Lifelong Learning in Virtual Environments: Collaborative Learning

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Abstract—This paper is part of a research project conducted by the Group of Studies and Researches in Educational Technology and Distance Education (GETED) and has the propose of identifying how teachers, who participate in this group, act and learn in a collaborative way. It is a qualitative research, focusing on the GETED’s teachers’ participation and interaction using a collaborative process mediated by the technologies, especially at a virtual environment. The GETED offers a teacher’s lifelong training in educational technology and since it is based on distance learning uses a virtual environment and interface - MOODLE. The instrument used to collect the data was the discussion forum where the participants of the group posted their conceptions, ideas, experiences and thoughts about the process of collaboration using the written language. Technologies of information and communication, lifelong training and Collaboration Process are the subjects we tried to discuss as well as the conceptions and attitudes of the participants at the GETED concerning the collaborative process of interacting and learning.

Index Terms—Collaboration; Learning; ICT; E-Learning

I. INTRODUCTION

We adopt the concept of a qualitative research which has some characteristics: descriptive data, direct insertion of the researcher at the researched environment, always have in mind the concern of presenting the perspective of the participants of the research, focus on the process not the product, value at the natural environment as it provides the data and the researcher as main investigation instrument [1].

The collected data registered the changes occurred in a group of studies and research (GETED) in a private university at Brazil. These changes were observed at a virtual environment - MOODLE (Modular Object-Oriented Dynamic Learning Environment) - at the discuss forum artifact.

This paper aims at presenting some ideas about how teachers participate at the Group of Studies and Researches about Educational Technology and Distance Education (GETED), acting and learning in a collaborative context. We tried to understand how the participants of the group develop the collaboration process when it is mediated by the technologies of information and communication (ICT).

We present a reflection about the lifelong training and about the collaborative communities at the virtual environment, bearing in mind the teachers’ conceptions about the acting and learning in a collaborative way mediated by the ICT.

II. LIFELONG TRAINING

Pimenta [2] says that the teacher formation should mobilize the theoretical knowledge and develop the capacity of investigating the own activity. The Houaiss’ dictionary gives to this Word the meaning of moving, to put in action, to ask for participation. Therefore, the teachers’ lifelong training should be a continued process focused on the practice knowledge, the theoretical knowledge and the pedagogical knowledge. According to this author, the formation should “develop the teachers’ researches about the school reality, with the objective of promoting the attitude of researching about their own teaching activities.” To the author, the training should be the formative principle at the teaching process. This could be an answer to the actual distance between the teacher’ training and his effective practice.

Perrenoud [3] synthesizes in a perspicacious way that at the actual context it is needed to reinforce the preparation of the teachers to a reflexive practice, to the innovation and cooperation, to train professionals which are reflexive, dynamic, who know how to work in groups, how to search and select information, how to take decisions and develop autonomy in relation to their own learning process.

To think about the teacher’s training as a list of procedures, contents, activities or technological effects is to adopt a technical point of view of this growth. It is necessary to have a certain distance from this kind of rationalist view, which focuses on the ending, from a fragmented, reduced and homogenized perspective.

Therefore, the lifelong training could be undertaken during the whole professional life in a way that it can make us reorganize new methods, approaches, ideas, practices and conceptions about how acting, teaching and learning, and, nowadays, incorporating the new technologies of information and communication.

To incorporate the ICT at the education context, specifically at the teacher training, it is necessary to think about it in a critical, reflexive and responsible way so that we can promote a new culture of learning, by means of producing interactive environments, which focus the
construction of knowledge and allow different forms of communication.

According to Sampaio and Leite [4], the teacher needs to dominate the technological language and its technological literacy, but not just the mechanical use of the resources, but also the critical domain of the technological language. When the people are not able to interpret the information in a critical way and the different languages which the technology uses, the relation human-technology becomes another factor of social inequality. It is necessary to prepare the teacher to use the pedagogical technologies by training citizens to be active in the now-a-days society.

Changes at the educational organization and at the ways we teach and share knowledge are necessary to follow the rhythm in which the society flows, disrupting with established and rooted practices. More and more we need a permanent education, and even more when the ICT as well as the learning virtual environments are available for all.

The lifelong training offered by the GETED provides its teachers a space for reflection which allows to establish articulations among educational theories and to create situations of using the ICT, re-élaborating the training focused on the construction of practices. The following excerpts, taken from the discussion forum posted at the virtual environment, exemplify the conceptions of the teachers’ participants of the group about their lifelong training:

Participant (A) 

I feel like a researcher (curious), with fictitious identifications to maintain the anonymity of the participants.

Participant (B)  

The group develops activities and participations providing enriched thematic which are studied.

Participant (C) 

I’m at GETED to reflect about the use of the Technologies in the educational context, to learn, to share experiences and to discover ... with the participants

Participant (D) 

I feel like a researcher (curious), more critical in relation to my professional practice from the readings done at the group.

The position assumed by the participants of the GETED at the forum interface shows an environment where all feel autonomous to collaborate mutually. This confirms the assumptions of Behrens [5] that the information and experiences provided by the technology of information can be complemented, enriched and it can instigate the learning process. She adds that the collaborative way can develop autonomy, critical spirit and attitude of a collaborative work.

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1 The excerpts were transcribed without any alteration, with fictitious identifications to maintain the anonymity of the participants.

III. COLLABORATIVE COMMUNITIES AT A VIRTUAL ENVIRONMENT

It is fundamental to discuss the teacher’s lifelong training in a perspective that establishes a culture of collaborative responsibility mediated by the ICT enclosing the critical domain of the technological language.

This proposal of integration can become true by means of using collaborative virtual learning environments, shared spaces of human beings, which support the construction, insertion and exchange of information by their participants, aiming at a social construction of the knowledge, as much as an individual and also a group work, contributing to the final process of learning.

The cyberspace is related to the community theories if we understand it as an emerging space where individuals work, play, buy, meet, speak, learn, etc., from a determined form and at specific locals.

The communities, to be considered as such, should have an objective, an identity, communication, trust, reputation, group formation, borders, government, change or commerce, expression and history [6].

The collaboration is one of the themes at the cyberspace studies which promote an unquestionable interest such as at the level of the process (how it emerges) and also at the level of its evolution (how it maintains itself).

Although there are a lot of concepts about collaboration at the cyberspace, all of them refer to the same phenomenon: a form of volunteer collaboration, steady at the time, whose objective is the production of information and knowledge. Cooperation and Collaboration are not the same thing: we cooperate when we work individually at the complement of two or more things and we collaborate when we work together focusing one determined thing.

Menezes et al [7] emphasize that the collaborative learning environment involves a set of information and communication tools which can contribute to the process of learning, permitting that teachers and students reevaluate continually their roles and developed practices, in the measure where they start to know new possibilities – such as insertions of new technological resources as the way of using them.

Under this perspective, Menezes et al [7] state that the teachers build their knowledge through their experiences and extend them with other acquired knowledge, with other people, enriching and giving more quality to their pedagogical works. Nevertheless, it is necessary to emphasize the importance of the collaboration process and the learning mediated by the ICT at the teacher’s lifelong training which can configure a space of changes and moments of reflection about the practice at the classroom. As it is shown at the following excerpts:

Participant (A) I found this interview at the internet such now. It is about virtual communities. Well, I think you know a lot about this subject, but I found it interesting. I hope you like it.
Participant (B) Actually, it is interesting the way how the virtual community is shown, it awakes us to think about building one, how to do it and with which objectives.

Participant (C) I have already finished reading it. Thanks, I have not known it yet. As we can see, the author wrote quite a lot about this subject.

Some exchanges occurred at the discussion forum unchained collective processes shared with the group, instigating the learning process, autonomy, critical spirit and attitude of working together, are presented in the following examples:

Participant (A) Hi, everybody. I had the pleasure to watch the film “With Honors”, suggested by the teacher B at our last meeting and I understood that the focus of the film is the thesis of life itself. It is about Einstein and the relativity, about politics, that to write it is necessary a lot of critical reading from the books and from the world.

Participant (C) Thanks teacher A for sharing with us information about the film “With Honors”. Reading your observations I started to think what we intend with the orientations we give to our pupils during the development of their researches and what they intend with their own researches.

It is worth to call our attention to the process of collaboration and learning mediated by the ICT at the teacher’s lifelong training, as Figueiredo [8] points out. According to him, the collaborative learning makes the students more reflexive, by developing the intellectual and affective abilities as well as promoting interaction and autonomy. He also points out that at the net environments, the students, members of the communities, feel that the construction of their knowledge is a collective adventure – an adventure where the knowledge is built, but also where we contribute to build others’ knowledge.

According to Freire [9], the man learns the reality by a net of collaboration, in which one helps one another to develop, at the same time he develops himself. Everybody learn together and in collaboration. Nobody trains anybody as neither anybody educates himself: men train themselves in communion, mediated by the perception of the world.

In view of this, we understand that the ICT offers innumerable possibilities of interaction with multiple people in a shared form, opening a wide space to the teacher’s lifelong training, who assume the responsibility of searching and analyzing critically knowledge.

This kind of adventure can be seen at the following excerpts:

Participant (A) At the next meeting of GETED we will talk about the thematic WIKI. We will use first the forum to read the text and then to debate about it.

Participant (B) I believe that the proposal is interesting. Even thought it causes at the beginning some querness, the situation can provide us new learning experiences and increase our familiarity to new contexts. I will read the text in order to participate with some commentaries.

Participant (C) Reading the text about the wiki, some questions arise and I would like to share them with you.

Participant (D) Reading the text, I asked myself about some questions relating to the control of the wiki, to its safety, to its veracity of ideas.

According to Fischer [10], there are a lot of transformations with the insertion of the new technologies in our lives, specially relating to the way of writing, speaking, thinking the world and ourselves, also the way of inscribing ourselves at the social environment. These new behaviors demand an individual as well a collective construction of knowledge that allow the teacher and the student to learn, in a collective process, in a relation of solidarity partners who face the challenges of contemporary world and who appropriate the collaboration, the cooperation and the creativity [10].

IV. CONCLUSION

We have presented a reflection about the lifelong training for teachers and about collaborative communities at the virtual environment, bearing in mind the teachers’ conceptions about the acting and learning in a collaborative way mediated by the ICT adopting the concept of a qualitative research in a virtual environment. We’ve used a qualitative research based on the perspective of the participants and focusing on the process of learning and constructing knowledge as well as the interaction and collaboration between the members.

In face of the statements written by them on the platform focusing various subjects, it is our opinion that innovation is not restricted to the use of the technology, but allows the teacher to appropriate these resources to create methodological projects, which final goal is the reproduction of knowledge in order to produce knowledge.

REFERENCES


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