodology in distance learning and prepare themselves to professional sets.

Active learning requires students to engage meaningfully, cognitively, and emotionally with other students, the task assigned, and the material or resources used to complete the assignment [11]-[12]. Additionally, the learning experience in active learning has to ensure that students engage continually in the learning activities, maintaining focus, effort, curiosity, persistence, and using different cognitive strategies [7], [13]. So, introducing a task where they take the responsibility of writing the script, preparing the set, filming, editing, and producing a short 3-minute film seems to be a strategy that generates effective involvement.

Wide-spread use of digital learning environments has facilitated the integration of a diverse range of video materials into course and program curriculum. Previous studies indicate that motion videos are more engaging and support individuals' recall performance [14], and help to overcome student social absence, promoting a sense of community [15], also contributing to student retention [16]. Video materials have become an integral part of university learning and teaching practice, influencing the effects on learning quality, such as content and learning outcomes, transfer, academic achievement, among others [17].

Throughout most of the XX Century, as each new medium (films, radio, television) entered the world of education, instructional practices have changed. However, it seems that each medium had minimal effects on educational practices. In recent years, the spreading access to computer technologies and the internet affect profoundly instructional practices, influencing design models and improving learning and performance [18]. Video technologies in education became support for students' learning and, in addition, prove to be a reflection tool for teachers and raise a significant role in the context of professional development [19]. Video technology in education is easy to access, promoting learner control, integration, bridging theory, practice, and changing perceptions about technology [20]. Moreover, video is becoming the main method of content delivery in online education, and in consequence, main research is focused on effectiveness of video as a pedagogical tool, from teachers to students, namely on MOOCs' [21].

Student video production as a learning tool has proven its benefits. Video making is a learning strategy for countless subjects but can be useful to present and explain one's solutions to a problem after knowledge acquisition [22]. In other words, participatory multimedia learning is learning with systems that enable learners to produce part of the learning materials, fostering the constructivist learning process. In this case, as in similar experiences [23]-[24], the activity was thought to create connections between corresponding verbal and visual information along with relevant prior knowledge.

However, a previous study [17] alerts us to the need for careful alignment between learner prior knowledge, consequent adjustment of the presentation of the video, and the accompaniment of the video with tasks that help learners spend time paying attention to particular elements presented. The same authors [17] underline that there must be previous considerations if the medium offers the best content conveyance for the information to be learned (procedural, declarative knowledge, comprehension or recall, focus on details, or situational analysis, etc.). And this was made with clear goals to the assignment and teacher close follow-up.

## 2 METHODOLOGY

Based on video-making as a task for students to improve their reflection on professional learning, the paper uses a case study methodology. The observed activity was performed by future school librarians' within the scope of a Master's Degree in Library and Information Sciences. Are considered the works of students from the 2020/2021 academic year.

The Universidade Aberta is headquartered in Lisbon, Portugal, and provides online courses for the Portuguese and Portuguese-speaking worldwide population. Exclusively distance learning, the institution is effectively committed to the student's engagement.

The class under study is composed of 10 students, of both sexes, from the first year of the master's course. The curricular unit Information Organization and Management intends students' get in contact with fundamental notions and concepts associated with Information Science, learn to treat and systematically manage information, organize information, and adequately support library users.

Each thematic module begins with an introductory instructional video from the teacher, supported by selected texts for reading. There is also an online discussion forum for students to interact. Finally, an evaluation activity follows. The proposed assignment corresponding to the third module evaluation is presented below, which contains the exercise of video-making.

Table 1. Proposed activity with video making.

	<i>Instructions</i>
<b>Activity</b>	<p>This work [until June 2] has as main objective to promote the understanding that cataloging made sense only when the results of individual searches for the user. So, to frame the search and information retrieval, you must present a video tutorial that demonstrates the research in a catalog. The video must be up to 3 minutes long and must have a pedagogical concern, describing a process of research and information retrieval. It can be based on the research' performance of a student or teacher (tutorial on how to search) or integrate the interaction of a student or teacher (example of an information search). You can use one of the following video editors or similar ones, or even make a video with your smartphone in a simple way. It can even record a PowerPoint with audio.</p> <p><i>Proposed Tools:</i></p> <p><a href="https://www.techsmith.com/video-editor.html">https://www.techsmith.com/video-editor.html</a></p> <p><a href="https://screencast-o-matic.com/">https://screencast-o-matic.com/</a></p> <p>The work will be evaluated in its pedagogical component, creativity, and the demonstration of the effective use of a catalog, fulfilling its maximum time.</p>

## 3 RESULTS AND DISCUSSION

Experiential learning has been in use for several years and intends to promote deeper understanding and drive self-learning, particularly in the professional setting [25]. This exercise sought to enable what Wenger-Trayner & Wenger-Trayner [26] referred to as "*learning as a journey through a landscape*". In the authors' words, "*learning is not merely the acquisition of knowledge. It is becoming a person who inhabits the landscape with an identity whose dynamic construction reflects our trajectory through that landscape. This journey within and across practices shapes that we are. Over time it accumulates memories, competencies, key formative events, stories, and relationships to people and places. It also provides material for directions, aspirations, and projected images of ourselves that guide the shaping of our trajectory going forward*".

In addition, relating technology with learning, not just a way that students learn from it, but that they can learn with it, creates active and meaningful learning. When learners are engaged in real-world tasks, they manipulate, change, experiment, and then observe the results of these manipulations [27]. That also means that this active learning process promotes creative participation and learner engagement.

Self-publishing videos have value in that they offer affordable training in creative connecting with the school library's public. Furthermore, they provide a practical learning journey, enabling students the increased engagement, the more they learn from the experience. That situated experience allows students to gain professional experience (in the provided contents) while being supported by the teacher (with constructive feedback).

This type of curriculum activity provided specific and proactive preparation for the student in two stages. First, the student has to summarize the learned material, making connections with the organization of a school library. Then he has to demonstrate to a potential student how he can discover, access, and use information in the school library, explaining the several steps. Given these requirements, the works presented comply with the defined requests in terms of purpose, time, and format. Finally, there was feedback from the teacher to them.

As an approach to real-life situations, in line with other studies [27], [28], the video recording task was used to promote situated, practice-based learning, support skills development, and broaden the understanding of the professional practice [28], [29].

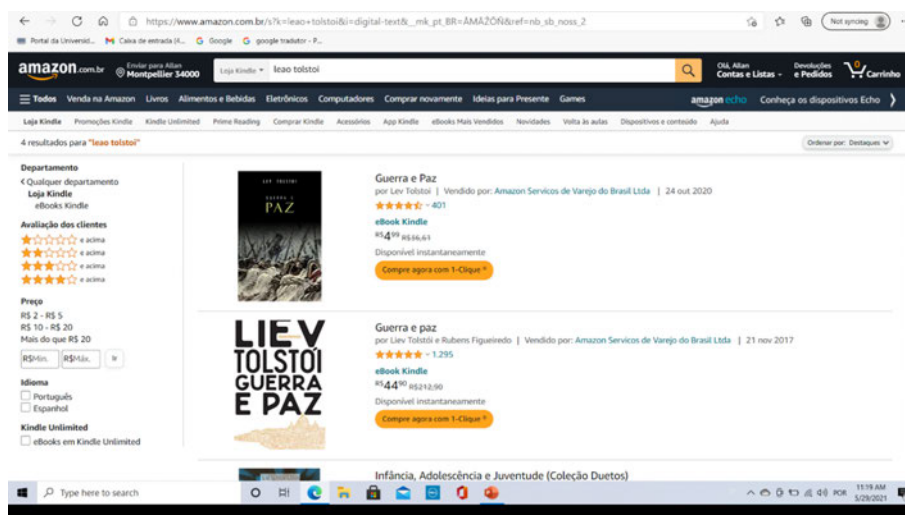


Figure 1. Example of a commercial site search

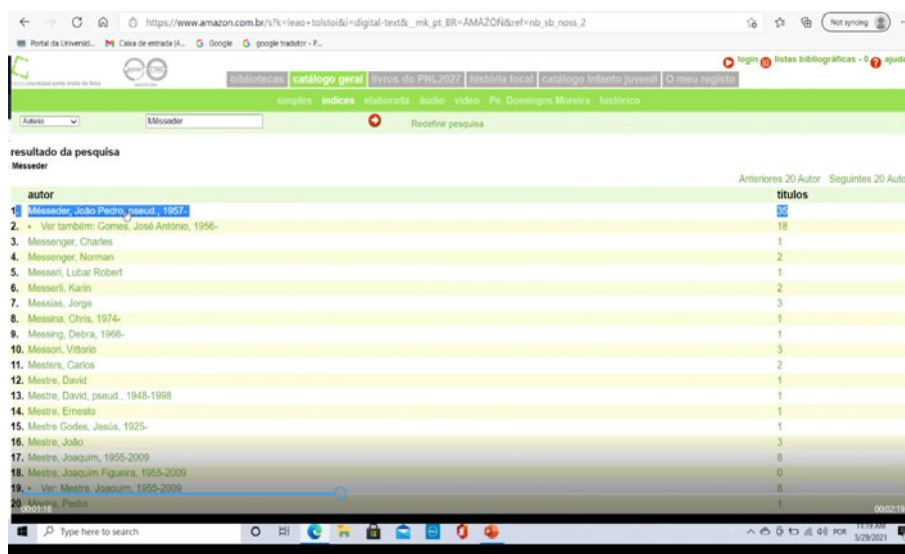


Figure 2. Example of a simple catalogue search



*Figure 3. Example of an elaborate search explanation in a library, including catalogue and shelves*

Although diverse presenting styles, the goals set were achieved. Students found the task challenging, but understood its usefulness and relevance, making a good connection with previously learned content. We must underline that the immersive learning experience factor, which draws on the student' as a creator and video producer, improves different skills and engages these students into learning.

By creating a safe place to discover who they are or can be as future school-librarians, this experience encouraged a reflective lesson deeper than superficial learning, which is one of the values of higher education, not about simply building vocational skills. In general, all the videos demonstrate excellent creative work: from a pedagogical perspective, they were well done, appealing, and aged' appropriate; technically, some students used background music that improved the quality, and some used narration to clear the visual explanation. Vibrant explanations were shown, with all the research steps until the book gets at the reader. So, teacher-librarians could make the videos available on the school library's website, in a real environment, as that is very suitable to the proposed.

The works, overall, demonstrate an understanding of the search path while showing advanced search strategies. These results are consistent with the literature that explains the importance of practical hands-on projects [30], particularly those during which the students design and produce educational videos about the studied topics' in a way that supports meaningful learning [31]. In addition, designing, setting, and video producing' about the content matter may promote students' digital literacies, along with their creative abilities.

Situated learning [29] provides access to opportunities and experience, essential for practitioners to develop their disciplinary skills. At the same time, it prepares for the uncertainty of real life after graduation. The combined pressure to achieve results with the creative process can mobilize different academic and professional skills to succeed since the student is at the center of the learning goals.

Below, in table 1, it is possible to check the feedback on each of the examples, mentioning specific qualities and aspects to improve. This feedback contributes to the sense of social presence in eLearning and ensures closer communication between teacher and student, as it is personalized and timely, as recommended in the literature [32], [33].

Table 1. Assessment feedback

	<b>Teacher Feedback</b>
<b>Video 1</b> (example of a commercial site search)	<i>Reference comparison work (comprehensive observation of a choice of an Amazon site) circumvents this objective, not being clear. The standard form of description in libraries has some points in common with this resource, but the structure is longer to serve the same purposes. However, his explanation of the different access points for an author is very positive. As it turns out, a library reader would not be able to access these books through the book's quota, because it does not exist, nor is there any correspondence to a physical location of the work for free access.</i>
<b>Video 2</b> (example of a simple catalogue search)	<i>Clear, explicit, and efficient in explanation. It demonstrated a clear understanding of the importance of a well-thought-out research strategy and showed hotspots. However, it refers to whoever hears why another name associated with the searched author does not appear. It would also be nice to mention that for the reader to retrieve the document because he needs the quota, the indication of the library in question. Overall, it is quite adequate, and with some configurations, it may appear on the site in the library in question.</i>
<b>Video 3</b> (example of an elaborate search explanation in a library, including catalogue and shelves)	<i>Naturally, the work corresponded to all the proposed objectives, with the pedagogical strategies appropriate to the target audience, using creativity combined with digital technologies, and a clear and detailed explanation for the search in the catalogue and access to information from this one to the shelf. It demonstrates an understanding of the catalogue's objectives, likewise its usefulness in a real-world environment. Only the time seems excessive to me, either to fulfil the task requirements or to readers' visualization, who may be distracted throughout the presentation. Overall it's great! Congratulations.</i>

In this activity, specific and timely feedback was returned, highlighting the strong points of the work (and giving examples) and pointing out what could still be improved, specifying and seeking to motivate students to meet the various dimensions of feedback [34].

However, there may still be work to be done. It may be advisable to provide feedback loops [35], to allow them to correct and improve their work and, finally, to submit it after the first assessment feedback, which intends to be formative, meeting the primary objective, which is of learning development. It seems necessary to foresee moments throughout the course, giving feedback opportunities (properly plan the evaluation moments and predict that this feedback will occur as part of the formative strategy), and later allowing new chances, encouraging students to participate in this learning cycle [36]. The incorporation of student-centered teaching methodologies into media teaching also offers fertile ground for successful learning interventions in diverse classrooms [37]. So, teachers can use media tools to amplify student use of texts and information far beyond the first intentions of linear knowledge appropriation, transforming it into authentic learning. This strategy should reflect in students through critical analysis of the feedback obtained to understand the elements in focus (in the given feedback), allowing them to achieve new meaning, and, finally, integrating and applying these new meanings into their learning.

## 4 CONCLUSIONS

Creating an educational video for the school library, as an active learning strategy in a professional master course for teachers-librarian, seems to transform the learning experience into a more meaningful one for these students. During the task, general satisfaction with video-making showed up, and in consequence of situated learning purposes, students achieved benefits, linking that to real-life situations. Furthermore, it was possible to relate knowledge, consolidate learning, improve the ability to solve problems, facilitate understanding of the purpose of the learned subject, and benefit the individual and his immersive construction of knowledge, all by developing metacognitive and creative processes.

If the circumstances in which learning happens are the key to success, then the pedagogical challenge is to figure out new ways to encourage students. As students adopt deeper approaches to learning, based on clear and explicit goals, understanding its meaning and relevance to professional practice, and receive feedback, they can improve their achievements. In addition, teaching that gives students opportunities to explore topics creatively and independently, based on previously acquired knowledge, seems to engage them in a better way.

Experiencing an activity and anticipating that it is possible to use it in a real-life setting can improve the engagement in the task, bringing a deep sense of achievement. As a pedagogical strategy, the production of videos by students has proven its merit and relevance in the teaching scenarios of

librarianship and information sciences. Studies like this, although specific, demonstrate how active methods are essential in distance learning.

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