

Collaborative Learning in the Military Police of Tocantins: perspective without frontier

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Abstract— This study presents collaborative learning and the main digital tools used in technology-mediated teaching. This work aims to demonstrate that collaborative learning can strengthen and develop skills as a requirement for the development and sharing of knowledge as a strategic learning tool resulting from the interactions of the participants. For this, a bibliographical review, participatory research, qualitative-quantitative research was carried out. By demonstrating that technology-based collaborative learning develops a transdisciplinary view, enabling the identification of new methodologies that can be implemented in the qualification of the Tocantins Military Police.

Keywords— Collaborative Learning; Social interaction; Digital Tools.

I. INTRODUCTION

Technology-mediated learning has become a topic that has been occupying space in the discussions. These approaches usually present communication technologies as tools that innovate educational practices, as they allow more flexibility in training methods. Digital technologies have occupied the educational environments in recent years, as the Internet became popular, either as part of a pedagogical approach or teaching and learning methodology [1].

In this sense, researchers defend the importance of interactions in online learning environments. Technological innovations and their use for scientific, technological, cultural, social and educational purposes were instrumental in bringing the benefits of technology closer to the needs of education [2].

In this sense, the Internet and its popularization to society through digital technologies guided the emergence of new structures, methodologies and approaches in teaching at all levels of education. According to [3] the internet provides interaction with a universally accessible, democratic and interactive communications center and fast, low-cost features that connect people. And this information technology has created new opportunities for education. Therefore, technological evolution plays a fundamental role in educational development, providing mechanisms for the evolution of the teaching and learning process in order to meet social demands.

In this way, the Public Security professionals, especially the Military Police, experience a constant modernization of society, caused mainly by the technological advance. In this context, technology-mediated education appears as an

instrument to subsidize educational practices and professional qualification in a collaborative way.

The qualification courses with a collaborative approach would be based on values, where it is not assumed that the oldest is the one who knows everything, plus the one who has the qualification to disseminate knowledge. This structure would provide students with the necessary example for reproduction in the fulfillment of their functions and their relations with different segments of society [4].

Therefore, this modality can be used by military institutions, both in the formation and in the dissemination of knowledge. Allowing that the knowledge taught reaches a larger number of people who can benefit from public services without the current limitations imposed by time and space [5].

Thus, the use of technological tools tends to potentiate new forms of learning, which can generate new reflections and teaching methodologies with active participation of students in the sharing of ideas through collaborative learning.

Collaboration is an essential component in the development of intellectual capacities that creates an effective learning environment, providing opportunities for discussion, argumentation and reflection on existing conceptions and knowledges. However, it is not a question of changing the concept of what is important, but of finding the right combination of traditional teaching and learning tools [6], [7].

Technology-mediated teaching is a more democratic model of how to acquire knowledge, since it uses

information and communication technologies to overcome obstacles and innovate traditional forms of teaching [8].

It is emphasized that social interaction motivates the participants to understand the processes of collaboration and communication through the exchange of knowledge. In this way, a deep understanding of the projects implemented in a collaborative way.

It should be noted that technologies develop new ways of teaching and learning outcomes in procedural learning changes that tend to evolve towards a collaborative approach to e-learning.

In this way, the use of these learning tools is of great relevance, since, it makes possible a more dynamic and efficient learning process. In view of the requirement that students with training in areas of knowledge other than the courses be integrated in the search and resolution of innovative solutions.

Collaborative learning can guide institutions in strengthening the quality of care, improving services through participatory education that can develop new skills and work in groups.

The scope of the issues and problems affecting Public Security warns of the need for security debate and for the incorporation of new actors, scenarios and public policies in the area of training and qualification of professionals.

In addition, the dimension of interdisciplinarity can further strengthen and develop the Military Police with collaborative learning, so it is not only the availability of content in the teaching environment, but the involvement of these in the search for problem solving.

The military police officer "needs to have the flexibility to receive new knowledge, develop new skills and have behaviors that demonstrate their professionalism" [8]

In this way, Public Security agents, especially Military Police Officers who directly serve the public need to have a load of knowledge because it is a multidisciplinary profession, acquiring new skills and competencies for their daily performance.

Technology-mediated teaching has proved to be the most appropriate tool, capable of reconciling the quality aspect with the impossibility of absents the Military Police Officers of the final activity [9]. What are the improvement, habilitation, adaptation, reducing costs and displacements of distant OPM personnel, minimizing the distance of the Military Police of its OPM, having as main beneficiaries the professional himself and the population that will not be without quality services [5].

For [10] changes that may occur in methodologies and procedures in training, qualification and improvement of police officers will only succeed if there are recommendations and norms.

Experience in any profession is a difficult process that requires the combination of many factors and usually includes advanced knowledge, skills and abilities developed through years of experience. In this sense, the police profession requires individuals who possess innate skills and abilities complemented with knowledge gained through formal training, and experiences in the course of their professional years [11].

The modernization needs of the Military Police must be related to construction in a democratic perspective, by means of flexibility in the new educational proposals. Given that police officers work under conditions that are unpredictable and range from highly stressful to uninterrupted and routine [11], [12]

The systems enable self-learning, through the mediation of systematically organized didactic resources, presented in different information media used alone or in combination, and transmitted on the world wide web. [5].

Influenced by such precepts, some military institutions have adapted and shaped themselves so that part of their activities, in what concerns the formation, qualification or qualification of their professionals occurred at a distance [9].

Therefore, the Military Police Officer can not be excluded from technology-mediated teaching because it allows time and space to be easily overcome, making education much more effective and adequate to the student's rhythm of life, maintaining the same pattern of face-to-face classes [5].

The pedagogy of Collaborative Learning is centered on the group and not on individuals, in isolation. The individual learns from the group and contributes individually to the learning of others, with an interdependence between collaborative learning and individual learning [13]

In this sense, the general objective of this article is to demonstrate that the Military Police of Tocantins can use collaborative learning to qualify its professionals, aiming at the economics of public resources and a quality service with the impossibility of the absence of the Police in their activities.

II. RESULTS AND DISCUSSIONS

For [15] the contemporary literature describes that online and distance education depends on the interactions of the students. And that these relationships between different types of interactions and learning outcomes.

We can state that the main objective of collaborative learning is the active participation of members. This is possible because the interdisciplinarity of the students can

foster new discoveries from the feedbacks and supports. This dynamic improves learning practices.

Learning tools should be included in strategic ways by promoting a new critical thinking to evaluate adoption, deployment and effective use for collaboration [16].

The development of these technologies facilitates the sharing of spaces for collaboration and production, distribution and aggregation of information in online learning environments [17].

the digital tools and technologies allow students to assume the autonomy of their learning, establishing the context that inspires them in the search for new ways of learning [18].

"The interdisciplinarity present in the advanced pedagogical approaches makes it possible to expand the human capacity to understand the reality and the problems that are presented in it [19].

collaborative learning refers to processes of social interaction in which students actively work together with shared learning objectives and participate in a teaching-learning process [20].

Collaborative learning refers to tasks that require intellectual efforts among groups actively in conjunction with shared learning goals. So a personal philosophy, not just a classroom technique. Being that just knowing and dealing with the ideas of others is not enough for the coupling of goals. It is an educational approach that emphasizes the active and collective efforts of participation and interaction by those involved. [21], [22]. [23], [24], [20].

According to [25], [26], society increasingly uses social media to complement teaching that is no longer tied to context, but to collaborate, create, and modify content at any time and with any device unifying the real world and the digital world, facilitating the process of innovation of knowledge to improve the learning experience in a collaborative way.

Society every day uses social media in teaching using mobile devices to enhance the learning experience in a collaborative way [25], [26].

Therefore, collaborative learning associated with social networks can favor positive results, since virtual social networks, besides promoting interactivity between individuals, allow each member to expose their ideas, share knowledge and even emotions.

defines ubiquitous education as open learning processes, spontaneous, unsystematic and with continuous access to information and at any time. In this way, ubiquitous learning is based on interactive learning through digital technologies that enable students to access

information and mediation through the use of any device that accesses virtual networks [27], [27].

It is unquestionable that the use of mobile devices tends to potentiate new forms of learning, generating reflections in teaching through the sharing of ideas through collaborative learning. This information is available on devices that fit in the palm of the hand like smartphones and tablets, among others present everywhere.

The collaborative tools available are easy to use and are socialized, tested, and validated, allowing users to collaborate, learn, share and disseminate information, thus a mix of tools and technologies that reflect in practice, allowing students to take control on learning, setting the context that inspires them to manage new learning situations [18].

Therefore, technology tools facilitate the distribution of content, experiences between teacher and students in a virtual environment anytime, anywhere. [29], [30].

Technology-mediated teaching has become an alternative for training and professional qualification in various segments of society, where the evolution of web 2.0 can be used for the benefit of teaching. Having in mind that the virtual learning environment (AVA) is intended to facilitate the way of teaching and learning in any environment used, in Public Safety is no different.

Public safety, education and technology are bases that need to coexist in partnership, thus facilitating a distance education that is characterized by bringing together people who are in different geographic locations, seeking a union in the sharing of knowledge necessary for a Public Security of efficient and effective quality, thereby reducing distances, facilitating access to information [31].

The training of the police officer is highly questioned when failures occur in their attendance, giving them unprepared and poor-quality training [4]. Therefore, the qualification of the Military Police to act in such a way as to meet the aspirations of society, ie, social demands will only occur with quality training, through a program of continuous improvement of these agents.

The qualification of the Military Police to act in the service with quality in the performance of its function is done by a program of continuous improvement. This process is a strategy of Public Security policy, within the institution, which has as a rule the stimulus to constant learning, so that, as such, it becomes the active military police, within its constitutional duties.

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The training of professionals must be a constant goal on the part of the managers, therefore, it is an actor of great importance in the present days. In this way, encouraging the military to continuously seek qualification is converted into a better service rendering society, since, that the qualified police force is synonymous with effectiveness in the public service.

Dessa forma, o ensino mediado pela tecnologia supera o espaço e o tempo, estimulando as constantes discussões dos alunos sobre assuntos que transcendem seu conhecimento, devido às suas formações em diversas áreas do conhecimento, fortalecendo suas contribuições em ambientes de aprendizagem.

Given the above, the fact is that the Military Police need a solid formation, having the need to develop their skills and attitudes through qualification, contributing to the preservation of public order.

The Military Police of Tocantins are in a dynamic and complex social scenario that requires new strategies and technologies to promote quality Public Safety along with continuous training.

Technology-mediated learning provides a shared training, which improves the skills of professionals, building knowledge in the interaction between subjects, and therefore, students must produce knowledge, guiding their practices in everyday life.

In this way, it is emphasized that technology-mediated teaching can guide institutions in strengthening teaching, since it can improve and improve professionals through peer-to-peer education. It should be emphasized that EAD teaching has been distinguished in the world scenario, since it innovates teaching and strengthens institutions.

A. The Technology-Mediated Teaching in the Military Police of Brazil

The use of technology-mediated learning platforms enables new paradigms for teaching-learning production, due to the constant evolution of applications and digital tools. Thus, for efficient and effective collaborative learning, one must first develop attitudes and paradigm shifts for teachers. In this sense, the expectation is that the collaboration between students can transform and transform the way to do quality education.

Therefore, digital learning tools must combine theory and practice, defining strategies as essential factors for a more autonomous and dynamic learning, favoring multiple teaching paths.

Given the subject matter, social interaction through learning becomes an innovative instrument that can adapt teaching to the qualification needs of the Military Police of

Tocantins, in addition to reducing expenses with displacements, transfers among other expenses.

Therefore, knowledge in Public Security must meet the National Curriculum Matrix, which is an instrument of "educational and pedagogical" management, with suggestions in the area "strategic-political and didactic-educational" to the development of training actions in the area of public safety [32].

In addition, the digital tools are formalized and offer more possibilities of learning, in view of their dissemination through the virtual learning environments.

Currently in Brazil, several military police institutions are using technology mediated by technologies for training, habilitation, improvement and continuing education according to table 1 and 2, 75% of states have a virtual learning portal. Since 01 State does not have a portal and does not use technology-mediated modality in its training or improvement. The states that have a partnership with the National Secretariat of Public Security (SENASP) represent 14%. Of this total, we had no return if it would have or not courses this modality.

Table I: Military Policemen using VLE

| Data | Estados | % |
|------------------------------|-----------|------------|
| It has VLE | 21 | 77,8 |
| does not have VLE | 01 | 3,7 |
| No information | 01 | 3,7 |
| Senasp Module | 04 | 14,8 |
| Total Military Police | 27 | 100 |

De acordo com as necessidades de cada Estado, através de seus secretários e policiais militares podem criar classes fechadas, no "Module Academy " para a melhoria profissional, atendendo demandas específicas para os profissionais da polícia civil e militar, fogo militar Brigade, guarda municipal, habilidades e polícia técnica, do mesmo modo para finalidades do avanço da carreira.

Para a polícia militar, as disciplinas são: ação policial contra grupos vulneráveis; Filosofia dos direitos humanos aplicados à ação policial; Gestão de crises; Preservação da localização do crime e aspectos jurídicos da ação policial, totalizando 300 horas de aula [33].

B. The Technology-Mediated Teaching in the Military Police of Brazil

Institutions are modifying the methodologies and formats of qualifications, aiming at overcoming the traditional models, which determines the need for a new model of professional education focused on the development of skills.

According to the [35] (ABED, 2018, page 120), technology-mediated teaching has increased significantly in corporate institutions around 30.43% of these offer free

courses. They observed, although 15.28% of them increased their investments in this type of qualification.

For the Military Police of Tocantins, the implementation of courses mediated by technologies, is surpassing the traditional models of training, habilitation and improvement. Therefore, a professional with knowledge and skills to perform his function, predisposing himself to "learn, learn to learn and contribute to his improvement" [34].

the Military Police of Tocantins, it has a set of rules and conduct related to the training, qualification and professional improvement that are described in the Standards for Planning and Conduct of Teaching - (NPCE), which has its references in Laws no. 125 and Law No. 1,161. (NPCE, 2008) and standardize teaching in the State Military Police, establishing a unit of thought in the planning, execution and evaluation phases, tactical and operational levels of the Corporation. In order to establish criteria to subsidize quality education.

teaching activities related to training, habilitation, improvement, extension, specialization and updating. Applying new methodologies, implementing professional technical learning process.

In this way, establishing criteria for teaching-learning, innovating with new methodologies for training, habilitation and improvement of the military police, unifying the teaching doctrine of the institution and training qualified teachers to train new Public Security agents.

In 2016, the Military Police of the State of Tocantins and the University of Tocantins Foundation (Unitins), signed a partnership agreement where Unitins will install on the PMTO server the AVA platform *Chamilo* 1.9.4 2016 - educa.unitins.br, as well as the training and guidance of PMTO's teachers, tutors and technicians. This partnership aims at the training of military police in the distance modality. The Military Police of Tocantins, after signing the partnership agreement with Unitins, made available on its website the technology-mediated teaching platform currently available on the main page of the Tocantins Military Police website.

Therefore, it is noticed that the Military Police of Tocantins possesses the means to promote the education mediated by the technologies. Therefore, the command seeks to use various methodologies to measure the knowledge and skills acquired of the students in the courses.

III. DEVELOPMENT

The methodology adopted in this research is presented below: The research objectives were formulated, the

formulation of the question and the definition of the problem. Aiming to generate new knowledge, skills and information sharing through collaborative learning for practical application of the activities of the Military Police, directing to solve problems by improving the provision of services to local communities using applied research.

A quantitative-qualitative approach was used, and the results obtained with the use of these alternative "quantitative-qualitative" methodologies point to a greater reliability and validation of the research. Regarding the objectives, exploratory research, involving bibliographical survey and data analysis.

IV. CONSIDERATIONS

The evolution of technologies is the diffusion of knowledge is becoming increasingly incisive in the way users share information. So, people connected to the web can access millions of information just by clicking a button. As a result, digital technologies and the Internet have innovated the way of transmitting and collecting new knowledge.

Its importance lies in the interaction needs that increasingly provide society with facilities for learning, which can be applied as a tool for the work, consultation and publication of important information.

In addition, digital technologies are formalized and offer more and more opportunities for learning. We need to appropriate uncertainties and transform education into processes of ongoing formation, since no current training gives guarantees that will have any value in a decade.

In this sense, these methods involve social interaction, which motivates the participants to understand the processes of collaboration and communication through the exchange of knowledge using various technological resources. Given this, the technological changes are affecting the learning environments and enabling a better adaptation of the institutions by new demands.

The Military Police of the State of Tocantins and the University of Tocantins signed a partnership agreement to use the AVA *Chamilo* 1.9.4 2016 platform to qualify military officers in the distance mode. In this way, *Chamilo* is an internet system that organizes teaching and learning procedures through instructional content and collaborative interactions (CHAMILO, 2010).

Interacting with multiple interfaces in its learning environment, it is designed to run on the "LAMP platform: Linux, Apache, MySQL, PHP" (CHAMILO, 2010).

Chamilo, which is free software, is designed to run on free platforms. Therefore, a content management system, which seeks to improve the educational level of learning through the interactivity of users. This work discussed the

implementation of digital tools, which can be used in collaborative learning, in this sense Chamilo allows the use of social networks and creation of groups, through blogs and wiki.

Chamilo is an AVA that contains several EaD tools, which allows customization according to each educational institution, is considered safe and facilitates student / teacher interaction. In addition, it is a free system, easy to use and that comes more and more, conquering the community that opted for distance education [37].

It supports teaching and learning processes that take place in virtual environments. It uses synchronous and asynchronous communication channels and provides facilities for the insertion and administration of content. Therefore, the courses can be prepared for students to the training area as well as those related to the exercise of the profession.

The main functions, provided by Chamilo for collaborative learning are: The wiki, Blog, Forums, and Social networks (Facebook, Twitte, LinkedIn, Google +, Hi5). among others, that can be implemented in the qualification of the military police of Tocantins.

We understand that the results presented in this study can contribute to the improvement of Public Policies for qualification and technical improvement of the Military Police officers through technology-mediated teaching, aiming at quality service for the Tocantinense Society.

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