Innovating Citizenship and Social Control Courses through Distance Education

Completed Research

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Abstract

Technology can be used to develop educational projects that broaden the spaces for exercising citizenship. Above all, distance education initiatives expand access to training and specialization courses about relevant topics and directly influence community monitoring and management. It is crucial that society be well informed so it can actively participate in public affairs. Thus, this article aims to analyze the experience of distance education implementation in Citizenship and Social Control courses, in a joint effort among government entities. Regarding the methodology, this is a descriptive research study, with data collected through a netnography and semi-structured online questionnaire, applied to students using a virtual learning environment, with a qualitative approach for data analysis. The answers to the survey were analyzed and a few refinements were possible concerning pedagogical and technical aspects, as well as adjustments to the distance education course Citizenship and Social Control.

Keywords

Social Control, Citizenship, Distance Education, Audit Court

Introduction

This article brings reflections in the field of Citizenship and Social Control, from Distance Education (DE) and related technologies, which result in the joint effort among Brazilian public institutions to offer courses to the community, focusing on public policy council members. By recording the lessons learned in a partnership between the Federal University of Mato Grosso (UFMT) and the Audit Court of the state of Mato Grosso (Tribunal de Contas do Estado de Mato Grosso - TCE-MT), through UNISELVA Foundation, the text discusses and reflects matters related to corporate education, thus demonstrating how the latter can be offered to society as a whole by means of technologies, considering the optimization of public funds.

The Mato Grosso State Audit Court is a collegiate and autonomous supervisory agency, which has the institutional task of ensuring external control of the management of public resources, through guidance, supervision and evaluation of results, thus contributing to the quality and effectiveness of services in the interest of society. The agency's vision statement is "to be recognized by society as an essential institution and become a reference in the external control of the management of public resources." (TCE, 2017). According to Girata and Maciel (2014), the TCE-MT's external control actions are guided by technical areas (performed by the Court), internal areas (performed by public management) and social areas, which seeks the community’s active participation in managing public resources based on constitutional and infra-constitutional grounds.
Within the TCE-MT, the School of Accounting (Escola Superior de Contas) is the institution that directly deals with DE courses, especially at the pedagogical and administrative level. It is worth noting that the TCE-MT has been familiar with the DE field since 2012 (VUOLO et al., 2017); however, it encountered difficulties adapting to the existing models that were dominated by some educational institutions with the specific needs of the agency, which justifies the first distance education courses that were offered by the Audit Court informally and lacking certification.

In 2015, in light of the increased demand for DE courses, the School of Accounting took advantage of the existing partnership between the University of Mato Grosso and its foundation, Uniselva, in order to improve the management and technical support of the Virtual Learning Environment (VLE) of the TCE-MT. The partnership thus gave rise to a team of professionals in the fields of Communications, Technology and Education, who have been working to provide technical and instructional support to the School of Accounting, with actions that involve stages such as planning, developing distance education courses in the VLE of the TCE-MT and managing the offer of courses.

The collective work between the School of Accounting, which is responsible for dealing with the pedagogical and administrative aspects of distance education courses, and the DE/UFMT, which is responsible for the technical and instructional aspects for the translating courses to the VLE, has shown to be proficient and promising. One of the highlights of the conducted activities is the reconfiguration of the new VLE of the TCE-MT and the technical production of DE courses, in conditions of supply or resupply. Management activities are also conducted, such as hiring professionals specialized in these fields and tutors for the courses.

In this context, the Citizenship and Social Control course, offered in the DE format, whose goal is geared towards training Municipal and State Council members and community members for the exercise of social control, has been developed in the center of pedagogical and technical activities, whether by the reformulation and improvement of its material and activities, whether as instructional design for the VLE model of the TCE-MT. These activities originate from the tripartite partnership between the aforementioned public institutions. However, throughout the process, those involved questioned whether the development of a course in this field through DE would be welcomed by participant citizens.

This article seeks to analyze the experience, in a joint effort of government entities, of implementing DE in the fields of Citizenship and Social Control. It is important for society to be well informed in order to actively participate in public affairs. With regards to the methodology, this is a descriptive research study, with data collected through a netnography and semi-structured online questionnaire, applied to students using a VLE, with a qualitative approach for data analysis. The answers to the questionnaire were analyzed and some fine-tuning was possible concerning pedagogical and technical aspects, as well as adjustments to the distance education course Citizenship and Social Control.

The course was structured in 3 modules that converge for knowledge systematization, with the purpose of putting into effect the exercise of citizenship and social control of public policies, namely: Module I (the state, citizen participation and social control); Module II (public management in Mato Grosso) and, in Module III, an article was developed as a final paper, which suggested intervening in local realities. This issue is relevant since the promulgation of the Federal Constitution of Brazil in 1988 (BRAZIL, 1988), which included a set of provisions that guaranteed society’s participation of in the public administration, as well as important internal and external control mechanisms, including social control.

In this article, the introduction is followed by a description of the planning and conception of the new VLE of the TCE-MT. The following section describes the content of the Citizenship and Social Control course and its technical and pedagogical structure. The article proceeds to examine data concerning the evaluation of the Citizenship and Social Control course, conducted by the students by means of an electronic semi-structured questionnaire. Lastly, this article concludes with the description of the authors’ final considerations.

**The Virtual Learning Environment of the TCE-MT – Conception and Development**

Considering the prospect of improvement of the DE courses offered by the TCE-MT, the DE department of the University of Mato Grosso, along with the School of Accounting, aligned their efforts to promote the
technological advancement of the new Virtual Environment that would be used as the platform for the TCE-MT’s distance education courses.

Virtual Learning Environments are organized, articulated technologies that allow systematic monitoring by its users. Milligan (1999) described the term VLE as software stored in a server, designed to operate and manage the multiple facets of learning, such as providing content, as well as monitoring and evaluating the evolution of the student as a whole. In this sense, it is worth mentioning Dillenbourg (2003, p. 2), who states that an educational website is not necessarily a VLE. “However, as many fashionable words, some authors use it in a very broad way, including for instance Web sites that simply include static Web pages.” The author thus debunks the view that any system or website can be considered a VLE. Anjos (2013) believes that “a VLE consists of one or more communication, management and e-learning solutions that enable the development, integration and use of content, media and teaching-learning strategies, based on experiences that may or may not reflect the real world, and are virtually created or adapted for educational purposes.” Anjos, Alonso and Maciel (2016) highlight that VLE combines, in its essence, technological resources, albeit with pedagogical implications, which may reconfigure educational practices and the like.

In light of these assertions, as well as the specificities that characterize a VLE, the virtual environment project of the TCE-MT was planned and developed with the aim of combining several technological resources, albeit with pedagogical importance, whose intent is to provide significant learning through the virtual courses that are offered. In addition to the VLE, it is possible to add to distance learning courses, considering the associated use with other technology resources, such as blogs, social media, digital repositories, among others. With regard to this project, VLE was the technology adopted for ministering the DE course because it is a resource that offers more assurance that educational processes will be monitored between students and teachers.

The first stage for the consolidation of VLE of the TCE-MT is centered in the definition of parameters of infrastructure systems. Given the experience of the University with the use of virtual platforms (since 1996) (PRETI; ALONSO, 2016) and the context of the School of Accounting, the software Moodle (Acronym for Modular Object-Oriented Dynamic Learning Environment) was considered adequate for meeting the institutional demands. Moodle is an open-source, free system, which allows the management of virtual courses and became widely popular among educators throughout the world as a tool for creating dynamic learning spaces for their students. Because it is an open-source system, it is possible to alter and customize the model in order to adapt it to several educational contexts.

The Moodle VLE has about twenty different types of available activities (forums, glossaries, wikis, tasks, questionnaires, choices, databases, etc.) with user customization prerogatives, which aims to combine sequential and group activities and guide participants in their learning pathways (moodle.org). In this way, Moodle Version 2.7 was installed as well as the MariaDB Database. The new TCE Virtual Environment is hosted in the Audit Court’s data processing center, accessed by the TCE Gateway and by the specific address: www.ead.tce.mt.gov.br.

Another stage of the VLE construction process deserving attention refers to the conception of its visual identity and content structure, which followed the basic precepts of Design Thinking, according to Cavalcanti and Filatro (2016); i.e., stages such as Listening, in order to understand the problem; Creating, aiming to project solutions, Prototyping, in order to test possibilities, and Delivery, for implementing the best solution, were included in the actions carried out between the UFMT/DE team and the School of Accounting pedagogical team, since Design Thinking is established by an approach that decentralizes the practice of design from the hands of specialized professionals by allowing their principles to be adopted by people working in several occupational fields (CAVALCANTI; FILATRO, 2016). In Design Thinking, the results of the design are expressed first in the form of prototypes that allow ideas to be transmitted quickly, so interested parties are able to previously check if the final product will really meet the needs that were initially identified (CAVALCANTI; FILATRO, 2016).

The new visual identity of the TCE-MT learning environment and content structure was designed in this dialogue process. The UFMT/DE team dealt with the technical aspects for building the new layout and structure, and the School of Accounting contributed with the pedagogical and institutional knowledge. Figure 1 depicts the visual identity of TCE-MT’s current VLE. In order to achieve this, an intuitive interface was designed with relevant information for system users. In the upper quadrant of the home
screen, there were features enabled to extend the screen or hide blocks of the Virtual Environment, focusing on responsive technology. A rotating slider of images and photos was added, in order to render greater visibility to the DE courses offered by the TCE-MT. In the center quadrant of the home screen, there was a brief VLE presentation text, as well as a highlighted VLE access area, with password recovery options. Moreover, the right side of the screen displayed banners that facilitate access to other TCE-MT projects, as well as certificates of DE courses. The lower quadrant of the home screen includes institutional information from the TCE-MT, links to social media and respective addresses and contact information.

The UFMT/DE communications team, considering the organic and human aspects of the VLE, elaborated a project which involved a pedagogical agent that would compose the main screen of the VLE and would also be present in diagrammed didactic material, guiding students in the location of content and activities within the Virtual Environment. Figure 2 depicts the mascot of the DE courses from the Audit Court, conveying a variety of facial expressions.

A solution for interactive communication was implemented with the aim of improving communication practices using technological resources. It was called interactive Chat DE and seeks to widen interaction processes of the School of Accounting with its students, as well as reinforcing communication of potential candidates who wish to participate in DE training offered by the TCE-MT.

The tool provides synchronous (live) attendance, or asynchronous attendance, via text messages or emails. The Chat allows the extraction of reports, which computes the number of calls and its ramifications. The DE Chat, customized by the UFMT/DE technical team, could be accessed at the Virtual Environment home page, and the calls were answered by the service team of the School of Accounting.

In order to put the technical activities into effect, the UFMT/DE team’s groundwork is Instructional Design (ID), with knowledge based on Filatro (2008). Instructional solutions were planned and projected for new virtual courses designed to collaborate with DE students from the Audit Courts. It is worth noting that this activity is consolidated relationally between the UFMT/DE team, for technical aspects, and the School of Accounting, for pedagogical aspects. Instructional design is generally understood as the planning of the learning-teaching process that involves instructional activities, strategies, evaluation strategies, methods and materials (FILATRO, 2004). Thus, ID occurs through systematic and intentional actions that involve stages that include planning, development and practical application that employs several techniques and strategies for student learning.

Considering the circumstances of the DE courses offered by the TCE-MT, a Contextualized ID model was chosen, containing the planning and previous structure of content and materials, albeit with the flexibility to switch and change the content as it was being offered. For Filatro (2008), in the ID Contextualized
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model, the incorporation of new possibilities in specific didactic situations may occur both in the course’s conception phase and during its implementation. They are mechanisms that favor contextualization and flexibility. Therefore, guided by the ID approach, the UFMT/DE team has been developing its practices along the course conception and execution phases, with organized planning, definition of learning strategies and implementation of several didactic solutions. An example of these actions is the systematic construction of an ID Matrix, a tool that aims to guide the course planning by organizing all the basic information from the educational process in a tabular format, divided into learning units (FILATRO, 2008).

In this context of joint efforts and parallel actions established between the UFMT/DE team and the School of Accounting, distance education courses are being consolidated in the Audit Court of Mato Grosso. Their foundation lies in the attention given to educational approaches, whose main goal is to promote the instruction and substantial training of external public agents and civil servants working in the Audit Courts through a praiseworthy DE initiative called the Citizenship and Social Control course.

**Virtual Learning and the Citizenship and Social Control Course**

The DE extension course Citizenship and Social Control stands out among the distance learning courses currently offered by the TCE of Mato Grosso due to its scope and size, as well as for addressing relevant and essential topics for the community in regards to stimulating social control and the exercise of citizenship rights. With a workload of 100 hours, the course lasted 45 days and, upon completion, the student was awarded a certificate issued by the University of Mato Grosso.

The course was conceived to train the council members of Municipal and State Councils, as well as students and community members, to exercise social control. By encouraging an interface between internal and external control, the course is structured into three modules, namely: Module I – The State, Participation and Social Control; Module II – The role of the auditor in administrative contracts; Module III – Integration Project; and, in 2016, the pertinent branch of the Audit Court (Secretaria de Articulação Institucional e Desenvolvimento da Cidadania - SAI), demanded that the DE Course on Citizenship and Social Control be ministered again within the partnership established with UFMT / UNISELVA.

At the time, 2,000 course openings were offered, distributed into 40 classes within the VLA, overseen by 40 tutors, and monitored by TCE/MT specialists in the field of social control. One thousand students took the course, 679 of whom wrote a substantial final paper and achieved a passing grade (VUOLO; MACIEL, 2017). Out of these final papers, 50 of the best texts were selected, 10 of which compose the book Educação a Distância – (In) Formação em Cidadania e Controle Social (Distance Education – Training in Citizenship and Social Control), edited by the Brazilian publisher EdUfmt, in 2017.

Considering the necessary course revision, which allows continuous improvement, the course content and relevant activities were reevaluated when the course was ministered the second time, in 2016. Moreover, the course was planned according to ID precepts by the UFMT/DE team so it could be structured in VLE according to the following phases: Analysis, for verifying requirements and projecting solutions; Design, in which activities are mapped and sequenced; Development, which involves producing and adapting resources and materials, preparing pedagogical and technological support; Implementation, referring to the availability and publication of the course proposal; and Evaluation, which considers the effectiveness of the proposed solution and review of projected strategies (FILATRO, 2008).

Thus, following the planning stages of ID, in the Citizenship and Social Control course, the graphic design project was idealized by the UFMT/DE team, who composed the visual identity of the didactic material and also defined the styles for the VLE model and the color spectrum of the course. Figure 3 presents part of the graphic design project that was conceived. Because the didactic text – the main study material of the course – had undergone a thorough review in terms of content and spellcheck, the communications team of the University of Mato Grosso projected a formatting style that was coherent with the course goals, thus proposing an interconnected and systemic content structure. Emphasis was given to elements of iconic images and drawings that were esthetically pleasing and provided a user-friendly environment in the study process. It is worth noting that, in addition to the didactic text that was edited and inserted in the Virtual Environment in PDF format, the material was also available in web format for students who wished to read on a screen, thus providing a more fluid navigation. In the web format, the material is
composed of elements of dynamic animations, inserted in each text module. Figure 4 represents the home screen of the webpage of the Didactic Text, available in the VLE.

It is worth noting that the list of activities conceived for the course has been the object of scrutiny of the instructional designer of the UFMT/DE team, so the goals were first identified so the learning strategies could be delineated with technological resources belonging to the VLE.

Thus, based on strategies of conceptual elaboration, development of creativity, stimulation of critical thought and collaboration and cooperation among participants, the course activities were organized into simple and general web forums, file sending activities, online surveys and online text production, seeking to achieve the pedagogical objectives (PEREIRA et al., 2013).

Another very important aspect for obtaining positive results in processes of distance learning concerns the intensive use of communications resources existing in the VLE. In that respect, in the instructional design of the Citizenship and Social Control course, bilateral communication was intensified, in which interaction proceedings are put into effect through profuse message exchanges between students and tutors. In this scenario, other resources such as web forums discussing specific content, web forums discussing the course in general, and technical support are also present in the course design. There was also a space reserved for communication between tutors and the coordinator, thus advocating a dialogical environment, with satisfactory possibilities of interaction and mediation between users.

With the intention of assisting the student’s learning pathway, considering technological mediation, some tutorials were produced by the UFMT/DE team and presented in the VLE, as well as a Frequently Asked Questions section (FAQ) that assembles the main questions a DE student would ask and their respective answers. Two orientation videos in the VLE are worth highlighting, filmed by the management team of the Audit Court of Mato Grosso and the general coordinator of the course, which discuss general aspects of the subject and its importance in the social context. They also present the structure and organization of the course.

As learning is understood as a complex action established by the relationship between subjects and the combination of several resources and materials, the VLE planned to provide spaces dedicated to complementary reading material (Learn More) such as texts, articles, links to other websites and a list of videos, in order to reinforce comprehension of the content being studied. Among the material presented in the VLE, there is emphasis on the Study Guide, an commonly used tool in DE courses, which offers the student guidance about the sequence of a subject, the reading material assigned and respective learning activities (PRETI , 2010). This material encourages the student to become organized in space and time, to read the necessary texts and to develop the activities in keeping with the deadlines of the course.

Figure 5 shows the home screen of the course Citizenship and Social Control, structured in VLE-Moodle.
Therefore, before the end of the course, the VLE presented an online survey, called Course Evaluation, which chiefly aims to assemble students’ perceptions about pedagogical and technical aspects of the course. Satisfaction surveys such as these are of paramount importance in the DE modality, since they evaluate and exhibit both the positive aspects of the course and the sensitive points that need adjustments. The next section presents an assessment of this instrument.

**Course Evaluation**

Seeking excellence for the Citizenship and Social Control course, the UFMT/DE team developed an online satisfaction survey solution, in the format of a questionnaire, designed to gather information about the tutor system, the quality of the teaching material, the distribution of activities and content, the VLE organization, the difficulties met by students, technical support, suggestions and criticisms, etc.

Considering the course duration, this assessment was conducted only once, but it covered both technical and pedagogical aspects. However, the satisfaction assessment form can be improved, following the precepts of McDonnell and Dodd (2017), in order to listen to the students at different moments of the course and make necessary improvements; i.e., to expand student participation and intervention in the improvement of the distance learning course while it occurs.

The tool consists of 26 objective multiple choice questions, in which students choose between Excellent, Good, Regular, or Bad; Yes or No; and an open response question that allowed room for students to state their doubts, criticisms, praises and suggestions for the course. It is worth noting that, once inserted in the VLE, the course evaluation questionnaire was available for the 2,000 students enrolled and, out of that pool of students, 1,265 responded, 41% of whom are Council members, 54% are associated with the Education Councils and the remaining 5% are members of the community.

It is important to register the analysis of the course evaluation data answered by the students, such as the contribution of the course to the development of actions within the Councils. The answers to that questions showed that 63.3% of respondents stated that the course contributed positively to the performance of their activities. Furthermore, Figure 7 presents data referring to the general evaluation of the course, which ask about the learning aspects _per se_, i.e., if the course led to improvement in the understanding of the subject being studied and if there was, consequently, an improvement in work practices. The percentage of 73% answering **Excellent** refers to the positive feedback regarding the general evaluation, and it should be noted that no student answered **Bad**.

Figure 8 presents results of the tutoring activities, with emphasis in evaluating the perception of the student regarding the tutor’s knowledge about the subject, the communication process established
between tutor and student, the encouragement of discussions and debates, and the availability of the VLE to answer questions. Seventy-two percent of respondents considered the performance of the tutors to be Excellent in the Citizenship and Social Control course. Once again, nobody selected the answer Bad.

Figure 7 - General Evaluation of the Citizenship and Social Control Course/2016

Figure 8 - Evaluation of Tutors - Citizenship and Social Control Course/2016

Regarding the general assessment of the VLE regarding aspects of functionality, navigability, as well as technical support attendance, 58% of answers graded the virtual space as Excellent, and 37% considered them Good, as illustrated by Figure 9. The answers Regular and Bad summed 5% of the total and the reason for these grades can be better understood in the qualitative analysis of the data presented in this section.

Figure 9 - Evaluation of the Virtual Learning Environment - Citizenship and Social Control Course/2016

Figure 10 - Availability of material and activities in the VLE - Citizenship and Social Control Course/2016

Furthermore, when asking specific questions about the supply of materials and organization of activities in the VLE, i.e., in the course design within the Virtual Environment and the accessibility functions, it is worth noting that 84% of the students answered “No” when asked whether they found it difficult to locate these functions. This represents a significant achievement in the ID planning developed for the Citizenship and Social Control course, as shown in Figure 10.

These results are guiding elements in the path to continuous improvement and fine-tuning, especially in certain more sensitive points, as well as to become familiar with the students’ statements. In this sense, it is valid to record some of students’ voices that reflect this scenario and were extracted from the open-ended answers to the evaluation survey:

Student 01 - "The organizers of the course should be commended; the course and the content are very rich and really contributed to our knowledge. I just found the available time to be very little."

Student 02 - "The distance learning course was very good for me, I wouldn’t be able to attend in person, but my tutor accompanied me, called me, tried to find out why my task was late. [The tutors] should be congratulated."

Student 03 - "At first, I found the virtual area difficult to navigate in, but then it was okay and easy to handle."

Student 04 - "The duration of the course was very short. "

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Student 05- "In sum, it is a course of extreme importance, because the subjects being addressed are crucial for the effective exercise of citizenship. Regarding the webpage, I found it the activities a little hard to locate, and also it was hard to understand all the functions of the modules and possible submissions of the activities, but my questions were answered with the help of the tutor. Besides, this course did a great job."

Improvements and adjustments are acknowledged as necessary, so the UFMT/DE team and the TCE-MT have been studying and designing solutions aimed at improving the technical/instructional and pedagogical aspects, and thus offering resources that facilitate the learning process.

Moreover, it is obvious that the hard work of government entities was a decisive element for the success of the course, and the attention and dedication devoted to pedagogical aspects, as well as meticulous attention reserved to the technological aspects both contributed significantly to the accomplishment of the general objective of the course, which is to train Municipal and State Council members, students and members of the community for the exercise of social control, fomenting interface with internal and external control.

**Final Considerations**

The paper presents an inter-organizational effort and different phases of development and implementation to conduct a distance education course. The work and inter-institutional partnership signed between the TCE-MT, UFMT and UNISELVA reaffirms the commitment of these entities to control the management of public resources in the Brazilian scenario, especially in the state of Mato Grosso and its municipalities; it also ratifies the importance of developing educational projects that promote the expansion of spaces for exercising citizenship rights. Distance Education becomes important in this scenario, since it expands the possibilities for access to instructional and training courses containing relevant topics that directly influence the monitoring of community organization and management, as is the case of the course of Citizenship and Social Control.

Parallel to this, the intensive use of technologies, like the VLE, allows teaching and learning processes to take place interactively and dialogically, since the virtual space has numerous communication resources and interaction among course participants, thus facilitating the knowledge building process. Therefore, the evolution of VLEs and the improvement and development of technological innovations are both conducts and practices that originate from this current agreement between institutions, which collaborate and coordinate joint actions with common objectives, such as the implementation of programs for the modernization of TCE-MT and the development of teaching, research and continuing education by UFMT and UNISELVA.

With regard to the results of the Citizenship and Social Control distance learning training process, it should be pointed out that the plurality of spaces and subjects, between the VLE and the local reality of each student and its idiosyncrasies, allowed the expansion of productive and localized discussions about public spending and efficient forms of participatory social control. When analyzing the percentages of the course evaluation, it is possible to observe the rewarding and assertive results, which leads to the conclusion that the training objective was achieved.

It is believed that the survey results are significantly useful and can inform adoption and value in future programs; moreover, this also points to an opportunity to gather deeper and more robust longitudinal results with increasing rigor. It would be very interesting to observe how this system has influenced a particular group compared to a control group on long-term civic engagement measures, such as voting, propensity to learn more about certain issues (local, national, international), and group differences in seeking differing opinions.

Finally, it is hoped that sharing this experience can be useful for other institutions that aim to carry out distance education projects using a VLE. Also, that partnerships between institutions should be encouraged for actions in favor of citizenship and social control when the goal is to increase citizen awareness.
Acknowledgements

We would like to thank the program in Post-graduation in Education (PPGE/UFMT), Mato Grosso State Audit Court (TCE-MT) and Uniselva Foundation for all the support to develop and publish this research.

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