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Editorial

The vertiginous digital proliferation, especially in the educational field, and the consequent interest and motivation academically and socially generated, demand an innovative impulse of educational tendencies, which promote equality and social justice, through practices open to the entire population.

Through concrete examples of good digital practices, in which pedagogical techniques are applied based on active learning and with the support of digital media, we see how the educational system can increase the training opportunities to train the attitudes and skills necessary in a sustainable society; that is to say: to move forward based on innovation

In order to contribute to the formation of educators in this field, the Alteridad Monographic Section that we present here, proposes five articles.

The first, by Marcio Roberto de Lima and Isadora Moreira de Andrade, entitled Teaching meanings on the integration of digital technologies in pedagogical practices, addresses from an exploratory approach, an action research through which concepts of a teacher are identified, in a school of the interior of Minas Gerais, Brazil, regarding the incorporation of the Digital Technologies of Information and Communication in her pedagogical practices, and, to comprehend how those resources can be significant in the teaching practice in the cyberculture, potentializing and instrumentalizing participative/collaborative strategies. The fieldwork includes traditional spaces of place and cyberspace, making observations, accompanying virtualized productions and a semi-structured interview with the collaborating professor of research. The compilation of the empirical data was done in the Atlas.ti software, and later a content analysis was carried out. The analytical systematization indicates the existence of few public educational policies focused on the inclusion of the DICT in the researched school, confirming the precarious support of infrastructure and the lack of pedagogical support for the orientation of teachers in activities with those technologies. Concludes that certain actions of authorship in cyberspace, suggest contributions in learning and signs of reconfiguration of the student's position in front of the teaching proposals, which favors a process of revision of the pedagogical beliefs of the collaborating professor of research.

The second article, The impact of the use of the B-Learning modality in higher education by Estela Núñez-Barriopedro, Ingrid Miguelina Monclúz and Rafael Ravina-Ripoll, exposes how new educational scenarios propose adapting the teaching-learning process to the collective use of ICT. The main objective of this research focuses on analyzing the conditions of the teaching-learning process of the Latin American university for the adoption of new educational approaches. The research design is mixed with recurrent triangulation DITRIAC. Specifically, in the quantitative phase, the method used is descriptive-transversal, using a questionnaire with Likert Scale to 50 teachers, 402

students and 6 authorities. And, in the qualitative phase, the method is ethnographic, through interviews with ten teachers, 38 students and two authorities. The conclusions highlight the need to promote the social factor of learning and give greater prominence to the student. Likewise, the three aspects that are most difficult for teachers to change in their way from classroom to B-learning are: leaving the protagonism to the student, switching from the transmissive class to collaborative learning, and from the summative evaluation to the formative one.

The third article, by Professor Diego Bernaschina Cuadra, deals with the theme of ICTs and Media Arts: The new digital age in the inclusive school, describing an educational experience on the impact of the pedagogical practices of digital media in the classroom. Its objective is to understand the relationship between Art Education and Education Technology and interdisciplinary methodology. To this end, he proposes the development of activities carried out in different workshops Stop Motion animation, for primary education and Video Art for secondary education, sharing and promoting collaborative work as an alternative method of learning and the participation of students within the virtual classroom.

The fourth article, Proposal for design an instrument for video lectures analysis in MOOC, by professors Edna Manotas Salcedo, Amor Pérez-Rodríguez and Paloma Contreras-Pulido, present the process followed in the construction and validation of an instrument to assess the structure video-lessons of mass online courses, MOOC. They base their proposal on the need to generate proposals for the production of videos in mass courses, propounding first, the design process and the theoretical supports in which they have framed the blocks of questions, as well as the result of the evaluation of the experts, the piloting of the instrument and the results. Finally, the authors offer perspectives for the design of video-lessons and instruments that help teachers and instructional designers of virtual courses to reinforce their contents in the video-lessons. They conclude with a proposal to use the instrument to open new lines of research that support the production of video-lessons and with the proposal of ideas to use elements of television via streaming to the didactic sequences of virtual courses.

The fifth article, entitled Gay teenagers in the digital age: orientations for educators, is the result of the research done by Lander Calvelhe Panizo, about the multiple opportunities of access to information and interactions with different people in the quick and easy way that the Internet offers. They present the results of a research on the processes of self-identification and socialization as gays of twelve young people between 14 and 19 years old, analyzing qualitatively experiences and practices based on testimonies in which the need for connection with their peers appears as well as the fear for the underlying homophobia. On the other hand, the Internet is perceived as a place of hope and uncertainty, evidencing how this type of Internet practices are more common during a period of confusion about their sexuality. The author ends by proposing a series of educational orientations based on the results of the study.

The Miscellaneous Section begins with the article entitled Training Needs of Teachers of Tsáchila Intercultural Education by Jacqueline Marilú Aguavil Arévalo and Ramiro Andrés Andino Jaramillo where they demonstrate the formative shortcomings of bilingual intercultural teachers, the effects on educational processes and the problems in the execution of the Model of the Intercultural Bilingual Education System (MOSEIB). The methodology of the study was based on a non-experimental design supported by qualitative and quantitative research; the sample consisted of 19 tsáchilas teachers and ten mestizo teachers. The techniques were the survey and the statistical analysis. The



results show that teachers present training and training needs evidencing the importance of initial and ongoing training, the need for research and the development of educational proposals.

Education, body and alterity, Meetings face to face for the formation of the other by Jhon Fredy Orrego Noreña and Diego Armando Jaramillo Ocampo affirms that it is not possible to educate outside the relationship with the Other, which depends on the idea of subject and world. The encounter implies a scenario in which the subject is no longer alone before himself, but is related to Other, different from him, generating an education that exceeds the pre-eminence of knowledge and part of a relationship with the Other. This perspective, approached from the point of view of Levinas and Mèlich, bases a moral education centered on socially accepted knowledge, rules and values and an ethical education based on the training needs of the subjects that answer responsibly to the Other.

Development of a teaching team in the coordination of the teaching staff in the university environment by Miguel Ángel Sánchez Jiménez and Araceli Galiano Coronil states that coordination in teaching is one of the relevant elements for performance, professional and organizational development. Given the low satisfaction of the Marketing and Market Research students of the University of Cádiz with the teaching coordination, the creation of a team with the aim of creating common procedures to improve communication between students and teachers was considered. In this line, meetings were established during the 2016/2017 academic year, proposing activities that improve teacher coordination, the results of which generated greater satisfaction on the part of the students and the teaching staff, and the need for the teaching team to continue being made.

The zapatista school: educating for autonomy and emancipation by César Silva Montes, exposes the development of an educational proposal from the community, based on ancestral wisdom but linked to contemporary thought, aimed at forming autonomous and worthy generations. The experience is partly based on Paulo Freire's ideas on how to alphabetize and read the world and transform it. It is anti-capitalist, it is not governed by market norms nor is it a state apparatus because each people choose the academic content. Unlike the schools that promote entrepreneurship, merit and self-employment, Zapatista education aspires that young people serve their people in solidarity and that knowledge does not hierarchize, avoid bureaucratization and homogenization.

Reflection strategy for teaching construction projects in Civil Engineering by Albeiro Bejarano Castellanos, María Fernanda Serrano Guzmán and Diego Darío Pérez Ruiz make visible that the educational programs of the universities demand that the contents help to respond to the environmental problems. The didactic proposal is based on concepts of management of construction projects using re-engineering and the philosophy of construction without losses (Lean). It is based on information collected in housing construction projects where the practices that combined technical knowledge, administration of human and financial resources, critical thinking, problem solving, social commitment, teamwork, communication skills, ethics and social responsibility were evaluated. The study concludes that the reflection, for future professional, is a useful tool provided by the teaching-learning process.

We finalize this editorial inviting you to send your scientific productions to be reviewed in the Journal. The monographic theme of volume 14, number 2 (July-December 2019), is Inclusive Education: Progress, dilemmas and challenges for an intercultural context; which is coordinated by the thematic editors, Dr. Silvia Ester Orrú, Universidade de Brasilia, (Brazil), Dr. Alejandro Rodríguez-Martín, University of Oviedo (Spain), Dr. Auxiliadora Sales Ciges, Universitat Jaume I (Spain); as well as for the Miscellaneous section that receives research results, as long as they address the issue of education. We also remind you that «Alteridad» is present in around 100 databases,



repositories and libraries, such as: ESCI, DOAJ, REDIB, REDALYC, MIAR, CAPES, SciELO among others; and it is being evaluated to become part of SCOPUS.

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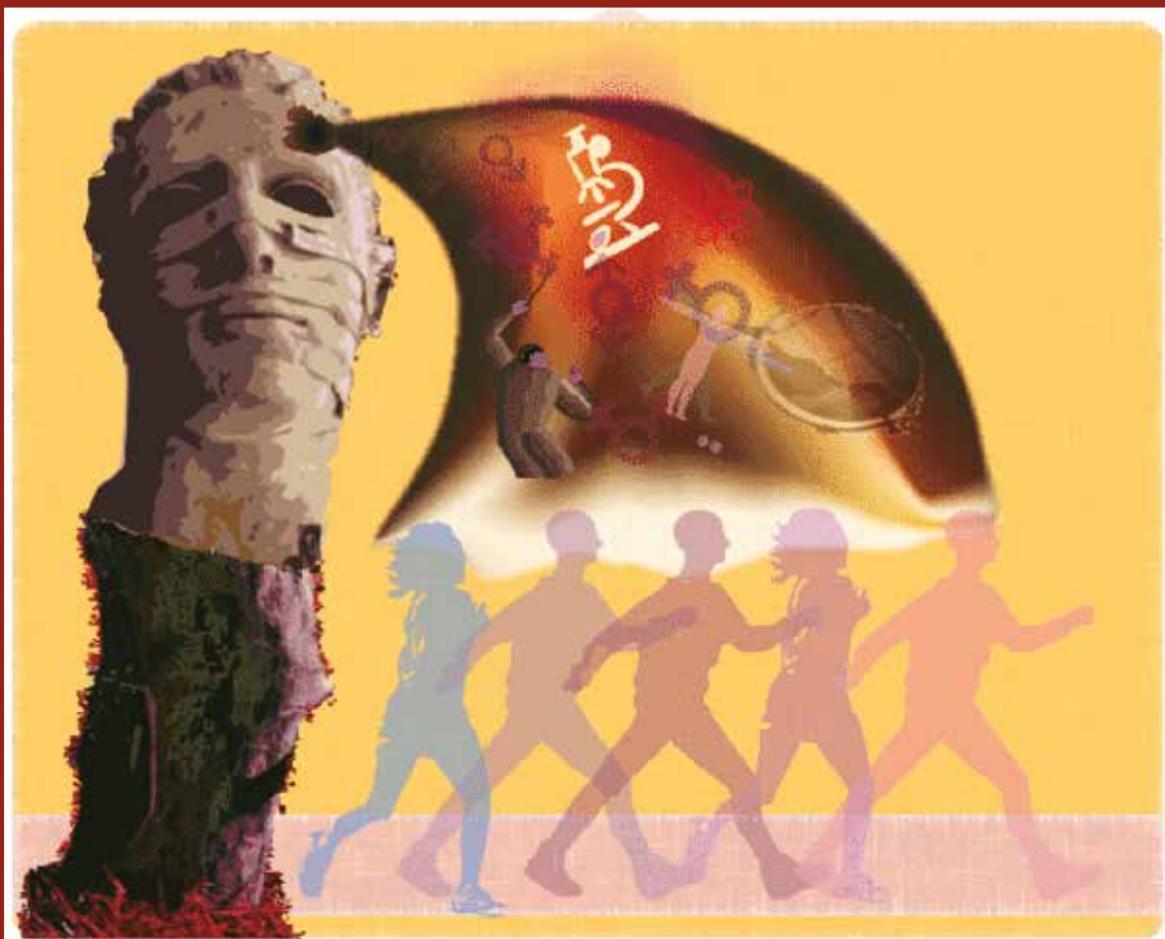
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Scientific Journal “Alteridad”



Monografic section (*Sección Monográfica*)

“Educational innovation. Possibilities and challenges of open practices in the digital society”

Innovación educativa. Posibilidades y retos de las prácticas abiertas en la sociedad digital





The meaning that teachers give to the integration of digital technologies in their teaching practices

Significado que los docentes le dan a la integración de tecnologías digitales en sus prácticas docentes

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Received: 2018-01-09 / **Reviewed:** 2018-10-17 / **Accepted:** 2018-11-07 / **Published:** 2019-01-01

Abstract

This scientific paper reports an exploratory study conducted in the form of an action research and sought to identify the meanings of a teacher about the incorporation of Digital Information and Communication Technologies (DICT) / cyberspace in their pedagogical practices. Due to this purpose, we also sought to understand how these resources can be meaningful to the teaching practice in cyberculture, potentializing and instrumentalizing participatory / collaborative strategies. The intervention and data collection actions involved a teacher and her students from two classes of the 6th year of primary education in a school in the interior of Minas Gerais, Brazil. The field incursions were carried out in traditional spaces of place and cyberspace, with observations, monitoring of virtualized productions and a semi-structured interview with the teacher. The compilation of empirical data was

performed in Atlas.ti software, which assisted in structuring a Content Analysis. The analytical systematization indicated that there are few Educational Public Policies for the inclusion of the DICT in the school, precarious support of infrastructure and lack of pedagogical support that guides the teachers in activities with those technologies. Another expressive suggestion was that the intervention in the field of research consolidated a moment of unprecedentedness, causing a cultural impact on the pedagogical use of DICT. Finally, the actions of authorship in cyberspace suggested learning gains and signs of reconfiguration of the student's posture towards the teaching proposals, which favored the beginning of a process of revision of pedagogical beliefs of the teacher collaborating the research.

Keywords: Teachers meanings, Digital Information and Communication Technologies, pedagogical practice, cyberculture, cyberspace.

Suggested form of citing: de Lima, M. R., & Moreira de Andrade, I. (2019). The meaning that teachers give to the integration of digital technologies in their teaching practices. *Alteridad*, 14(1), 12-24. <https://doi.org/10.17163/alt.v14n1.2019.01>.

Resumen

Este trabajo tuvo carácter exploratorio, configuró una investigación-acción y buscó identificar conceptos de una profesora en cuanto a la incorporación de las Tecnologías Digitales de Información y Comunicación (DICT)/ciberespacio en sus prácticas pedagógicas. Debido a este propósito, se buscó, también, comprender cómo esos recursos pueden ser significativos en la práctica docente en la cibercultura, potencializando e instrumentalizando estrategias participativas/colaborativas. La base teórica de este estudio dice respecto a la cibercultura y sus desdoblamientos en la educación. Las acciones intervencionistas y de recolección de datos involucran a una profesora y a los alumnos de dos aulas de 6° año de Enseño Fundamental en una escuela del interior de Minas Gerais, Brasil. Las incursiones en el campo abarcarán espacios tradicionales de lugar y ciberespacio, habiendo sido realizadas observaciones, acompañamiento de producciones virtualizadas y una entrevista semi-estructurada con la profesora colaboradora de la investigación. La compilación de los datos empíricos

1. Introduction

The social appropriation of Digital Information and Communication Technologies (DICT) indicates a new *modus vivendi* in which the ease of access to virtualized information, authorship and communication in telematic networks potentiates the forms of knowledge production and reconfigures human action. This creative and expansive movement of possibilities, of (re) thinking or “doing” and the forms of social interaction end up pointing to new habits and modification of behaviors by establishing cyberculture (Lévy, 1999).

This scenario - although not yet total - shows that digital technologies assume a significant place as mediators of activities, constituting themselves as a contemporary dimension of culture (Pinto, 2005). Consequently, the social appropriation of the DICT brings “[...] with its representations not only in daily life, but, also, in what refers to the forms and possibilities of academic learning” (Moraes & Lima, 2018, p. 300). In that sense, “you cannot think of the school as

fue realizada en el software Atlas.ti, lo cual auxilió en el proceso de tratamiento, relacionamiento e inferencias que compusieron un Análisis de Contenido. La sistematización analítica indicó la existencia de pocas Políticas Públicas Educativas enfocadas hacia la inclusión de las DICT en la escuela investigada, constatándose el precario soporte de infraestructura y la inexistencia de apoyo pedagógico para la orientación de los docentes en actividades con aquellas tecnologías. Notablemente, la intervención realizada en el campo de la investigación consolidó un momento de originalidad para los involucrados, ocasionando un impacto cultural docente en el uso pedagógico de las DICT. Al final, acciones de autoría en el ciberespacio sugirieron ganancias en el aprendizaje e indicios de reconfiguraciones de la postura estudiantil frente a las propuestas de enseñanza, lo que favoreció el inicio de un proceso de revisión de las creencias pedagógicas de la profesora colaboradora de la investigación.

Descriptores: Significaciones docentes, Tecnologías Digitales de Información y Comunicación, práctica pedagógica, cibercultura, ciberespacio.

an oppressed instance of society and its cultural, political and economic dimensions” (Souza & Schneider, 2016, p. 421). Education needs to integrate into cyberculture and accompany its dynamics of sociocultural renewal, knowing that it is included and promoting (cyber) inclusion.

However, it is important to record that the DICTs do not determine - on their own - changes in the educational environment. We understand these technologies as conditioning factors of eventual transformations, when they are used in a way to stimulate the dialogical, reflective, creative, cognitive and affective potentials of the subjects involved. Our thinking is reflected in Santaella (2013), who indicates that the way to produce/acquire knowledge in cyberculture, when associated with education, can lead to continuous learning and ubiquitous communication. In this way, we consider that the first moment of approaching the education of cyberculture goes through the equipping of its teaching and learning spaces. However, we emphasize the fundamental nature of this initiative: the indispensable renewal of pedagogical intentionality and its adaptation to cyberculture.



In this sense, the educational reconfiguration with the integration of the DICT must go beyond the paradigm of pedagogy based on the transmission of contents for memorization and repetition (Freire, 2005). And, in tune with other researchers (Bonilla, 2009, Medeiros, 2011, Silva, 2010), we assume the use of the DICT in educational processes in a way that breaks with the utilitarian paradigm or adoption of technologies for the modernization of the traditional model. On the other hand, if cyberculture establishes an inter-relationship between digital technologies and the social *modus operandi*, we assume that the pedagogical practice with DICT can potentiate interactive actions mediated in cyberspace, which encourage student production individually and collectively in the web (Passarelli, 2017).

For this, it is essential that the teacher - through initial and continuing training - be able to appropriate the DICTs in a way that makes their practice compatible in the context of cyberculture, integrating themselves into a “process of human and of educational change, [which does not mean the] substitution of methods, modalities and techniques [...]” (Almeida, 2004, p.28). On the other hand, Ally and Prieto-Blázquez (2014) confirm the outdated educational model and teacher training through the advent of the DICT. Consequently, these authors indicate that such processes need to be reinvented to be more effective against the interpositions of contemporary culture.

Given this, we understand that the teacher in training (initial or continued) needs to have opportunities to experiment pedagogically and take digital technologies for themselves, incorporating them to their way of being and doing. Transformations of behavior and re-significations can occur, which involve the re-adaptation of customs, values, beliefs, attitudes and pedagogical practices (Lima, 2015). In this way, for changes to be viable, “even at subtle levels, it is imperative, on the part of teachers, to adapt to this new reality, which is quite different from what was experienced in the past and this, of course, it requires time, work and dedication” (Quintanilha, 2017, p. 251).

Considering these perspectives, the scientific research synthesized here aimed to promote continuing training for a teacher of basic education and enrich her pedagogical practices, bringing them closer to cyberculture. For this, we project the use of DICT/cyberspace by the teacher in her educational practice in a way that encourages participatory/collaborative strategies in her teaching process and encourages authorship, communication and student reflection. For this we project the use of digital technologies and their application to pedagogical practices, our main objective with this study was to identify the meanings given by teacher regarding that integration.

2. Methodology

To develop the research reported here, we started with a study about software resources and/or cyberspace environments, which could favor the design of interactive/collaborative strategies for DICT-mediated teaching. Subsequently, we project, implement and pedagogically accompany practices mediated by the DICT together with a teacher and her students. The actions of pedagogical intervention took place in a school in the interior of the state of Minas Gerais (Brazil) in two classrooms of the sixth year of basic education. The selection criteria of the school where we developed the research involved the structure of digital technologies available on the premises and the acceptance of a collaborating teacher² (hereinafter fictitiously treated as Professor X).

From the methodological point of view, we undertake an action-research (Thiollent, 1996). Our research actions aim to assess the perceptions and experiences of the collaborating teacher and, also, promote an intervention in the field of their actions. It was in that outline that we were present at the school and we accompanied Professor X and her students building and undertaking pedagogical strategies for the use of the DICT/cyberspace. In this sense, we proceed to the observations, accompany and interact with students of the Portuguese Language curricular unit in mediated pedagogical actions in cyberspace, in



the classroom, in the school's computer lab. Our observations and interventions occurred between 08/23/2016 and 10/04/2016.

During our school intervention we also sought to establish an opportunity for continuing education for Professor X, objectifying the overlap of her pedagogical work with cyberculture and the intentional use of the DICT/cyberspace. We assume the perspective in which continuing education during service (Almeida, 2004) could collaborate to broaden the field of work of the teacher, encouraging reflections and transformations in the teaching-learning process, as we believe that it is "the experience, [...] what gives meaning to education. We educate to transform what we know, not to transmit what we already know" (Rancière, 2002, p.11).

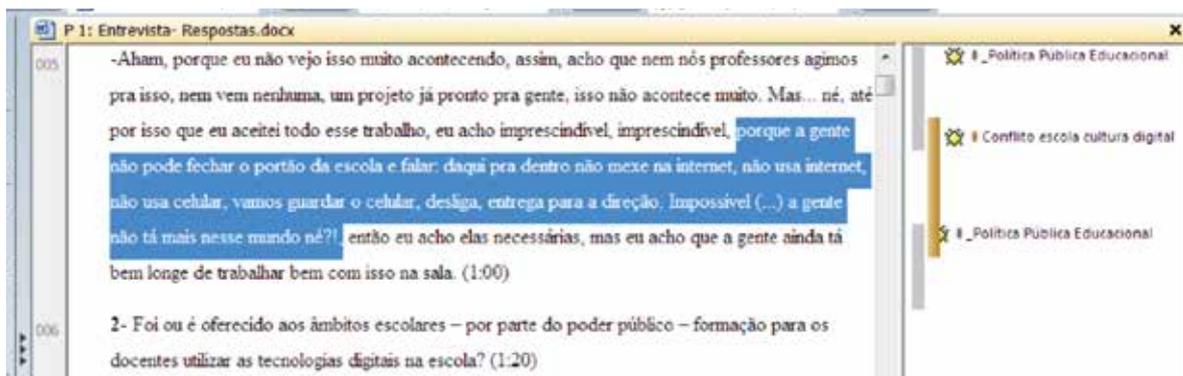
We reiterate that, in our action research - beyond the overlapping of the DICT in pedagogical practices -, we seek to identify the (re)signification of that experience for Professor X. In this way, we undertake a work of qualitative and exploratory nature, using a semi-structured interview as a data generating instrument. In a meeting outside the school environment, we took the testimony of our collaborator, which was transcribed and generated a corpus for our Content Analysis (Bardin, 1977). Beyond the interview, the data analysis was enriched with elements originating from our observations during the intervention actions within the school context.

Franco (2008) assumes as a starting point of Content Analysis the message, be it verbal (oral or written), gestural, silent, figurative, documentary or directly provoked. Thus, based on the transcription of Professor X's dialog, we used that corpus to proceed to the identification of fragments of interest, which were categorized in accordance with our research focus. Taking into account the conception of our analysis, we opted for its structuring in the Atlas.ti software, which aided in the process of treatment, relationship and inferences of the/with the data.

3. Analytical discussion and results

The construction of the Content Analysis (Bardin, 1977) of the empirical data in Atlas.ti was guided by our theoretical reference and research focus. Still, from the many re-readings made in the transcript, contributions that symbolized some reflections/impressions of Professor X. Those indicatives were not ignored. Structurally, we made 20 semantic codes/categories, which were associated to 76 discursive fragments of the transcript of the interview with Professor X (Figure 1). In the software used, it is the codes (or categories) that allow marking parts of the transcription, which semantically identify the units of meaning of the investigation. It is this process of association that structures the Content Analysis of the data in Atlas.ti.

Figure 1. Textual transcription and codes in the Atlas.ti software



Source: Screenshot in Atlas.ti software



The following subsections present excerpts from Professor X's discussions accompanied by an analytic discussion. In this exploratory study, we seek to systematize meanings given by the teacher to the experience of pedagogical work with the DICT. To this end, we organize our descriptors as follows: Public educational policies for digital technologies, cultural impact on teaching DICT, resources of cyberspace/DICT, reconfigurations of student action, empowerment of pedagogical practice with the DICT, evaluation of the Project and Perspective for new works with the DICT.

3.1 Public educational policies for digital technologies

With the code "Public Educational Policies", we seek to identify the impressions of the teacher regarding the public educational policies for the use of the DICT in the school under investigation. Directly linked to this focus of analysis, other categories will complement our understandings, namely: Technical support for DICT, DICT Infrastructure, Training for instrumental use of DICT and Pedagogical support for DICT. These last categories are directly related to the implementation of public policies in schools, bringing with it unfoldings that should not be analyzed in isolation. For that reason, we add our considerations in this analytical axis.

In her considerations, Professor X revealed that she did not identify actions of public educational policies aimed at digital inclusion in public schools and that, at times, teachers do not make demands on public authorities regarding that investment. Still, she warned us that even if that school had a well-structured computer lab, there were problems in its operation. During our stay in the school space for observations, we note - despite the infrequency of students in the computer room during the time of the teaching assignments of school teachers - the use of school computers in free courses taught for the community. Likewise, that school did not have continu-

ous technical support for the maintenance of their equipment.

Specifically, about issues related to public policies on the expansion of access to the Internet in the school environment, we recorded that, from April 4, 2008, the Government of Brazil has launched the "Broadband in Schools Program". In its Decree 6.424, there is "the objective of connecting all urban public schools to the Internet, a global network of computers, through technologies that promote quality, speed and services to increase public education in the country" (Brazil, 2008). Even so, Professor X claimed the need for improvement of that resource, because, often, the internet did not work properly during the period of our interventions.

In our analysis - after the summary assessment of the context under discussion - we understand that Professor X considers that the material infrastructure conditions should not constitute obstacles for the development of pedagogical activities. In common agreement, we understand the material infrastructure as a fundamental condition to stimulate to change virtual experiences and encourage the construction of a collective intelligence (Lévy, 1999), which can favor the pedagogical use of the DICT/cyberspace.

It is also important to point out that, parallel to the infrastructure conditions, public policies of continuing teacher education are essential to create opportunities for contact and understanding of the pedagogical potential of digital technologies. In that aspect, Professor X highlighted:

[07 ...] We had some years ago [...] courses that we had to review for the students, but they were courses, for example, [...] [...] Linux [...] It had nothing to do with the pedagogical, inside the classroom, and we made groups with the kids and reviewed what we learned, that was it. But there was no project directed for the classroom, for the Portuguese class, for the math class. [...] (Professor X).

In this discursive fragment, the teacher indicates the importance of a continuing edu-



cation contextualized in the cyberculture and adapted to the needs of the teachers. Such initiatives extrapolate technical and instrumental questions of the use of the DICT. With that, logically, the favored courses need to have a greater pedagogical focus. In other words, teachers need to “[...] be trained to know how to use micro-computers, develop a more student-centered education, be able to help them and create a learning environment favorable to the use of these new technologies” (Valente, 2011, p.28). And Professor X complemented:

[034 ...] I think it's interesting, because we say a lot that students need that internet at school, that the student has to be included in that digital medium, but teachers are not included in it, so much so that the teachers do not go to the computer room. [...] (Professor X).

Notably, the speech of the teacher makes explicit the thought that only trying to include/ approximate the student in the digital medium is insufficient. In that sense, Professor X indicates the need for effective digital inclusion of teachers. This is:

More than equipping schools [with DICT], [the fundamental thing is] knowing what to do with the resources that are in the school. And that happens, necessarily, by the investment in the teacher's training and career and by the construction of a well-structured pedagogical project, which guarantees a truly transformative professional practice (Hanauer & Abegg, 2017, p. 14).

3.2. Teacher cultural impact in front of the DICT

The code “Cultural impact of teaching facing the DICT” was intended to record the unfolding of our action research in the pedagogical practice of Professor X. In this line, we identify a cultural impact caused by the work with the DICT. At first, the teacher revealed distrust in taking the

students to the computer lab, as both she and the students were not used to working in that perspective. The teacher feared that the activity did not went well: “[048 ...] Oh, geez, go out with the children to the laboratory, they are not used to it, will it work? [...]” (Professor X). Regarding this, Teixeira (2016, p. 149) comments that:

Despite the debates about the effective articulation of education with technology, they were already being carried out decades ago, the use of technological resources is still observed quite shyly in the contemporary educational setting.

Considering our field observations alongside what the teacher expressed, we noticed that the activities with the DICTs were unusual. That suggested to us that the proposal of a real work with digital technologies and the displacement for a space different from the habitually frequented one were causing an impact in their pedagogical beliefs. That is because, at different times in Professor X's dialog, we identified: uncertainties, fears, misgivings and a routine break, all constituting a context that, given the presence and intentional use of the DICT was challenging for her. In this way, we reiterate that:

[...] the analysis of the issue of cultural impact experienced by the teacher in their pedagogical adaptation for the incorporation of technologies into their practices is linked to the school's organizational culture and, fundamentally, to the teacher's beliefs (Lima, 2015, p. 154).

Although they have constituted eventual impacts for Professor X, the misgivings and the break of pedagogical routine of the professor were not obstacles for the use of the DICT given their recognition of the challenges interposed by the cyberculture to the education. Undeniably, we experience a “transformation in the modes of parenting both ethically and aesthetically. The human creative act was, therefore, altered” (Coelho, Costa, & Mattar Neto, 2018, p.1079). By accepting our proposal to use the DICTs in her classes and collaborate with the activities, the



teacher had a notion of the need to accompany the sociocultural changes. Her attitude was preponderant for the success of our work and can be contextualized with the following statement:

[054 ...] I already have ten years in the classroom, but it is not a profession that you say: I am ten years old, then, now I am ready, I already know how to teach! So, it is not that, it is that you are always evolving, if you do not evolve (...) it was already. You are going to stay with that speech that some teachers have: The children of the old days used to be good, they obeyed, they wanted to study, now look, they do not take a notebook, you see that they did not study for the test. (...) (Professor X)

The discursive fragment showed awareness of the teacher in relation to the constant transformations related to educational processes and, also, the indispensable need to accompany these changes by teachers and education systems. Thus, teachers are the main agents of change (Sandholtz, Ringstaff, & Dwyer, 1997) involved in the school-cyberculture approach, since they are the ones who define the ways in which technologies can significantly influence education.

3.3. Cyberspace/DICT resources

The code “Cyberspace resources/DICT” was destined to the identification of the DICT, which could be significant to the teaching practice in the cyberculture, making possible effective potentiation of participative/collaborative strategies in the teaching process. Our intention was to find resources that contribute to:

The formation of critical students, with the ability to interpret and transform their context, recognizing that the computer and other technologies can be used for communication, obtaining information, expanding knowledge [...] (Maldonado, 2018, p. 41, free translation).

The planning of activities with the students of Professor X used - in addition to com-

puters - two resources of cyberspace. The first was the Comic Creator - Boys' Life site, in which students will create virtualized cartoons. For the productions, the students dialogue among themselves, they changed experiences and they will question, exercising the authorship of their stories with autonomy of thought and interacting with their peers.

The second virtual resource was that of the Facebook group, for which the student authors' comics were published. We opted for this environment due to two reasons: its popularization among the students and the fact of allowing them to share their productions. Facebook is the most popular social network in the world, with more than 2.23 billion active users³ (<https://goo.gl/PT0dX2>, accessed on October 24, 2018).

The posting of the activities in the cyberspace allowed the students to share, visualize, “like” and comment on the productions of their peers. We identify, together with Professor X, the recognition of that work and have enabled their students an opportunity to (re) construct knowledge through the change of experience (Panuci, Bianchini, Souza, Silva, & Munhoz, 2016). In practice, the work done ended up revealing productions - previously private and isolated - collective and accessible to other students. For the teacher, a reconfigured work emerged, more interactive and compatible with the budgets of cyberculture. In that respect, Professor X clarified:

[042 ...] Well, I think the use of Facebook is very interesting, it's great [...] I think Facebook is good because of that, because it took a tool that they use a lot, that they like, It's fun, it's not boring, right, it's not tied to boring, heavy work, and it brought that to the classroom. That was the most interesting thing for me. (...) (Professor X)

Interestingly, the teacher reinforced the idea that in the use of that environment she respected and valued the individuality of each of the students, who created, published, commented on and described their feelings and thoughts without the



imposition of a linear and rigid structure. This story of the teacher reinforces that:

(...) the insertion of technologies in the school environment, [may favor the reconfiguration of] teaching practices, no more just the structural and linear perspective of presentation and methodological development of the content to be taught [but following] another logic, based on the exploration of new types of rationales that are not exclusive, in which different possibilities of routing reflections are emphasized, in which the possibility of other relationships between apparently different areas of knowledge is stimulated (Kenski, 2006, p.38) .

These contributions suggested that the pedagogical practices with the DICTs allowed Professor X to understand that, when they are properly planned and executed, the actions with technologies end up favoring the reconfiguration of the student action, which is dealt with in the next subsection.

3.4. Reconfiguration of student action

The code “Reconfiguration of the student action” was destined to the identification of elements that suggested the recognition of Professor X regarding a process of reconfiguration of the student action (from the use of the DICT). We understand that the teacher should consider the use of the DICT in their pedagogical practice as one of the ways to try to expand the teaching-learning process.

Professor X told us her perceptions about the students’ considerations with the activities carried out through the DICT:

[036 ...] Yesterday, for example, (...) The student talked about some kind of work that we were going to do, that he said like that, we’re going to do on the internet, we’re going to put on the internet, we’re going to do a group. So, I thought, look at the little seed, because they did not talk about that before, then they liked that idea that everybody is there, then that’s

already the case, their will to continue doing it. (...) (Professor X)

This discursive fragment suggested to us that the activity carried out was significant for the students and made possible a rethinking of the field of student action (Papert, 1985). After the execution of the project, the students will go on to claim new forms of work using the DICT through which they could create, interact and share, as it happened in the creation of comic strips and publication on Facebook: “[099...] They highlighted that in their comments, ‘the class was very good’, ‘I want to go more times’ [...]” (Professor X).

And, in another moment of her interview, the teacher reinforced the success of the proposal for the resignification of student actions:

[046 ...] so, I think the interesting thing was that, that he created, he was the protagonist. He created, he analyzed himself, he corrected himself, truth, he analyzed the other, then, I think, in that sense of the protagonism itself, of the student, there in the work that was done. (...) (Professor X)

The use of DICT in education needs to aim to overcome the barriers of a traditional class, in which the teacher is seen as a loaner of knowledge and the student as a white sheet on which knowledge will be printed. Professor X would therefore be faced with an opportunity to break with the exclusivity of knowledge stored in the p.s of books (Serres, 2013) and the traditional practices of recitation, silent reading and timely repetition. However, with the DICT and its pedagogical appropriation, “Knowledge propagates in a homogeneous decentralized space, free movement. The classroom of the past died, although we still see it so much, even if we only know how to build other equals [...]” (Serres, 2013, p. 49).

Despite recognizing the value of instruction in a teaching process, we fight against its exclusivity as a didactic resource. Thus, we consider that the reconfiguration of student action is based on transforming the learner into an (inter)



active subject in the teaching-learning process and the teacher into a mediator of student learning with the DICT. That is:

The teacher becomes an animator of the collective intelligence of the groups that are at his charge. Its activity will be centered on the accompaniment and the management of learning: the incitement of the change of knowledge, relational and symbolic mediation, the personalized piloting of learning routes, etc. (Lévy, 1999, p. 171).

In this way, the student is configured as an author in the teaching-learning process and their individuality, culture and reality are respected. In front of the practices carried out with digital technologies, Professor X told us her perception about the beginning of a reconfiguration of the student action, since the activities will modify the position of the students, emerging the authorship in the cyberspace. In this way, the use of the DICT in the classrooms fostered the overcoming of instruction based on the transmission of information, making it possible for the subjects involved to mobilize, move, dialogue and exchange information (Serres, 2013) aiming at the construction of their learnings. That is the reconfiguration of the student's job, before said receiver of contents and executor of instructions, for a more participative student and notion of their place in the learning process. Consecutively, these referrals will eventually germinate a process of pedagogical (re) empowerment in Professor X, which we synthesize in the next subsection.

3.5. Enhancement of pedagogical practice with the DICT

The code "Potentiation of the pedagogical practice with the DICT" was destined for the record of the unfolding of our investigation-action in the pedagogical daily of Professor X, indicating modifications. It is important to highlight that the context of this code was related to the two codes already presented: "Reconfiguration of

student action" and "Resources of cyberspace/DICT". We sought to provide Professor X with ongoing training with the purpose of enhancing her practice, because "you can not demand change in the profile of education professionals" (Souza & Schneider, 2016, p.420) without considering the fact that their initial formations still occur under traditional molds.

As it was previously seen, we identified in the contributions of Professor X or story that the virtual activities undertaken with the students were profitable. The teacher emphasized her awareness that the execution of the project with the DICTs did not change the whole school reality, but contributed to the expansion of her pedagogical actions. She also highlighted the student's interest and willingness to participate in the activities, once that practice was not evaluated (in the sense of being awarded a score): "[054 ...] it was not an evaluated activity, it was not that thing, good point, is to deliver at a set date, then, well, they did, because they wanted. [...]" (Professor X).

Combined, those aspects will collaborate for a beginning of reconfiguration of the field of student action and for the enhancement of the pedagogical practice with the DICT. In the end, the planning of our interventions together with the teacher was conceived in the "direction [of] an instruction centered on the student, and not on the curriculum, in the direction of collaborative tasks, and not individual tasks, in the direction of learning active, not passive" (Sandholtz *et al.*, 1997, p.33). In other words, Professor X allowed herself to work with the DICT in order to "think, instead of imitate" (Kohan, 2013, p.71) the methods used in the teaching practice, resignifying her teaching and the means for the promotion of learning:

[091 ...] we give many classes, you do not spend much time talking 'No, that week, I'm going to do that way, that way, with that turma'. No, you're taking, the classes all the same and that's getting tedious, but it's comfortable for me as a teacher. Only that there comes a project of



that is says: 'Let's go to the laboratory' (...). So, that already gives me a jolt, it has no shape, I had to move a little and that was very good in that sense, you discover that you can do little different from your routine (...) (Professor X).

By favoring creative expression, dialogue and interaction in cyberspace, the activities carried out allow students to assume a more active position in the construction of their knowledge (Papert, 1985), breaking with the tradition that "rarely opens gaps for place ourselves as subjects of our learning" (Kenski, 2006, p.123). Obviously, this dynamic of renewal of the field of student action was not unnoticed by Professor X, who happened to occupy the position of mediator of learning routes, minimizing the dichotomy between educator and educated. In this perspective of active and collaborative teaching, the teacher also learns while teaching, emerging collective intelligence (Lévy, 1999) based on communication - inside and outside cyberspace - among all the members of the process.

The teaching approach to DICT and the pedagogically planned incorporation of these technologies into the teaching practices will provide Professor X with a reflexive process, which contributed to the beginning of (re) significance of her actions. Therefore, it is worth noting that those changes in the pedagogical routine did not happen in a linear manner and without tensions. Conversely, the displacement of the pedagogical tradition implies challenges that decentralize the management of knowledge construction and make time (s) and operations space (s) more flexible (Panuci *et al.*, 2016). It was in this perspective that Professor X, during the project, hardly transmitted information, but accompanied and encouraged the production of students in cyberspace, planning more interactive and collaborative learning routes.

3.6 Project evaluation and perspectives for new work with the DICT

The code "Project Evaluation and perspectives for new work with the DICT" was intended to record the considerations of Professor X about our action research with her students, pointing to its validation. In the beginning, we sought to understand how the teacher evaluated the activities undertaken with the students. The code "Perspectives for new work with the DICT" was already destined for the registration of the manifestations of the teacher with respect to possible future work with the DICT in their practices.

In the analysis of the discursive fragments of Professor X concerning the evaluation of our intervention, the teacher evidenced modifications in her teaching practices. The teacher reported that the work carried out motivated her to plan didactically differentiated activities with the students using the DICT. We seek to enable the teacher to perceive the interactive potential of cyberspace, which could conceive, in her teaching process, the possibility of adding something new to her everyday life (Rancière, 2002). In this aspect, Professor X reinforced that the action search collaborated to review her practice in the sense of opening new perspectives to make her classes more dynamic, situated and meaningful:

[054 ...] Another advantage of that project was that, that broke that, those misgivings to leave with them from the classroom. I left, everything happened well and, that's it, I think that (...) enriched.

[065 ...] those small things bring difference, yes, for the classroom, (...) because the environment, the day to day at school is very arid, very painful, so, because it is tired, true? (...) these things give the same air (...) (Professor X).

Through the final positive evaluation of our project, we understand that collaborative planning and its gradual and clarified implementation, together with pedagogical support,



can favor the adoption of new perspectives for educational processes mediated with DICT. In the meantime, it can not be ignored that the education reform depends on the teachers, on what they think and do in their pedagogical daily life, “in the end, it is the teachers who determine what happens in the classroom and in what ways Innovations are, or are not, implemented” (Sandholtz *et al.*, 1997, p.20).

Our action research did not aim to use the DICT to replicate the ordered teaching during the instruction. The choice of this methodology was intended to approximate the teaching practices of the DICT in order to instigate the student’s potential and encourage authorship and knowledge exchanges. Our intention is to explore the functionalities of the technologies to instigate the cognitive/creative potential of the students and to potentiate the pedagogical actions of the teacher.

Professor X told us that, although after conducting the action research, students will request new work using the DICT, suggesting a perspective for future work: “[036 ...] probably, that will happen, we will do other things. (...)” [099 ...] “We go more times, right? (...)” (Professor X).

Finally, we believe that the work undertaken with Professor X, provided an opportunity for review and/or re-signify its field of action and the beginning of a process of pedagogical appropriation of the DICT. The interventions made opened perspectives for new works using cyberspace and potentiating authorship, interaction, creation and dialogicity (Freire, 2005).

4. Final considerations

The present work aimed to contribute and enrich the pedagogical practices of a teacher of basic education, approaching it to the cyberculture. Making the approach between teacher-DICT/cyberspace, we seek to identify the meanings given by the collaborating professor of the study regarding the process of integration of those technologies to their teaching practices.

From the contributions of the teacher, we identify - in her vision - the existence of few Public Educational Policies oriented to the inclusion of digital technologies in schools. In this sense, we find in the researched school the precarious support of infrastructure and the lack of pedagogical support directed to the orientation of teachers in activities with the DICT. We noticed that, when proposing activities with digital technologies, Professor X was leery of taking the students to the computer lab: both the teacher and the students were not used to working in that way. That suggested to us that the proposal of an effective work with digital technologies and the displacement for a space different from the habitually frequented could be causing a cultural impact on the teacher. Moreover, Professor X understood the proposal and assumed it as an opportunity to review actions and personal training, remaining open to planning and committed to its effectiveness.

With experiencing the practice with DICT, Professor X positively evaluated the intervention, considering the activities as significant for her students. The teacher took as a basis for her evaluation the fact that, even after the execution of the project, the students will continue to claim new forms of work using the DICT/cyberspace. What happened to be at stake in the pedagogical routine were the possibilities of creation, interaction, publication and communication in networks. In her final assessment, the teacher let us know that our action research and activities with digital technologies contribute to the enhancement of their pedagogical actions.

Aware that the actions planned and undertaken in this scientific research constituted only one (micro) possibility of reflection for the change in the pedagogical daily life of Professor X and her students, we reiterate the importance of the production and socialization environments of cyberspace to the process teaching-learning. However, we reject the deterministic view that the DICT/cyberspace, by itself, will bring changes in the school culture. The decisive factor in



this approach to the school and its practices of cyberculture lies in the perceptions of pedagogical effects and gains by teachers. Therefore, it is necessary that the teacher - through initial and ongoing training - be able to appropriate the DICTs in order to reconfigure their practice in the cybercultural context. There is evidence of possible transformations of behavior and resignifications, revealing a continuous dynamic that involves the readaptation of customs, values, beliefs, attitudes and pedagogical practices.

Finally, our incursion in the field and the analytical systematizations suggest that the revision of teaching beliefs - through the presence and pedagogically clarified use of the DICT/ cyberspace - consolidates a possibility of overcoming the pedagogical culture of transmission, based on recitals, copying, memorization and reproduction of information.

5. Support and Acknowledgments

To the Amparo à Pesquisa de Minas Gerais (FAPEMIG) Foundation, for the granting of a Scientific Initiation grant for the execution of scientific research.

To the Pro-Rector of Pesquisa e Pós-graduação from the Federal University of São João del-Rei (PROPE/UFSJ), which has always been solicitous of our demands, attending us promptly and punctually.

Notes

1. According to Internet World Stats (2018), Latin America has an estimated population of 647 604 645 inhabitants, of which 404 269 163 are Internet users (62.42%).
2. Register that the collaborating professor of this study signed a free and informed consent term, by which she voluntarily and consciously participated. The teacher had her name replaced throughout the text in compliance with the anonymity provided in the document.
3. Active users are those who will log in to Facebook during the last 30 days.

Bibliographic references

- Ally, M., & Prieto-Blázquez, J. (2014). What is the future of mobile learning in education? Mobile Learning Applications in Higher Education. *Revista de Universidad y Sociedad del Conocimiento (RUSC)*, 11(1), 142-151. <http://dx.doi.org/10.7238/rusc.v11i1.2033>
- Almeida, M. E. B. (2004). *Inclusão Digital do Professor: formação e prática pedagógica*. São Paulo: Articulação.
- Bonilla, M. H. S. (2009). Inclusão digital nas escolas. In A. C. F. Pinheiro, & M. Ananias (Orgs.), *Educação, direitos humanos e inclusão social: histórias, memórias e políticas educacionais* (183-200). João Pessoa, Brasil: Editora da UFPB.
- Coelho, P. M. F., Costa, M. R. M., & Mattar Neto, J. A. (2018). Saber Digital e suas Urgências: reflexões sobre imigrantes e nativos digitais. *Educação & Realidade*, 43(3), 1077-1094. <https://dx.doi.org/10.1590/2175-623674528>
- Bardin, L. (1977). *Análise de conteúdo*. Lisboa: Edições 70.
- Brasil. (2008). *Decreto nº 6.424*. Brasília, Brasil. Recuperado de <https://goo.gl/vNdMk7>.
- Franco, M. L. P. B. (2008). *Análise de Conteúdo*. Brasília: Liber Livro Editora.
- Freire, P. (2005). *Pedagogia do oprimido*. Rio de Janeiro: Editora Paz e Terra.
- Hanauer, M., & Abegg, I. (2017). Políticas públicas e programas de incentivo à integração de tecnologias no ensino. *Jornal de Políticas Educacionais*, 11(16), 1-18. <http://dx.doi.org/10.5380/jpe.v11i0.53196>
- Kenski, V. M. (2006). *Tecnologias e ensino presencial e a distância*. Campinas, Brasil: Papirus.
- Kohan, W. O. (2013). *O mestre Inventor. Relatos de um viajante educador*. Belo Horizonte: Editora Autêntica.
- Lévy, P. (1999). *Cibercultura*. São Paulo: Editora 34.
- Lima, M. R. (2015). *Projeto UCA e Plano CEIBAL como possibilidades de reconfiguração da prática pedagógica com as Tecnologias Digitais de Informação e Comunicação*. Tese de doutorado em Educação. Universidade Federal de Minas Gerais, Belo Horizonte, MG, Brasil. Recuperado de <https://goo.gl/VA8PzV>
- Maldonado, M. E. (2018). El aula, espacio propicio para el fortalecimiento de competencias ciu-



- dadanas y tecnológicas. *Sophia*, 14(1), 39-50. <https://dx.doi.org/10.18634/sophiaj.14v.1i.822>
- Medeiros, Z. A. (2011). *Letramento digital em contextos de autoria na internet*. Tese de doutorado em Educação, Universidade Federal de Minas Gerais, Belo Horizonte, MG, Brasil.
- Moraes, D., & Lima, C. (2018). O estudante e sua relação com as tecnologias digitais: Representações em sua aprendizagem. *Revista Teias*, 19(53), 299-313. <https://doi.org/10.12957/teias.2018.33212>
- Papert, S. (1985). *Logo: Computadores e Educação*. São Paulo: Brasiliense.
- Panuci, L. R., Bianchini, L. G. B., Souza, C. J., Silva, J. B., & Munhoz, C. M. E. (2016). Interações, Celulares Smartphones e Processos de Ensino e Aprendizagem. *Revista de Ensino, Educação e Ciências Humanas*, 17(2), 105-111. <http://dx.doi.org/10.17921/2447-8733.2016v17n2p105-111>
- Passarelli, B. (2017). Os desafios do contemporâneo hiperconectado. In B. Medeiros. Neto (org.), *O cidadão contemporâneo frente às tecnologias da informação e comunicação* (17-22). São Paulo: FAC Livros.
- Pinto, Á. V. (2005). *O conceito de Tecnologia*. Rio de Janeiro: Contraponto.
- Quintanilha, L. F. (2017). Inovação pedagógica universitária mediada pelo Facebook e YouTube: Uma experiência de ensino-aprendizagem direcionado à geração-Z. *Educar em Revista*, (65), 249-263. <https://dx.doi.org/10.1590/0104-4060.50027>
- Rancière, J. (2002). *O mestre ignorante: Cinco lições sobre a emancipação intelectual*. Belo Horizonte: Editora Autêntica.
- Sandholtz, J. H., Ringstaff, C., & Dwyer, D. C. (1997). *Ensinando com tecnologia: Criando salas de aula centradas nos alunos*. Porto Alegre: Artes Médicas.
- Santaella, L. (2013) *Comunicação ubíqua: Repercussões na cultura e na educação*. São Paulo: Editora Paulus.
- Serres, M. (2013). *Polegarzinha*. Rio de Janeiro: Editora Bertrand do Brasil.
- Silva, M. (2010). Formação de professores para docência online: Uma pesquisa interinstitucional. *Anais do Encontro Nacional de Didática e Prática de Ensino*, Belo Horizonte, Brasil, 15.
- Souza, A. A. N., & Schneider, H. N. (2016). Tecnologias digitais na formação inicial docente: Articulações e reflexões com uso de redes sociais. *ETD – Educação Temática Digital*, 18(2), 418-436. <https://doi.org/10.20396/etd.v18i2.8640946>
- Teixeira, V. (2016). Tecnologia e políticas educacionais: Desafios e contribuições das tecnologias da informação e comunicação em escolas estaduais da cidade de Itaperuna. *Texto Livre: Linguagem e Tecnologia*, 9(1), 140-159. <http://dx.doi.org/10.17851/1983-3652.9.1.140-159>
- Thiollent, M. (1996). *Metodologia da Pesquisa-ação*. São Paulo: Cortez Editora.
- Valente, J. A. (2011). Um laptop para cada aluno: Promessas e resultados educacionais efetivos. In M. E. B. Almeida, & M. E. B. B. Prado (Orgs.), *O Computador Portátil na Escola* (20-33). São Paulo: Avercamp.





The impact of the use of the B-Learning modality in higher education

El impacto de la utilización de la modalidad B-Learning en la educación superior

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Received: 2017-12-23 / **Reviewed:** 2018-04-23 / **Accepted:** 2018-05-08 / **Published:** 2019-01-01

Abstract

The new educational scenarios propose to adapt the teaching-learning process to the use of ICT, especially the semi-classroom or B-learning modality, the work in collaboration, the development of competences and communication skills to meet the needs and expectations of the students, the labor market and the prevailing social dynamics. The main objective of this research is to analyze the conditioning factors of the teaching-learning process of the Latin American university for the adoption of new educational approaches. The research design is mixed with recurrent triangulation DITRIAC. In the quantitative phase, the method used is descriptive-transversal, through questionnaire with Likert Scale to 50 teachers, 402 students and 6 authorities. In the qualitative phase the method was ethnographic. Semi-structured interviews were conducted with 10 teachers, 38 students and 2 authorities, with descriptive and interpretative analysis. Among the main conclusions is the need to promote the social factor of learning and give greater prominence to the student. The resources used are traditional and analog. Teachers accuse changes in their teaching practice, but

little in the inclusion of ICT. Likewise, the three aspects that are most difficult for teachers to change in their face-to-face modality are: leaving the protagonism to the student, changing from the transmissive class to collaborative learning, and from the summative evaluation to the formative one.

Keywords: B-learning, teaching-learning process, higher education, collaborative learning, communicative skills, evaluation.

Resumen

Los nuevos escenarios educativos plantean adaptar el proceso de enseñanza-aprendizaje al uso de las TIC —en especial la modalidad semi presencial o B-Learning—, el trabajo en colaboración, el desarrollo de competencias y de competencias comunicativas para satisfacer las necesidades y expectativas de los estudiantes, el mercado laboral y las dinámicas sociales imperantes. El principal objetivo de esta investigación es analizar los condicionantes del proceso de enseñanza-aprendizaje de la universidad latinoamericana para la adopción de los nuevos planteamientos educativos.

El diseño de la investigación es mixto con triangulación recurrente DITRIAC. En la fase cuantitativa el método empleado es descriptivo-transversal, a través de cuestionario con Escala de Likert a 50 profesores, 402 estudiantes y 6 autoridades. En la fase cualitativa el método fue etnográfico. Se realizaron entrevistas semiestructuradas a 10 docentes, 38 estudiantes y dos autoridades, con análisis descriptivos e interpretativos. Entre las principales conclusiones se vislumbra la necesidad de fomentar el factor social del aprendizaje y darle mayor protagonismo al estudiante. Los recursos

empleados son tradicionales y analógicos. Los docentes acusan cambios en su práctica docente, pero poco en la inclusión de las TIC. Asimismo, los tres aspectos que más le cuesta cambiar a los docentes en su paso de la modalidad presencial a la B-learning son: dejarle el protagonismo al estudiante, cambiar de la clase transmisiva al aprendizaje colaborativo, y de la evaluación sumativa a la formativa.

Descriptor: B-learning, proceso enseñanza-aprendizaje, educación superior, aprendizaje colaborativo, competencias comunicativas, evaluación.

1. Introduction and state of the issue

The authorities and bodies that regulate higher education institutions, universities, the actors of the teaching-learning process and society in general, consider the university training offer to be improvable, realizing that the needs and expectations of students, the market labor and society in general are not adequately met. And from all these fronts possible solutions are outlined (UNESCO, 1998, SEESCyT, 2008, UASD, 2013).

Therefore, the educational paradigms in higher education have undergone great transformations in the last decades (Iborra & Izquierdo, 2010, Núñez & Vilchez, 2017). Some of these transformations come not only from educational psychology (Woolfolk, 2006), but also from the didactic ones of the different disciplines. But the most transcendental, without a doubt, has been the irruption of ICT (Information and Communication Technologies) in education; especially the Internet, Web 2.0 or Social Network with emails, forums, wikis, blogs, Twitter and now educational platforms and Web 3.0 (virtual reality or augmented reality) (Barriopedro, Valiño & Leguía, 2012; Núñez, Penelas & Cuesta, 2014).

Regarding the area of Spanish Language Teaching (SLT), it is being considered that written text and regulations are no longer enough to teach Spanish Language because of the creation of new categories of discourse, the modifica-

tion of writing and its combination with other textual types (Cassany, 2012). To complete this panorama, one of the purposes of the Spanish Language course is to enhance the communicative skills of students for their socialization and cognitive development.

As a solution to the foregoing, the experts propose to implement B-learning at the higher level under the paradigm of the competency approach, the development of communicative competencies and the use of methods that encourage collaborative learning, under the following points.

- B-learning presents in the digital society many advantages for higher education, among them a wide volume of information and easily updatable contents can be made available to students. As well as, making the information more flexible, regardless of the space and time in which the teacher and the student are. Also, it allows the delocalization of knowledge; facilitates student autonomy; promotes a just in time and just for me training; among others (Cabero & Román, 2008). According to the educational trends of recent years in higher education, blended learning or B-learning (Blended Learning) is the most recommended for the achievement of new skills (Llorente, 2009, Johnson, Becker, Estrada, & Freeman, 2015).
- Collaborative learning helps students with their cognitive development and critical



thinking, socio-emotional development and emotional balance, development of social skills, democratization of academic success opportunities, among other advantages (Moruno, Sánchez & Zariquiey, 2011).

- Learning by competencies provides greater flexibility, more inclusiveness by being more individualized, more objectivity in evaluations, seeks the holistic development of learners, encourages collaborative work and learning is contextualized, among many other advantages (Zabala & Arnau, 2014).
- Life in society involves communication; nowadays people write and read more than ever, and the discursive genres are enlarged, as well as the media; but it is also true that there is a progressive change in the ways of communication for language users. Formal education must assume the commitment to adjust to the communicative needs of speakers (Cassany, 2012, Lomas, Osoro & Tusón, 2002).

1.1. New challenges, new roles and new assumptions

It is recognized that the excellence of an educational system cannot be superior to the quality of its teachers, since the results obtained by the students depend to a great extent on the teacher's capacity, and the improvement of academic performance is achieved by raising the quality of the instruction (Tiana, 2013). Education in the 21st century requires a curricular change that entails an attitudinal change and commitment of the teacher who is the catalyst for reforms and innovations in the classroom. Because the new trends and educational currents demand the formation of critical and transforming citizens of a world where ethics and values prevail, coexisting with technologies and care for the environment, in a democratic, egalitarian climate and with a holistic development (De la Torre & Barrios, 2000; Carbonell, 2015). For these reasons, teachers must promote the

autonomy of students, organize the culture they intend to teach, know and implement teaching strategies that help students generate, manage and evaluate knowledge, together with the management of teaching and media resources and the organization of the learning environment adapted to the circumstances and characteristics of each and every student (Jiménez Rodríguez, 2011; Brown & Pickford, 2013). To achieve the teleological, epistemological and gnosiological goals imposed by the educational act, the teacher must act reflexively (Perrenoud, 2007), based on reflection and joint research between teachers and students to dialogue, review their conceptions, beliefs, values and assumptions in those who support the classes (Margalef, Iborra, Pareja, Castro, Domínguez, García & Giménez, 2007), applying criticality to all the acts that they do, whether in the classroom, for the class, or for the class, since education is not it is a finished product (Durkheim, 1976).

After this reflexive exercise, the teacher must propose action models that involve the collaborative, active, reflective, autonomous and constructivist learning of the student (Zabala & Arnau, 2014). In turn, Iborra and Izquierdo (2010), believe that for the success of this change a process of rearrangement is needed, where the inclusion of elements that increase motivation, creativity, innovation, happiness and responsibility of students in their learning processes for the optimal and effective use of teaching and learning strategies is successful (Galiano & Ravina, 2017). But it is easier said than done, because the problem is more conceptual than operational, because it must do more with changes in the teacher's way of thinking about teaching and learning and his role in that task (Zabalza, 2011). This change must occur within universities, "from the analysis of cultural dynamics and the justifications that come into play between the stabilization of the status quo and the dialectical forces, always keeping in mind their concerns and needs, using the tools that demand the context" (Gairín, 2012, p 39).



Using ICT and implementing B-learning in training institutions affects the methodology, didactic strategies, access and distribution of materials, the organizational structure, and the traditional roles of teachers and students (Cabero & Márquez, 1999). For these reasons the analysis of the reality of the teachers of the Latin American university is proposed, in this case, of the Autonomous University of Santo Domingo (UASD), as a way to adapt the training offer to the necessary standards for the achievement of classes in B-learning, as is the worldwide trend.

1.2. Characteristics of the Blended Modality

The blended modality has characteristics that give it its own identity and not be a mere overlap of unconnected strategies and activities in the classroom and the web. Among these characteristics are (Llorente, 2009, Cabero & Márquez, 1999) the following:

- Confluence or combination of spaces and times (face-to-face and non-face-to-face).
- The scenario is a continuity because it allows synchronous and asynchronous communication, in real time and deferred, according to the needs and possibilities of the user, and the nature of the topic (face-to-face communication in the classroom, mail, chat, videoconferences, wiki, blog, microblogging, etc.). Mix of physical environment (classroom, hallways, cafeteria, parks, library) and virtual support (virtual classroom and all Web 2.0 and 3.0).
- Mix of analog and digital technologies and resources (books, magazines, PDF, animations, videoconferences, etc.).
- Mix of approaches and methodologies (behaviorism, constructivism, connectivism, expository class, collaborative work, PBL, by projects, etc., analysis of the learning objectives that are intended, the theory that best explains that learning process,

and the technology that more is suited to that need).

- It promotes learning experiences, their appropriation and socialization (face-to-face and in EVA).
- It allows us to propose different forms of representations of reality in diversified contexts.
- Facilitates knowledge construction processes and metacognition.
- The relevant information is presented dynamically and modularly.
- Highly interactive, with the program and other people (tutor-student, student-tutor, student-student). Encourages autonomous learning and decision making.
- It encourages complex learning, where mistakes are learned, and success is rewarded with positive feedback.
- Present reports of student progress.
- Ubiquitous learning because of the ease offered by mobile devices to people to train at any time and in any place.
- They converge in the same learning environment technologies, networks and content available to the student at all times.

2. Materials and Methods

The complexity of the teaching-learning process has led to the subject of research being approached under different but complementary approaches and perspectives. On the one hand, the qualitative approach and on the other, the quantitative approach. This last approach allows us to measure and weigh opinions, attitudes, activities, used strategies, among others, from different sources, tools, estates and approaches, which gives us a more complete idea of the reality under investigation, a deeper and generalizable knowledge, since data are “richer and more varied” (Hernández Sampieri, Fernández Collado & Baptista, 2008, p.756). Chart 1 shows the methodology used.



Chart 1. Methodology used during the research

Mixed research Recurrent DITRIAC Triangulation (Cresswell, 1994)	
Quantitative phase	Qualitative phase
Method: descriptive-transversal	Ethnographic, educational, interpretative.
Techniques: Questionnaires Likert scale (1 = negative, 3 = neutral, 5 = positive)	Semi-structured interviews, photo analysis, investigative prints
Analysis: Frequency statistics, deviation, regression, correlation and K-media cluster (SPSS 22.0)	Descriptive, analytical, interpretative, categorization, matrices, conceptualization (Atlas.ti 7.0)
Universe: 87 teachers, approx. 5,655 students and seven authorities	
Population and sample: 50 teachers, 402 students and six authorities	Six teachers, 38 students and two officials
Geographical scope: headquarters of the Autonomous University of Santo Domingo (UASD), in 35 buildings scattered in the Great Santo Domingo (Dominican Republic). Feb.-June 2015.	
Validation: by experts, pilot test, Cronbach's Alpha reliability, Spearman-Brown coefficient and two halves of Guttman.	Mixed triangulation: between methods-theory-estates-instruments.

Source: own elaboration

The present research is framed in the geographic scope of the Dominican Republic, specifically in the Autonomous University of Santo Domingo (UASD), as an example to other contexts in similar situations. For the present work the Autonomous University of Santo Domingo (UASD) was selected, as it was the oldest (founded in 1538), the one with the largest number of students (almost 50% of the university enrollment), because it is state-run and provides easy access to students with fewer resources.

The subjects programmed by UASD Virtual in virtual and blended modality were 71 subjects, distributed in: 23 in the Faculty of Sciences; 13 in the Faculty of Engineering and Architecture; 8 in the Faculty of Economic and Social Sciences; 8 in the Faculty of Humanities; 6 in the Faculty of Legal and Political Sciences; 5 in the Faculty of Health Sciences; 4 at the Faculty of Arts; 4 in the Faculty of Education Sciences. It is planned to gradually increase the number of subjects and sections in virtual and blended modalities. The medium-term goal is to have two online courses in virtual model by faculty; that would represent 18 subjects with several groups or sections each.

The long-term goal is for 50% of the subjects to be offered in virtual modality in order to decongest the classrooms and lighten the face-to-face teaching load. The offer of subjects in these modalities increases in a sustainable way, but it is not verified in the School of Letters. This absence motivated us to start this research, to go against the global tendency in the blended modality. And it is worth wondering if this absence is due to lack of qualified personnel to develop the teaching and learning process in the Virtual Learning Environments or that the use of ICT for educational purposes is reduced.

To validate the mixed method, we appealed to respect the characteristics of both the quantitative method and the qualitative method (internal validity), we adapted both methods to the research questions, the general objective and the specific objectives of the research (external validity), and explained the coincidences and discrepancies in the results obtained with each method (validity of the instruments) (Hernández Sampieri *et al.*, 2008, p. 795). Regarding the reliability of the questionnaires used in the quantitative methodology, we resorted to corroborating according to statistical criteria. We



apply Cronbach's Alpha tests, Guttman's two-half coefficient, Spearman-Brown coefficient. The obtained results were very good, since the questionnaire of the students in the Cronbach's Alpha the value was of .949 and .925 what places it as excellent, which shows a high internal consistency between the items reflecting that they measure the same construct and that are highly related. The same is observed in the output of SPSS from the teachers' questionnaire (.985 and .919). As for the Spearman-Brown correlation, the lengths in the students' questionnaire were .723 and the Guttman halves coefficient was .717; In the teachers' questionnaire, both values were .912 and .775, respectively, which also qualifies it as a good correlation between the items.

According to the Autonomous University of Santo Domingo (UASD) there is an average of 65 students per class section. If we have 87 teachers and we take a section of each teacher, with an average of 65 students per section, then the approximate universe would be 5655 students. From this universe, a simple stratified random sample was taken. Finally, the obtained sample was 50 teachers, 402 students and six authorities. It is distributed as follows: 246 study level I of BSL and 51 study BSL II (81.5% and 16.9% respectively), in relation to gender 54.6% belong to the female gender and 45.4% to the masculine.

The main objectives of this research are: first, to establish the fundamental defining features of the teaching-learning process in a higher education institution in the face-to-face modality and the critical variables to consider, and second, to analyze how to implement b-learning to improve communicative competences of students through collaborative learning in both aspects of this modality. The action of migrating BSL from face to face-to-face in the Autonomous University of Santo Domingo (UASD), must meet certain requirements that in this investigation that we try to determine through answering the hypotheses:

H1: Teachers of higher education in the area of BSL differ significantly in the methodology used in classes.

H2: Teachers consider that changes should be introduced in the BSL teaching-learning process, especially including ICT, a positive factor for the implementation of B-learning.

H3: Teachers in the BSL area observe tendencies to change their teaching practice.

To demonstrate the H1 hypothesis, a K-means cluster is carried out to determine the homogeneity of the aforementioned groups and the intergroup differences to determine the methodologies and the number of teachers who practice them. The K-means cluster analysis is chosen because all the variables we group are quantitative, and the simple Euclidean quadratic distance is adequate to determine the similarity between the objects we seek to compare. The questions used in this cluster were 7, 8, 9, 10, 13, 21 and 30 that measure the variables Planning, Teaching Methods and Modalities, Teaching Strategies, Resources Utilized, Persecuted Competencies and Types of Evaluations, respectively. The evaluation scales were 1 = Never, 2 = Almost never, 3 = Sometimes yes, sometimes not, 4 = Almost always and 5 = Always, except in question # 8, of scale 1 = I do not apply it, 2 = Very little use, 3 = Little use, 4 = Moderate use and 5 = A lot of use.

For the demonstration of the H2, the means of questions 11 of the teachers' questionnaire and 28 of the questionnaire of UASD Virtual officials are compared.

In the demonstration of H3 questions 5 (Variation in Teaching Practice) were crossed with question 6 (Causes Variation in Teaching Practice), to determine the existing correlation between these two variables through the statistical method R of Pearson.

Next, the constructs used with the corresponding items are detailed.

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Next, the constructs used with the corresponding items are detailed.

Construct 7- When planning the subject of Basic Spanish Language, I consider:

1. The mission and vision of the institution.
2. The objectives of the program and the units.
3. The needs and particularities of the students
4. The requirements of society and the labor market
5. The traditional function of the subject of teaching rules and grammatical analysis
6. The skills that my students must develop to be, do and live in a changing world
7. Formulate the objectives as capacities and values
8. Providing the correct contents for the achievement of the objectives

9. The affective, emotional and motivational part of my students
10. Have high expectations of achievement in relation to my students

Another construct is the one corresponding to the variable 9- The teaching strategies that I use with the best results for my students are, with the following items:

1. Objectives
2. Illustrations
3. Intercalated questions
4. Signaling
5. Abstracts
6. Previous organizers
7. Analogies
8. Conceptual maps and networks
9. Textual organizers
10. Guided discussion
11. Diagrams
12. CQA Pictures
13. Synoptic tables
14. Problematic situations
15. Case analysis
16. Simulations
17. Questionnaires

Variable 10- The resources that I use to teach Basic Spanish Language I and II are, with the following items:

1. Textbooks
2. Reference books
3. Dictionaries
4. Literary works
5. Newspapers
6. Magazines
7. Internet
8. Problems of the context
9. Projectors
10. Television
11. DVD
12. Virtual platform
13. Computers



14. Interactive whiteboard
15. Blackboard and chalk
16. Wikis
17. Blogs
18. Forums
19. Social networks

Regarding the opinion of teachers about the skills they seek to develop in their students, 13- For the exercises that I assign, the type of evaluation I use and the dealings with my students, I seek to develop in them, with the following items:

1. Ability to analyze and synthesize texts and situations.
2. Ability to organize and plan your classes.
3. Basic knowledge of the world in which he/she lives.
4. Basic knowledge of the profession studied.
5. Your oral and written communication.
6. Basic skills in the management of the computer.
7. Skills to search and analyze the information you find.
8. Skills for problem solving.
9. Skills for decision making.
10. Develop your critical and self-critical capacity.
11. Learn to work in a team.
12. Increase your interpersonal skills.
13. Train him to work in a team with people from different disciplines.
14. That I appreciate diversity and multiculturalism.
15. Have an ethical commitment.

And the last latent variable is the 21- To verify the degree of use of my courses, I apply the following evaluations to my students, with the following items:

1. Diagnostic evaluation.
2. Formative evaluation.
3. Summative evaluation.
4. Self-evaluation of students.
5. Co-evaluation among students.

3. Analysis and results

H1: Teachers of higher education in the area of BSL differ significantly in the methodology used in classes.

When designing the different items of the questionnaires, five possibilities of answers according to the five educational paradigms proposed in the theoretical part are considered:

1) the paradigm of traditional teaching, which in the area of language represents what is called traditional grammar; 2) the behavioral paradigm of Skinner and Pavlov, which we equate with Saussurean and post-Aussurean structuralism; 3) the cognitivist paradigm, which we assimilate in it to the generative grammar of Noam Chomsky; 4) the different structuralisms, from Piaget to Vygostky, here we cover textual linguistics and semiotics; and 5) the paradigm of competencies, which we represent with functional and communicative approaches in language teaching-learning. Chart 2 shows the items where there are more differences among teachers in terms of their methodologies.

Chart 2. Cluster types of teachers by their methodologies

Type of teachers of BLS based on their opinions on the methodology they use							
Valid cases: 50							
Items	Final Cluster Centers					ANOVA	45 Gl.
	1	2	3	4	5	F	Sig.
P. 27 Planning: 1- NecPartEst.	5	5	5	3	5	21.099	.000
2- ReqSocMertLab.	4	5	3	4	1	11.069	.000



3- ComSerHacCon.	5	5	4	3	5	11.299	.000
4- FormObjCapVal.	5	5	4	3	1	29.411	.000
5-ParAfeEmoMotEst.	4	5	4	4	1	21.516	.000
6-AtIExpLogEst	5	5	4	3	1	59.977	.000
MODEL AND METHOD							
1- CaseEst.	4	4	3	4	3	4.571	.004
2- AprOriProy.	4	4	3	3	1	6.071	.001
3- AprCoop.	3	5	4	3	4	9.453	.000
4- PractClas.	4	5	5	3	5	14.300	.000
TEACHING TECHNIQUES							
1- EstPregIntrc.	2	4	4	3	3	6.639	.000
2- EstSignali.	4	4	2	4	3	3.931	.008
3- EstSummary.	4	4	4	4	1	4.212	.006
4- EstOrgPrev.	4	4	3	4	3	3.956	.008
5- EstMapRedConc.	5	4	3	3	3	6.021	.001
6- EstOrganTex.	5	5	4	3	1	5.663	.001
7- EstDiscGuide.	5	5	4	3	4	5.398	.001
8. EstCQAPict.	4	3	2	3	1	5.398	.001
9- EstSynopChart.	4	4	3	3	2	4.529	.004
RESOURCES USED							
1- LibConsUse.	5	4	4	3	3	4.791	.003
2- ObrLitUse.	5	4	4	3	3	6.283	.000
3- PeriodUse.	4	4	3	3	3	5.174	.002
4- JournlUse.	4	4	3	3	1	5.802	.001
5- InternetUse	5	4	4	3	4	4.077	.007
6- ProbContUSE	5	4	4	4	1	8.031	.000
7- ProjectUse.	4	3	3	3	1	3.220	.021
8- TVUse.	4	2	2	2	2	4.993	.002
9- DVDUse.	4	2	2	3	1	4.314	.005
10- VirtPlatUse.	4	2	2	3	1	6.367	.000
11- PizinteraUse.	4	2	2	3	1	3.420	.016
12- WikiUse.	4	2	2	3	1	4.650	.003
13- Forums.	4	2	2	3	1	3.989	.008
COMPETENCES TO PROMOTE:							
1- CapAnáSinTexSit	4	5	4	3	4	5.088	.002
2- CapOrgPlanClas	4	5	3	3	3	9.665	.000
3- ConocBásMund	4	5	4	4	5	8.505	.000
4- ConBásProfEst	4	5	4	3	5	11.540	.000
5- ComOralEsc	4	5	5	4	5	6.941	.000
6- HabBuscAnallnf	5	5	4	3	3	12.583	.000
7- HabResProb	4	5	4	3	3	8.266	.000



8- HabTomaDec	4	5	4	3	1	28.178	.000
9- DesCapCritAutoc	5	5	5	3	5	8.602	.000
10- AprenTrabEquip	5	5	4	3	3	18.519	.000
11- IncrHabInterp	4	5	4	3	1	35.264	.000
12- CapTraEquiInterd	4	5	3	4	1	10.510	.000
13- ApreDivMulticult	4	5	4	3	3	8.842	.000
14- CompÉtica	5	5	5	3	4	26.166	.000
EVALUATION SYSTEM							
1- EvalDiagn	3	5	4	3	4	7.567	.001
2- EvalFormat	5	5	4	3	3	5.940	.000
3- EvalSumat	4	5	5	4	1	17.844	.000
4- AutoEvalEst	3	4	3	3	1	6.508	.000
5- CoevalEst	4	4	3	3	1	4.884	.002
Total: Mean Addition	328	321	277	270	204		
Total number of cases ineach cluster	3 6%	33 66%	8 16%	5 10%	1 2%		
Typologies	Complex functionalist competences	Constructivists Functionalists	Generalist cognitivists	Generalist behaviorists	Traditional Grammarist		

Source: own elaboration

When making the cluster to group teachers from their educational paradigms, we find that the largest number of them are located in Group 2, teachers with constructivist profile (33 subjects, 68% of the total), followed by teachers with a tendency cognitivist (Group 3, with 8 individuals for 16% of the sample), then continue teachers with behavioral tendencies (Group 4, 5 teachers, 10% of respondents), fourth are teachers who use methodologies and models by competences (Group 1, 3 professors, for 6%); and lastly, with 2%, since only one teacher belongs to Group 5, there is the traditional teaching model, the tendency to teach grammar.

H2: Teachers consider that changes should be introduced in BSL, especially including ICT, positive factor for the implementation of B-learning, respectively question 11 of the questionnaire applied to teachers that measures the variable Opinion on

Changes in the Program was analyzed of the Subject, and question 28 of the questionnaire applied to UASDVirtual officials, which measures the variable Resistance to Change of Paradigm in B-learning of the Teacher.

According to the univariate analyzes, the changes that the teachers marked as necessary in the BSL program are, according to the means, in the first place, including more activities with ICT (4.22), change in the use of strategies (3.96), the competences to achieve in the students (3.91), the objectives to achieve (3.88) and the evaluation system (3.87). They also obtained average above 3.5, change: Resources, Themes, The pedagogical approach and The methodological part. Likewise, according to UASDVirtual, the body in charge of offering the subjects in virtual and blended modality, in the variable Problems for Change to B-learning, the most pressing problems are: Leave



the protagonism to the student (4.67), Change the transmissive class to collaborative learning (4.67), and Change from the summative evaluation to the formative one (4.67).

H3 In teachers of BSL trends are observed to change in their teaching practice crossed the means of question 5 (Variation in Teaching Practice) with the means of question 6 (Causes Variation in Teaching Practice), to determine the correlation existing between these two variables through the statistical method R of Pearson. The analysis showed that there is a moderate

positive relationship, almost strong, of a 99% acceptance between reflection and methodological change (.675 with .000 of significance); between reflection and conceptual change (.591 with .000 of significance); between reflection and the use of materials (.562 with significance of .000); as well as between reflection and the way of relating to students (.577 with significance of .000) and reflection and updating to new pedagogical currents (.487 with significance of .000). In the use of ICT, there is no significant relationship in the change.

Chart 3. Correlation changes and cause of changes in teachers

TEACHERS' OPINION ABOUT THE CHANGES IN THEIR TEACHING PRACTICE BASED ON THE REASONS THAT HAVE MOTIVATED THOSE CHANGES								
TABULATION OF MEAN VALUES (Pearson's R)								
(Measurement scale: 1- Strongly disagree, 2 - Disagree, 3 - Neutral 4 - Agree, 5 - Strongly agree)								
Number of cases 50								
The changes were product of:	I have changed the way I teach throughout my academic career in:							
		I haven't changed in anything or too few	The methodological	The conceptual	The inclusion of ICTs	The actualization of new pedagogical trends	The use of Materials	The way in which I relate to the students
I haven't changed in anything or too few.	Pearson Correlation	.387**	-.153	-.084	-.005	-.139	.028	.006
	Bilateral Sig.	.006	.289	.564	.970	.336	.847	.968
Reflection	Pearson Correlation	.132	.675**	.591**	.247	.487**	.562**	.577**
	Bilateral Sig.	.361	.000	.000	.084	.000	.000	.000
imposition from the institution	Pearson Correlation	.284*	.025	-.068	-.002	-.035	.096	.098
	Bilateral Sig.	.046	.864	.637	.989	.807	.507	.500
Pressure from the external environment	Pearson Correlation	-.126	.409**	.255	.256	.373**	.294**	.488**
	Bilateral Sig.	.384	.003	.073	.073	.008	.038	.000
Observing the students' lack of motivation with the system that used	Pearson Correlation	-.132	.086	.019	.102	.105	-.018	.137
		.360	.551	.894	.480	.466	.899	.343
* The correlation is meaningful at the 0.05 level								
** The correlation is meaningful at the 0.01 level								

Source: own elaboration



4. Discussion and conclusions

The hypothesis *H1 BSL teachers differ significantly in terms of the methodology used in classes*, is confirmed, since it is observed that there are five groups well differentiated by their pedagogical practices: 1) Competence-functionalist-complex (6%); 2) Constructivist-functionalists (66%); 3) Cognitivist-generativists (16%); 4) Behaviorists-structuralists (10%); and 5) Traditional-grammarians (2%). As it is observed, 72% of the sample of BSL teachers, the sum of the groups formed by the constructivist-functionalists and those belonging to the complex-functionalist-competence group, are teachers whose educational practice is routed on paths where the student is the center of the process, its development is taken into account in all aspects, context is considered, learning from different perspectives and with various methods, models, strategies and resources. The above aspects correspond to the strengths of the teachers' practice, and the weak points are that there are still remnants of traditional learning and the use of technology should be increased more, because it was the least favored line, it is a pending issue. There is also a need to improve the participation given to students in their evaluation, since the co-evaluation and the self-evaluation must be increased. These conclusions lead to outline institutional strategies to adapt training offers and guide curricular redesigns so that teachers acquire more digital skills, which is what is currently lacking.

This coincides with Gutiérrez (2011), who found that teachers use different methodological strategies, but the least known and used are the appropriate strategies for working on a network. In this sense, Monclúz & Núñez (2014) found that, in the same researched educational context, the most used resources are textbooks, blackboard and chalk, reference books, and the least used are wikis, blogs, forums, platforms and software applications; what Báez (2009) demonstrated is due to the lack of digital literacy of teachers.

According to the review of the literature, higher education advocated by international organizations, education ministries of different nations, governments and private institutions must be adequate to the requirements of society, employment and the integral development of the individual. This means including competency-based, collaborative, student-centered learning, methods such as PBL, which include ICT and with a tendency to hybridization or blended learning.

Hypotheses H2 is confirmed: Teachers consider that changes should be introduced in BSL, especially including ICT, a positive factor for the implementation of B-learning and H3: In BSL teachers, there are tendencies to change in their teaching practice, because the teachers of BSL are motivated to change, that in fact they assume it in several lines in their teaching task. They also consider it necessary to reform the program of the subject, favoring the use of ICT over any other reform. This means that the institution reconsiders the updating of the programs of the subjects, since in addition to the opinions on it, the tests collected in UASDVirtual advise to work the most neuralgic aspects of the change of paradigm, which are the methodology, the evaluation system and the implementation of collaborative learning. The obtained results are very encouraging, since the attitude of teachers towards change can be described as positive with intrinsic and extrinsic motivation, largely as a result of reflection, observation of their practices and, to a lesser extent, pressure from external environment. There is a long journey, a lot of work and resources, but the measures are being taken. Finally, it is recommended to plan considering the institutional guidelines, the new pedagogical and technological currents, always taking into account the needs of the student and the socioeconomic context where he will develop his vital and work functions.

Among the limitations of this article is the fact that it has been developed in a single university in the Dominican Republic, specifically in the Autonomous University of Santo Domingo



(UASD), one of the institutions of higher education in this country best positioned in the rankings of academic excellence of Latin America. From our point of view, it would be interesting that in the future this study will be carried out in other universities in order to have a clear picture of the role played by B-Learning learning within the Latin American higher education system. In this way it could be determined, among other things, if the implementation of this pedagogy has contributed actively and positively in the objectives established at the beginning of the course by the different programs that make up the subjects of an academic degree.

Bibliographic references

- Báez, E. (2009). *La formación multimedia del profesorado universitario en el proceso de integración curricular de las TIC. Estudio de caso: Pontificia Universidad Católica Madre y Maestra, campus Santiago de los Caballeros* (Tesis doctoral). España: Universidad de Salamanca.
- Barriopedro, E. N., Valiño, P. C., & Leguía, A. P. (2012). Experiencias de evaluación en e-learning en la UAH. Cómo sacarle el máximo partido a las plataformas virtuales. *RELADA-Revista Electrónica de ADA-Madrid*, 6(4), 282-290.
- Brown, S., & Pickford, R. (2013). *Evaluación de habilidades y competencias en Educación*. Madrid: Narcea Ediciones.
- Cabero, J., & Márquez, D. (Dirs.) (1999). *La producción de materiales multimedia en la enseñanza universitaria*. Sevilla: Editorial Kronos.
- Cabero, J., & Román, P. (2008). *E-actividades. Un referente básico para la formación en Internet*. Sevilla: Editorial MAD.
- Carbonell, J. (2015). *Pedagogías del siglo XXI. Alternativas para la innovación educativa*. Barcelona: Ediciones Octaedro.
- Cassany, D. (2012). *En-línea. Leer y escribir en la red*. Barcelona: Editorial Anagrama.
- De La Torre, S., & Barrios, O. (Eds.) (2000). *Estrategias didácticas innovadoras*. Barcelona: Octaedro.
- Gairín, J. (2012). La transformación de la universidad. En De La Herrán, A., & Paredes, J. (Coords.), *Promover el cambio pedagógico en la universidad* (25-39). Madrid: Ediciones Pirámide.
- Gutiérrez, I. (2011). *Competencias del profesorado universitario en relación al uso de las Tecnologías de la Información y Comunicación: Análisis de la situación en España y propuesta para un modelo de formación* (Tesis doctoral). España: Universitat Rovira I Virgili.
- Hernández Sampieri, R., Fernández Collado, C., & Baptista, P. (2008). *Metodología de la Investigación*. México: McGraw-Hill.
- Iborra, A., & Izquierdo, M. (2010). ¿Cómo afrontar la evaluación del aprendizaje colaborativo? Una propuesta valorando el proceso, el contenido y el producto de la actividad grupal. *Revista General de Información y Documentación*, (20), 221-241.
- Jiménez Rodríguez, M. A. (2011). *Cómo diseñar y desarrollar el currículo por competencias. Guía práctica*. Madrid: PPC, Editorial.
- Johnson, L., Becker, S.A., Estrada, V., & Freeman, A. (2015). *NMC Horizon Report: 2015 Higher Education*. Texas: Edition Austin.
- Llorente, M. del C. (2009). *Formación semipresencial apoyada en la Red (Blended Learning). Diseño de acciones para el aprendizaje*. Sevilla: Editorial MAD.
- Lomas, C., Osoro, A., & Tusón, A. (2002, 1 de noviembre). Ciencias de lenguaje, competencia comunicativa y enseñanza de la lengua. *Revista espacio Logopédico.com*. Recuperado de <https://goo.gl/qwaT8h>
- Margalef, L., Iborra, A., Pareja, N., Castro, B., Domínguez, S., García, I., & Giménez, S. (2007). Tejiendo redes de aprendizaje y reflexión: Una propuesta de innovación en la licenciatura de psicopedagogía. *Revista Pulso*, (30), 123-142.
- Monclúz, I., & Núñez Barriopedro, E. (2014). Training of teachers and students of higher education for an educational innovation using Information and Communication Technologies: A Latin-American study. En L. Gómez Chova, A. López Martínez y Candel Torres I. (Coords.), *EDULEARN14 Proceedings* (7536-7545). Valencia: IATED Academy.
- Galiano-Coronil, A., & Ravina-Ripoll, R. (2017). Universitarios felices, aulas creativas?: el uso



- de las redes sociales como herramienta de integración social en la ONG Down Jerez Aspanido. En A.R. Fernández Paradas y M. Fernández Paradas (Coords.), *Didáctica de las ciencias sociales ante la necesidad de nuevas narraciones en el siglo XXI: Digitalidad, nuevas tecnologías y competencias documentales* (225-240). Granada: Editorial Comares.
- Moruno, P., Sánchez, M., & Zariquiey, F. (2011). La cultura de la cooperación. El aprendizaje cooperativo como herramienta de diferenciación curricular. En J. C. Torrego (Coord.), *Alumnos con altas capacidades y aprendizaje cooperativo* (167-198). Madrid: Fundación SM.
- Núñez, E., Penelas, A., & Cuesta, P. (2014). El desarrollo de web 3.0 como innovación en la docencia. *Caracciolos. Revista digital de investigación en docencia*, *Caracciolos*, 2(1).
- Núñez Barriopedro, E., & Vílchez, E. M. (2017). *Estrategias de trabajo colaborativo utilizando Twitter y wikispaces. Innovaciones aplicadas*. Madrid: Editorial Académica Española.
- Perrenoud, Ph. (2007). *Desarrollar la práctica reflexiva en el oficio de enseñar*. Barcelona: Editorial Graó.
- Secretaría de Estado de Educación Superior, Ciencia y Tecnología (2008). *Plan Decenal de Educación Superior (2008-2018). Una educación superior de calidad, para el país que soñamos los dominicanos*. Recuperado de <https://goo.gl/Qicrnt>
- Tiana, A. (2013). Los cambios recientes en la formación inicial del profesorado en España: Una reforma incompleta. *Revista Española de Educación Comparada*, (22), 39-58.
- UNESCO (1998). *Conferencia Mundial sobre la Educación Superior. La Educación Superior en el siglo XXI. Visión y Acción*. París: Ediciones Unesco.
- Universidad Autónoma de Santo Domingo (2013). *Plan Estratégico 2012-2022, UASD*. Santo Domingo: Editora Universitaria.
- Woolfolk, A. (2006). *Psicología Educativa*. México: Pearson Educación.
- Zabala, A., & Arnau, L. (2014). *Métodos para la enseñanza de las competencias*. Barcelona: Graó.
- Zabalza, M. A. (2011). Metodología docente. *REDU. Revista de Docencia Universitaria*. 9(3),75-98. <https://doi.org/10.4995/redu.2011.6150>





ICTs and Media Arts: The new digital age in the inclusive school

Las TIC y Artes mediales: La nueva era digital en la escuela inclusiva

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Received: 2018-06-28 / **Reviewed:** 2018-09-21 / **Accepted:** 2018-11-22 / **Published:** 2019-01-01

Abstract

The paper corresponds an educational experience about the impact of the pedagogical practices of digital media in the classroom. In this main objective is to understand the relation between the complementary subject (Art Education and Technology Education) and the interdisciplinary methodology. As well as a new methodology for technological education in media arts. In this context of the inclusive school, the role of educational innovation assumes great importance, however, in order to improve and merge with a modernized model between teaching duo, digital content and inclusive students in the virtual classroom. As the results of the activities carried out in the different workshops of: Stop Motion Animation for primary education, and Video Art for secondary education. In both workshops, those that correspond to the simple of the plan of complementary subject in different artistic-technological activities, depending on the level of schooling. Therefore, a true educational change for the whole of society and the inclusive school. One of the great challenges of the future in the educational task in the classroom, which contributes to satisfy the needs of new educational opportunities both the

professionals and the teaching leadership, sharing and promoting with collaborative work towards a new alternative method of strategic learning and the participation of students within the virtual classroom.

Keywords: Media Arts, Digital technology, Teaching process, Learning, ICT and Education.

Resumen

El presente artículo corresponde una experiencia educativa sobre el impacto de las prácticas pedagógicas de los medios digitales en el aula. En este objetivo principal es comprender la relación entre la asignatura complementaria (Educación Artística y Educación Tecnológica) y la metodología interdisciplinaria. Así como una nueva metodología para la educación tecnológica en artes mediales. En este contexto de la escuela inclusiva, el rol de la innovación educativa adquiere gran importancia, sin embargo, para mejorar y fusionar con un modelo modernizado entre dupla docente, contenidos digitales y estudiantes inclusivos en el aula virtual. Como los resultados de las actividades realizadas en los distintos talleres de: Animación Stop Motion para la educación primaria, y Video Arte para la educación secundaria. En ambos talleres, esos que corresponden a la muestra del

plan de asignatura complementaria en diferentes actividades artísticas-tecnológicas, dependiendo del nivel de escolaridad. Por tanto, un verdadero cambio educativo para toda la sociedad y la escuela inclusiva. Uno de los grandes retos de futuro en el quehacer educativo en el aula, que aporta para satisfacer las necesidades de nuevas oportunidades educativas tanto los profesionales como

el liderazgo docente, compartiendo y promoviendo con el trabajo colaborativo hacia un nuevo método alternativo del aprendizaje estratégico y de la participación de los estudiantes dentro del aula virtual.

Descriptor: Artes mediales, tecnología digital, proceso de enseñanza, aprendizaje, TIC y educación escolar.

1. Introduction

The new proposal for the integration of ICT and the art of new media towards inclusive school, respect and attention to diversity in school education. Now think about the future of technology, school, art and inclusion. Therefore, it is necessary to mix the complementary subject (Art Education and Technology Education). In a way it will be difficult to carry out a teaching-learning task in the inclusive school. What is the reason for teaching a complex task of the didactic tools in ICT through art education? How is the interdisciplinary curriculum and teaching based on ICT in the world of the arts properly planned? Where does technology come through media arts? What is it about educational technology in art and its diversity in the virtual classroom? How can I achieve and teach its users as students at the level of strategic learning? To define the two types of media arts and inclusive school.

1.1. Brief definition of inclusive school

Inclusive school is one of the problems that encounters greater difficulties, mainly those opposed by human nature. However, the agents of socialization correspond to the family, the community and diversity. In this sense, as Mogollón and Falla (2014, p.93) indicates when talking about what he calls:

The movement of inclusion has emerged strongly in recent years to address the high rates of exclusion, discrimination and inequality mainly present in the world's education systems. Although it is often confused with the concept of integration, or be considered

as synonyms, inclusion has a broader focus in several ways, considering it a challenge for the entire education system, especially for special education.

On the other hand, not only that the segregation of students through a special educational system, but rather the human existence. Therefore, human needs develop and increase in civilization, generally linked to social relationships to meet their results, their particularities and special indications, such as physiological, therapeutic, psychologies, educational interventions, etc. As well as the disability is faced in various situations with obstacles to obtain more security and self-confidence. They usually have difficulty making certain decisions that involve changes in personality and behavior, depending on the social skills that are recognized by their environment. In this sense, the inclusive school, allows to improve the degree of acceptance and respect for cultural diversity. As well as migration and indigenous peoples. One of the aspects that a climate must have to even to improve the social relations in the classroom. From this perspective, it is essential to recognize the importance of education as a process that enables the right to participation and integral development (García-Yepes, 2017, p. 189). This also means to understand that all (or some) school does not help to educate with different values, customs, diverse knowledge of interculturality - of course, multiculturalism - and of gender through the educational center. Also, according to García-Yepes (2017, pp. 189-190) which states:

From this perspective, promoting knowledge and understanding of cultural diversity in the



educational field allows improving the integration processes of children with each other. In that sense, these strategies strengthen social coexistence as it recognizes inclusion as a process that depends on children [, girls, young people] and communities.

As well as the inclusive treatment of diversity and institutional strengthening at school level, depending on their level of learning and the needs of students in the field of the new generation of social change. The notion of inclusive education underlies the ideal of fostering and developing cohesion and a sense of belonging, the ideal of creating learning communities that share respect and acceptance of diversity (Amaya *et al.*, 2010, p. 115).

Finally, under the term global education of “multiculturalism”, which consists of a more homogeneous culture such as tolerance through different socialization, and educational practice in different values (minority cultures, racism, xenophobia, gender, peoples originating, disability, etc.) to promote diversity and educational plurality.

1.2. Brief introduction of new media art

In order to briefly introduce the art of new media -literally of media arts- there is an approximation of the language of the new media through the image in the digital age. From this section, although there are many different types of new media art: digital art, electronic art, multimedia art, interactive art and network art, of course, the philosophy of media arts or digital aesthetics. To define this term:

The art [of new media in the digital age] is an art belonging to multimedia, which deals with data coming from the field of sound, text, fixed images and also in movement. What characterizes it is not, therefore, the mixture of genres (styles) but the creation and constitution of a language of its own. What is of interests is the expressive possibilities of its differences. For example, a classic work of literature recorded on a record remains a classic work.

If the digital is capable of projecting images of dancers, digital art only begins when these images become components of the dancer’s or actor’s body. This art does not consist in complementing already classical practices, but in proposing unprecedented expressive and semiotic situations. If it can be put at the service of other types of art, such uses do not constitute, therefore, a digital art. In the same way that digital can, from now on, complement all aspects of human activities, it can also be an instrument and a particular artistic domain (Riboulet, 2013, p.139).

Thus, new technologies and the relationship of art with computers, artist, designer, animator and programmer as well as film theory, art history and literary theory to contribute an artistic medium (in painting, photography, cinema, television, animation, cyberspace, computer, hypermedia, videogames, composition, telepresence, videoconferencing, sounds, etc.). Art has always been closely linked to technology, and new media focused on various creative instruments, in order to provide for the arrival of the Internet. Finally, all schools for artistic education that allow them to evolve and adapt to a new social-technological reality for users, especially students who are inclusive of different (inter) cultural and strategic skills of their own computers/devices.

2. New proposal of interdisciplinary methodology

The interdisciplinary methodology consists of an innovative proposal to favor the different factors of teaching and learning through ICT and media arts. This methodological proposal will depend on the level of schooling to be able to develop creativity and focused learning on the part of students -such as digital literacy directed exclusively to users- in the virtual classroom.

From innovative initiatives in teaching and strategic learning to the subject of artistic education and technological education. And this



section is divided into two parts: pedagogical interaction (or pedagogical triangle), and new way of teaching the interdisciplinary subject.

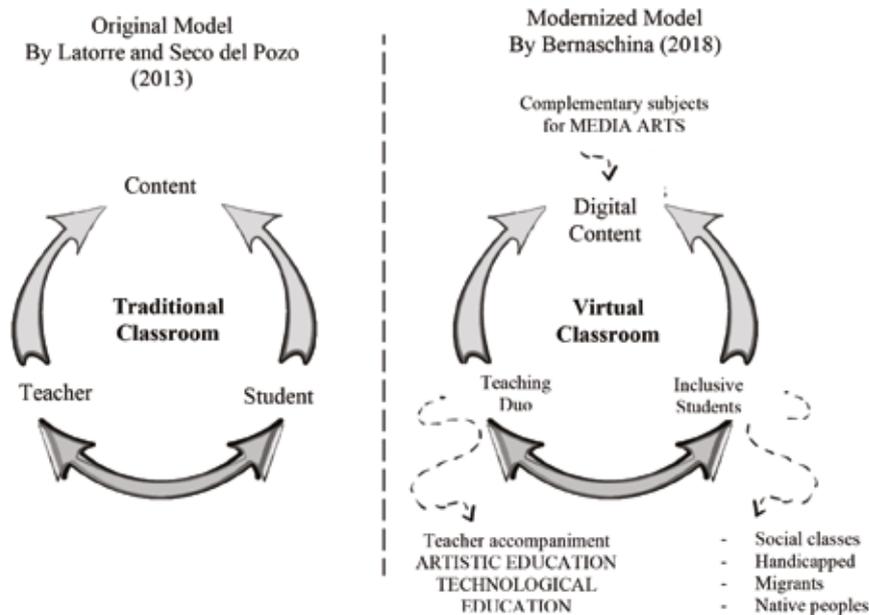
2.1. Pedagogical interaction (or pedagogical triangle)

To introduce the interdisciplinary methodology proposal that states:

Starting from the design of well-planned activities, considered as learning strategies, which are composed of *skill + content + method and + attitude?* we must design how to apply such strategies in the classroom so that the student can develop skills, attitudes and learn content. Normally, the teacher knows what to do, he can know it in theory, but there is a great distance between theory and practice; The big question is: *how to do what needs to be done?* We thus enter the domain of educational intervention methods, that is, *methodology, methodological techniques and strategies* (Latorre and Seco del Pozo, 2013, p.9).

The pedagogical interaction (or pedagogical triangle) is related to the three dialectical axes (teacher-student-content) to intervene in educational decision making, both theory and practice from the perspective-methodological strategy. The comparison of two models of pedagogical interaction of the interdisciplinary methodology (Figure 1). As well as the original model of Latorre and Seco del Pozo (2013), it is related to the three current axes within the traditional classroom. On the other hand, the modernized model updates these new axes continuously. This new model is related to digital content for the complementary subject of Media Arts, together with a teaching duo (or teaching accompaniment) to work collaboratively and combine the two mentioned areas, as well as artistic education and technology education. The acquisition of those strategic and creative skills. This will depend on the complexity of the didactic-technological resources and attention to diversity to favor the learning of the inclusive students.

Figure 1. Comparison of pedagogical interaction models (or pedagogical triangle)



Source: own elaboration

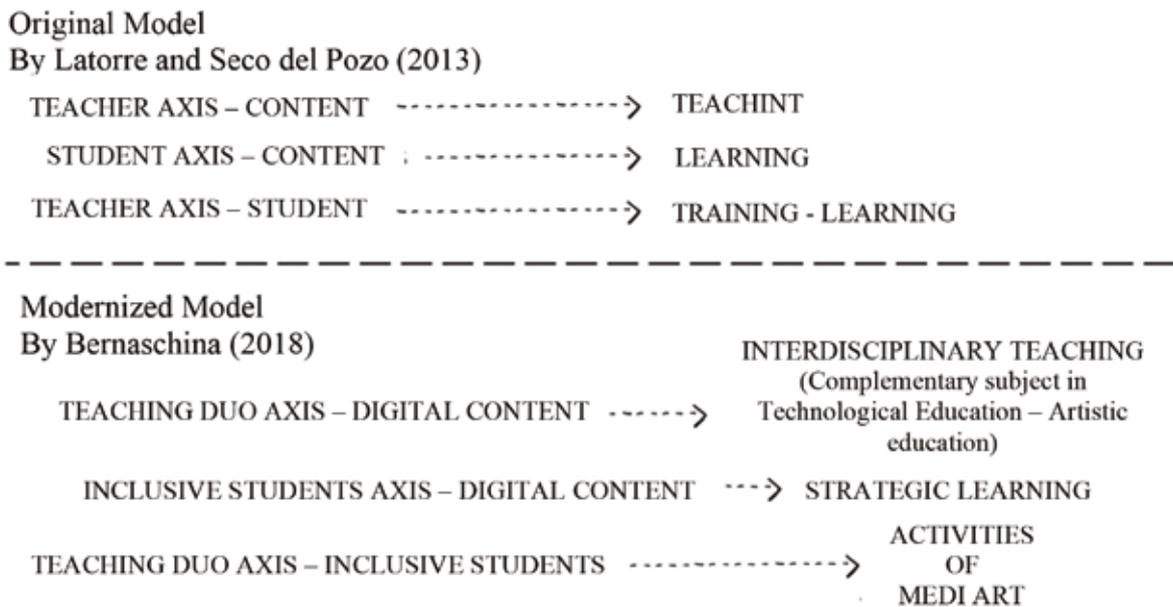


Also, this dimension explains the digital content, first, each procedure of educational technology incorporating it with the subject of plastic arts or graphic arts. And, secondly, each student gets a favorable result or absence of creative motivation. In this sense, the new challenge of ICT as the development and optimization of educational software for learning, which includes the joint activity through the modernized model within the virtual classroom.

Next, the models through the interdisciplinary methodology (Figure 2), are compared with the three axes, depending on the two models

related to teaching (teacher-content axis), learning (student-content axis) and training -learning (teacher-student axis). Therefore, the original model remains relevant. However, most of the changes in the interdisciplinary methodology, despite the difference in the modernized model, are included with the interdisciplinary teaching for the complementary subject of technology-artistic education (dual-teacher axis-digital content), then learning strategic (inclusive student axis-digital content), and finally, media arts activities (dual axis teacher-students).

Figure 2. Comparison of the 3-axis models



Source: own elaboration

To summarize both models: according to the two figures, it can be observed, then, that the interdisciplinary methodology is not always that students have greater confidence in the technological education system. However, this new pedagogical method is considered to be an exchange with the ideas that favor the development of creative skills and independent thoughts, in order to achieve the understanding and support of the inclusive school and of the students'

previous ideas through ICT in the Media Arts. Therefore, we can say that inclusive educational practices with ICT allow us to include softwares as the technological didactic resource (computer, laptop, cell phone, tablet, camera, etc.), to ensure a greater interdisciplinary activity that allows us to offer the functioning of meaningful learning (from the American psychologist, David Ausubel) and collaborative learning (or the educational interaction, better known from

the ZDP - Zone of proximal or proximal development. ZDP is a concept created by the Russian psychologist, Lev Vygotsky- to solve a problem of creativity, and share the social relations of users (inclusive students) through ICT in media arts. It also shows that students at different levels of schooling would not be able to work with digital media in the area of media arts, but also improve interdisciplinary teaching, both artistic education and technology education, assuming the incorporation of ICT to the complementary subjects to create a role of students on the technological skills and their flexible learning regardless of the quality of work (Daniels, 2003; Latorre y Seco del Pozo, 2013; Torres, 2006; Vygotsky, 1995, 2009, 2013; Wertsch, 1988).

2.2. New way of teaching the interdisciplinary subject

To demonstrate this interdisciplinary methodology of teaching and learning of ICT and art of new media in the inclusive school. From this perspective of interdisciplinary methodology, it is considered necessary to offer guidelines for Primary Education, especially aimed at students in the educational context of the new technologies of early care software programs. For Aranda (2005), as well as the program of social-motor skills is important to stimulate self-awareness, and of the environment in a direct way in the success or failure of learning and in school performance using ICT of art. It is impossible to teach the youngest students through the development of ICT.

Although, as we have already explained the modernized model to create the new changes in ICT education in art. For Latorre and Seco del Pozo (2013), the methodology is or is equivalent to a method, therefore, a path oriented towards the goal corresponds. There is another term about the school learning method. In this sense, the authors who point out:

The learning method is the path the student follows to develop more or less general skills, learning content. A method is a way of doing.

Each student, with their individual differences, has a peculiar style of learning, that is, a concrete way to travel the path of learning (Latorre and Seco del Pozo, 2013, p.13).

Additionally, to refer to the method of learning through ICT:

El *método de aprendizaje* is specified through methodological techniques, depending on the skills one wants to develop when applying it to a specific content, the characteristics of the student, their level of psychological development, the contents of the area in question, of the possible mediation of the teacher, etc. Thus, we can say, that methodological technique is the concrete way in which each student goes through the chosen path, according to their characteristics, content, mediation of the teacher, etc. The methodological technique is chosen by the teacher based on the reality of the students and the pursued goals (Latorre and Seco del Pozo, 2013, p.13).

Therefore, the learning method consists of the relationship of the three axes of the interdisciplinary methodology through a modernized model:

Every learning method consists of: *substantiated skill* (the *for what*) + the content (*what*) + the *connector* (by means of, though, in ...) + *how* (the method itself) (Latorre and Seco del Pozo, 2013, p. 13).

Thus, a new way of teaching of the interdisciplinary subject. Also, to the extent to the incorporation of new media in inclusive education. Within the development of this complementary subject on ICT and the art of new media, facilitating it with technological means at the level of strategic learning for students, depending on their digital skills. Hence the importance of what we might call an education for *new media* [...] or *multimedia education* (Gutiérrez, 1997, p.10). These educational activities are designed to facilitate and guide the passage of the materiality of “graphical user interface” (Manovich, 2005).



This fact makes it necessary to reconsider the supposed transformative and innovative effect of school educational practices which, as we have already mentioned, is sometimes attributed automatically to the incorporation of ICTs in education (Coll, Maur and Onrubia, 2008, p. 83).

3. Proposal on the complementary course plan

Before beginning the theory and curricular design for media arts education. The first thing to know is the definition of the methodological strategy on interdisciplinarity, and then, a sample of the planning carried out in two workshops for primary and secondary education. As well as the main results obtained through the modernized model. However, to exemplify this proposal on the complementary subject plan. To include a fundamental term:

Interdisciplinarity is the cooperation between two or more disciplines, without the fragmentation of the disciplinary, to address a topic, object or problem through their specific methods, so that they enrich each other and develop more complex and deep knowledge (CNCA, 2015, p.17).

There are also curricular aspects on digital content to collaboratively adjust the two or more

areas of teaching work. As well as the teaching duo that works in the different treatments of the transversal themes from the ICT and the art of the new media. According to Torres (2006), interdisciplinarity allows a later generation on the curricular proposals, and to eliminate the existing barriers between the school and its environment. And on the other hand, seeks to recognize in educational processes, where technology is necessary for comprehensive development.

Next, for example, is the proposal of digital contents in different levels of schooling (Chart 1.1 and 1.2). In the first step, planning is practically impossible to establish the link with mandatory educational programs by the Ministry of Education in each country of origin. In general, the technological tools are accompanied by the proposals of the complementary subject as such, the most global and precise interdisciplinary teaching. When using them for the implementation of educational work in ICT, and the development of recreational activities for all users, specifying it with the incorporation of tools, resources and software applications, that the development of teaching and learning can always use their proposals to facilitate a (multi) cultural diversity. And the second step: each student, making the educational practice as a personalized process, adjusting their problem and their need to technologically and artistically develop the activity.

Chart 1.1. Proposal of digital contents in different levels of schooling by Bernaschina (2018)

Level of education	Primary education	Secondary Education
Workshop Name	Stop Motion Animation	Video Art
Objetives	<p><i>General objectives:</i></p> <p>Hold a stop motion animation workshop that enhances the artistic-institutional educational development.</p> <p><i>Specific objectives:</i></p> <ul style="list-style-type: none"> • Make an animated short film in all its stages. • Analyze animation movies • Create characters, models and animation scenarios. • Screen the work done 	<p><i>General objectives:</i></p> <p>Conduct a video art workshop that enhances the artistic-institutional educational development.</p> <p><i>Specific objectives:</i></p> <ul style="list-style-type: none"> • Make a short film of video art in individual/group work. • To know the basic tools for video editing. • Elaborate a Storyboard. • Screen the work done.



Level of education	Primary education	Secondary Education
Workshop Name	Stop Motion Animation	Video Art
Content	<ul style="list-style-type: none"> • Examples and stop motion concept. • Cinematographic narration and approach to the script. • Scenery and environments manufacture. • Stop Motion filming. • Video editing 	<ul style="list-style-type: none"> • Introduction of the program for video editing. • To know the basic tools in the video editing program. • Prepare individual/group work. • Pre-view of the final work.

Chart 1.2. Proposal of digital contents in different levels of schooling by Bernaschina (2018)

Level of education	Primary education	Secondary Education
Workshop Name	Stop Motion Animation	Video Art
Methodologies	<ul style="list-style-type: none"> • All students will practice their creative abilities, through imagination, composing their own stories to be executed in their work. • Create the script and requirements of the work to be done. • Develop a simple production plan with the basic requirements for the execution of the work. • Make scenarios according to the created stories. • The manufacture of characters using different materials. • Execute the filming process, under the tutelage of the guide teacher; Students will animate their stories, while the material is stored. • The professor/tutor (teacher duo) and a variable group of students interested in editing will work on the post-production process of the works. • Visualization of the works carried out. 	
Evaluation	The workshop will be evaluated based on the quality of the discussions based on the work being done and includes the attendance (and medical justification) of the participants with a note to the class book in each semester and/or year. The results of the workshop will be exhibited at the semester (or annual) closing.	
Didactic resources	The educational software recommended in: <ul style="list-style-type: none"> • Adobe Photoshop (Animation GIF) • Windows Movie Maker • Another similar video editing program for boys and girls. 	The educational software recommended in: <ul style="list-style-type: none"> • Adobe Photoshop • Adobe Premiere • Another similar video editing program for young people.

In most cases, however, the efforts aimed at developing the planning of ICT uses that consider both the characteristics of technological tools and the dimensions of educational practices. As well as the engine of social development through the media, that is, the new visions of

social reality in the inclusive school (Coll, Maur and Onrubia, 2008, Ruiz, 2015).

On the other hand, it is understood that the use of planning through ICT (Chart 2) to generate the three types of evaluation learning techniques and strategies at different levels of schooling. Therefore, it refers to the complemen-



tary subject plan that allows users to perform different activities, depending on the leveling of schooling. We can create and analyze that

all school activity consists of the three types of assessment along with the techniques and learning strategies.

Chart 2. The 3 types of assessment learning techniques and strategies at different levels of schooling by Bernaschina (2018)

Diagnostic (or informal techniques)	Formative (or semiformal techniques)	Summative (or formal techniques)
Diagnostic that determines prior knowledge of digital content.	Formative that observes and analyzes the strategic learning process.	Summative that values the expected results of ICT and media arts.
Evaluation techniques		
<ul style="list-style-type: none"> • Observation of activities prepared by the inclusive students. • Exploration through the questionnaires in Google form by the teaching duo. • Conversations and dialogues 	<ul style="list-style-type: none"> • Exercises and practices with software, depends on the use of digital content for users (inclusive students) to perform in the class. • Review of the works and consultations inside and outside the class; Within the class corresponds the activities in the virtual classroom, and out of the class corresponds the consultations through the email for the inclusive students. 	<ul style="list-style-type: none"> • Recognition of strategic skills by each user. • Exploration of basic tools to improve and develop practices by users. • Motivation and creativity (or creativity in school learning) for the development of individual/group techniques.
Learning strategies (or evaluation instruments)		
An introductory practice in the complementary subjects to create a step of prior knowledge of digital content.	Exercises and practices carried out by users as part of the activities of the complementary subject of ICT and media arts. Also at the level of strategic learning for inclusive students both users and individual/group work in the virtual classroom. Likewise, the strategic learning activity is required with greater preparation towards the practice of freedom and creativity.	Purpose of the work during the school period to elaborate its sophisticated results as innovative concepts or new experiences by the inclusive students.

At this point, it is important to emphasize that, in the interdisciplinary methodology, the construction of knowledge in art is discussed to create an open space and creative dialogue, depending on the theme of exchange and cooperative learning for attention to diversity towards contemporary cultural and technological mani-

festations. However, they favor the interaction between the different elements through a modernized model of the educational process - primary and secondary education, with the aim of the human capacity to learn from their environment with support for the acquisition and development of procedures and strategies of learning



(Coll, Maur and Onrubia, 2008, Piccolotto, 2013, Ruiz, 2015).

4. Conclusions

Currently, in many cases due to ignorance or misapplication of the traditional methodology. For example, the original model of Latorre and Seco del Pozo (2013) for the realization of human inactivities, from the absence of the creation of processes, instruments, languages and methods, contributing with the two subjects to intervene new practices on attention to diversity.

Therefore, the interdisciplinary methodology strives with the advance of educational technology to simplify it with the two tools in development of ICT and the art of new media. However, for the future of this new model will be modernizing structured programs, depending on the needs of their potential and scope of artistic technology in order to reach social transformations and their own exchanges in inclusive communication, that is, to incorporate creative, social, (inter)cultural and strategic skills of their own computers/devices.

For example, throughout the history of ICT it has offered creative solutions to develop, innovate and acquire new tools of artistic expression. However, it will be difficult to respond with objects, almost any person could distinguish the artistic-cultural values through the artistic and symbolic imagination and the tradition of virtuous master artists such as Michelangelo, Raphael or Leonardo Da Vinci; its precursors movements of greater impact, such as Dadaism or Pop Art, and; In addition, the arrival of photography and film since the mid-twentieth century as the artists of Julia Margaret Cameron, Lewis Carroll, and others. From there, a great step was taken to build educational technology and artistic civilization, as well as to represent human nature in the creative process, both in the development of the personality and the aesthetic sense and in the artistic-technological activity to establish an enriching dialogue with the physical and social

environment of the individual (Merodio de la Colina, 2001, Vygotsky, 2003, Technology and art: a combination to shape the future, 2012, Parejo, 2014).

At present there are several technological, social, artistic and educational foundations to understand the theoretical and practical dimension of the new paths of interculturality and inclusion in the educational context through the complementary subject. Thus, the contemporary cultural discussion on arts education and ICT, which usually plays a central role in the interdisciplinary methodology to favor, and appreciate the aesthetic values in its multiple dimensions in different works, and spheres of human activity and its relationship with the world of desired, proper and autonomous language in the way of experimentation with the use of new media in cultural diversity. It will be then, through inclusive education, that these bonds of union between different cultures will be created (Olhagaray Llanos, 2002, Fabelo Corzo, 2004, Solís, 2009, Muiños de Britos, 2011, Leiva, 2016, Tipa, 2018). The educational technology can be dimensioned quite complex regarding the artistic procedures within the ICT about the artistic education:

However, the inclusive treatment of diversity brings benefits beyond the students themselves and the educational institution, becoming an important element in the development of a more just, tolerant and respectful society with diversity, without forgetting that the amplitude that has the term inclusion, framed within the discourse of human rights, goes much farther from the educational field (González Fernández, Medina Domínguez, and Domínguez Garrido, 2016, P. 135).

Thus, to adapt the modernized model on the pedagogical interaction that will be improved, especially in inclusive environments associated with the use of ICT in the school.

To reflect on a new look at pedagogical training from the use of ICT in the Media Arts.



Therefore, we need to provide society a real educational change towards the inclusive school. Given our tradition in the field of artistic education through new media, and of course, new multimedia technologies.

Bibliographic references

- Aranda, R. (2008). *Atención temprana en educación infantil*. Madrid: WK Educación.
- Amaya *et al.* (2010). Educación y fomento de la cohesión social. En Boza, A. *et al.* (Coords.), *Educación, investigación y desarrollo social* (103-134). Madrid: Narcea.
- CNCA (2015). *Caja de herramientas para la educación artística: Cuaderno 3: Una educación artística en diálogo con otras disciplinas*. (1ª ed.). Santiago: Consejo Nacional de la Cultura y las Artes, Chile.
- Coll, C., Mauri, T., & Onrubia, J. (2008). Capítulo III: La utilización de las tecnologías de la información y la comunicación en la educación: Del diseño tecno-pedagógico a las prácticas de uso. En C. Coll y C. Monereo (Eds.), *Psicología de la educación virtual: aprender y enseñar con las tecnologías de la información y la comunicación* (74-103). Madrid: Ediciones Morata.
- Daniels, H. (2003). *Vygotsky y la pedagogía*. Barcelona: Paidós.
- Fabelo Corzo, J. (2004). Aproximación teórica a la especificidad de los valores estéticos. *Graffylia*, 2(4), 17-25. Recuperado de <https://goo.gl/puL9Rm>
- García-Yepes, K. (2017). Procesos de integración social de inmigrantes en escuelas de Huelva, España. *Alteridad*, 12(2), 188-200. <https://doi.org/10.17163/alt.v12n2.2017.05>
- González Fernández, R., Medina Domínguez, M., & Domínguez Garrido, M. (2016). Ventajas del tratamiento inclusivo de la diversidad: perspectivas de los principales agentes encargados de su desarrollo. *Enseñanza & Teaching: Revista Interuniversitaria de Didáctica*, 34(2), 131-148. <http://dx.doi.org/10.14201/et2016342131148>
- Gutiérrez, A. (1997). *Educación Multimedia y Nuevas Tecnologías*. Madrid: Ediciones de la Torre.
- La tecnología y el arte: una combinación para labrar el futuro. (2012, 14 de octubre). *BBC News*. Recuperado de <https://bbc.in/2oDbOd9>
- Latorre, M. & Seco del Pozo, C. (2013). *Metodología: Estrategias y técnicas metodológicas*. Lima: Universidad Marcelino Champagnat. Recuperado de <https://goo.gl/Sc4BcH>
- Leiva, J. (2016). *Abriendo caminos de interculturalidad e inclusión en la escuela*. Madrid: Dykinson.
- Manovich, L. (2005). *El lenguaje de los nuevos medios de comunicación: la imagen en la era digital*. Barcelona: Paidós.
- Merodio de la Colina, Mª. (2001). Procesos de creatividad en la expresión plástica para la educación primaria. En Oriol de Alarcón, N. (Ed.), *La educación artística, clave para el desarrollo de la creatividad* (135-154). Madrid: Ministerio de Educación, Cultura y Deporte.
- Muñoz de Britos, S. (2011). Capítulo I: La educación artística en la cultura contemporánea. En A. Giráldez, y L. Pimentel (Coords.), *Educación artística, cultura y ciudadanía*. De la teoría a la práctica (9-20). Madrid: OEL. Recuperado de <https://bit.ly/2BusGLI>
- Olhagaray Llanos, N. (2002). *Del video-arte al net-art*. Santiago: LOM.
- Parejo, D. (2014, 28 de julio). *El impacto de la tecnología en el Arte* [Blog]. Recuperado de <https://goo.gl/DgbyS2>
- Piccolotto, D. (2013). Artes visuales y tecnología digital como instrumentos de innovación en la educación escolar. *Revista Campus Virtuales*, 2(2), 46-52. Recuperado de <https://goo.gl/1QmzVC>
- Rebollo, M. Á. (2006). *Género e interculturalidad: educar para la igualdad*. Madrid: La Muralla.
- Riboulet, C. (2013). En el arte de los nuevos medios. *Calle 14*, 7(10), 136-143. <https://doi.org/10.14483/udistrital.jour.c14.2013.1.a09>
- Ruiz, A. (2015). Capítulo I: Desarrollo tecnológico y uso educativo de las TIC: visión crítica de la modernidad. En R. Arauz *et al.*, *TIC en Educación* (15-46). Madrid: Ediciones Díaz de Santos.
- Solís, Mª. (2009). El profesorado, elemento mediador hacia la interculturalidad. En E. Soriano, R. Zapata, y A. González (Eds.), *La formación para el desarrollo de una sociedad intercultural* (2-8). Almería: Universidad Almería.



- Tipa, J. (2018). ¿De qué me sirve la interculturalidad? Evaluación de la Universidad Intercultural de Chiapas por sus estudiantes. *Alteridad*, 13(1), 56-71.
<https://doi.org/10.17163/alt.v13n1.2018.04>
- Torres, J. (2006). *Globalización e interdisciplinariedad: el curriculum integrado* (5ª ed.). Madrid: Ediciones Morata.
- Vygotsky, L. S. (1995). *Pensamiento y Lenguaje: Teoría desarrollo cultural de las funciones psíquicas*. Buenos Aires: Ediciones Fausto.
- Vygotsky, L. S. (2003). *La imaginación y el arte en la infancia* (9ª ed.). Madrid: Ediciones Akal.
- Vygotsky, L. S. (2009). *El desarrollo de los procesos psicológicos superiores* (3ª ed.). Barcelona: Crítica.
- Vygotsky, L. S. (2013). *Psicología del arte*. Barcelona: Paidós.
- Wertsch, J. (1988). *Vygotsky y la formación social de la mente*. Barcelona: Paidós.





Proposal for design an instrument for video lectures analysis in MOOC

Propuesta de diseño de instrumento para analizar vídeo-lecciones en MOOC

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Received: 2018-06-29 / **Reviewed:** 2018-10-07 / **Accepted:** 2018-11-07 / **Published:** 2019-01-01

Abstract

This article carried out the process of construction and validation of an instrument to assess the structure of video lectures from MOOC. The tool is divided in the parts of the class: opening, core and closure for check how each part contribute to the narrative sequence. The aim of the study is based on the need to made proposals for the production of videos for massive on line courses because the trend is to replicate the traditional teaching models of information transfer. The design process and the theoretical supports that frame of the questions are explained, as well as the result of the assessment of the experts and the piloting of the instrument. In the end, the article offers perspectives for the design of video-lessons and to have instruments that allow teachers and instructional designers of virtual courses to make a checklist to the Storytelling tips and audiovisual narrative that reinforce the discourses contained in the video-lessons. The results of the analysis

identified progress and limitations in the construction of the resources. Based on the findings, reflections are offered on how these resources could be improved. It concludes with a proposal to use the instrument to open new lines of research that support the video lessons production and to give ideas about how use resources of the television streaming like Netflix, in the pedagogical sequences in on- line courses.

Keywords: Video Lectures, Video Analysis, MOOC, Online Education, Instructional designer, educational videos.

Resumen

El artículo presenta el proceso de construcción y validación de un instrumento para valorar la estructura de vídeo-lecciones de cursos masivos en línea, MOOC. El instrumento divide la vídeo-lección en momentos de la clase: inicio, desarrollo y cierre, para revisar de qué manera cada apartado aporta a la construcción de la

narración. La justificación de este estudio se basa en la necesidad de generar propuestas para la producción de vídeos en cursos masivos, toda vez que algunos replican modelos tradicionales de transmisión de información. En la primera parte del texto, se explica el proceso de diseño y los soportes teóricos que enmarcan los bloques de preguntas, así como el resultado de la valoración de los expertos y pilotaje del instrumento y los resultados. Al final, el artículo ofrece perspectivas para el diseño de vídeo-lecciones y para contar con instrumentos que le permitan a los docentes y a los diseñadores instruccionales de cursos virtuales hacer una lista de chequeo de

los principios de Storytelling y narrativa audiovisual que refuerzan los discursos contenidos en las vídeo-lecciones. Se concluye con una propuesta de uso del instrumento para abrir nuevas líneas de investigación que apoyen la producción de vídeo-lecciones y con el planteamiento de ideas para usar elementos de televisión vía streaming como Netflix a las secuencias didácticas de cursos virtuales.

Descriptor: Vídeo-lecciones, análisis de vídeos, educación en línea, MOOC, diseño instruccional, video educativo

1. Introduction and state of the issue

The design and use of video-lessons has been positioned as the axis of the didactic sequences of the xMOOC, or courses based on content (Raposo, Martínez & Sarmiento, 2015). The video-lesson is defined as an audiovisual piece in which some thematic content is exposed and resembles a master class (Ferrés, 1992, Marqués, 1999). For Biggs (2006) this type of class has an important potential, however, “it requires a concentration that drastically reduces its value if it is not performed properly” (p.129).

Although the first MOOCs that appeared in the educational field were those that focused on connections, they have as principle connectivism and the idea that thousands of people interact with the contents of a course (Downes, 2007, Siemens, 2005) the xMOOC are those that have proliferated on platforms such as Udacity, Coursera, Future Learn, Miriada X, Canvas, Edx, among others. It should be noted that the definition of MOOCs have also added new developments according to the size of the groups, tools and level of interactions, such as those proposed by Clark (2013), who defines 8 types of MOOCs: TransferMOOCs, MadeMOOCs, SynchMOOCs, AsynchMOOCs, AdaptiveMOOCs, GroupMOOCs, ConnectivistMOOCs, MiniMOOCs. Also recently it is spoken of (Small Private on Line Courses), that is very similar to the definition that sets Clark (2013) as Group MOOC.

Similarly, there is talk of another type of technology associated with the use of mobile phones “MOOcast” which proposes to interconnect the content of MOOC courses to mobile communications. With screencast technology, a user can send content from a phone (YouTube or Netflix) on a television. Its key function as a facilitator to access learning contents is probably the most important (Tabuenca, Kalz & Löhr, 2017). Osuna-Acedo, Marta-Lazo & Frau-Meigs (2018) explain that we can already talk about the post-Mooc era with approaches such as the sMOOC (Social Massive Open Online Course), arriving at what they call tMOOC, t of knowledge transfer proposing authentic tasks that allow this type of MOOC aimed at the pedagogical transformation. In these latter cases, the MOOC proposals focused on contents are reworked to focus on collaborative work.

For this study we have focused on the construction of an instrument to analyze video-lessons contained in xMOOC. In these, the students relate individually to the resources displayed by the platform and perform automated tests (Clark, 2013). The interaction between the participants is not privileged, but with the resources, so it is interesting to analyze the video-lesson, since it is the almost exclusive means of mediation in this type of courses.

Learning through video has been the subject of various reflections (Giannakos, Sampson, Kidzinski & Pardo, 2016, Mohamed, Amine & Schroeder, 2014, Van Der Sluis, Ginn, Van Der



Zee & 2016). The development of MOOCs has made this type of learning more relevant, so many studies ask to what extent video-lessons affect pedagogical innovation in technology-mediated learning environments or if, on the contrary, they only replicate a transmissive teaching model.

The first part of the article explains the conceptual bases around the use of video in the construction of MOOCs, proposals of narrative lines for its production and the questions posed by the literature review on the transmissionist approach of this type of courses. Then the methodology of construction and validation of the instrument by expert pairs and its subsequent piloting is explained. In the conclusions, new lines of work are proposed based on the use of the tool to generate ideas that allow us to produce powerful and creative video-lessons.

It should be noted that the study focused on video-lessons contained in xMOOC and not in other types of mass courses, since it was sought to observe what happens with audiovisual mediation when the course does not have an instructional design based on connections or interactions with peers, but in the visualization of videos.

The construction of the instrument, presented here, is part of a doctoral dissertation in Communication and Education, carried out between 2015 and 2018, where the content of a video-lessons group of xMOOC of the Miriada X platform is analyzed, results that will be displayed in later articles.

1.1. The use of videos in a MOOC

The most used video-lesson types in the xMOOC are the master classes with support in PowerPoint presentations (Atapattu & Falkner, 2016, Guo, Kim & Robin, 2014, Evans, Baker & Dee, 2015). The variety of video lessons has also been configured based on the type of technology used for their production or the place where the recording is made, and are classified into: talking head, those recorded in the classroom, picture in pic-

ture (images with voice over), capture of a tablet (type Khan academy), animation with voice over, chroma or green screen, interview and tutorial (Chauhan & Goel, 2015; Hansch, Hillers, McConachie, Newman & Schmidt, 2015).

The review of literature in specialized databases has made it possible to verify the predominance of studies focused on the observation of user behavior practices in front of video-lessons, type of visual scanning follow-up, analysis of observation patterns and permanence according to the number of repetitions in the viewing of the videos. There is also a tendency to establish ideal characteristics for this type of audiovisual pieces such as duration, preferences and recommendations for visual management. However, there are few contributions related to the narrative structure of the video lessons, in this regard, the Cortes studies (2015) offer a checklist to recognize elements of the Cognitive Load Theory in multimedia spaces. This explains to what extent certain multimedia elements favor learning and an instrument is proposed for the analysis of video-lessons from the point of view of multimedia attributes. Unlike this study, the instrument presented in this article raises the analysis in the way in which the lesson is communicated and the audiovisual narrative structure.

The production of audiovisual resources for MOOCs should focus on an analysis of the possibilities of audiovisual communication applied to the elaboration of didactic contents. These videos should be designed as audiovisual pieces that can provide learning experiences awakening emotions (Gértrudix, Rajas & Álvarez, 2017, Koumi, 2006). In this regard experiences of content production are recognized for this type of courses that include simulated videoconferences, documentaries called reflective, animated narratives and even the use of Chinese fables or oriental stories to design what is defined as learning experiences that seek to contextualize and link the student as an audience that becomes involved in the narrative (Morris, 2017).



Thomson, Bridgstock & Willems (2014), for their part, explain that the narrative must be in a context, have a clear purpose, tell a story and be short and concise. The video must be aligned with a construction of meanings around the learning objective. The material must also be available to be used and reused by as many people as possible.

1.2. Learning vs. instructional design in a MOOC

Learning in mass spaces and the appropriate instructional design for this to happen, raises many questions about its effectiveness and quality (Aguaded & Medina-Salguero, 2015, Bartolomé & Steffens, 2015, Zapata-Ros, 2015). In this line, Chiappe, Hine & Martínez (2015) determined that the concept of “mass” generates standardized practices for the design of learning environments that result in the production of courses with very similar structures, centered on a line of time with videos and quizzes. This type of standard architecture may be due to immediate strategies to respond to the high demand of students with low audiovisual production costs.

MOOCs are master classes with a traditional class scheme and most do not represent an innovation in the way a virtual course is organized (Laaser & Toloza, 2017; Leal, 2012). Open knowledge is then caught in an old scheme but sold in a technological scenario that allows it to expose itself as an innovator. This increases the possibilities of overcrowding but not the possibilities of generating authentic learning. Researchers from different parts of the world focus their work on demonstrating that the brain does not learn from discourses (Fink, 2008, Torres, 2017). Thus, the validity of the master class is questioned as monologue of the professor. If we manage to turn the video into an audiovisual language full of possibilities, the pedagogical value of the video-lesson may increase.

In more recent studies, Osuna-Acedo, Marta-Lazo and Frau- Meigs (2018) propose the

use of connections to the narrative of the courses within the Transfer-MOOC. “The tMOOCs are positioned as a disruptive educational alternative and as meeting points between the participants, through which we can access distributed and accessible intelligence” (p.105). In this order of ideas, Marta-Lazo, Valero-Errazu, Gabelas-Barroso (2018) also develop analyzes on the use of Twitter in MOOC courses as a key element in the increase of motivation and development of learning with students. In this type of proposals, the video-lesson is part of a collaborative mechanism and is not exclusively the core of the courses.

Despite the efforts to improve the narrative quality of the videos, standardized online production limits these designs and does not open the possibility for new narrative experiences. This would demand more time, increase costs and generate a flow of course management that does not respond to commercial logic. A standard model of audiovisual production is needed so that mass production can work, however, it puts on the table the challenge of constructing contents that respond to a type of education mediated by ICT that responds to new teaching paradigms.

1.3. New narratives for video-lessons

The video lesson can be considered as a video lecture session: therefore, it can be divided into the three key moments of a class: beginning, development and closing. In this structure, the beginning should be marked by attractive elements that call the attention of the audience as the use of questions and challenges and the activation of previous knowledge. Therefore, the first minutes must resort to elements of powerful narration that maintain the motivation, linking the contents of previous classes with the ones in the new segment (Ambrose, Bridges, Di Pietro, Lovett, Norman & Mayer, 2010, Lang, 2016). For the development and closure, the use of metaphors, mood swings, relationship of content with real life events as they are stated in the TED talks, are resources with which we seek to sow an idea in a few minutes



using the quality of the oral discourse (Anderson, 2016). In this sense, the speaker should limit himself to talking about few concepts, reducing their content and integrating it in a personal context, and should arouse the curiosity of the audience with provocative and attractive questions. Anderson (2016, p.1) emphasizes that “speakers often forget that many of the terms and concepts they use are completely unknown to their audience. Metaphors can play a crucial role in the assembly of the pieces, because they reveal the desired shape of the pattern, based on an idea that the listener already understands.”

The production of video-lessons considering them as narrative units that maintain the potential of a story should consider key aspects such as the strength of the interlocutor’s discourse and its wealth to capture the attention of the audience. Thus, it has to be structured in such a way that it allows to move, to excite, to make people laugh and to captivate attention. Bravo (1996) points out as significant elements in a video-lesson, the visual support that is focused on demonstrations and the quality of the speech.

Storytelling tools can help in this improvement of narrative elements of the video-lessons (Díaz-Barriga & Hernández 2010). The meaning of these will be given by the voice and creativity of the teacher (narrator) to create and present a convincing, attractive, seductive and concrete story that stimulates the emotions of the student who acts as a spectator (Edutren, 2017). All these elements are difficult concepts to adopt in academia because one must use verbal economy, coherence, little ambiguity, sensitivity and innovation in television production for courses and not everyone has the talent to tell attractive stories using elements such as fun and/or audiovisual metaphors based on entertainment applied to education (Pastor, 2010, Wakefield, 2009). Undoubtedly, one of the main challenges is to maintain the attention and motivation to avoid student desertion. However, it should be noted that this function does not only refer to the videos, it also implies the training of the teaching

team, not only to produce the contents, but also to manage the courses with a large number of students (García, Rivera & Ramírez, 2014).

2. Materials and methods

2.1. Design of the instrument

Given the purpose of the study, assessing the structure of video-lessons of mass online courses and the need to analyze that narrative structure and the use of audiovisual resources, an instrument was developed to respond to the different concepts considered and assumed after the literature review. A first draft of the tool was designed and then several versions. Finally, the instrument was constituted by 25 items and four major categories:

- Start of the video-lesson and engagement principles. This includes questions that allude to the way the teacher starts the video. That is, if it raises questions, if it states the objective, if it contextualizes and gives a general framework of the topics that will be addressed in the class.
- Development of the video-lesson and principles of narrative sequences. Here they ask questions that have to do with the way the teacher organizes the course. If he uses examples, mood swings, anecdotes or if he relates the content to real life problems.
- Closure of the class: Conclusions. The questions in this block are related to aspects of the way in which the teacher includes all the content of the video lesson, how it helps the student to organize the content stating the main ideas seen during the talk, and if there are summaries and link to the lesson that will continue.
- Technical aspects and audiovisual narrative support. The questions here refer to whether the video-lesson has a fixed camera, effects of images, moving images and



the role of graphics to support the teacher's argument during the video-lesson.

The instrument has been formed in a first part corresponding to the general characterization of the course in which questions are raised to gather information regarding the name of the course, the University, the learning objective of the course and the module, number of modules, title of the video-lesson, standard duration time, if one can connect with associated social networks,

the student's participation in the content, the type of video lesson (Talking Head, Classroom Recorded in the Classroom, Picture in Picture, Power point with voice over, Capture of a tablet (Khan Academy), Animation with voice over, Chroma or Green Screen, Interview, Tutorial). And the second part is divided into three subcategories: beginning, development and closing of the class. The following charts show the theoretical concepts that frame each block of questions:

Chart 1. Issues related to the start of the class

Questions related to the beginning of the class	Conceptual foundations (where it comes from)	Authors
Does the teacher begin with a question to the audience?	Principles of engagement	Biggs (2006); Lang (2016)
Does the teacher pose a challenge to solve during the video lesson?	Five first minutes of a class	
Does the teacher express the objective of the video lesson?	Activation of previous knowledge as a key element to enhance learning	Ambrose, Bridges, Di Pietro, e, <i>et al.</i> (2010).
Does the teacher relate the topic to a real-life case?		
Does the teacher begin by relating previous knowledge or lessons to the video lesson in a way that connects with the previous content?	Structure of lectures	
Does the teacher break down in a clear and organized way the points that will be developed in the video-lesson?		

Source: Own elaboration

Chart 2. Questions related to the start of the class

Questions related to the development of the class	Conceptual foundations	Authors
Is there evidence of a succession of contents or themes?	Principles of learning	Ambrose, Bridges, Di Pietro, <i>et al.</i> (2010).
Does the teacher use humor twists?	Significant learning	
Does the teacher use personal anecdotes to relate the subject of the video-lesson?		Connecting the video with emotions
Are there changes in rhythm in the video?	Cognitive mechanisms that are favored with edu-entertainment	
Are there turning points or unexpected events?		
Does the teacher give examples of what he is talking about?		

Source: Own elaboration



Tabla 3. Cuestiones relacionadas con el cierre de la clase

Questions related to closing the class	Conceptual foundations	Authors
Does the teacher draw conclusions in accordance with what was stated at the beginning of the video-lesson?	Five last minutes of the class	Lang (2016)
Does the teacher make summaries of what is addressed in the video lesson as a compilation?	Principles of learning	Ambrose, Bridges, Di Pietro, <i>et al.</i> (2010)
Does the teacher mention the points that will be seen in the next lesson?		Biggs (2006)

Source: own elaboration.

Chart 4. Questions related to technical aspects

Questions related to technical aspects	Conceptual foundations	Authors
Are shifts in camera angles evident in the video?	Digital narratives	Díaz-Barriga and Hernández (2010).
This video-lesson has dynamic visual aids? (moving graphics, moving infographics)	Educational video and its didactic value	
Are the images related to the content of what was mentioned by the teacher throughout the video lesson? (they change according to what they are saying and support their argument)	Design and production of MOOC courses	Area (2000).
Is a large variety of images used to support the contents?	Instructional design	Aguaded and Medina-Salguero (2015).
Is the video lesson supported by power point slides?		Visual and auditory experiences in educational videos.
The video lesson is supported by slides in programs other than the power point (can be prezzi, slideshare, emaze, videoscribe)	Cognitive Theory of Multimedia Learning	Koumi (2006); Cortes (2015);

Source: own elaboration

For the elaboration of the questionnaire, the Question Pro platform was used, since it provides many tools for the management of

information for surveys and instruments of this nature. The instrument is available at the following link: <https://goo.gl/W39xvv>



2.2. Validation of the instrument

The validity of the instrument was submitted to expert judgment, peers were selected for their trajectory and publications on the topic of MOOCs. Thus, in the list of reviewers is a doctor in Communication and Education at the University of Santiago de Compostela (exp.1) who has worked in the production of MOOC for the platform Miriada X, a teacher and researcher at the Rey Juan Carlos University (exp.2), and a PhD in Information Sciences from the University of Zaragoza with extensive experience in issues

of media competence and MOOC (exp.3). For the expert judgment, an evaluation guide was designed in which the variables of the research, objectives and expressed needs of the instrument were explained.

3. Analysis and results

The results obtained in the validation of the questionnaire are shown in Chart 5, being evaluated in a range of 3 to 1, in which 3 means strongly agree, 2 agrees, and 1 totally disagrees.

Chart 5. Average results of the evaluation of the experts

Expert	It consists of a reasonable number of Questions	The enunciation of the questions is clear	The Questions allow to achieve the objective sought by the instrument	The Questions are significant and demand relevant information for the topic to be discussed	The questionnaire integrates questions about all the dimensions to analyze
1	3	3	2	3	3
2	2	3	2	2	2
3	3	3	2	2	2

Coefficient of Proportion by Ranges	0,82	Suitable
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Source: own elaboration

It is assumed as a criterion that a data collection instrument with a Range Proportion Coefficient above 0.75 is valid. The closer the CPR approaches to one (1) the more the validity of the content of the instrument is guaranteed (Ramírez, 2004). As can be seen, the assessment was positive by the experts. After the expert judgment, the instrument was piloted with a group of 10 video lessons from the Miriada X platform, one of the most important platforms for Spanish-speaking universities. Hernández, Fernández and Baptista (2010) state that “in non-probabilistic samples, the choice of elements does not depend on probability, but on causes related to the characteristics of the

research or who makes the sample” (pp. 190). The validation and piloting of the instrument reflected a high internal consistency in its questions and fulfills its objectives.

4. Discussion and conclusions

The proposed instrument becomes a tool for the analysis of video-lessons and allows to make a checklist to instructional designers and teachers about the components of this type of pieces since it divides its characterization in the key moments of a class (beginning- development and closure).

The discourse prevails in this type of material, so it is necessary a detailed breakdown of how



the class is conducted and what type of narrative elements it includes. Taking into account that the strength of production depends on the use of Green Screen and support with Power Point (Atapattu & Falkner, 2016, Guo, Kim & Robin, 2014, Evans, Baker & Dee, 2015) the questionnaire allows us to analyze the type of graphics that support the video-lesson, the type of expressions and how it is structured from beginning to end. . Korving, Hernández & De Groot (2016) state that video lessons enriched with images that give meaning to the teacher's speech have a greater chance of being seen. In this order of ideas, the questionnaire not only asks about the type of visual aid, but also the use of it to give value to the professor's discourse. If it's all the same to download a podcast than to watch the video, the graphics are not contributing to the narration.

In this sense, the instrument allows proposing questions on how to awaken the curiosity of students from the use of questions, without incurring excessive production costs and guiding teachers on new proposals to structure the scripts of each class. All this from an interdisciplinary approach to provide greater variety to research on the subject (Veletsianos & Shepherdson, 2015).

The first part of the instrument raises questions about how to start a video lesson, Lang (2016) defines it as the ability of the teacher to use the first five minutes of his class to get the attention of his students. References are made to resources such as questions, connections with the previous class, solving a mystery, present a sequence. Connecting explicitly with the new material to prior knowledge of the course itself is not automatic, we need to help students highlighting these connections (Ambrose, Bridges, Di Pietro *et al.*, 2010) Regarding the development and closing of the video-lesson, the instrument proposes the use of resources such as humor and relate the content of the course with real-life situations. The handling of the emotions and tools of Storytelling will add value to the production of the video-lesson (Díaz-Barriga & Hernández, 2010; Koumi, 2006).

For Laaser & Toloza (2017), the current use of video on LMS platforms is deficient in terms of exploiting its characteristics as a means of communication. "Concepts such as xMOOC and Flipped classroom are not a step forward, but a step back in the development of educational video" (Laaser & Toloza, 2017, p.5). This type of studies evidences the need to structure instructional designs of video-lessons that demonstrate a balance between the quality of the content and the way in which it is told. Among the aspects to be highlighted by the experts was the inclusion within the proposed instrument, questions that inquire about the use of social networks in video-lessons (Marta-Lazo, Valero-Errazu & Gabelas-Barroso, 2018). These items were included in the final version of the questionnaire. The experts also assessed the use of dichotomous questions as it facilitates the completion of the tool.

It is expected, in later studies, to publish the results of the use of the instrument with the total sample of video-lessons, to extend the range of analysis and to delimit more information about production models that include proposals associated with edu-entertainment. This use suggests converting the courses into Netflix-like series and responding to video consumption logic via streaming. It is expected to apply this proposal in complete courses and analyze its effect in the construction of online learning environments.

The expectation is that the instrument can be a first contribution in these transformations and that it is available, in the medium term, to researchers, teachers, platform managers and instructional designers to make checklists of the minimum production and structuring of discourse in this type of audiovisual pieces and achieve changes in their narrative structure.

Bibliographic references

Aguaded, I., & Medina-Salguero, R. (2015). Criterios de calidad para la valoración y gestión de



- MOOC. *RIED. Revista Iberoamericana de Educación a Distancia*, 18(2), 119-143. Recuperado de <https://bit.ly/2teQte0>
- Ambrose, S., Bridges, M., Di Pietro, M., Lovett, M., Norman, M., & Mayer, R. (2010). *How Learning Works. 7 research-based principles for smart teaching*. Estados Unidos: Jossey-Bass.
- Anderson, C. (2016). *Charlas Ted*. España: Gestión 2000.
- Atapattu, T., & Falkner, K. (Abril de 2016). A framework for topic generation and labeling from MOOC discussions. En *Proceedings of the Third ACM Conference on Learning Scale*, 201-204.
- Bartolomé, A., & Steffens, K. (2015). ¿Son los MOOC una alternativa de aprendizaje? *Comunicar* 44, 91-99. <http://dx.doi.org/10.3916/C44-2015-10>
- Bravo, L. (1996). ¿Qué es el vídeo educativo? *Comunicar*, 6, 100-105. Recuperado de <https://bit.ly/2H8AbY0>
- Biggs, J. (2006). *Calidad del Aprendizaje Universitario*. España: Narcea.
- Clark, D. (4 de Abril de 2013). *MOOCs: taxonomy of 8 types of MOOC*. [Mensaje en un blog]. Recuperado de <https://goo.gl/UGb84y>
- Cortes, D. (2015). *Videos educativos en los Cursos Masivos, Abiertos y en Línea (MOOC). Una propuesta de análisis desde la Teoría Cognitiva del Aprendizaje Multimedia*. Tesis de postgrado. México: Universidad de Guadalajara.
- Chauhan, J., & Goel, A. (2015). An Analysis of Video Lecture in MOOC. *ICT in Education, Research and Industrial Applications: Integration, Harmonization and Knowledge Transfer*, 35. Recuperado de <https://goo.gl/hFVwjA>
- Chiappe, A., Hine, N., & Martínez, J. (2015). Literatura y práctica: una revisión crítica acerca de los MOOC. *Comunicar*, 44, 09-18. <https://doi.org/https://doi.org/10.3916/C44-2015-01>
- Díaz-Barriga, F., & Hernández, G. (2010). *Estrategias docentes para un aprendizaje significativo, una interpretación constructivista*. México: McGraw Hill.
- Downes, S. (Febrero 3 de 2007). What connectivism is? [Mensaje en un blog]. Recuperado de <https://bit.ly/2JdgXql>
- EduTren (febrero de 2017). *Storytelling*. EduTren. Recuperado de <https://bit.ly/2JkqAmg>
- Evans, B., Baker, R., & Dee, T. (2016). Persistence Patterns in Massive Open Online Courses (MOOCs). *The Journal of Higher Education*, 87(2) 206-242. <https://doi.org/10.1080/00221546.2016.11777400>
- Fink, D. (2008). *Una guía auto-dirigida al diseño de cursos para el Aprendizaje Significativo*. Estados Unidos: Jossey-Bass.
- García, A., Rivera, N., & Ramírez, M.S. (2014). MOOC: principales problemáticas que enfrenta un equipo de Team Teaching. *Memorias del Encuentro Internacional de Educación a Distancia*, 3(3) Recuperado de <https://bit.ly/2JLIEWr>
- Gértrudix, M., Rajas, M., & Álvarez, S. (2017). Metodología de producción para el desarrollo de contenidos audiovisuales y multimedia para MOOC. *RIED. Revista Iberoamericana de Educación a Distancia*, 20(1), 183-203. <https://doi.org/10.5944/ried.20.1.16691>
- Giannakos, M., Sampson, D., Kidzinski, L., & Pardo, A. (2016). Enhancing Video-Based Learning Experience through Smart Environments and Analytics, *SE@ VBL@1* (6). Recuperado de <https://bit.ly/2lnrdxT>
- Guo, P., Kim, J., & Rubin, R. (marzo 4 de 2014). *How video production affects student engagement: an empirical study of MOOC videos*. Conferencia llevada a cabo en *ACM conference on Learning*. Estados Unidos. <http://dx.doi.org/10.1145/2556325.2566239>
- Hansch, A., Hillers, L., McConachie, K., Newman, C., & Schmidt, J. (2015). Video and Online Learning: Critical Reflections and Findings from the Field. *HIIG Discussion Paper Series*, 2, 6-31. <http://dx.doi.org/10.2139/ssrn.2577882>
- Koumi, J. (2006). Designing video and multimedia for open and flexible learning. *Designing Video and Multimedia for Open and Flexible Learning*, 1, 1-237. <http://dx.doi.org/10.4324/9780203966280>
- Laaser, W., & Toloza, E. (2017). The Changing Role of the Educational Video in Higher Distance Education. *The International Review of Research in Open And Distributed Learning*, 18(2). <http://dx.doi.org/10.19173/irrodl.v18i2.3067>
- Lang, J. (2016). Small Changes in Teaching: The First 5 Minutes of Class. [Mensaje en un blog]. Recuperado de <https://bit.ly/2tSosau>



- Leal, D. (24 de febrero 2014). *¿MOOC o no MOOC?* [Mensaje en un blog]. Recuperado de <https://bit.ly/2I7E7cb>
- Marta-Lazo, C., Valero-Errazu, D., & Gabelas Barroso, J. A. (2018). Uso de Twitter en los MOOC: Nuevas formas de interacción juvenil y su influencia en el aprendizaje. *Revista Latina de Comunicación Social*, 73, 1333-1352. <http://dx.doi.org/10.4324/9780203966280.10.4185/RLCS-2018-1309>.
- Marqués, P. (1999). *Los vídeos educativos: tipología, funciones y orientaciones para su uso*. Recuperado de <https://goo.gl/JaF9n5>
- Mohamed, F., Amine, C. & Schroeder, U. (2014). The State of Video-Based Learning: A Review and Future Perspectives. *International Journal on Advances in Life Sciences*, 6(3-4), 122-135. Recuperado de <https://goo.gl/SWRP1m>
- Osuna-Acedo, S., Marta-Lazo, C. & Frau-Meigs, D. (2018). From sMOOC to tMOOC, learning towards professional transference. ECO European Project. [De sMOOC a tMOOC, el aprendizaje hacia la transferencia profesional: El proyecto europeo ECO]. *Comunicar*, 55, 105-114. <https://doi.org/10.3916/C55-2018-10>
- Raposo, M., Martínez, E., & Sarmiento, J. (2015). Un estudio sobre los componentes pedagógicos de los cursos online masivos. *Comunicar*, 44, 27-35. <https://doi.org/10.3916/C44-2015-03>
- Ramírez, T. (2004). *Cómo hacer un Proyecto de Investigación*. Venezuela: Panapo.
- Siemens, G. (2005). Connectivism: A learning theory for the digital age. *International Journal of Instructional Technology and Distance Learning*, 2(1), 3-10. Recuperado de <https://bit.ly/1YMDmrf>
- Tabuenca, B., Kalz, M., & Löhr, A. (2017). MoocCast: Evaluating Mobile Screencast for Online Courses. Universal Access in the Information Society. ISSN 1615-5297. <https://doi.org/10.1007/s10209-017-0528-x>.
- Torres, A. (6 de febrero de 2017). *Los últimos minutos de la clase magistral*. [Mensaje en un blog]. Recuperado de <https://bit.ly/2jSrhXS>
- Van Der Sluis, F., Ginn, J., & Van Der Zee, T. (Abril de 2016). Explaining student behavior at scale: the influence of video complexity on student dwelling time. En *Proceedings of the 3d 2016 ACM Conference on Learning at Scale*. Edinburgo, Reino Unido.
- Veletsianos, G., & Shepherdson, P. (2015). Who studies MOOCs? Interdisciplinarity in MOOC research and its changes over time. *The International Review of Research in Open and Distributed Learning*, 16(3). <http://dx.doi.org/10.19173/irrodl.v16i3.2202>
- Zapata-Ros, M. (2015). Calidad en enseñanza abierta online universitaria: del aula virtual al MOOC. *Campus Virtuales*, 4(2), 86-107. Recuperado de <https://bit.ly/2tnX0Co>





Gay teenagers in the digital age: orientations for educators

Adolescentes gays en la era digital: orientaciones para la educación

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Received: 2018-07-23 / **Reviewed:** 2018-09-25 / **Accepted:** 2018-11-07 / **Published:** 2019-01-01

Abstract

Internet offers multiple opportunities to access quickly and easily to information and interactions with other people. This article presents the results of a research on the processes of self-identification and socialization as gay of a group of twelve teenagers between 14 and 19 y. o. in this digital age. Here their experiences and practices are analysed based on their testimonies in which we find the need for connection with their peers, and at the same time, the fear of homophobic bullying. In coherence, Internet is perceived as a place of hope and also of uncertainty, hence it is used with caution and anonymity. Moreover, there are evidences on how these Internet practices are more common during a period of confusion about the consequences of their homosexuality, and also on how their decline once the teenagers' socializations as gay in real life are more widespread. The methodology of this research is based on the analysis of the content of the individual in-depth interviews of a sample elaborated during two years, while taking into account the contributions of the narrative research and its interest on storytelling and the anecdote as approximations to lived experience. The article ends proposing educational implications based on the results of the study, and putting them in relation with other authors' materials and reflections.

Keywords: Adolescence, identity, homosexuality, interviews, Internet, content analysis.

Resumen

Internet ofrece múltiples oportunidades de acceso a información e interacciones con distintas personas de manera rápida y fácil. Este artículo presenta los resultados de una investigación sobre los procesos de auto-identificación y socialización como gays de doce jóvenes entre los 14 y los 19 años en dicha era digital. En él se analizan experiencias y prácticas a partir de sus testimonios en los que aparece la necesidad de conexión con sus iguales, y al mismo tiempo, el miedo subyacente a la homofobia. En coherencia, Internet es percibido como un lugar de esperanza y también de incertidumbre, y por lo tanto, es utilizado con cautela desde el anonimato. También se evidencia cómo este tipo de prácticas en Internet son más comunes durante un periodo de confusión sobre las consecuencias de su homosexualidad, y es así que decaen una vez su socialización como gays en la vida real está más extendida. La metodología de esta investigación se basa en el análisis del contenido de entrevistas individuales y en profundidad de la muestra elaborada durante dos años, al mismo tiempo que bebe de las aportaciones de la investigación narrativa por su interés por el relato y la anécdota como aproximaciones a la experiencia vivida. Finaliza proponiendo una serie de

orientaciones educativas basadas en los resultados del estudio a la vez que las pone en relación con diferentes materiales y reflexiones de otros autores.

Descriptores: Adolescencia, identidad, homosexuales, entrevista, internet, análisis de contenido.

1. Introduction

The Spanish researches whose object of study are the experiences of adolescents who identify themselves as lesbian, gay, transsexual and bisexual (LGTB) are as recent as they are scarce (Generelo, Pichardo & Galofré, 2008, Coll-Planas, Bustamante & Missé, 2009) in comparison, for example, with the USA and Australia that have more than 30 years of tradition (Savin-Williams, 2009; Robinson *et al.*, 2014). This situation contrasts with two phenomena: (i) the considerable visibility of the figure of the gay teenager in the media since the late 1990s, especially in the television series (Al salir de clase, Física or Química and Aída, as Spanish productions, or Glee, Misfits, Shameless, North American, but also issued in Spanish). And (ii), with the interest in education in affective-sexual diversity and gender (DASyG) developed since the early 2000s in the same country, coinciding with the approval of the Organic Law of Education of 2006, the first in the history of Spain in naming this type of diversity (Royal Decree 1631/2006). This interest has materialized in the publication of numerous guides and educational materials (Generelo & Moreno Cabrera, 2007, Platero & Gómez, 2007), as well as monographs in specialized journals (Ferriols, 2011, Huerta, 2014). Given this contrast, this article comes to share part of the results of a research funded by the Ministry of Science and Innovation. Its first objective is to offer the analysis of a series of practices and experiences in the field of Internet, described by twelve adolescents between 14 and 19 years of age around their self-identification and socialization as gays. At the same time, the second objective is to point out a series of educational orientations that are born from these results.

Regarding the theoretical issues that frame this article, it is necessary to develop several key concepts and their relationships among themselves. Following the work of Foucault (2008)

and D'Emilio (1994), homosexuality and its gay correlate can be understood as historical phenomena resulting from the development of what is known as the welfare society. According to Weeks (2003), gay identity is a necessary fiction, a product of the need to find comfort and community; while Butler (2010) links it with the need to become intelligible subjects in societies that grant great power to questions of gender, sex and sexuality. These issues would be regulated by the fear of embodying the abject, that is, to be the object of inter/trans/homophobic abuse (Coll-Planas, 2010). Hence the importance of gender roles, not only between men and women, also in endo-group relationships, in this case among homosexuals themselves.

From this perspective, gay identity is understood as a cultural identity (Hall, 2005), and therefore, in constant negotiation and learning process. Already the work of Troiden (1989) provides evidence on how, prior to self-identification and gay socialization, every person must know the existence of this identity and its main characteristics, in order to evaluate whether it shares or resembles more than differs. In turn, said person must know that there are others who, previous and/or contemporaneously, embody this gay identity. In this sense, Troiden presents an identity learning process through different stages and concepts of which we highlight: (i) the phases of confusion and acceptance, since they represent the turning point of this process; and (ii), the concept of "disembodied affiliation", the affiliation to homosexuality without having met someone openly gay in person, in this case due to the environment that occupies us, Internet.

According to several studies, young people learn what it means to be gay in areas such as school (Epstein & Johnson, 2000, Renold, 2005), in the media (Riggle, Ellis & Crawford, 1996, Bond-Raacke *et al.*, 2007, Gomillion & Giuliano, 2011),



and more recently on the Internet (Laukkanen, 2007, Alexander & Losh, 2010, de Abreu, 2017). In the article by Szulc & Dhoest (2013), the idea already presented by Hillier *et al.* (1998) on how the internet is a place of learning/rehearsal for lesbians, gays and bisexuals (LGB). It is also concluded that the use of the Internet in relation to sexual identity is significantly greater before and around the first socializations or coming out of the closet. Specifically, the visits to web p.s considered LGB as well as the searches for contact with other LGB people increase, at the same time as the consumption of pornography begins. All this generally from the anonymity and with the objective of breaking what Kielwasser & Wolf (1992) denominate like the “pluralistic ignorance”, the ignorance of which exist other people with their same sexual attraction.

Reviewing these studies, in the background of all of them appears what Barnhurst names as “the queer paradox of technology”, that is, the coexistence of hope and danger that the Internet generates among gay teenagers (2007, p.13). In the case of the works carried out by Laukkanen (2007) and Alexander & Losh (2010), both conclude that the Internet is far from offering a “sexual/gender liberation”, since the uses of the web are mediated by three main issues:

- The characteristics of the web spaces themselves, for example, if it is a social network aimed specifically at gays or not.
- The “readings” that people online make of representations/communications of the rest. That is, the factor of the audiences, the possible audiences and their management (Boyd, 2014).
- And finally, what Lipton (2008) calls “queer reading practices”, readings between lines made in a homosexual key.

2. Methodology

This article is part of a qualitative research that tries to account for a phenomenon and, at the

same time, interpret it from the meaning that its protagonists give it (Denzin & Lincoln, 2000). To do this, twelve semi-structured and individual interviews were conducted following a thematic script of open questions (Heath *et al.*, 2009) to boys between 14 and 19 who self-identified as gay. Several researches on this type of adolescents have reflected and demonstrated the importance of selection, organization and communication with the participants and, especially, the difficulties of accessing them (Savin-Williams, 2009, Generelo, Pichardo & Galofré, 2008 Kielwasser & Wolf, 1992).

Consequently, the present investigation also took care of such aspects, so much so that the configuration of its sample involved the work of two years in physical spaces (municipal youth centers, associative spaces and high school institutes) and virtual ones, creating a blog and an account in the social network Tuenti. During the 2011-2012 academic year, this profile reached more than 300 friendships, and, through it, some 30 young people received the invitation to participate in the research, although only one of them accepted it. It was through that first collaborator that a butterfly effect was initiated, and the rest would follow. Thus, the sample of the research was laboriously formed due to its minority characteristics, and finally consists of twelve adolescents with different trajectories: different types of educational centers (public, private and private, both Catholic and non-Catholic), and different places and types of family (a young man from Central America, another from Eastern Europe, another from a large family and two from single-parent families), thus giving a concentrated representation.

During the year 2013 the interviews were carried out with an average duration of one and a half hours each. Following the reflections of Martino & Pallotta-Chiarolli (2003) on the importance of localization, participants were asked to choose a place to their liking and a time of day, considering the estimated duration. They were also informed of the need for the site not to



be very noisy, since the conversation was going to be recorded, assuring them that nobody but the person responsible for the investigation would have access to the audios. In general, the young people did not suggest any place and they were invited to take advantage of one of the meeting rooms of the university, and most accepted. At the beginning of each meeting they were asked if they wanted to know more about the research, they were reminded of the confidentiality and the possibility of using pseudonyms while maintaining the data of age, country of origin and city of residence.

It is necessary to remember that interviewing is a method with a long tradition in research on personal experiences and processes of meaning (Anderson & Jack, 1991, Kvale, 2007). As Kvale points out, interviews are events in which the person interviewed, and the researcher collaborate in mutual understanding, and therefore part of the willingness to listen, understand and share. In this line it is also necessary to indicate that the present investigation drinks in equal parts of: (i) the narrative research (Clandinin & Connelly, 2000), to value the anecdote and the story as elements that bring us closer to the experiences (Van Manen, 2003), and (ii) the thematic analysis, for its organizational quality for the study of content (Braun & Clarke, 2006; Ryan & Bernard, 2000).

Thus, after the detailed transcription of the interviews and the validation by each collaborator, the work continued by screening all the material in search of extracts that could be grouped under different epigraphs. These groups were outlined during an intense process guided by the research questions and informed by their theoretical framework. As explained by Wetherell & Potter (1996), the first step was to select a manageable subgroup of data among the hundreds of p.s, followed by repeated re-searches in search of increasingly specific recurring patterns and organizations.

It is very important to finish this section emphasizing that the goal of this research is to

learn from the experiences of the young people interviewed with respect and honesty. Like Coll-Planas, Bustamante & Missé (2009), this article understands and attends to the discomforts of its collaborators, but it does not fall into possible victimizations. Similarly, following Heath *et al.* (2009), here we give an account of their resilience and successes, but we do not intend to overstate them as imposing heroes.

3. Results

In a first approach to the interviews it is evident that most of the collaborators turned to the Internet in search of contents and interactions related to homosexuality and, as it develops next, those experiences played a relevant role in their self-identification processes and socialization as gays. At the same time, such experiences were marked by what is known as “the queer paradox of technology” (Barnhurst, 2007), that is, by the hopeful/liberating and limited/dangerous Internet and were especially in the phases indicated above: between the confusion about their sexual orientation and the acceptance of it.

3.1. On the hopeful experiences: “Anonymous Cyber Gay Affiliations” in the virtual security space

Most of the adolescents interviewed said that they had searched the Internet for testimonies of other boys, data in the form of images and texts that informed them of the existence of gay teenagers, both in their locality and in other places. Their main objective was to break with the feelings of loneliness and isolation caused by a “pluralistic ignorance” (Kielwasser & Wolf, 1992), that is, by the ignorance of equals in offline life. The majority did it from anonymous profiles in social networks, chats and forums, so we are facing what in this research is called as “Anonymous Cyber Gay Affiliations”, following the work of Troiden (1989):



I was talking to a boy for a long time. It was one of my supports to come out of the closet. I met him in a forum [where] people told their stories, there were themes of games, themes of books, movies, a lot of things ... [But I] mostly [watched] the stories of coming out, which was what worried me the most at that moment ... (Mario, 18 years old).

I made a fake Tuenti and a Messenger where I had people I did not know, other gay guys that I supposed ... Well, it was to have them without more. I like to see their photos, just for that, not to talk. I like to gossip, to find out. [...] It was not for hooking up, I have not gone out with people or anything, it was to find out and see if there were people here or not. (Alain, 16 years old)

Well, at the beginning of last summer, the end of 2nd [of ESO] I started looking for information. I searched "gay teen blogs", or "gay teen" ... [...]. I wanted to know about people. I know I'm not the only one but I'm a little lonely (Marco, 14 years old).

In these processes of indirect affiliations, a good number of adolescents showed signs of evaluating the data they obtained from their possible peers, especially from their photographs. As they indicated, they wanted to verify the veracity of the profiles, if they really belonged other gay guys, and their location:

[In the fake profile of a guy who knew he was gay] I could see his friendships with other profiles and he had a lot of guys and I assumed they were homosexuals who had known them. So, it was that I began to see that there were more people here, that it was not me alone (Nicolás, 18 years old).

I also did not visit [the forum/chat] much [...]. I read that they upload and looked at their photos to see if they were real, because that must be taken into account (Eneko, 17 years old).

At the same time, the Internet was not only a source of information, but a place for pre-

vious, and/or parallel, practices to an offline gay socialization (Hillier *et al.*, 1998), which shows that there is no single coming out the closet, various "degrees of outness" (Harry, 1993). In fact, several adolescents described the Internet as a security space, which in some cases was accentuated by contrasting with the danger or uncertainty they felt in their schools and families:

In this forum I saw as you entered, and you met with friends and that's it. You could say anything that nobody was going to you ... In everything I read I think I never felt disrespected, it seemed that it was quite controlled by the moderators (Mario, 18 years old).

At the beginning I was super addict [and] I was quite hooked [to Tuenti]. I talked in chat [with a lot of people] and I told them my story and they told me not to worry, that it was normal [to be gay]. That's how I told my story to unknown people, but I did not dare tell the people I knew. [...] Not knowing them gave me confidence, I do not know. Since they were far away, if they did not accept me, I just had to delete them (Jesus, 17 years old).

Therefore, if these uses of the Internet were related to the need to meet peers and socialize as gay anonymously in security spaces, it makes sense that many will stop doing this type of practice as they develop their lives outside the closet, in the offline world, as also observed by Szulc and Dhoest (2014):

You meet nice people; how could you not connect if you did not have anything else to do? And so ... Now I do not connect so much, to be honest ... (Mario, 18 years old).

Now I do not give much importance [to Tuenti]. Now in Zaragoza all my group of friends, I trust a lot in them, because we do have a lot of confidence already. (Jesus, 17 years old)



Before finishing this sub-section, it is important to return promptly to the so-called “pluralistic ignorance” (Kielwasser & Wolf, 1992), as the search and interactions engine on the Internet. Reading carefully the testimonies of the collaborators we found that this ignorance of possible equals in the offline life was not totally true. And the fact is that, in the same way that they claimed to want to meet other gay young people, they also confessed their refusal to approach and interact with those kids who said, or were said to be gay in their schools:

They told about a boy I do not know what course, but I was very afraid to talk about it, it made me very nervous and took the option to keep quiet so as not to screw up [and] they discover me (Jesus, 17 years old).

Now I only know one, and I do not know him, but he [...] is the friend of my best friend and one day in the hall this guy told a teacher “Hey Ines, I’m gay”. [And] I do not know [if I want to talk to him] he seems nice, but I do not know ... I do not know him at all (Alain, 16 years old).

Given this contradiction can be interpreted that the fundamental reason why the collaborators did not develop direct affiliations and used the Internet and anonymity to interact with their peers, was the fear of inter/trans/homophobic insult/stigma. In other words, it was not only the ignorance of the existence of equals, but the fear of the consequences that in the offline world they were associated with children with potential to be insulted/stigmatized and, therefore, be themselves.

3.2. On the limits and dangers: The fear of the forced coming out of the closet and endo-group mistrust on the Internet

As it develops next, the main dangers that emerged and regulated the practices in Internet of the adolescents interviewed were the fears about:

- The possibility that different social circles, on and offline, were accidentally found (Boyd, 2014), and such a collapse would take them out of the closet without their control.
- The possibility that between the invisible audiences with which they interacted on the Internet, they found the figure of the perverted homosexual, the one who still relates homosexuality to pathology (Foucault, 2008).

In the first place, most of the adolescents informed us of practices on the Internet whose main objective was to keep their activities related to homosexuality a secret, especially when they were younger and hiding their homosexuality:

I have two [Tuenti profiles, one real and one false] and I use them depending on the case (Óscar, 18 years old).

There is a channel dedicated to this topic [of homosexuality on YouTube]. [...] I do not [share it because] on Tuenti I have too many people from the institute; I put it on GooglePlus and on Twitter (Gael, 15 years old).

Such practices and experiences on the Internet were part of the learning to manage their own self-identification and socialization as gays. According to their testimonies, many knew that their online lives could inform those who observed them, and/or those who interacted with them, of their orientation. That is, they had developed the awareness that their searches and uses on the Internet were extensions of their self-identification as gays, and therefore they needed strategic management due to their potential for abuse/stigma (Orne, 2011). Moreover, despite the care given, some told anecdotes in which information or practices on the Internet regarding homosexuality were detected by their relatives, which led them out of the closet indirectly and involuntarily:



My father once told me that I had forgotten to erase the Internet history. [...] I thought I was not looking at it and it caught me by surprise, in fact I did not know you could look at the history. And well, he made some comment like “we have to talk” and they always sounded like very fatal (Nicolás, 18 years old).

I erase the history ... Well now, in my father’s house yes and, in fact, I left my mail, one day, open and my father discovered the messages of [the LGTB association]. Well I did not say anything, I closed my mail and the thing stayed there (Marco, 14 years old).

Secondly, for many of the interviewees, taking care of themselves on the Internet was not only about hiding information from family and friends, but also about the complex endo-group relationships among gays, mainly due to the historical and pathological link of homosexuality with the theories of degeneration (Foucault, 2008):

I never got to talk to anyone [in the chat], I do not like it because they talked almost only perv-stuff (Eneko, 17 years old).

I got into Google and searched for “Gay Chat” and that’s it. I tried several and until I found one that was great for me [and] I was talking to people who helped me and supported me. Well, with one boy only, because the others wanted to fuck (Iñigo, 16 años).

It seems too risky. If you are not sure that the profiles are real or that they want to fool you ... If you have confidence, I do not know, but I do not trust much (Marco, 14 years).

This section closes underlining that the Internet has stood out as the setting and fundamental means of self-identification and socialization as gays of the interviewees by offering them a virtual space of learning about themselves and the world. Although far from being a real security space, the internet enabled them valuable affiliations and anonymous practices

in which they learned to manage their own gay identity and their fear of potential for abuse.

4. Discussion and conclusion: Orientations for education

Taking into account the results of the research, the question to be discussed from the educational field could be formulated as follows: “Yes the ignorance of their peers, and the fear of being treated in an abusive way, led the adolescents interviewed to perform certain practices on the Internet during their self-identification and early socializations as gays, how could the teachers help so that such processes were developed without such ignorance and fear?”

In the first place, before getting into answer, it is worth highlighting how:

In less than fifteen years we have gone from the total absence of specific materials [on affective-sexual and gender diversity (DASyG)] to counting, not only with materials aimed at students of all educational levels, but with texts for the teacher training and families (Platero, 2013, p 185).

Certainly, never before in the history of Spanish education has there been so much interest in this type of diversity and, therefore, never before has the teaching staff had such materials at hand that would facilitate both terminology and teaching experiences. At present we have numerous guides (Generelo & Moreno Cabrera, 2007, Platero & Gómez, 2007, STEILAS, 2015, Xente Gai Astur, 2002), compilations (Generelo & Pichardo, 2006, Simonis, 2005, Sánchez Sáinz, 2009, 2010) and monographic publications (Ferriols, 2011; Huerta, 2014) that offer ample resources to publicize the DASyG, mainly trusting that its recognition and history entails its social respect and dignity.

It should be noted favorably how this type of work opts for accessibility, clarity and synthesis, but at the same time we must insist that, in general terms, obviate questions about the



perspective and the epistemological positioning, that is, about the characteristics of the knowledge that they spread. Hence, alternative voices have emerged from critical perspectives that promote sophisticated forms of analysis on the concepts of sex, gender and education (Britzman, 2002, Berná, Cascone & Platero, 2012, Planellas & Pié, 2012); in this case, trusting that such analyzes entail a deconstruction of the old patterns.

Second, based on the results of this research, it should be noted that the need for affiliation with their peers and the fear of being treated in an abusive manner, present a different dimension to: (i) the knowledge of the DASyG through classifications about sexuality, sex and gender; (ii) the study of historical and relevant LGBT characters; and (iii) critical analysis of these issues. Therefore, perhaps in a complementary way to the previous proposals, here we venture to present three aspects that can indirectly accompany the identification processes of adolescents, specifically gays, but not exclusively:

Favoring the construction of an analog social network

We invite teachers to promote interaction among all students within the same educational centers, creating spaces of security and linking the educational and recreational. This issue can be developed through projects that collaborate and coexist with students of different ages, and even from different centers in the same neighborhood or municipality. The objective is to promote an analogue social network in which the students can get to know each other and create networks of learning, friendship and mutual help that do not give rise to the feeling of isolation, ignorance and mistrust among equals of any diversity. For example, this type of experience has been widely developed in the “learning communities” (Elboj *et al.*, 2005) due to its commitment to social transformation and dialogical learning beyond the classrooms and walls of schools.

Promoting “living experiences” to be individually and collectively

Returning to the testimonies of the interviewees, we find recurrent thoughts of a negative nature that, together with the attempts to manage and control their practices on the Internet (so as not to be discovered but in turn discover their peers), lead us to consider opportune and sensitive to encourage teachers to favor experiences in which the development of intellectual skills, such as analysis and the projection of concepts, move to the background. Remember the words of Stoll, Fink & Earl (2004) inviting us to expand the Cartesian paradigm, “I think, therefore I am”, towards “learning to know, to do, to live together and to be”. Similar to Planellas & Pié (2012), although without the concern to subvert, we also propose to encourage “living experiences” to be individual and as a group. As Greene writes:

In every defensible social vision, happiness is as important as clarity and consensus, or, as others have said, love is as important as logic. [...] Obviously, I am not saying that it is enough simply to dance and laugh. What I do say is that I think it is important to let the energy that allows a family contact with everything and everyone [...] [and thus] lay the foundations for coexistence within the community (Greene, 2005, pp. 102-103).

Using the arts in favor of the emancipation of all students

There are several experiences that have linked artistic practices with the development of resilience among LGBT youth, (Boyd Acuff, 2011, Shelton, 2008), but the fact that they were carried out only with this youth group limits the scope of what is promoted here While projects such as Respira (Varanda, 2012) and Five Days to Dance (Andreu & Moles, 2014), which did take place in formal education, and therefore with heterogeneous groups, they connect better with Greene’s previous appointment. This is illustrated by the



testimony of one of the teachers participating in Five Days to Dance:

I was very excited to see two students who are really water and oil. They are in the same classroom (sic) and do not interact at all, and see them having to team up, holding hands to hold another partner who was falling back, I found it beautiful. [In fact] I trust that [after] this project, then, for once they relax, let go and enjoy a little because there is a lot of tension [in the classroom]. [...] I think it's an opportunity, not only for those who have suffered the laughter of classmates, but even for those who have not behaved well. [...] It will be equally difficult for all [to leave] those roles they have taken, and that they express themselves, and share, and see that we are equal, different but equal. [...] I hope that this project is a start, a start to work other things that are not only with the mind (Andreu & Moles, 2014).

End this article with the same hope. As professionals of education we can work in a holistic way, helping to round up the edges, to dilute the fears and mistrust that are limiting many young people, not only gays, leading them to search the Internet for what they do not know, and do not dare to know in their lives offline beyond the digital.

Supports

Research subsidized by the Ministry of Science and Innovation in relation to the project "Young producers of visual culture: artistic skills and knowledge in secondary education", with reference EDU2009-13712, awarded in 2010.

Bibliographic references

- Alexander, J., & Losh, E. (2010). "A youtube of one's own?" "Coming out" Videos as rhetorical action. En C. Pullen y M. Cooper (Eds.), *LGBT Identity and On-line New Media* (23-36). New York/London: Routledge. Recuperado de <https://bit.ly/2LiC0ZD>
- Anderson, K., & Jack, D.C. (1991.) Learning to listen: Interview techniques and analyses. En S.B. Gluck y D. Patai (Eds.), *Women's Words: The Feminist Practice of Oral History* (11-25). New York: Routledge.
- Andreu, J., & Moles, R. (Dirs/Prods.) (2014). *Five Days to Dance*. España/Alemania: SUICAFilm & REC grabateka estudioa.
- Barnhurst, K. G. (2007). Visibility as paradox: Representation and simultaneous contrast. En K. G. Barnhurst (Ed.), *Media/Queered. Visibility and its Discontents* (1-22). New York: Peter Lang.
- Berná, D., Cascone, M., & Platero, R. (L.) (2012). ¿Qué puede aportar una mirada queer a la educación? Un estado de la cuestión sobre los estudios sobre la LGTBfobia y educación en el Estado español. *The Scientific Journal of Humanistic Studies*, 6(4). Recuperado de <https://bit.ly/2mzMBKm>
- Bond-Raacke, J., Cady, E., Schlegel, R., Harris, R., & Firebaugh, L. (2007). Remembering gay/lesbian media characters: Can Ellen and Will improve attitudes toward homosexuals? *Journal of Homosexuality*, 53(3), 19-34.
- Boyd, D. (2014). *It's complicated. The social lives of networked teens*. New Haven/ London: Yale University Press.
- Boyd Acuff, J. (2011). Looking through the kaleidoscope: prisms of self and LGTBQ youth identity. *Visual Culture & Gender*, 6. Recuperado de <https://bit.ly/2LC2e8u>
- Butler, J. (2010)[1997]. *Mecanismos Psíquicos del Poder. Teorías sobre la sujeción*. Madrid: Cátedra.
- Braun, V., & Clarke, V. (2006). Using Thematic Analysis in Psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Britzman, D. (2002) [1998]. La pedagogía transgresora y sus extrañas técnicas. En R. Mérida Jiménez, (Ed.) (2002), *Sexualidades transgresoras. Una antología de estudios queer* (197-229). Barcelona: Icaria.
- Clandinin, D. J., & Connelly, F. M. (2000). Composing research texts. En D. J. Clandinin y F. M. Connelly (Eds.), *Narrative Inquiry. Experience and Story in Qualitative Research* (139-168). San Francisco: Jossey-Bass Publishers.



- Coll-Planas, G. (2010). *La voluntad y el deseo. La construcción social del género y la sexualidad: el caso de lesbianas, gays y trans*. Barcelona/Madrid: Editorial Egales.
- Coll-Planas, G., Bustamante, G., & Missé, M. (2009). *Transitant per les fronteres del gènere. Estratègies, trajectories i aportacions de joves trans, lesbianes i gais*. Barcelona: Generalitat de Catalunya, Departament d'Acció Social i Ciudania. Secretaria de Joventut. Recuperado de <https://bit.ly/2O9MmbK>
- De Abreu, C. (2017). *Géneros y sexualidades no heteronormativas en las redes sociales: Sexualidades desobedientes en internet*. Publicia.
- D'Emilio, J. (1994) [1983]. 'Capitalism and Gay Identity'. En H. Abelove *et al.* (Eds.), *The Lesbian and Gay Studies Reader* (22-26). USA: Routledge.
- Elboj, C., Puigdemívol, I., Soler, M., & Valls, R. (2002). *Comunidades de Aprendizaje. Transformar la educación*. Barcelona: Graó.
- Denzin, N. K., & Lincoln, Y. S. (Eds.) (1999). *Handbook of qualitative research*. London: Sage.
- Epstein, D., & Johnson, R. (2000)[1998]. *Sexualidades e institución escolar*. Madrid/A Coruña: Ediciones Morata/Fundación Paideia Galiza.
- Ferriols, M. J. (Ed.) (2011). La diversidad afectivo-sexual [Monográfico]. *Cuadernos de pedagogía*, 414.
- Foucault, M. (2008)[1976]. *Historia de la sexualidad I. La voluntad de saber*. Madrid: Siglo: XXI.
- Generelo, J., & Moreno Cabrera, O. (2007). *Diferentes formas de amar. Guía para educar en la diversidad afectivo-sexual*. Madrid: Federación Regional de Enseñanza de Madrid de CCOO.
- Generelo, J., & Pichardo, J. I. (Coord.) (2006). *Homofobia en el sistema educativo*. Madrid: COGAM.
- Generelo, J., Pichardo, J. I., & Galofré, G. (Eds.) (2008). *Adolescencia y sexualidades minoritarias. Voces desde la exclusión*. Alcalá la Real: Ed. Alcalá.
- Gomillion, S., & Giuliano, T. (2011). The influence of media role models on gay, lesbian, and bisexual identity. *Journal of Homosexuality*, 58(3), 330-354. DOI: 10.1080/00918369.2011.546729. Recuperado de <https://bit.ly/2NFAMEu>
- Greene, M. (2005). *Liberar la imaginación. Ensayos sobre educación, arte y cambio social*. Barcelona: Editorial Graó.
- Hall, S. (2005)[1996]. 'Who needs 'identity'?'. En S. Hall y P. Du Gay (Eds.), *Questions of Cultural Identity* (1-17). UK: Sage Publications Inc.
- Harry, J. (1993). Being out: A general model. *Journal of Homosexuality*, 26(1), 25-37.
- Heath, S., Brooks, R., Cleaver, E., & Ireland, E. (2009). *Researching young people's lives*. GB: SAGE Publications Ltd.
- Hillier, L., Dempsey, D., Harrison, L., Beale, L., Matthews, L., & Rosenthal, D. (1998). *Writing themselves in: A national report on the sexuality, health and well-being of same-sex attracted young people*. Carlton: National Centre in HIV Social Research, La Trobe University. Recuperado de <https://bit.ly/2uJwsNg>
- Huerta, R. (Ed.) (2014). Arte y diversidad sexual [Tema del mes]. *Cuadernos de pedagogía*, 449.
- Kielwasser, A. P., & Wolf, M. A. (1992). Mainstream television, adolescent homosexuality and significant silence. *Critical Studies of Mass Communication*, 9, 350-373.
- Kvale, S. (2007). *Doing Interviews*. London: SAGE Publications.
- Laukkanen, M. (2007). 'Young Queer Online: the limits and possibilities of Non-heterosexual self-representation in Online Conversation'. En K. O'riordan y D. J. Phillips (Ed.), *Queer online: Media Technology & Sexuality* (81-99). New York: Peter Lang.
- Lipton, M. (2008). 'Queer readings of popular culture. Searching [to] out the subtext'. En S. Driver (Ed.), *Queer Youth Cultures* (116-180). New York: State University of New York.
- Martino, W., & Pallota-Chiarolli, M. (2003). *So what's a boy? Addressing issues of masculinity in education*. Maidenhead: Open University Press.
- Orne, J. (2011). 'You will always have to "out" yourself: Reconsidering coming out through strategic outness. *Sexualities*, 14, 681-703. <http://doi.org/10.1177/1363460711420462> Recuperado de <https://bit.ly/2mzMWDC>
- Planella, J., & Pié, A. (2012). Pedagoqueer: resistencias y subversiones educativas. *Educación XXI*, 15(1), 265-283.
- Platero, R. (L.), & Gómez, E. (2007). *Herramientas para combatir el bullying homofóbico*. Madrid: Talasa



- Platero, R. (L.) (2013). Entre el tabú y los estudios pioneros: Educación, LGTB fobia y bullying homofóbico. En M. Jiménez y F. J. Del Pozo (Eds.), *Propuestas didácticas de educación para la igualdad* (185-205). Granada: Nativola.
- Real Decreto 1631/2006, de 29 de diciembre. Viernes 5 de enero del 2007, Boletín Oficial del Estado (BOE), nº 5. Madrid: España.
- Renold, E. (2005). *Girls, Boys and Junior sexualities: Exploring Childrens' Gender and Sexual Relations in the Primary School*. London: Routledge Palmer.
- Riggle, E., Ellis, A., & Crawford, A. (1996). The impact of "media contact" on attitudes toward gay men. *Journal of Homosexuality*, 31(3), 55-69.
- Robinson, K. H., Basel, P., Denson, N., Ovenden, G., & Davies, C. (Eds.) (2014). *Growing up queer: Issues facing young Australians who are gender variant and sexuality*. Melbourne: Young and Well Cooperative Research Centre.
- Ryan, G. W., & Bernard, H. R. (2000). Data management and analysis methods. En N. K. Denzin y Y. S. Lincoln, (Eds.), *Handbook of Qualitative Research* (769-802). London: Sage Publications.
- Sánchez Sáinz, M. (Coord.) (2009). *Cómo educar en la diversidad afectivo-sexual en los centros escolares. Orientaciones prácticas para la ESO*. Madrid: La Catarata.
- Sánchez Sáinz, M. (Coord.) (2010). *Cómo educar en la diversidad afectiva, sexual y personal en Educación Infantil. Orientaciones practicas*. Madrid: La Catarata.
- Savin-Williams, R. (2009)[2005]. *La nueva adolescencia homosexual*. Madrid/Coruña: Ediciones Morata, S. L. y Fundación Paideia Galiza.
- Shelton, J. (2008). Redefining realities through self-representational performance. En S. Driver (Ed.), *Queer Youth Cultures* (69-86). New York: State University of New York.
- Simonis, A. (Comp.) (2005). *Educar en la diversidad*. Barcelona: Editorial Laertes.
- STEILAS (2015). *Guía para trabajar la diversidad afectivo-sexual y de género*. Recuperado de <https://bit.ly/2LL4S8L>
- Stoll, L., Fink, D., & Earl, L. (2004). *Sobre el aprender y el tiempo que requiere, implicaciones para la escuela*. Barcelona: Octaedro.
- Szulc, L., & Dhoest, A. (2013). 'The Internet and sexual identity formation: Comparing Internet use before and after coming out'. *Communications*, 38(4), 347-365.
- Troiden, R. (1989). The formation of homosexual identities. *Journal of Homosexuality*, 17(1-2), 43-74.
- Van Manen, M. (2003). *Investigación educativa y experiencia vivida*. Barcelona: Idea Books.
- Varanda, P. (2012). *Dançar é crescer. Aldara Bizarro e o projecto Respira*. Portugal: Caleidoscópio Recuperado de <https://bit.ly/2LGiWAl>
- Weeks, J. (2003). 'Necessary Fictions: Sexual Identities and the Politics of Diversity'. En J. Weeks et al. (Eds.), *Sexualities and Society: A Reader* (112-132). USA: Polity Press & Blackwell Publishing Ltd.
- Wetherell, M., & Potter, J. (1996). El análisis del discurso y la identificación de los repertorios interpretativos. En A. J. Gordo López y J. L. Linaza (Eds.), *Psicologías, discursos y poder*. Madrid: Visor.
- Xente Gai Astur (2002). *Guía didáctica: El respeto a la diferencia por orientación sexual. Homosexualidad y lesbianismo en el aula*. Recuperado de <https://goo.gl/nfKGd8>



Miscellaneous Section (*Sección Miscelánea*)



Network learning, digital illustration, 17 cm x 12 cm



Training needs of teachers of Tsáchila Intercultural Education

Necesidades formativas de docentes de Educación Intercultural Tsáchila

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Received: 2017-05-05 / **Reviewed:** 2018-04-02 / **Accepted:** 2018-05-07 / **Published:** 2019-01-01

Abstract

The current study helps to analyze the training needs and training processes in which the teachers who work in the Bilingual Intercultural Education schools are immersed: Madre Laura, Tsáchila, Tomás Rivadeneira, Conadu, Abraham Calazacón, Enrique Terán, Patricio Romero Barberis. These institutions are located in communities of the Tsáchila ethnic group in Santo Domingo de los Tsáchilas Province, Ecuador. The methodological proposal of the study was based on a non-experimental design based on qualitative and quantitative research to determine the training short comings of bilingual intercultural teachers and how this affects the educational processes and the execution of the Education System Model Guidelines Intercultural Bilingual (MOSEIB). The sample consisted of 19 Tsáchilas teachers and 10 mestizo teachers. The data collection and techniques analysis were the survey and the statistical analysis. The results of the research show that teachers of bilingual intercultural institutions present training and training needs that are affecting the educational process and the correct application

of MOSEIB. In the discussion and conclusions, the importance of the teacher's initial and continuing education is explained and argued. In addition, emphasis is placed on the need to strengthen teaching competencies based on research and educational proposal adjusted to the needs of each educational context. From this, strengthen Intercultural Bilingual Education in Ecuador.

Keywords: Education, intercultural education, culture, teacher, training, vocational training.

Resumen

El presente estudio pretende analizar las necesidades formativas y los procesos de capacitación en los que están inmersos los docentes que laboran en las Unidades Educativas Interculturales Bilingües: Madre Laura, Tsáchila, Tomás Rivadeneira, Conadu, Abraham Calazacón, Enrique Terán, Patricio Romero Barberis. Estas instituciones se encuentran ubicadas en comunidades de la etnia Tsáchila en la provincia de Santo de los Tsáchilas, Ecuador. La propuesta metodológica del estudio se basó en un diseño no experimental apoyado en la investigación cualitativa y cuantitativa para determinar

las falencias formativas de los docentes interculturales bilingües y, cómo esto afecta en los procesos educativos y la ejecución de los lineamientos de Modelo del Sistema de Educación Intercultural Bilingüe (MOSEIB). La muestra estuvo formada por 19 docentes tsáchilas y 10 docentes mestizos. Las técnicas de recolección y análisis de datos fueron la encuesta y el análisis estadístico. Los resultados de la investigación muestran que los docentes de instituciones interculturales bilingües presentan necesidades formativas y de capacitación que están afectando el proceso educativo y la correcta

1. Introduction

Interculturality in a general way concerns itself the synergistic relationship between cultures, which may have common or different aspects to each other. The characteristic elements of each culture are reflected in the individuals that comprise it, but it does not mean that there is a difference between one culture and another, but it is intrinsically related to the social, cognitive, cultural, and historical features of each person. The human being is not distinguished or characterized only by genetic traits, this implies the importance of the cultural baggage that is transmitted from generation to generation, allowing the interrelation between human beings and, of course in a general way, intercultural dialogue.

The relationship between cultures and the dialogue that cultural interaction must assume is a transcendental element in education because, according to Rodríguez & Fernández (2017), schools not only educate an individual but also an entire community. This represents similar, but not the same, cultural traits that allow for socialization among agents of the school community. It also promotes the improvement of coexistence within educational centers and preponderate the improvement of education based on interculturality and social inclusion of the individuals of a community in each school environment.

Education based on interculturality develops social structures and enables the acquisition of cultural tools that allow interaction

aplicación del MOSEIB. En la discusión y conclusiones se explica y argumenta la importancia de la formación inicial y continua del docente, además se enfatiza la necesidad de fortalecer las competencias docentes con base a la investigación y propuestas educativas ajustadas a las necesidades de cada contexto educativo y, a partir de ello, fortalecer la Educación Intercultural Bilingüe en el Ecuador.

Descriptor: Educación, educación intercultural, cultura, docente, formación, formación profesional.

between individuals from one culture with another. Daniels (2016) considers that social and cultural structures are fundamental within the school context and with more emphasis on the education of each student in the classrooms. This statement makes it possible to clarify that interculturality within education is a mediator between the student, the teachers, the family and the community; which cannot be kept isolated, but must interrelate to continue social and cultural transmission, through education and coexistence within classrooms.

Based on the perspectives on interculturality and its importance in education, it can be emphasized that interculturality enhances the relationship between cultures within society, also favors the continuity and perpetuity of dialogue without any culture renouncing its original identity (López & Pérez, 2013). Cultural diversity is a main source of integral development of the human being and society, in every possible field and dimension. For this reason, intercultural education is a challenge for schools, high schools and universities.

The cultural exchange between students, teachers, administrators, parents and the educational community is part of education and training in educational institutions, because according to López & Pérez (2013) the pedagogical task of educational centers is to develop an educational proposal that guides the transmission of cultural elements and values that allow social cohesion and intercultural dialogue. It is necessary that



intercultural education proposes a two-way dialogue between the agents of the educational community in order to reach an optimum level of education and training for the students.

Schools must value intercultural education as an effective way for the development of competencies and personal improvement of each student (Tomé & Manzano, 2016), therefore, the training of intercultural teachers should highlight and build a committed praxis with dialogue, cultural diversity, inclusion, the search for values and the transmission of cultural elements from generation to generation (López & Pérez, 2013). Through intercultural education it is possible to enhance and deepen the cultural identity of each individual and community, without losing or forgetting fundamental features when bringing together each culture.

The intercultural teacher assumes a leading role as mediator, enabler and promoter of intercultural dialogue and the teaching of collective rights that allow the understanding and appreciation of each culture to which students belong in the classroom (Walsh & García, 2002). Intercultural education considers the development of knowledge, values and attitudes that teachers promote in classrooms are part of the development of social and cultural competences that each student should acquire as part of their education and training throughout life, both inside and outside the educational institution.

The fundamentals described on the importance of the teacher as a enabler of intercultural education are part of the social process that communities experience when they gather their own and others' elements from each culture. According to Walsh & García (2002), the intercultural teacher must promote forms of social and cultural interaction based on values and respect among human beings, considering that each culture provides an extensive baggage of features that are unified to the social conglomerate and generate a mega culture that welcomes the history, social changes, development and cultural cohesion of the human being. All this

without separation or discrimination, since each individual is an extensive representation of the cultural transmission that is repeated again and again by generation in generation.

Considering the importance of intercultural education, in Ecuador the Intercultural Bilingual Education Model (MOSEIB) was proposed since 2014, beginning its implementation in the Sierra region and later it was applied since 2015 in all bilingual intercultural educational institutions of the Ecuadorian educational system. This model proposes that education is an integral process and must become a harmonious way of life of the human being with himself and with others to recover ancestral education, family and community as fundamental elements in the formation of each person, it must also be a contribution to the recognition and appreciation of the knowledge of each culture for the progress of humanity (Ministry of Education of Ecuador, 2014).

From the pillars of the MOSEIB teacher training must meet certain characteristics, exposed by Moreno (2015), such as: social and communication skills, process-oriented praxis, community work, knowledge in strategies and teaching resources and training in intercultural and inclusive education. The characteristics previously indicated by the author are core elements in the training of a bilingual intercultural teacher, because they gather essential skills to properly guide training processes, and above all, to promote peaceful coexistence in the school community, to put human values into practice and to assess each of the cultural traits that each student has, orienting themselves to the practice of dialogue as a guiding axis in the learning and integral development of each one.

According to the characteristics that an intercultural teacher must develop, in the educational reality of the bilingual intercultural institutions close to communities of the Tsáchila nationality, it is necessary that there is a constant updating of strategies and models of pedagogical management to adapt to the new ways of teach-



ing and learn, in addition to prioritizing the integral development and intercultural training of Tsáchilas and mestizos students who live in the same classroom. According to Lalangui, Ramón & Espinoza (2017), the teacher who receives initial training to direct and manage an educational process is at the beginning of his continuous process of teacher training, as the educational praxis and work continued in the classroom allows teachers to further develop skills in the exercise of educational work.

The continuous training of the bilingual intercultural teacher can be a positive index in the professional performance in pedagogy, didactics, methodology, curriculum, educational inclusion and intercultural education. The process of initial and ongoing teacher training can reverse some problems in education in general, but also positively affects inclusion, interculturality, dialogue, the peaceful resolution of conflicts and the promotion of a culture of peace. In this sense, the successful performance of intercultural teachers could be the result of models and strategies adapted to the needs of the educational context of the institution and would correspond to innovative teaching and learning processes oriented towards educational quality (Álvarez, 2014). From the perspectives previously written, Ungerfeld & Morón (2016), explain that teachers must possess a minimum of specific knowledge, intellectual and technical skills, as well as a development of social attitudes and behaviors that allow understanding the needs of students and determining the stages of development that the students who have a special educational need must progressively reach or, on the contrary, establish a continuous and inclusive process that responds to the needs of each student, expressly considering diversity as a core axis in the human and educational formation of each.

Teacher training is currently oriented to new educational practices, which are focused on teacher development as a means to respond to the urgent needs of students and the educational

community. In this way, López & Pérez (2013), express that intercultural education is linked to the actuality and reality of the school context. This requires a formative treatment in teachers who work in bilingual intercultural institutions, because interculturality is a competence that first develops in the teacher so that it can be transferred to each classroom, since the Tsáchila's worldview is a value added during the execution of learning experiences in which the teacher and students intervene. The close relationship between teacher training and interculturality is built on educational practice, therefore, it requires an analysis of the different sociocultural contexts to which the students belong and that bilingual intercultural teachers should adapt and propose the best strategies to train and respond to the needs of the students and, in general, of the educational community melded with the cultural features of the Tsáchila ethnic group.

Based on the problems described on the training needs of intercultural teachers, in addition to the discrepancies between the reality and the educational praxis of the application of intercultural bilingual education models, the research process was placed in the context of tsáchila educational units located in the communities: El Búa, Peripa, Otongo Mapalí, Chigüilpe, Cóngoma, Los Naranjos, El Poste. The Tsáchilas are settled in the province of Santo Domingo de los Tsáchilas, they are an endemic ethnic group of the province and represent a cultural and ancestral legacy recognized throughout Ecuador.

In this sense, the study focuses on analyzing the training needs and training processes in which the teachers who work in the following Educational Units are immersed: Madre Laura, Tsáchila, Tomás Rivadeneira, Conadu, Abraham Calazacón, Enrique Terán, Patricio Romero Barberis. The results and conclusions presented in this study will be useful to replant Bilingual Intercultural Education processes, which, to a certain extent, seems to have inconsistencies between theory and practice.



2. Materials and Methods

The work methodology applied in the research considers a non-experimental design to analyze the educational situation of the intercultural teachers that make up the study; without manipulation of variables or random assignments of subjects. In this sense, a descriptive and diagnostic process of the formative characteristics of the teachers is proposed and how they influence the context of bilingual intercultural education of the educational institutions in which they work. The work proposal is systematized through quantitative and qualitative research to analyze the needs in the training of bilingual intercultural education teachers who teach classes in educational institutions located in the communes of the Tsáchila nationality in the city of Santo Domingo. Based on the proposed methodology, the study was conducted by describing and substantiating the needs identified in the teachers considered for the study.

The sample of teachers who were part of the study was intentional, because it was determined without applying any random selection methods. This was because the subjects were clearly identified as bilingual intercultural teachers by the denomination of the educational insti-

tutions and did not represent an extensive number for the process of data collection. Of the total of 29 teachers who teach classes from the initial to the tenth year of Basic General Education, 19 teachers are of the Tsachila nationality and 10 teachers are ethnic mestizo.

For the data collection a survey was applied with questions related to the initial teacher training and the recent training on intercultural education. The data allowed to determine the needs of these teachers within the context of bilingual intercultural educational institutions in the city of Santo Domingo. Based on the data obtained, it was necessary to apply statistical analysis to systematize and interpret condensed information from the surveys, and a bibliographic analysis was applied to situate and contextualize the theoretical needs of teachers with respect to execution and knowledge of the Bilingual Intercultural Education Model (MOSEIB), in effect in the national education system in Ecuador up to the present. According to the perspectives proposed in the study, it was possible to carry out an analysis of the possible complications and difficulties that occur for the teachers when applying the guidelines of intercultural education in the classroom.

3. Analysis and Results

Chart 1. Academic level of bilingual intercultural teachers

High School	34,48%
Third level degree	58,62%
Fourth level degree	6,90%
Total	100%

Source: Own elaboration, data obtained from the survey of teachers of Intercultural Bilingual Tsáchila Units.

Based on the obtained results, 34.48% of teachers working in bilingual intercultural education units have a high school diploma, and 58.62% of teachers with a third-level degree. In contrast to the percentages described above, only 6.90% of bilingual intercultural teachers have

a fourth-level degree (see chart 1). The results observed in the chart show that more than half of the surveyed teachers have a third level degree, but it is also observed that there is a relevant percentage of teachers with only high school education, which, in a certain way, can affect the



implementation of educational processes and formative in bilingual intercultural institutions. In fact, the imbalance in terms of the academic training of the surveyed teachers explains the low percentage of teachers with fourth level studies, evidencing the need to implement a comprehensive process of teacher training, aimed especially at teachers with a high school diplomas to increase and improve the quality of education within bilingual intercultural institutions located in Tsáchila communities.

Possibly, the representativity of high school teachers is related to the rural context

in which bilingual intercultural institutions are located, but it also has a possible relationship with the command of Tsa'fiki, which is the native language of the Tsáchilas, and which the mestizo teachers probably have not mastered to be able to teach in the Tsáchila mother tongue. This communicative factor may increase the presence of low education level teachers but that are fluent in Tsa'fiki and Spanish, added to the little incentive of educational authorities for third level training or training based on the MOSEIB implies a stagnation or conformism of these teachers as they impart their classes.

Chart 2. Teacher training and training in Intercultural Bilingual Education

Training in Intercultural Bilingual Education	86,21%
Teacher training in Intercultural Bilingual Education	93,10%
Training received in the last 6 months	37,93%
Training received in the last 2 years	17,24%
Knowledge of the Bilingual Intercultural Education System Model (MOSEIB)	37,93%

Source: Own elaboration, data obtained from the survey of teachers of Intercultural Bilingual Tsáchila Units.

According to the results, 86.21% of teachers have bilingual intercultural education, and 93.10% of teachers have been trained in this type of education. Regarding the frequency in which the surveyed teachers receive training, 37.93% state that they have been trained in the last 6 months, and 17.24% of the teachers have been trained in the last 2 years (See chart 2). Unlike the favorable results regarding the bilingual intercultural education training and received training processes, it is contradictory that only 37.93% of teachers know about the Bilingual Intercultural Education System Model (see chart 2).

Based on the results of chart 1, a substantial relationship with the results of chart 2 is determined, since there is a need for academic training of bilingual intercultural teachers, since, apparently, is affecting the application of MOSEIB, which is the core axis of intercultural education in educational units located in communities of the Tsáchila ethnic group. This

doubt about the educational work of bilingual intercultural teachers cannot be generalized for all of Ecuador because in each educational context variations are observed. From the obtained data, it seems that teachers have a misperception about bilingual intercultural education or it is not strong enough, since the application of the MOSEIB starts from the knowledge of its guidelines and, above all, implies a continuous training process to establish educational processes coupled to the Tsáchila worldview. Teaching with the mother tongue does not imply an intercultural education, it is an important part, but it requires a change of perception on the part of these teachers on how to interculturally educate students Tsáchilas and other ethnic.

4. Discussion and Conclusions

Based on the results, it is evident that there is a significant number of teachers with a high



school diploma, unlike teachers who have third and fourth level pedagogical training and qualifications. The previous premise shows a first approximation to the training needs of teachers who work in intercultural educational institutions located in communities of the Tsáchila ethnic group. In this sense, what is happening with these teachers is possibly stagnation in terms of progress in training and updating of knowledge and quality in the professional performance of teachers. According to De los Saltos & Abreu (2013), the continuous training in the teaching career allows, in the first place, to get the teachers titled and secondly, to guarantee the professional development and to gather the competences that allow the exercise of teaching in the educational context. However, this is not evident in the school and professional context of teachers working in bilingual intercultural institutions, therefore, professional development is being affected and, in turn, this may be a turning point in the teaching process and learning that is established in each classroom of the intercultural institutions of the Tsáchila ethnic group.

The training needs of teachers working in intercultural institutions can adversely influence the assessment and orientation of teacher training and career, since teachers who hold a high school diploma do not seem to want to continue with a process of teacher professionalization or, on the contrary, these teachers have not been considered or called in the processes of continuous training and professionalization offered by universities with the endorsement and sponsorship of the Ministry of Education of Ecuador. Inciarte, Camacho & Casillas (2017) mention that the practices that are oriented towards the development of the teaching career start from the reflexive intervention of the actors of the educational field. Therefore, the formative needs of the teachers who work in intercultural institutions of the Tsáchila ethnic group, are a shared result of the little initiative of training in teachers and the inadequate process of insertion into training processes and teacher training offered

by the organization of control and management of education in Ecuador.

Teacher training is and will remain a point of reflection, uncertainties and conflicts in every educational system. Moreover, according to the research conducted by Lozano (2016), the majority of teachers who were surveyed in their study did not have a professional improvement project, since they did not feel prepared for an intellectual challenge or because the social and/or economic environment did not allow it. In some cases, the importance of teacher training for the achievement of educational and social purposes of educational reforms is dismissed. Given the case of the aforementioned study, it seems that bilingual intercultural teachers also lack a teacher professionalization project. In addition, they may have the same training needs and difficulties in accessing training that would allow them to improve their educational work and achieve new professional achievements in their respective school contexts.

Teachers who work in intercultural institutions of the Tsáchila ethnic group require processes of continuous training in intercultural education in a general way and specifically that which is contextualized with the worldview and culture of the Tsáchila ethnic group. Therefore, it seems that the need for professionalization of teachers with a high school diploma is accompanied by the need for continuous training in intercultural education in all teachers participating in the study. In this way, it is necessary to enhance teacher education as a core aspect in education but without underestimating the accumulation of experience and praxis that each teacher has, since Pegalajar (2014) considers that professional development is more than training; it is the product of the pedagogical development, the experience, the knowledge, the understanding, the emotions and the individual feelings of each teacher as influential aspects on the educational processes.

Possibly this problem is affecting the teaching and learning process that takes place in



the classes, because if the bilingual intercultural teachers do not have a minimum profile of training they could be improvising, proposing inappropriate activities or misinterpreting the educational and educational process in which they are immersed students. Iglesias (2014) mentions that it is necessary to educate for human formation with a community vision and promote social change through the participation and proposal of inclusive educational projects for the development of intercultural competences, however the teachers participating in the study do not have a profile of training in intercultural education and most have not yet begun a process of teacher training that allows them to improve the imbalance of regular education with respect to intercultural education.

The possible stagnation of intercultural education contextualized with the Tsáchila ethnic group does not occur in isolation, because this is related to the educational system, teacher training, access to education, innovation and curricular proposals; and in the case of teacher training it seems that it is not being considered as a transformative aspect of education. In this sense, Vizcarra, Tirado & Triviño (2016) mention that educational transformations must be accompanied by training and professionalization of teachers to achieve the goals and commitments established in the educational proposal and, in this way, to think about transforming and Improving intercultural education without proper training and teacher training would be a total incongruence between educational legislation and the reality of the school context.

Based on the previous explanations about the inconsistencies with regard to training as a transformative aspect of education, Villagómez (2017) warns that a critical look must be taken of the educational experience of teachers, since their training must be parallel to their experience in educational processes to understand the educational, didactic, pedagogical, social and procedural requirements of the agents that make up the educational community, as well as promot-

ing social practices of tolerance, dialogue, attention to diversity and the generation of spaces that facilitate interculturality and complex thinking.

The importance of training teachers who work in Tsáchila bilingual intercultural institutions is and will continue to be a fundamental aspect in the improvement of education and diversification of the educational system, for this reason, Andino (2018) mentions that teacher training and education from any perspective or point of analysis is a positive aspect in the improvement of educational processes, since the teaching career is an unfinished process that must be adapted to changes in the education system or updates of educational work. The improvement of intercultural education is transcendental, but with training and training of bilingual intercultural teachers, because otherwise, the gaps and procedural gaps in educational institutions located in Tsáchilas communities would continue to be fed.

The superficial approach of teacher training and the consideration of training as a secondary element in the processes of teacher development in a certain way causes a limited conception of the complexity of the teaching career. Being located in the analysis of teacher training in intercultural education, Tipa (2017) mentions that this must be linked to research, but also poses the following issues for an adequate intercultural teacher training: (a) Access of young people from ethnic groups to higher education, (b) greater geographical access of universities, (c) integration of ancestral knowledge with professional knowledge, (d) valorization of the language and worldview of ethnic groups, (e) teacher development and strengthening in Intercultural Education and (f) promotion and integration of teachers to ethnic groups and communities.

The explanations given on the inconsistencies of teacher training in intercultural education are complemented by what seems to be an inadequate or low frequency of training in interculturality, diversity, ethnic worldview as part



of the training of students. The reason for the study of interculturality and diversity is based on the importance that people know how to coexist with their cultural and ethnic differences, but also the worldview is part of the transversality of the class, since the cultural transmission from the ancestors represents everyday life of people from generation to generation.

The solution to the shortcomings in the training of bilingual intercultural teachers is not isolated because training is not the only way to propose an intercultural education system. The answer to this need is explained by Fabara (2016), which proposes teaching research as part of the improvement of the quality of education. In this way, the undertaking of research projects is an incentive for the improvement of educational processes, in addition to the teachers who research can be those who strengthen the skills of their work teams (Castro & Castillo, 2016). Based on the above, to refer to teacher training is to talk about the preparation of teachers to produce knowledge, in addition to the competence to propose research proposals that allow the resolution of problems in the classroom (Faria, Reis & Peralta, 2016).

Finally, the training of bilingual intercultural teachers has a close relationship between the training they receive and the research competence that each one acquires during their initial training and that is carried out in the educational work; therefore, Paz (2017) emphasizes that it is vital for education to strengthen competencies that motivate both teachers and students to develop intellectually, since the transformation of the educational system itself depends on coherent proposals that lie in the questioning and solution of practices that on the one hand may not be effective and on the other hand they are not being executed correctly (Díez Gutiérrez, 2013) and, from this, substantial changes can be proposed in the educational processes that, as in the case of intercultural education for ethnic groups Tsáchila, remains a chimera within the educational proposals of the country.

Bibliographic references

- Álvarez, J. (2014). Formación docente para el desempeño exitoso. *Revista ARJÉ*, 6(15), 121-129. Recuperado de <https://goo.gl/iJn8Co>
- Andino, R. (2018). Capacitación docente: Pilar para la identificación y gestión de la violencia escolar. *Alteridad*, 13(1), 108-119. <https://doi.org/10.17163/alt.v13n1.2018.08>
- Castro, P., & Castillo, S. (2016). La evaluación de la formación en comportamiento innovador. *Alteridad*, 11(1), 66-77. <https://doi.org/10.17163/alt.v11n1.2016.05>
- Daniels, H. (2016). El aprendizaje en culturas de interacción social. *Revista de Investigación Educativa*, 34(2), 315-328. <http://dx.doi.org/10.6018/rie.34.2.252801>
- De los Saltos, S., & Abreu, C. (2013). La certificación docente: otro eslabón para una carrera docente renovada. *Ciencia y Sociedad*, 38(3), 443-461. Recuperado de <https://goo.gl/jeCs-rK>
- Díez Gutiérrez, E. (2013). El decrecimiento en la formación del profesorado. *Revista Interuniversitaria de Formación del Profesorado*, 27 (3), 207-219. Recuperado de <https://goo.gl/Romsbd>
- Fabara, E. (2016). La formación y el ejercicio de la docencia universitaria en Ecuador. Desafíos. *Alteridad*, 11(2), 171-181. <https://doi.org/10.17163/alt.v11n2.2016.03>
- Faria, A., Reis, P., & Peralta, H. (2016). La formación de profesores: ¿formación continua o formación postgraduada? Perspectivas de profesores y de líderes de las escuelas. *Revista Electrónica Interuniversitaria de Formación del Profesorado*, 19(2), 289-297. Recuperado de <https://goo.gl/D3Y439>
- Iglesias, E. (2014). La formación en interculturalidad en la educación en el tiempo libre: necesidades y estrategias desde una perspectiva de competencias interculturales. *Revista Electrónica Interuniversitaria de Formación del Profesorado*, 17(2), 167-182. <http://dx.doi.org/10.6018/reifop.17.2.197511>
- Inciarte, A., Camacho, H., & Casillas, D. (2017). Sistematización de experiencias formativas en competencias docentes investigati-



- vas. *Opción*, 33(82), 322-343. Recuperado de <https://goo.gl/c7LpSz>
- Lalangui, J., Ramón, M., & Espinoza, E. (2017). Formación continua en la formación docente. *Revista Conrado*, 13(58), 30-35. Recuperado de <https://goo.gl/aWdVNj>
- López, E., & Pérez, E. (2013). Formación permanente del profesorado y práctica docente intercultural: contenidos actitudinales y complementariedad competencial. *Espiral. Cuadernos del Profesorado*, 6(12), 32-42. Recuperado de <https://goo.gl/MTzBwH>
- Lozano, I. (2016). Las trayectorias formativas de los formadores de docentes en México. *Actualidades investigativas en Educación*, 16(1), 1-25. <https://doi.org/10.15517/aie.v16i1.22671>
- Ministerio de Educación del Ecuador (2014). El Modelo del Sistema de Educación Intercultural Bilingüe. Recuperado de <https://goo.gl/Frzhgn>
- Moreno, A. (2015). Enfoques en la formación docente. *RA XIMHAI*, 11(4), 511-518. Recuperado de <https://goo.gl/tp1cid>
- Paz, A. (2017). Análisis de la formación en comunicación intercultural. *Revista Científica de estudios sobre interculturalidad*, 3(1), 53-85. <https://goo.gl/o4ykjP>
- Pegalajar, M. (2014). Importancia de la actividad formativa del docente en centros de Educación Especial. *Revista Electrónica Interuniversitaria de Formación del Profesorado*, 17(1), 177-192. <http://dx.doi.org/10.6018/reifop.17.1.181731>
- Rodríguez, A., & Fernández, A. (2017). Adultos que conforman menores en una escuela de colores. Actitudes de progenitores y profesores ante la diversidad cultural. *Revista de Investigación Educativa*, 35(2), 465-482. <http://dx.doi.org/10.6018/rie.35.2.256371>
- Tipa, J. (2017). ¿De qué me sirve la interculturalidad? Evaluación de la Universidad Intercultural de Chiapas por sus estudiantes. *Alteridad*, 13(1), 56-71. <https://doi.org/10.17163/alt.v13n1.2018.04>
- Tomé, M., & Manzano, B. (2016). La Educación inclusiva intercultural en Latinoamérica. Análisis legislativo. *Educación Inclusiva*, 9(2), 1-17. Recuperado de <https://goo.gl/6b1YYP>
- Ungerfeld, R., & Morón, S. (2016). La investigación en la formación docente. Ideas para el debate. *Intercambio*, 3(2), 54-66. Recuperado de <https://goo.gl/AqG6op>
- Villagómez, M. (2017). "Otras Pedagogías": La experiencia de la Carrera de Educación Intercultural Bilingüe-UPS. *Alteridad*, 13(1), 30-41. <https://doi.org/10.17163/alt.v13n1.2018.02>
- Vizcarra, J., Tirado, M., & Triviño, B. (2016). La especialización docente por campos formativos en la educación básica mexicana. Una necesidad para concretar el modelo curricular. *RA XIMHAI*, 12(6), 177-185. Recuperado de <https://goo.gl/xjUfvr>
- Walsh, C., & García, J. (2002). *El pensar del emergente movimiento afro ecuatoriano: Reflexiones (des) de un proceso*. Recuperado de <https://goo.gl/MVbMwc>





Education, body and alterity Meetings face to face for the formation of the other

Educación, cuerpo y alteridad Encuentros cara a cara para la formación del otro

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Received: 2018-04-15 / **Reviewed:** 2018-11-05 / **Accepted:** 2018-11-08 / **Published:** 2019-01-01

Abstract

Cannot possible think, do and / or transform education out of the relationship with the Other; you cannot assume education without the pretense of "form" the Other or at least try, as if such a thing were possible. Education, as a practical transmission of knowledge (also transmission of culture, languages, ways and ways of being and living, to appoint and be appointed), but above all, is a scene of encounter with the Other; which depend on the conception of the subject and the world you have, the development of a training bet. This encounter implies a transformation, rupture, leave of the subject of an ontology that chains the subject to a cruel utilitarianism, to go further; to a scenario in which the subject no longer finds himself alone, but finds himself with Other; radically different from him. There, an education that exceeds the pre-eminence of knowledge and starts from a relationship

with the Other is possible. This perspective, addressed from the proposals of the philosopher Emmanuel Levinas and Joan Carles Mèlich, can pass through a moral education based on knowledge, rules and socially accepted to a putting on the training needs of individuals who respond responsibly to education and other ethical values.

Keywords: Education, alterity, ethics, responsibility, fostering, body.

Resumen

No es posible pensar, reflexionar, hacer y/o transformar la educación al margen de la relación con el Otro; no se puede asumir la educación sin la pretensión de "formar" al Otro o por lo menos, intentarlo, como si tal cosa fuese posible. La educación, al igual que una práctica de transmisión de conocimiento (es también transmisión de cultura, lenguajes, modos y

formas de ser y de estar, de nombrar y ser nombrado), pero, sobre todo, es un escenario de encuentro con el Otro, el cual dependerá de la concepción de sujeto y de mundo que se tenga, el desarrollo de una apuesta formativa. Este encuentro implica una transformación, ruptura, excedencia del sujeto de una ontología que encadena al sujeto a un utilitarismo cruel, para ir más allá, a un escenario en el que el sujeto ya no se encuentra solo a sí-mismo, sino que se encuentra con Otro, radicalmente diferente de él. Allí, es posible una educación que supere la preeminencia del cono-

1. Introduction

During the training process, a large number of questions emerge, questions that go from one side to the other, from here to there, questions that pass through the classes, the seminars; uncertainties that are shaken in the corridors and cafeterias of educational institutions and doubts that go beyond the different classes and subjects that are present in the training process. For the field of education, these questions are addressed in general on: What is pedagogy? What are the currents on which its proposals are focused? What are the most appropriate models to address the multiple realities of our country? What role does didactics play in the organization of educational environments? What is the most pertinent knowledge and where in the training process can they be located? How to transform the educational reality? Among many others.

All these questions that allow proposing the different encounters in the field of education do not cover (or at least not explicitly), other issues of equal or greater importance in the understanding and transformation of education, such as: What is education? What are its traces and horizons of formation in the other or with the Other? Is it possible to think outside the subject? What are the relationships that are built within the framework of its practice? Should education form or, rather, enable the formation of the Other? Who is the Other of education? How is the existence of the Other assumed in

cimiento y parta de una relación con el Otro. Dicha perspectiva, abordada desde las propuestas de los Filósofo Emmanuel Levinas y Joan Carles Mèlich, puede transitar por una educación moral centrada en el conocimiento, reglas y valores socialmente aceptados hasta una educación ética puesta sobre las necesidades formativas de los sujetos que responden responsablemente al y del Otro.

Descriptor: Educación, alteridad, ética, responsabilidad, acogimiento y cuerpo.

the formation processes? Where does the relationship established with the Other focus? What are the conditions of possibility for educability to appear and the Other to be an educable subject? Is there any difference between talking about the other or talking to the Other in education? These and many other questions should permanently guide the educational work, guide its reflections, boost its processes of change and social transformation of people and institutions (Murcia, 2012).

These issues permanently emerge within the framework of contemporary scenarios, scenarios permeated with hegemonies and powers as well as resistances and ruptures, in which the re-signification of education, school and knowledge which transits through it, is increasingly demanded in search of overcoming traditional scenarios that have reduced the educable subject to a being “tired (...) a society that is characterized by the disappearance of otherness and strangeness” (Chul Han, 2012, p.8), a society that sees in the other, in its being, in its body, the difference that separates either to exclude and reject or to include and normalize, as if it did not have something to teach, something to say, something to show, something what to tell, something to give.

These societies “tired” and “exhausted” by the speed of the “modern” world, increasingly enclose people in their sameness, that is, each time they interact and are more informed with the world while leaving behind talking, sharing and getting to know others, because modern rational-



ity assumes quantity and noise as an option for communication with others. However, it is necessary to leave the ground of being that implies thinking and being different (Lévinas, 1987), a pause, a silence, a peace that allows one to look and listen to the Other without prejudice and to give the subject a distance in which the radical alterity is not subsumed in the powers of the self. This could prevent “the other being reified as an object, as an ‘it’ ...” (Chul Han, 2014, p.13).

A challenge emerges in these times of haste and occupation, this fatigue, this reification and this denial of the Other have not been limited to surveillance and control over the practices that we can or cannot do, learn and even think. a whole structure of domination and confinement of the body, as a whole, has also been legitimized in and on the body (Lévinas, 1977, 2012).

However, the body escapes any attempt or pretense of capture and classification. From this perspective, the human being who shows or who “gives” himself in his fragile and vulnerable condition does so from his finite condition, as stated by Mèlich (2010b), for whom:

Human beings are corporeal. Our condition is not ‘corporal’ but ‘corporeal’. Corporeity causes a fracture, a crack in our identity. We are corporeal because we do not start from scratch, because we are born in a symbolic universe, in a grammar, and, at the same time, we are not located at all, completely finished, constituted entirely. We are beings to be made or made (p.37).

This location of the condition of humanity from the body and in the body, leads us to think that the processes of relationship and encounter are much more than attending passively to receive a class in a traditional and routine manner, they involve the constitution of subjectivity by the irruption of the Other, of the body “that is the Other”, of his humanity in the educational relationship.

Precisely, education and school as they are conceived today, have become times and spaces to be indoctrinated, where the only “active” actor

is an imposed knowledge that has excluded the subjects and left them in their margins, It is right there, outside the school, where other forms of education have emerged, welcoming the human being, procuring his humanity, granting recognition to his sentient, corporeal condition, giving a transforming place for himself and for the context that surrounds him.

That is why thinking about the relationship between education, body and otherness takes on value, since education must recover its place as a meeting place between subjects, encounters that occur in an existing human being (Lévinas, 2006), of flesh and blood, finite, provisional, contingent (Mèlich, 2002, 2010a, 2010b) who is also eager to know, of experiences that allow him/her to train himself in principle and from there contribute to the formation of the Other and of the others. Education and school should then turn its “gaze” and awaken their ability to “listen” about their ethical and political responsibility to society.

In these considerations, from an ethical perspective, the educational process is woven from questions such as: how is the human being formed? How do you approach the Other as Other? and what relations are established with him in the multiple meeting spaces that are constituted as educational?

In this sense, addressing a commitment to an education from/to/in and with otherness, could be assumed as a redundancy because every educational process must always be directed towards the formation of the Other, an Other that demands the presence and the voice of an interlocutor, another with the “who” to explore the world (including the world of knowledge) to rebuild it permanently. Another that is corporeity for itself and for the Other, that through it transits day by day in the scenarios of human life.

2. From the subject to alterity

Alterity is not a condition that is given or can be defined, it is precisely the indefinable in the



human being³, what cannot be framed under any category or name in any way, alterity is the inef-fable in the subject and escapes any social and/or cultural frame of reference.

In this way, although alterity is the un-nameable in the Other, it can only emerge in the relationship with it, this implies that someone (be I, or the Other) is detached from his/her shields, the world or grammar⁴ which defines it or is defining it, to assume itself curious and contemplative in the face of the strange, in front of the Other that presents itself as an epiphany. Thus, making it possible for the response to be hospitable and fraternal, a warm response to welcome it and take responsibility for it, of its uniqueness before it demands from me any responsibility (a responsibility without any justifi-cation and without any reason⁵).

Similarly, to reach the Other, to infinity⁶, is an arduous path that implies a transformation of the self, a liberation of oneself to be able to transcend the Other, wage a constant struggle with our identity, unprotect ourselves, distance ourselves from the moral frameworks to go in search of the ethical, to open ourselves to what is not yet and we do not know if it will be.

This liberation starts from assuming our-selves, in the first instance, as beings chained to the world, chained to existence, locked in such a particular consciousness that isolates us from others, even when we share a world with them, even these, the others, are seen as “objects” placed there, next to me, but that do not directly affect me, but from the definition of its characteristics I seek to control, name, classify, thematize, to dis-tinguish other “objects” in the world and know how to relate and directing myself towards them.

The relationship with that world and objects is a moral relationship, it is a grammar⁷ of the world, in which we find all the inputs to address it by default. In this relationship, the answers to all the questions are already given, they have already been defined by those who believe they have “reason” or “truth”, by those who legitimize their power and their cruelty

both in what they say and in what they do, which makes everything stop being strange and novel to be “normal”, in that moment everything has been “naturalized” and nothing surprises, but neither does anyone interrupt.

Grammar is the shield against the para-noia produced by difference, the uncontrollable, the ephemeral. Grammar is thus the normal-ization of the world, to feel safe believing that “everything is under control” only by being able to name it within our frames of reference.

Thus, the Other is another, as an object to consciousness, is another represented, drawn, classified and limited to my range of possibilities to name its characteristics, this subject loses its particularity and is linked, including⁸ if you will, to a whole. There, we find ourselves with a face, with certain characteristics (eyes, mouth, nose, colors, shapes) that need to be named, but that do not give a proper account of that Other facing me, that is, it becomes another distant from me and not close.⁹

However, in the human being a discom-fort is generated before the categories in which it has been framed, because its name, being tall or short, cute, ugly, white, black, mestizo, man, woman, child, young or adult, etc., they fail to give an account of what he really feels he is, but in the same way, he does not find in his frames of reference ways of naming himself, he does not find in what has been imposed on him as “being”.

This discomfort Lévinas (2011) calls it “nausea”, like that pressure that is felt inside, from the confinement in which it has been placed and that is no longer enough to contain it, thus generating a “need¹⁰ for evasion”, need to get out of that mold that has been imposed on it, to go beyond the self to be-Other, to give testimony of oneself through its own language.

This stress generates ruptures in the sub-ject, in his ways of seeing and directing him-self towards the world that surrounds him, he mobilizes, he is destabilized, he shakes himself to crack and to be able to “overreach”, to get out of himself, to go into darkness, to get away of



the light that has marked the course and walk in uncertainty towards the unforeseen in search of new horizons, walking aimlessly.

This departure is given through a language of its own, of a particular way of saying, to give testimony of oneself, finding our own words, discovering others; another language that flows outwards in search of the Other-being also exceeded of itself, in search of otherness. But this own language demands the Other's presence to be heard, to be contemplated, to be found and welcomed, that is why going to the Other is exceeding, this requires the desire for him or her \neg -but not a desire like the need for something that we lack and we can obtain, but - as a desire for the unattainable, desire for a horizon that summons us but that we cannot reach.

That being said, the Other, humanity, the infinite (for Lévinas), is the one who calls us and demands our attention, listening, contemplation; his face transcends the nameable features of the face and is presented as a language, as an epiphany; it presents his pain, his passion, his emotion, his demand, his joy and his suffering.

This encounter with the Other (among others) that is presented by everyone from their languages, implies attentive listening, contemplation, responsibility (compassion, Mèlich, 2010b) for the other, responding to his demand, even in the absence of an explicit call. Just here, after breaking with oneself we can find it by approaching it without covering it, without controlling or classifying it, right here we are witnessing, in front of the face of the Other, its epiphany, the ethical encounter, the educational relationship that responsibly responds the other.

3. From moral education to the ethical encounter

Joan-Carles Mèlich states that all education is moral, while education is the process through which we inherit culture, norms, laws, behaviors, even ways of thinking and even feeling. In this sense, educa-

tion is a grammatical education, because we learn to name, classify, include and exclude everything that surrounds us, including others.

A moral education does not have as a central concern the subject, but knowledge, since the first is also knowledge, is a cluster of characteristics of which we can account from referential frames socially and culturally inherited. From this point of view, educating the human being implies filling him with knowledge¹¹ from which to account for everything around him, is to teach him to protect himself from uncertainty, that is, he teaches not to face the Other but behind his back and wait that the predetermined moral frameworks of society include or exclude it and from there, from the periphery, act in favor or against it.

Education viewed from this point of view, has become a scenario for the transmission of knowledge, with the full pretension that acquires what is necessary to be a member of society, to be able to incorporate and respond to the same extent that this imposes; otherwise one will be excluded, rejected, seen as a stranger, confined, confined to oblivion, to the deepest corner of the room.

The problem of education with each generation, is precisely to stay there, which happens because those who teach are from other generations already chained to their frames of reference, to their moral frameworks, the will has already been tamed and from there they impose themselves on the Other, they want to indoctrinate him, while the Other seeks his emancipation, his openness, he resists being chained in the same way as his teachers to be converted into one more.

For this reason, for education to transcend, it is required that the teacher himself *evade* himself, his moral frames, be destabilized, break with his own chains to *depart* from himself, to discover new languages, to go in search of the Other out of compassion. and not expect him to seek my piety (Mèlich, 2014, 2010b).



From there, education ceases to be transmissionist and knowledge is no longer the center of any educational act, it is transformed, muted towards an education as departure, an education that discovers languages, forms of expressions, exceptional knowledge, accommodates the doubt, the uncertainty and not find a single answer as absolute truth, but multiple answers from where each subject, from their own perspectives, contributes to the construction of new knowledge.

An ethical education finds in the other possibilities, not imposition of reference schemes, it opens to the epiphany of the Other's face, it presents itself contemplative before it to learn from it; thus the roles between teacher and student are diluted and both are teachers and apprentices, both have something to share, something to donate to the Other, something to give to the Other.¹²

Thus, education achieves in its actors the ability to transcend, go beyond, generate a contingency scenario for the ethical event (Bárcena and Mèlich, 2000, 2014) in which, each one is responsible for the Other, where none is in better position than the Other; on the contrary, where we all build ourselves in the relationship with the Other and with knowledge. From this point of view, one goes from a moral education, from domination, from control and indoctrination, to an ethical education, of contingency, of uncertainty, where the doubt is curiosity, not distrust and the interpellation is not disrespectful but to listen, that for Han (2017) means:

Listening is not a passive act. It is characterized by a peculiar activity. First, I must welcome the other, that is, I have to affirm the other in his otherness. Then I listen to what he says. Listening is a lending, a giving, a gift. It is the only thing that helps the other to speak. He does not passively follow the discourse of the other. In a sense, listening precedes speech. Listening is the only thing that makes the other speak. I already listen before the other speaks, or I listen for the other to speak. Listening

invites the other to speak, freeing it for its otherness (pp. 117-118).

Likewise, responsibility for the Other, for his word. Education then, could be understood as an ethical scenario, meeting in order to promote the formation of the Other. Formation that is presented face-to-face, attentive listening to what the Other wants to say and that has been denied at all costs. It is attended to an education that overcomes indoctrination and is presented as dialogue, openness and encounter.

4. On the condition of humanity: corporeality¹³ as a niche of one's own and shared existence

This ethical perspective assumes how the existing relationships between the finite and corporeal human being have been expressed with the presence/absence of the other and the response given from education, that is, an answer that is never complete because in front is the Other. That is, from the processes of encounter and appearance of the other before the self, appearance that occurs with the arrival of the body, that which is corporeality gives way to the event, to the transformations, to the possibilities of reaching be, in terms of Mèlich himself (2010a, p.11)

The body *is*, while corporeality *becomes*, at the same time, *it becomes another than it is, it becomes different, it becomes against what it is...* and, also, it is never completely, because a being corporeal refers to an open, always mobile scenario, a scenario that cannot elude the past, the memory of what has been, what they have done, the inheritance received, the grammar in which they have been educated and, at the same time, it refers to a future, not only to a more or less predictable, programmable or planned future, but to a future that is always to come, that is always open to events that break any project, any identity, any fixation.



That which we are as corporeality and that we become, is what with the help of education we are doing, we are transforming and we are transiting through our own existence without staying in it, without stopping in our own body, but throwing ourselves towards the Another, throwing us beyond being, even in another-way-to-be (Lévinas, 1987).

The human being is corporeal, that is, a being of flesh and blood, a being that inhabits a place in the world since its existence and at the same time is inhabited by multiple dimensions that rest on its corporeal existence as possibility, language, thought, sensitivity, biological and organic functions as well as those built socially have a reason for being in corporeality, that which makes us human. This scenario of corporeity constituted by the visible and by the invisible, by the immanent and the chiasmatic or by the union of the soul and the body (Merleau-Ponty, 1993, 2006) are those that make possible the human existence, particular, singular and Completely shared with others and with the world.

This condition of existence in corporeity and from corporeity makes us assume a position in which the human being is an embodied being, a being that not only has flesh or body, but is flesh and is more than body (corporeity); in terms of Henry (2001).

Incarnated beings are suffering beings, crossed by desire and fear, who feel the whole series of impressions linked to the flesh insofar as, constituting their substance - an impressionable substance therefore - *they begin and end with what they experience.* (p.11)

That which crosses us as humans, which touches us and upsets us, breaks down little by little what we thought we were, knowing, showing our fragile and vulnerable condition always exposed to the unforeseen, to what comes from far and from outside, to what escapes our control and that becomes a condition of possibility to enter into relationship and encounter with the Other and with the other, those tenuous certainties of what one is or believes to have been over-

flowing into the new and the unknown, towards the Other.

It could be said then that embodied corporeity is more than the objectivity of the body thing or reified, it is a body that touches and is touched, that wishes and is desired, a body as sentient corporeality with gestures full of meanings (Vanegas, 2001), a corporeity that is socially constructed (Le Bretón, 2000) within the framework of relationships that are woven with others, with our closest neighbors, even with strangers and foreigners.

Precisely, the recognition of the Other of itself as posed by Mèlich (2010a), that is, of the body as corporeity, implies an adequate or inadequate response to the request of the Other; answers that are constant in the formation processes and that they sometimes limit, reject or make invisible the existence of the other in the School, in the built social institutions and that build humanity. However, an ethical response (at least from the Lévinasian perspective) will base its expression on listening, on language, on obedience to the mandate of the Other's face (Lévinas, 2001a) and on the possibility of responsibly choosing how to allow the Other continue to be, how to accompany their process of becoming, how to become together, among ourselves (Lévinas, 2001b) maintaining a close distance, a close relationship without absorbing the existence of the other, without eliminating it subtly in homogeneity or abruptly in the total heterogeneity.

The body as corporeity is not born, but is made, is not planned, programmed or determined, but is pure incompleteness, uncertainty, vertigo, is man's opening to the world, is a risk crossed by the encounter and the appearance of others in the very existence, is the sensitivity that bursts and questions one's own calmness, it is the joy of feeling alive, affectation that comes from outside to rebuke one's own skin, the request of another that lies exposed and commands, orders, calls, calls concern, attention and reception. Unamuno (1913) rightly insisted: "Neither



the human nor the humanity, nor the simple adjective, nor the substantive, but the concrete noun: man. The man of flesh and bone, the one who is born, suffers and dies -especially dies-, the one who eats and drinks and plays and sleeps and thinks and wants, the man who is seen and who is heard, the brother, the true brother” (p. 3); yes, the brother, who does not have his own body, but who suffers and lives and dies in his body.

Notes

- 1 Se hace necesario precisar la diferencia entre “otro” y “Otro”; el “otro” es otro objetualizado, cosificado y anclado a una gramática (Mèlich, 2014) que lo clasifica y lo categoriza desconociendo así su radical alteridad. Por su parte el “Otro” es lo absolutamente otro, es aquel que rompe todo mis esquemas y que me altera en mi propia esencia, es quien nunca podré llegar a ser y, parafraseando a Lévinas (2009, p. 133) exige de mí responsabilidad sin que él se haga responsable de mí.
- 2 En un artículo que lleva este nombre, se expresan las diferencias considerables entre hablar del otro y hablar con el otro, la primera referida a una forma de definir y tematizar al otro y la segunda, como posibilidad para que surja la relacionalidad y el encuentro. Ver: Jaramillo y Orozco (2015) y Jaramillo y Murcia (2014).
- 3 Mèlich (2014) prefiere utilizar el término “ser finito”.
- 4 Mèlich (2014) en su obra *Lógica de la crueldad*, desarrolla el concepto de gramática para plantear que vivimos una realidad moral en la que todo está controlado, predeterminado, donde todo ya ha sido nombrado y cuenta con un significado.
- 5 Sobre este asunto, Zielinski (2011) muestra con suficiente elocuencia el planteamiento de Lévinas acerca de la responsabilidad, esa que es sin porqué, sin contrato, sin reciprocidad.
- 6 Para Lévinas, el “Infinito” es la humanidad en el Otro, que demanda una respuesta ética de mí, lo que implica una respuesta no predeterminada, no de libreto ni de manual como la da la moral, sino una respuesta contingente ante la contingencia de la aparición, presencia e irrupción del Otro.
- 7 Para Lévinas es el conocimiento como ya se había mencionado; en cambio es más conveniente emplear el término *gramática* de Mèlich, mucho más cercano al mundo propiamente.
- 8 Desde esta perspectiva se desarrolla una amplia crítica a las políticas y apuestas por la inclusión, pues incluir al Otro, es normalizarlo, es hacerlo otro más. Por tanto, diría Mèlich que la inclusión en tanto gramática moral incluye también la exclusión de aquellos que no cumplen los requisitos necesarios para ser incluidos o clasificados; este es uno de tantos ejemplos de lo que él denomina *lógica de la crueldad*.
- 9 Dice Viveros y Vergara (2014) que la distancia con el otro está asociada a la otredad, mientras que la proximidad y la cercanía dan cuenta de la alteridad.
- 10 Necesidad, no como ausencia de algo que nos falte sino,

como desbordamiento por exceso de algo. Ver por ejemplo Domínguez (2005) y Leibovici (2012).

- 11 Al mejor estilo de la “educación bancaria” ya denunciada por Freire (2005) en su *Pedagogía del Oprimido*.
- 12 Lévinas (1977, p. 263) plantea que esta entrega “...consiste, para el uno, en dar el mundo, su posesión, al otro...”. Así mismo, Skliar (2007a, 2007b y 2011; y en colaboración con Larrosa (2009) insiste en una educación que es del Otro, que se da con el Otro y es para el Otro.
- 13 La corporeidad tiene sus raíces en la fenomenología, principalmente en los desarrollos de la fenomenología de la percepción de Merleau-Ponty (1993) y se asocia estrechamente con lo expuesto por Duch y Mèlich en escenarios de la corporeidad (2012); en estos textos, así como en otras referencias tratadas en este documento, se sostiene la condición humana desde sus dimensiones sintientes, vivientes y por supuesto, corpóreas.

Bibliographic references

- Bárcena, F., & Mèlich, J.-C. (2000). *La educación como acontecimiento ético*. Barcelona: Ediciones Paidós.
- Bárcena, F., & Mèlich, J.-C. (2014). *La educación como acontecimiento ético: Natalidad, narración y hospitalidad*. Buenos Aires: Miño y Dávila editores. Segunda edición revisada y aumentada.
- Domínguez, J. E. (2005). El concepto de excedencia en las obras de Emmanuel Lévinas anteriores a totalidad e infinito 1934 a 1954. México: Universidad Autónoma de México. Recuperado de <https://bit.ly/2DRWFPT>
- Duch, L., & Mèlich, J.C. (2012). *Escenarios de la corporeidad. Antropología de la vida cotidiana 2*. Madrid: Editorial Trotta.
- Freire, P. (2005). *Pedagogía del Oprimido*. México: Siglo XXI Editores S.A. de C.V. Trad. Jorge Mellado.
- Han, B.-Ch. (2012). *La sociedad del cansancio*. Barcelona: Herder Editorial.
- Han, B.-Ch. (2014). *La agonía del Eros*. Barcelona: Herder Editorial.
- Han, B.-Ch. (2017). *La expulsión de lo distinto*. Barcelona: Herder Editorial.
- Henry, M. (2001). *Encarnación, una filosofía de la carne*. Salamanca: Ediciones Sígueme.
- Jaramillo, D. A., & Orozco, M. (2015). ¿Hablar del otro o hablar con el otro en educación? *Revista Latinoamericana de Estudios Educativos*, 11(2), 47-68.



- Jaramillo Ocampo, D. & Murcia Peña, N. (2014). Hacia una pedagogía del encuentro: apuestas por la relación cuerpo-alteridad en educación. *Revista de Investigaciones UCM*, 14(24), 142-149.
- Le Bretón, D. (2000). El cuerpo y la educación. *Revista Complutense de Educación*, 11(2), 35-42.
- Leibovici, M. (2012). Claustrofobia de sí y necesidad de excedencia. La "Patética del Liberalismo" según Emmanuel Lévinas. Santiago de Chile: *Revista de la Academia*, 17, 21-31.
- Lévinas, E. (1977). *Totalidad e infinito, ensayo sobre la exterioridad*. Salamanca: Ediciones Sígueme.
- Lévinas, E. (1987). *De otro modo que ser o más allá de la esencia*. Salamanca: Ediciones Sígueme.
- Lévinas, E. (2001a). *La realidad y su sombra. Libertad y mandato*. Madrid: Editorial Trotta. S.A. Traducción de Antonio Domínguez Leiva.
- Lévinas, E. (2001b). *Entre nosotros, ensayos para pensar en otro*. Valencia: Editorial Pre-textos.
- Lévinas, E. (2006). *De la existencia al existente*. Madrid: Arena Libros. Traducción de Patricio Peñalver.
- Lévinas, E. (2009). *Humanismo del Otro hombre*. Madrid: Siglo XXI editores.
- Lévinas, E. (2011). *De la evasión*. Madrid: Arena Libros. Segunda Edición. Trad. Isidro Herrera.
- Lévinas, E. (2012). *Totalidad e infinito. Ensayo sobre la exterioridad*. Salamanca: Ediciones Sígueme, 2da Edición. Traducción de Miguel García-Baró.
- Mèlich, J. C. (2010a). *El otro de sí mismo. Por una ética desde el cuerpo*. Barcelona: Editorial UOC.
- Mèlich, J. C. (2010b). *Ética de la compasión*. Barcelona: Herder Editorial.
- Mèlich, J. C. (2014). *Lógica de la crueldad*. Barcelona: Herder.
- Merleau-Ponty, M. (1993). *Fenomenología de la percepción*. Barcelona: Editorial Planeta.
- Merleau-Ponty, M. (2006). *La unión del alma y el cuerpo, Malebranche, Biran y Bergson*. Madrid: Ediciones Encuentro.
- Murcia, P. N. (2012). La escuela como imaginario social. Apuntes para una escuela dinámica. *Magistro* 6(12), 53-70. Universidad Santo Tomás.
- Skliar, C. (2007a). *La educación (que es) del otro: argumentos y desiertos de argumentos pedagógicos*, 1 ed. Buenos Aires: Ediciones Novedades Educativas.
- Skliar, C. (2007b). *¿Y si el otro no estuviera ahí? notas para una pedagogía (improbable) de la diferencia*. Buenos Aires: Miño y Dávila.
- Skliar, C. (2011). *Lo dicho, lo escrito, lo ignorado. Escritos mínimos entre educación, filosofía y literatura*. Buenos Aires: Miño y Dávila Editores.
- Skliar, C., & Larrosa, J. (2009). *Experiencia y alteridad en educación*, 1 edición. Rosario: Homo Sapiens Ediciones.
- Unamuno, M. (1913). *Del sentimiento trágico de la vida*. Salamanca: El Adivinario.
- Vanegas, J. H. (2001). *El cuerpo a la luz de la fenomenología*. Manizales: Artes gráficas Tizán y Universidad Autónoma de Manizales.
- Viveros, E.F., & Vergara, C.E. (2014). Aproximación a la noción de encuentro en Emmanuel Lévinas. *Revista Virtual Universidad Católica del Norte*, 41, 61-69, febrero-abril. Fundación universitaria Católica del Norte, Medellín. Recuperado de <https://goo.gl/qN232j>
- Zielinski, A. (2011). *Lévinas: la responsabilidad es sin porqué*. Bogotá: Universidad Externado de Colombia. Traducida por Alberto Supelano.





Development of a teaching team in the coordination of the teaching staff in the university environment

Desarrollo de un equipo docente en la coordinación del profesorado en el ámbito universitario

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Received: 2018-04-12 / **Reviewed:** 2018-11-08 / **Accepted:** 2018-11-28 / **Published:** 2019-01-01

Abstract

The teaching coordination in the university field has been established as one of the main elements for the good performance of teaching and good professional and organizational development. Before the identification of the low satisfaction of the students of the Marketing and Market Research Degree of the University of Cádiz with the teaching coordination, the creation of a teaching team made up of professors of said degree is proposed with the aim of creating common procedures to achieve better communication of the Title faculty and to solve the problems derived from the lack of coordination, generating greater student satisfaction. In this way, the teaching team was created and developed, establishing regular meetings throughout the 2016/2017 academic year and proposing a series of decisions or activities that would help to achieve greater and better teacher coordination. Once

the activities were carried out, the results achieved during the 2016/2017 academic year were analyzed, demonstrating greater satisfaction both in the students and in the teaching staff of the degree, therefore the experience was really positive, however it is convenient that the development and This teaching team will continue studying for the subsequent academic courses to corroborate the effectiveness of its implementation.

Keywords: Coordination, teaching, team, faculty, university, students.

Resumen

La coordinación en la docencia universitaria se ha establecido como uno de los elementos relevantes para el buen desempeño de la docencia y el buen desarrollo profesional y organizativo. Ante la identificación de la baja satisfacción de los alumnos del Grado de Marketing e Investigación de Mercados de la Universidad de Cádiz

con la coordinación docente se plantea la creación de un equipo docente formado por profesores de dicho título con el objetivo de crear procedimientos comunes para conseguir una mejor comunicación del profesorado del Título y resolver así los inconvenientes derivados de la falta de coordinación generando una mayor satisfacción del alumnado. De esta manera se creó y desarrolló el equipo docente estableciéndose reuniones periódicas durante el curso académico 2016/2017 y proponiendo una serie de actividades que ayudasen a conseguir una mayor y mejor coordinación docente. Una vez realiza-

das las actividades se analizaron los resultados conseguidos durante el curso 2016/2017, comprobándose una mayor satisfacción por parte del alumnado y el profesorado del título. Por lo tanto, la experiencia fue realmente positiva, no obstante, es conveniente que el desarrollo y el estudio dicho equipo docente se siga realizando para los posteriores cursos académicos para corroborar así la eficacia de su implantación.

Descriptor: Coordinación, docencia, equipo, profesorado, universidad, alumnado.

1. Introduction

For Martínez and Yus (2015), the heads of educational institutions should design pedagogical models that feed a didactic within the classrooms aimed at stimulating autonomy, teamwork and student creativity. For this, it is necessary to cultivate cooperation among the different professors who are an active part of the learning process of future university graduates. Bearing in mind that currently there is a great reluctance of educators of higher education institutions to undertake teaching innovation projects aimed at promoting coordination work between the different subjects that make up the academic corpus of their students (Soldevilla *et al.*, 2012).

The documentation consulted for the development of this scientific production reveals, on the one hand, the positive link that exists in the university world between the collaborative actions carried out by teachers who share a certain subject with academic results and the subjective well-being of their students (Moreno, 2006; Lavié, 2009). And on the other hand, the fundamental role that plays in the implementation of a cooperative learning model the existence of an excellent coordination between the different teachers that make up its educational ecosystem (Santos *et al.*, 2009).

From this perspective, a group of professors from the faculty of social sciences and communication at the University of Cádiz considered the creation of a teaching team with the purpose of encouraging their coordination based on the

following two objectives. The first, encourage teacher satisfaction with teacher coordination, and the second, improve student satisfaction with teacher coordination. This article specifies the activities and decisions carried out by the teaching team, as well as the evaluation method that has been considered in each of the two objectives, to know if they have been reached.

2. Justification of the study

Each academic year the quality unit of the University of Cádiz to ensure that the organization of teaching works efficiently performs a series of studies to the interest groups of the careers, among which teachers and students stand out. Once the results were analyzed, low student satisfaction was identified with the teaching coordination of the Marketing and Market Research faculty. Faced with this fact, it was proposed to improve said teaching coordination through the creation of a teaching team formed by the coordinating professors of the subjects belonging to the Marketing and Market Research area, which are taught the Marketing and Market Research degree. This area is closely related to the Degree in Marketing and Market Research, currently having 38% of teaching credits for this Degree, with 15 subjects divided by course as follows:

- 1º Course: Introduction to Marketing.
- 2º Course: Marketing Management, consumer behavior and non-profit marketing.



- 3º Course: Product and Price, sectoral marketing, market research I and II, commercial distribution I and II and commercial communication I and II.
- 4º Course: Sales force, introduction to e-marketing, fundamentals of international marketing.

Therefore, it can be assured that these subjects have a very great importance in the development of the Degree itself and in enriching the subjective well-being of both educators and their educators is indispensable for the Degree to continue to improve and to continue moving forward. The Degree after its start in the 2010/2011 academic year has been consolidated, and there are already two promotions of students who have obtained it. Therefore, once the degree has been established it is considered appropriate to make an analysis of the most important subjects of the same by the coordinators and how some aspects of them could be improved.

In this way, it has been considered essential to create the aforementioned teaching team in which the seven coordinating professors from the area belonging to the Degree in Marketing and Market Research will participate voluntarily and will serve to improve teacher coordination among the teaching staff and facilitate the group work of them. The aim is that the coordinators can complement each other and help each other in the different subjects, contributing common ideas and facilitating the work. In this way it is possible to improve the content of the subjects and that the student is more satisfied in the different satisfaction surveys.

Both from the Department of Marketing and Communication and from the dean's team of the Faculty of Social Sciences of Communication, interest is given to the realization of new actions and improvements in the Degree, thus committing to continuous improvement in teaching.

In addition, the mention of teaching staff is also made in the Degree's own memory, which specifies the following:

The different professors who teach in the same module or subject will form a Teaching Team and will maintain a permanent coordination on the development of the training activities and the achieved objectives. This coordination will be done both within the same subject, if it has more than one teacher, as between the different courses of a subject, and for the different subjects of a module. The Teaching Teams of the different subjects will update their Teaching Guide annually, meeting the objectives established in this Report and the procedures contemplated in the Quality Assurance System. On an annual basis, in an ordinary manner, and at any time in the event of deviations from the planning carried out, the members of each Teaching Team are obliged to provide the Coordinator of the Degree and the Departments of the Departments involved with the following information:

- Anticipated contents not taught.
- Degree of achievement of the foreseen capacities and objectives.
- Main difficulties encountered.
- Tools and evaluation system followed.
- Particular relevant situations.
- Obtained academic results.

The Coordinator of the Degree will convey this information to the other teaching teams that may be involved so that they adapt their teaching proposals with respect to the planned, if applicable. The departments must send an annual report to the Quality Assurance Committee of the Center (or Subcommittee of the Degree where appropriate) indicating the measures taken to adapt to the dysfunctions that have appeared and ensure coordination between the department.

3. State of the issue

As it has been foreseen in the previous p.s, there is currently an extensive bibliographic production that reveals the absence in the curricular plans of the Spanish universities of didactic actions of coordination among the teachers in



the performance of their classes. For Cazorla *et al.* (2010), the implementation of this pedagogical activity would allow three things fundamentally. The first, to design a schedule that can be given in its entirety without stress due to lack of time. The second will enrich cross-disciplinary skills and social skills of educators, and the latter, to develop attractive teaching practices of interdisciplinary nature as long as it does not affect the dates of examinations, whose schedule is approved at the beginning of the academic year by the deans. Regarding this last issue, note that there is a large number of authors that show the need to establish in Spanish higher education institutions an education that gravitates around collaborative and constructive didactics. This fact is justified by multiple factors, including a didactic that significantly cultivates not only the emergence of teachers, but also the creation of learning or knowledge communities of a formative or virtual type (Armengol, 2009; Meirinhos and Osorio, 2009, Bozu and Muñoz, 2009, Elboj *et al.*, 2002, Rué and Lodeiro, 2010, Martínez, *et al.*, 2007, Imbernón, 2012). In line with these investigations, Soldevilla *et al.* (2012) and Torrego y Ruiz (2011) reveal that for universities to adapt to the new needs of the labor market, they must promote or establish normatively the teaching coordination as an innovative and effective quality tool of educational excellence in the digital age. To do this, they must be governed by the guiding principles of training planning, informal contacts and daily communication between peers, in order to gradually cushion the individualistic behavior of many educators when teaching lectures. (Zabalza, 2000).

In line with the comments, it is worth noting the existence of two levels of teacher coordination. One type vertical (is the one that occurs throughout the development of a particular university career), and another horizontal type (this originates in the same course or group). For Martínez and Yus (2015) the vertical teaching coordination facilitates the establishment of schedules, practices, exams, etc., existing in the

different faculties that universities have. This requires a high level of communication and participation of teachers assigned to the same subject at a horizontal level. This fact will help the most responsible of the Academic Organization not only to be able to harmonize in a consensual way both levels of hierarchical organization, but also to become a key factor in the implementation of new projects of teaching innovation that aims to encourage learning models of a collaborative type that is in tune with the main topic of the present work (Torrego y Ruiz, 2011). In this sense, Parra *et al.* (2011) shows that if the universities want to achieve this specific objective, they need a solid educational culture, on the one hand, on the proactive and shared co-responsibility of their professors, and on the other, on the generation within the classrooms of an environment positive that stimulates disruptive thinking, teamwork, love to acquire knowledge ... (Senge, 1992, Hernández, 2011, Lieberman, 1995, Hargreaves, 1996, Martínez *et al.*, 2013).

4. Methodology

Once the justification for the study has been established and given the importance and implications of the teaching coordination in the university environment, the creation, development and evaluation of the teaching team is specified below.

The teaching team materialized with a meeting at the beginning of the 2016/2017 course, in September before the classes began. In this meeting, each professor contributed the proposals or ideas on the marketing subjects in the 2016/2017 course that he considered appropriate, referring more specifically to the following topics:

- Evaluation.
- Requirements of the evaluation.
- Subjects with several professors.
- Behavior or discipline of the students.
- Practical part of the subject (group work).
- Activities.



- Complementary activities between subjects.
- (Another topic that the teacher can propose).

These proposals had to be concrete, achievable and not excessively complex, which would help a better teaching performance of both teachers and students. In addition, nothing could be done that went against what is specified in the regulations of the subjects. In this way, and under consensus, the proposals were carried

out. Subsequently, the teaching team continued to meet periodically and communicate with each other through electronic means.

After the first academic course with the application of the teaching team it was possible to specify the results obtained through the activities and decisions carried out and the evaluation of the desired objectives to know if they have been reached. The following two charts specify the objectives to be achieved with the teaching team and the method used for their evaluation.

Objetivo nº 1	Improve teacher satisfaction with teacher coordination		
Objective description:	<i>Assess whether the creation of the teaching team has led teachers to improve their satisfaction with their teaching coordination.</i>		
Evaluation method:	<i>A qualitative approach has been developed by conducting personal interviews with the 7 teachers involved in the teaching team to find out their opinion and satisfaction about the teaching coordination.</i>		
Evaluation date:	<i>July 2017</i>	Measuring date of the indicator:	<i>July 2017</i>

Objetivo nº 2	Improve student satisfaction with teacher coordination		
Objective description:	<i>Check if there has been an improvement in student satisfaction with teacher coordination.</i>		
Evaluation method:	<i>The satisfaction survey of the students has been taken into account with the coordination of the teaching staff that carries out all the academic courses the guarantee and quality system of the University of Cádiz.</i>		
Evaluation date:	<i>September 2017</i>	Measuring date of the indicator:	<i>September 2017</i>

For the evaluation of objective 1, a qualitative approach based on a content analysis of the interviews conducted with the seven members of the teaching team was followed. A study acquires a qualitative approach when one wants to understand and deepen on the phenomena, exploring them from the perspective of the participants in a natural environment and in relation to the context (Hernández *et al.*, 2010). Thus, qualitative research enables the understanding of a concrete reality through the analysis of the perspectives of the representatives of a reality, in this case, the members of the teaching team.

For the collection of information, an unstructured interview has been used with the purpose of obtaining relevant information that will help to evaluate the objective. The unstructured interview does not follow a pre-established script and its sequence, as well as its formulation, may vary depending on the subject interviewed (Vargas, 2012). In this way, the interviewer asks an open question and the interviewee is free to delve into the subject. The question asked in this case was: “What has been your satisfaction with the teaching team to improve coordination among teachers?”



Once the answers of the seven professors involved in the teaching team were obtained, a categorization process was carried out to identify subjects through common patterns of the terms most used in the answers. In this study an inductive categorization is carried out, since the categories are obtained once the information has been collected, through the data based on the examination of the patterns and recurrences present in them (Chaves, 2005). Finally, the categories obtained are analyzed in order to know the opinion of the teaching staff about their satisfaction with the teaching team.

For the evaluation of objective 2, the student satisfaction survey on the coordination of the teaching staff, that takes place each academic year the guarantee and quality system of the University of Cádiz, was taken into account and compared with the data obtained in previous years (Manual of the guarantee and quality system of the University of Cádiz, 2018).

5. Obtained results

Once the teaching team has been created and developed during an academic year, the results obtained through the carried-out activities and decisions and the evaluation of the two objectives are specified.

5.1. Carried-out activities and decisions

Teaching team meetings have been held periodically to discuss different topics to improve teacher coordination and help improve teacher performance for both educators and students. To this end, three face-to-face meetings have been held and a continuous communication has been maintained via email between the involved teachers.

The activities and decisions that have been taken in the meetings with respect to the improvement of the teaching coordination of the teaching staff have been the following:

Coordination between teachers within the same subject: It is still considered essential in those subjects that are taught by several teachers that there is good coordination between them, working in common and making clear what are the objectives of the subject and what is the syllabus, thus preventing the student perceives inconsistencies or substantial differences between what is taught by each teacher.

In this sense, a meeting is recommended before the course begins, as well as a calendar of the subject about what is expected to be taught each day. (In the same email, a calendar model will be attached so that each coordinator can fill it in with their subject).

A model is also attached so that the teachers of the practical groups can comment on what practices they are going to carry out and share it with the theory teacher.

Midterm exams: There is debate about the suitability of midterm exams in marketing subjects. It is concluded that the partial exam may be good for students and although it is the coordinator of the subject's authority to establish what type of midterm exams are carried out in their subject, each teacher comments on the type of exam considered most suitable, opening the possibility that instead of performing two exams, only one is taken at the end of the subject and that the student can be exempt from the final exam. All this while not contradicting the 1B card of the subject and the modification of said card if it were the case.

Change of practical groups: The changes of students in the practical groups is the decision of the coordinator of the subject, being able to choose this by the criterion that considers appropriate. What everyone agrees is that students cannot be allowed to change groups without control to avoid a substantial gap between the number of students in one group and another. Since the coordination of the degree, the basic instructions on division of practical groups and group changes were given, a fact that can be



clearly verified in the minutes of the degree coordination meeting.

Conferences: All those present agree on the suitability of bringing speakers of interest, therefore, it was decided that anyone who knows any professional in the sector that may be interesting contact the coordinator of the degree to be able to form a conference. On this subject, we are currently working to bring alumni who are working to tell their experiences to the students, as well as professionals from the sector.

Behavior of students in class: A debate is opened on the suitability of common guidelines among teachers to deal with the behavior of students in class. Therefore, it is specified that ideally all teachers maintain at least some basic behavior guidelines that do not vary much between subjects. A PowerPoint file is attached to the email so that the teacher can post it on the Virtual Campus and communicate it to the student on the first day of class.

To verify if the objective of improving teacher coordination has been met, an interview has been conducted with the 6 teachers who have been more active in the teaching team.

In these interviews, teachers were asked for their opinion on what the teaching team has contributed as a help to the coordination among the teaching staff. The conclusions are as follows:

- Better communication between teachers was necessary.
- It was necessary to carry out common actions within the marketing and market research area within the marketing degree.
- It is appropriate to hold at least two coordination meetings each year, one at the beginning and the other at the end of it.
- After the proposals there must be a control to check the effectiveness and compliance of the same.

Overlapping of content: It is necessary to avoid on the part of the professorship the overlap of content with respect to another subject, as

much in the theoretical part as in the practical part. The tabs of the subjects with the syllabus are available to all teachers, if anyone considers it appropriate to impart some specific content that matches another subject, it is recommended that they communicate it to the teacher of that subject so that they have knowledge.

Updating subjects' content and content in digital marketing: It is also advised that for each subject content is updated that the teacher considers appropriate to adapt to new marketing opportunities that arise, including digital marketing in which the teacher will have to consider when updating the content of the subject.

Practice for the subjects of the 3rd year of the degree: The idea of carrying out a practical part related to each one of these subjects is maintained for the 3rd year subjects. Specifically, it deals with the subjects Product and Price, Commercial Distribution I and Commercial Communication I, it is based on the realization of a food fair. The generic proposal that was made in this 2015/2016 course will be sent in the same mail of the minutes so that it is taken into account for the next course.

To ascertain whether the objective of improving teacher coordination has been met, a survey and an interview have been carried out with the 6 teachers who have participated more actively in the teaching team.

To check if the objective of improving teacher coordination has been met, an appointment has been made with the 6 teachers who have been more actively involved in the teaching team to obtain information.

In this way the faculty was asked if the participation in the teaching team has been useful to improve and solve problems in teaching and if they saw fit to continue doing it in the future.

The result was positive and, in general, the importance of making common decisions in teaching was highlighted to avoid duplications, improve the content of the subject and complement practical exercises between subjects.



5.2. Objective 1 evaluation

Then, as previously specified in the methodology, the responses of the seven professors are analyzed in order to know their satisfaction with the development of the teaching team for the coordination of the teaching staff. In the answers a total of 5 categories have been identified: Experience with the teaching team, carried out activities, goals achieved, communication between the teaching team and future perspectives.

About the experience with the teaching team: in general, the teachers have considered it very positive, highlighting that it should have been done previously and they have felt comfortable working together with their peers, even better than initially expected when the creation of the team was proposed.

Regarding the achievements of the teaching team, the teachers highlighted an improvement in motivation and commitment, being able to put their ideas and knowledge into practice with the other peers and verifying that the coordination situation between them was generating greater ease and improvement in teaching. Some professors have also highlighted the importance of the team in the proposal of decisions and in the resolution of problems, being able to share their experiences with colleagues and thus proposing joint and common proposals and solutions. Finally, some teachers also positively valued a more active contact and communication among teachers.

Regarding the activities carried out by the teaching team, most of the teachers have highlighted the proposal of common guidelines on the behavior of students in class, since it was a problem that had been occurring for years in the classrooms and it improved ostensibly with the proposal of common patterns of behavior among the involved teachers. The other two most mentioned activities have been the improvement of the coordination of the teaching staff within the same subject and the proposal to avoid the overlapping of contents between the different subjects.

On communication there has been a greater discrepancy among the teachers. As previously mentioned for the communication and the contact of the teaching team, three face-to-face meetings have been held along with the one made through the e-mail. For some teachers, communication has been adequate for the development and good functioning of the team. Others, however, consider the need for more face-to-face meetings to solve problems that arise during the course. Finally, others consider that there are too many meetings and that it would be enough to have only one meeting at the beginning of the course and that the rest can be done through electronic means or specific meetings with a member of the team.

Finally, on the future perspectives the answers have been very encouraging since the seven teachers have specified their commitment to continue belonging and participating in the teaching team for further courses. In addition to this, they have proposed to talk positively about the need to train teaching teams with other teachers from other areas.

Based on the responses and opinions issued by educators who are members of the teaching team, it can be said that the creation and development of the teaching team has led to greater teacher satisfaction with their coordination, the only point to develop the form and periodicity communication between the teaching team.

5.3. Objective 2 evaluation

It has also been considered pertinent to check whether, under the prism of the students, there has been an improvement in the coordination between the teaching staff.

The assessment of the students with the coordination of the teaching staff can be verified through the document manager of the guarantee and quality system of the University of Cádiz, specifically in the Procedure (P08) "Procedure for the evaluation of the satisfaction of the groups of interest". The data of this assessment of



the students of the coordination of the teaching staff was the lowest indicator that the degree had with a 2.08 out of 5 for the 2015/2016 course.

In the new academic year 2016/2017 we have verified that the assessment of the coordination of the teaching staff by the students is of 2.38 out of 5, 0.3 percentage points more than in the past year. This assessment is encouraging, but it is recommended that it continue to be tested throughout future courses as the teaching team consolidates itself.

6. Conclusions

Currently, if Spanish universities want to cultivate quality and excellent education, they must incorporate teacher coordination into their curricular plans. This innovative didactic tool is a very important instrument not only to stimulate personal relationships and teamwork among teachers, but also to promote cooperative learning of students, and therefore, their future insertion in the labor market. To achieve this goal, two things are fundamentally needed. The first is to establish normatively elements that encourage the coordination of educators in the development of their academic performance, and the second to design a collaborative teaching model that enriches the subjective well-being of teachers through the content of the subjects and the promotion of use of new technologies (ICT).

Regarding the case in this study, it can be confirmed that the experience with the teaching team has been really positive. Through the established procedures for its development, it has allowed the professors a greater and better coordination among them, being able to complement and help each other in the different subjects, contributing common ideas and thus facilitating the work. In this way they have been able to establish a better coordination between teachers of the same subject, establish common criteria based on midterm exams, changes of practical groups, conducting conferences and behavior of students in class. The teaching team has also

allowed for a better teaching performance of the teaching staff, thus avoiding the overlapping of content in the different subjects, updating their contents and establishing practical activities common among the subjects. In addition to the improvements from the focus of the teaching staff, the teaching team has also allowed the students to have perceived a better teacher coordination of the teaching staff and a better performance in the teaching of the different subjects involved. The only section where there has been more discrepancies between the teachers and the one that should be taken into account in the future for their development is about the contact and communication between the teaching team, since some teachers consider the three face-to-face meetings carried out in the team during the course to be insufficient, while others consider it excessive, preferring more contact online or in specific situations.

In this way, it can be highlighted that the formation of the teaching team has increased the satisfaction in the coordination in the educators and in the future graduates. However, it should be noted that the teaching team is of scarce creation, performing the work for more than one academic year. Although the first evaluations are positive, it is still pending to examine how it evolves over time and check whether positive results are still achieved, both from the point of view of the teaching staff and the students.

Bibliographic references

- Armengol, C. *et al.* (2009). La coordinación académica en la Universidad. Estrategias para una educación de calidad. *REIFOP*, 12(2), 121-144. Recuperado de <https://goo.gl/C1XfrJ>
- Bozu, Z., & Muñoz, F. I. (2009). Creando comunidades de práctica y conocimiento en la Universidad: una experiencia de trabajo entre las universidades de lengua catalana. *RUSC. Universities and Knowledge Society Journal*, 6(1).
- Cazorla, D., Macià, M., Puerta, J. M., Serrano, R., & Rojo, T. (2010). Plan de coordinación docente en el Grado de Ingeniería Informática. En



- XVI Jornadas de Enseñanza Universitaria de la Informática. Universidade de Santiago de Compostela. Escola Técnica Superior d'Enxeñaría, 138-144.
- Chaves, C. R. (2005). La categorización un aspecto crucial en la investigación cualitativa. *InvestigiumIRE*, 6(1), 113-118.
- Elboj, C., Puigdemívol, I., Soler, M., & Valls, R. (2002). *Comunidades de aprendizaje. Transformar la educación*. Barcelona: Graó.
- Hargreaves, A. (1996). *Profesorado, cultura y post-modernidad (Cambian los tiempos, cambia el profesorado)*. Madrid: Morata.
- Hernández Sampieri, R., Fernández Collado, C., & Baptista Lucio, M. D. (2010). *Metodología de la investigación*. México DF.
- Imbernón, F. (2012). La formación permanente a través de las redes. De las comunidades de práctica formativa a las redes de profesorado. *Revista Digital Educativa Wadi-red*, 2(3).
- Lavié Martínez, J. M. (2009). *El trabajo colaborativo del profesorado*. Sevilla: Comunicación Social Ediciones y Publicaciones.
- Lieberman, A. (1995). *The work of restructuring School: building from the ground up*. New York: Teachers College Press.
- Martínez, M. J. B., Yus, M. Á. M., & Currás, M. P. (2013). Coordinación docente e interdisciplinariedad: análisis de su contribución a la adquisición de competencias docentes y discentes. *REDU. Revista de Docencia Universitaria*, 11(2), 443-462.
- Martínez, M. J., & Yus, M. Á. M. (2015). La coordinación docente en la universidad: retos y problemas a partir de Bolonia. Profesorado. *Revista de Currículum y Formación de Profesorado*, 19(2), 319-332.
- Martínez, M., Prieto, A.T., Rincón, Y., & Carbonell, D. (2007). Aprendizaje en las comunidades de conocimiento desde una perspectiva organizacional: una aproximación teórica. *ORBIS Revista Científica Ciencias Humanas*, 3, 007, 46-64.
- Meirinhos, M., & Osorio, A. (2009). Las comunidades virtuales de aprendizaje: el papel central de la colaboración. *Pixel-Bit. Revista de Medios y Educación*, 35, 45-60.
- Moreno Olivos, T. (2006). La colaboración y la colegialidad docente en la universidad: del discurso a la realidad. *Perfiles Educativos*, 112, 98-130.
- Parra Costa, C. J., Periago Bayonas, P. M., García Baño, R., Sánchez, M., Francisco, J., Peñalver Martínez, M. J., & Doménech Asensi, G. (2011). *Estrategias de coordinación horizontal y vertical en los planes de estudios adaptados al EEES (1815-1824)*. Congreso Internacional de Innovación Docente, Cartagena. Cartagena: Universidad Politécnica de Cartagena.
- Rué, J., & Lodeiro, L. (2010). *Equipos docentes y nuevas identidades académicas*. Madrid: Narcea.
- Santos Rego, M. A., Lorenzo Modelo, M.M., & Priegue Caamaño, D. (2009). Aprendizaje cooperativo: prácticapedagógica para el desarrollo escolar y cultural. *Magis, Revista Internacional de Investigación en Educación*, 2, 289-303.
- Senge, P. (1992). *La Quinta Disciplina*. Barcelona: Granica, S. A. Sánchez Santamaría.
- Soldevilla, M. F. G., García Cabrera, M., Llorent García, V. J., & García, Á. O. (2012). La coordinación docente universitaria desde la percepción del alumnado. *Revista de Docencia Universitaria*, 10(2).
- Torrego Egado, L., & Ruiz Esteban, C. (2011). La coordinación docente en la implantación de los Títulos de Grado. *Revista electrónica interuniversitaria de formación del profesorado*, 14(4).
- Vargas, I. (2012). La entrevista en la investigación cualitativa: nuevas tendencias y retos. *Revista Calidad en la Educación Superior*, 3(1), 119-139.
- Zabalza, M. (2000). El papel de los departamentos universitarios en la mejora de la calidad de la docencia. *Revista Interuniversitaria de Formación del Profesorado*, 38, 47-66.





The Zapatist school: educating for autonomy and emancipation

La escuela zapatista: educar para autonomía y la emancipación

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Received: 2018-03-31 / **Reviewed:** 2018-11-05 / **Accepted:** 2018-11-20 / **Published:** 2019-01-01

Abstract

The present article exposes the development of the school of the Zapatista movement, which builds its educational proposal from the community, based on ancestral wisdom to link it with contemporary thought. The aim of the Zapatista education is to train generations in the practice of autonomy and self-government in order to preserve its indigenous dignity. This experience is not a model, nor does it fit into other pedagogical movements. Although it is original, Paulo Freire's ideas can be distinguished such as his alphabetize to understand the world and transform it. In this sense, the Zapatista school is anti-capitalist and is not governed by the rules of the market that grants titles to students to earn for money; it is not merchandise because nobody pays to learn and nobody charges for teaching; it is not part of the State either; because each town determines the curricular contents to use the knowledge and develop the collectivization of the field, promote cooperatives and the communal stores. Unlike the globalization trend of schools that promote the entrepreneurial mentality, merit and self-employment; Zapatista education aspires that young people serve their people, be supportive and that knowledge does not imply social

hierarchy. The experience in a Zapatista community and the interviews with promoters of education, allow us to understand that the Zapatista school is still under construction and must avoid the bureaucratization and homogenization proper to capitalism.

Keywords: School, zapatismo, education, community, autonomy, emancipation.

Resumen

En el presente artículo se expone el desarrollo de la escuela del movimiento zapatista que construye su propuesta educativa desde la comunidad, basados en la sabiduría ancestral para ligarla con el pensamiento contemporáneo. El fin de la educación zapatista es formar generaciones en la práctica de la autonomía y autogobierno para conservar su dignidad indígena. La experiencia no es un modelo ni cabe en otras corrientes pedagógicas. Aunque original, en su base pueden distinguirse las ideas de Paulo Freire de alfabetizar para leer el mundo y transformarlo. En este sentido, la escuela zapatista es anticapitalista y no se rige por las normas del mercado que expide títulos para cambiarse por dinero; no es mercancía pues nadie paga por aprender y a nadie cobra por enseñar; tampoco es un aparato de

Estado, porque cada pueblo determina los contenidos curriculares para usar el conocimiento y desarrollar la colectivización del campo, impulsar cooperativas y las tiendas comunales. A diferencia de la tendencia global de escuelas que promueven la mentalidad emprendedora, del mérito y de autoempleo, en la educación zapatista se aspira a que los jóvenes sirvan a su pueblo, sean solidarios y que los conocimientos no impliquen

la jerarquización social. La vivencia en una comunidad zapatista y las entrevistas con promotores de educación, permiten entender que la escuela zapatista sigue en construcción y debe evitar la burocratización y la homogeneización propias del capitalismo.

Descriptor: Escuela, zapatismo, educación, comunidad, autonomía, emancipación.

1. Introduction

This article presents an approach to the Zapatist educational experience. In principle, it is established that the path until 2018 does not correspond to the logic of linking education with the objectives of the Government. It is an attempt to overcome the postulates of Louis Althusser (2003) who sees the school as an ideological apparatus to reproduce the values of the groups in power. One evidence is the lack of uniqueness in the curriculum and teaching methods of each community. Teaching seeks a more autonomous, active, creative and liberating learning; in which dignity matters more than the commercialization of professional titles. The quality and evaluation criteria related to the efficiency and control of industrial productivity do not exist in its school. It is not an education to promote the entrepreneurial and individualist ideology of human capital as a solution to all problems. On the contrary, it is a proposal built from the communities to emancipate themselves from capitalism and, according to Zapatism, from its four wheels: exploitation, dispossession, repression and contempt.

The analysis arose from the coexistence in a community of Acteal with assistance to the Zapatist school, from the *Rebeldía* magazine, from some communications from Sub/com-mander Marcos and from texts of research and analysis about the Zapatist educational practice. The foundations of the Zapatist formation and a discussion about the current capitalist school are presented in the structure of the text. The aim is to characterize the meaning of the Zapatist

teaching, which includes a brief historical overview of popular education in Latin America. The experience of the Zapatist school that designs its curriculum and contents from each community is detailed below. The final section of the article presents the reflections of its proposal and some of its difficulties. The features of public education as right and not a commodity and orientated towards the goals of autonomy of the Zapatist movement are also highlighted.

2. The Zapatist school in the context of globalization

Zapatist education emerged after its armed movement and the establishment of 38 autonomous municipalities in 1994, as a political fact to form the population in the consciousness for self-government, difference, gender equality, care of their territories, economic independence and food self-sufficiency. In the Third Declaration of Selva Lacandona, the Zapatist National Liberation Army (EZLN, 1995) called for a National Liberation Movement to design a new Constitution and a transitional government, and to prevent the sale of the ejido to private individuals. It demanded an economic program in favor of the workers and peasant collectives, the main producers of wealth, and for the autonomy of the indigenous peoples that recognizes their social, cultural and political organization. Since its appearance, in the First Declaration of Selva Lacandona (EZLN, 1994) Zapatism expressed its renunciation of the seizure of power, of being vanguard, of charging to govern, and expressed



that they would disappear when the causes of their insurrection are eliminated.

To understand the practice of the Zapatist school, it is convenient to distance oneself from the rhetoric that considers schooling as an instrument for material and social development of the countries, especially since the 1960s. In 2018 the school that certifies for the world of work is shown as a fetish for the solution of all problems. In the absence of empirical evidence that education is equal to economic and human progress, the idea of Ivan Illich (1989) of de-schooling the world is reborn. In Mexico, each new government implements educational reforms and little changes. There is no jocular comment that the recurrence of such reforms shows their uselessness (Tyack and Cuban, 2001). For example, the modification in the law on working conditions for teachers in 2012 is justified because it means that it will improve the teaching work and the operation of the school to achieve educational quality, and thus resolve the conflicts generated in society, still called capitalism.

In the 21st century, amid the happy songs of the success of globalization, the dispossession and exploitation of nature persists; profits are the axis of the economy and not for the service of the families, the transnationals control the countries and the presidents become managers; the inequality of the distribution of income is accentuated; biotechnology and information technology increase unemployment (Silva, 2018). How to solve it? It will say the official rhetoric: "forming high quality human capital in schools". It is believed that the school with subjects such as vocational guidance, sex or road safety education, will be able to solve the disconnection profile of egress-work, road accidents or venereal diseases. Without missing the promotion of universal values related to capital, synthesized in the profile of entrepreneurial subjects capable of self-employment. Appropriate strategy in the context of job cuts in the private and government sectors, plus the increase in labor subcontracting policies that decrease benefits, there is only the alternative of working on their own.

This is what the Mexican Government proposes in the Sectorial Education Program 2013-2018, Strategy 1. Democratize Productivity:

5. Promote and encourage the entrepreneurial vocation (...) as a professional option (...) looking for synergies (...) of human capital formation (...) 15. Strengthen the national system of labor competencies (...) (certifying) productive, educational and labor initiatives and training (pp. 52-53).

The hegemonic discourse in Mexican schools renews the notion of ideological apparatus of Althusser (2003), because the school reproduces the interests of the State. Does the curriculum in competitions do not correspond to the demands of the globalized business community? Is quality in education measured with the parameters of production or with the qualitative, non-measurable criteria of classroom daily life? Or does the evaluation of teachers escape from the indicators of efficiency and productivity typical of the industry that manufactures by piecework? Or the predominance of the student-centered teaching model, which is not very novel when compared to the new school?

But not all is lost. There is a critical pedagogy that locates the problem of education in the political, not in the technical. After analyzing the ideology that underlies teaching processes, they understand schools as spaces of resistance and generation of alternative community projects to state power (Giroux, 1992, Apple, 1997). They postulate that the renewal of teaching cannot be separated from social rethinking, based on Freire's ideas, a critical and emancipatory education is attempted, because domination is not total. And the teacher must be a transforming intellectual (Giroux, 1997). The institutional analysis provides the notion of pedagogical self-management which means the teachers' refusal to transmit messages in the classroom and aspires that the student decides the methods of learning (Lapassade, 1977). Finally, the concept of resistance in the school, a space of contradiction and conflict,



imagines that alternative cultural practices and/or opposition to hegemony can be generated.

The antipodes allow us to ask ourselves if education ever served society. In the history of Mexico appears the ideal of the 1910 revolution to promote a sovereign and inclusive national development. In rural Mexico, teachers at that time disseminated practical agricultural knowledge according to the region and tried to solve the problems of the community (Vaughan, 1997). Tannery, popular songs, physical education and dance were also taught. The image of those teachers was professional, honest and committed to a national education heir to the principle: the land belongs to those who work it. However, the cultural missions promoted by José Vasconcelos that under the notion of civilization to integrate the indigenous sector, tried to deprive native peoples of their identity.

Jumping to the sixties, in the world there were experiences like the Experimental Institute of Oslo that questioned the logic of the bureaucratic school and posed: non-compulsory attendance to the classes; program and teaching methods discussed between students and teachers; teaching freedom. The proposal arose from failed high school students who decided to establish a non-traditional school. Teaching would be free and without the oppression of regulations, seeking to form autonomous and democratic people (Jørgensen, 1997). It would be as simple as the aspiration of an education opposed to the logic of reproducing the single thought and of obedience to the rules, because school alone cannot modify social ills. In other words, without social reform there is no educational reform; or vice versa.

To close the section, since 1875 Marx wrote that education is not the same for all social classes. He ironized the feasibility of forcing the bourgeoisie to study in the modest public school, the only one accessible to the proletariat and the peasantry. For Marx (1986) the State should not be responsible for popular education, beyond the delivery of resources and regulate the conditions of the teaching staff, but the people must educate

the State. It seems that such deliberations were understood by the Zapatists.

3. The attempts to define Zapatists education

One of the proposals to characterize the Zapatist teaching is to link it with popular education and the thinking of Paulo Freire, when he proposes literacy essential to know the world, name it, so that people learn to say their word and try to transform it. It is an education for the people in search of the emancipation of any tutelage, subordination, dependence or servitude. It is not the people in the abstract, it refers to people who live in social, political and economic marginalization. For Freire (1997) “rebellion is an indispensable starting point” (p.77) against injustice. In the indigenous case, to get out of oppression, discrimination, even racism, that they have suffered in Mexico. Therefore, without ambiguities, Zapatist education aspires to a school with a political pedagogy for peace, civic education for the sake of building community power, self-government and non-commercial education. Achieving it implies that the contents and didactics arise from the people to be trained with, by and in the community.

In Latin America, popular education has a long tradition. According to Gómez and Puiggrós (1986) nationalist and popular pedagogical practices in the continent exist, at least, since 1935. In their recount they point out that Lázaro Cárdenas in Mexico promoted this education. In 1946 in Guatemala the Ambulatory Cultural Missions were instituted to reach the entire nation. The cult of patriotic symbols and values, knowledge of the Constitution and the meaning of the revolution spread. In addition, hygiene, prevention and cure of diseases, notions about pregnancy and childbirth, agricultural techniques and crop rotation were promoted. They took care of promoting sports, music, cinema, theater. Although they did not have the expected effect, the Missions were formed with



a multidisciplinary team (currently in vogue, as if it were a novelty): a teacher, a medical student last year, an agricultural expert, an army officer and an indigenous interpreter.

Along the way, Gómez and Puiggrós (1986) highlight the experiences of Bolivia (1938 and 1954), Colombia (1947), El Salvador (1974), Cuba (1960) and Nicaragua (1980). They claim that in 1961 the discourse of the pedagogy of liberation was elaborated; and from 1976 to 1983 the school was a space to fight against dictatorships. Criticisms to the education that forms obedient, individualistic people, the capitalist ideology and the scientific, technological, cultural and economic dependence of Latin America stand out. The alternative is generated from the marginalized community and society, by free education, by the defense of culture and the equality of women. The emphasis of popular education was the ethnic and indigenous as it was in the Andean countries. The sources that make up this current, among others, are the theology of liberation, action research and popular communication, according to Gómez and Puiggrós.

In this context, for Torres (2012), the Zapatist school, which calls itself true education, takes up Freire's postulates about humanization, the liberation of oppressors, the political nature of teaching and its perspective of transforming power structures. It is an education for praxis, with linguistic and cultural heterogeneity, with a critical and radical pedagogy. Consequently, Zapatist education is of collective participation, claims to be indigenous, establishes bonds of solidarity and shared responsibility in their peoples. The school curriculum is designed from the community and in congruence with the Zapatist demands of the 1994 rebellion, they gather the oral knowledge of the elderly. The promoters of education prepare the didactic material of the stories, guides and books, in collaboration with external advisers.

Another characterization of the Zapatist school is Baronets' (2010, 2011a, 2015), who conceives it with indigenous autonomy, horizontal relations in education, the democratization of school management, a contextualized

teaching related to the social, ethnic and political identities of the peoples. They are schools of resistance and emancipation according to a political-regional project in each autonomous municipality, based on pedagogical principles of praxis and common sense. There is no teaching model of study programs, but constant construction. Baronnet agrees with Muñoz (2004) in that those in charge of education in workshops integrate the demands of knowledge in reflection and analysis groups in the communities that are ratified by the assemblies and the municipal authorities. Hence the name of true education, because it is developed against colonialist values and behavior. It is about rescuing the traditional historical memory of the people and culture with the participation of families. This allows the Zapatist school not to be the main instance of political socialization, because in everyday life, children participate in public events, assemblies and social mobilization. Finally, for Baronnet (2011a) the educational ideology is integrated with the thinking of the left of Che Guevara and Friere; and in teaching they follow some active pedagogical practices of Celestin Freinet.

It is not intended to express a model of Zapatist education with this brief account. However, political and philosophical principles are detected, such as popular education, Freire's emancipatory idea, the curriculum drawn from each community, education as a matter of families, the school, the authorities and the EZLN. The relationship in the classroom is horizontal, not authoritarian and active. It is a theoretical-practical training because it combines the school with the work in the community; it is a non-commercial education, because people are not paid to teach or to learn; neither are titles sold to be exchanged in the labor market.

4. The Zapatist educational experience

From the voices of Doroteo, Abraham, Artemio and Gerónimo members of the JBG and the



administration of the peoples, it is established that the Zapatist Autonomous Education System of National Liberation (SERAZLN) began in 1997 in La Realidad, in the Autonomous Zapatist Rebel Municipality Libertad de los Pueblos Mayas (EZLN, s.f.a). From before 1994 they understood that official education and its methods were not compatible with their efforts of autonomy, since it was a matter of instituting an education for and by the people. For starters, there was no recipe or resources. Nor were they satisfied with the work of the teachers sent by the government. In San Juan de la Libertad they chose to organize a secondary school with people who studied high school, and even a teacher. The aim was to take advantage of the fact that with the girls and boys graduated from primary school, the new educators would be trained. Then the group *Escuelas para Chipas* supported the construction of classrooms and ended up in the Zapatist Autonomous Rebel High Schools (ESRAZ).

After reflecting, they decided that mathematics, reading and writing could not be changed because of their universal scope. But in history if they modified the themes. They included the trajectory of the EZLN and other social movements. Then the parents of the people were asked what the Zapatist children needed to learn in each community. Other content and name changes were made in Spanish and natural sciences. They were renamed languages and life and environment, respectively. "Integration" was added to various topics that did not cover the subjects, such as the 13 demands of their uprising. Also, the notion of subject was replaced by area. In the municipality of Ricardo Flores Magón they developed the "true education document", understood as rescuing the knowledge of the people, to know its history. With the support of the civil society of compatriots and internationalists, the plans and study programs and the teaching materials were elaborated. Then they considered how to evaluate the learning of the boy or girl. They agreed that in the autonomous school the report cards and certificates of study

were dispensable. Also, they discarded the exams because the learning would be verified in the development of their work in a position.

Another challenge for the autonomous education was the formation of promoters of education, which was possible with the collaboration of the group *Semillitas del Sol*, from Mexico City. The training lasts six months, an evaluation is applied and if someone does not show full knowledge of the area, they study two more months. Then the Compañero Manuel Formation Center was created. They were called promoters because they did not attend normal school to train to teach. With the creation of the Juntas de Buen Gobierno (JBG)¹ in August 2003, the SERAZLN structure was consolidated and the construction of schools increased. In primary school, three levels are taught, and they learn to read and write. In the municipality of Che Guevara students left their communities and lived a period of more intense study.

For Zapatism, the autonomy of the school begins with the economic, ideological and educational independence of the Mexican government. The construction of its educational system in the pedagogical and material derives from the solidarity of the peoples of the world. The purpose and meaning of the Zapatist school is not training for work, but understanding its history, its culture and its worldview. The desire is to train indigenous and non-indigenous professionals to help their communities, aimed at strengthening the construction of their political, economic, social and cultural autonomy. In summary: "We can educate with the students, who educate us, in order to educate ourselves about who we are for life and thus build those many worlds that we all dream of" (SERAZLN, s.f., par.2). Schools receive financial support and are administered and monitored by authorities from the people.

The contents of Zapatist education are designed based on the purposes that generated their rebellion: health, roof, land, work, food, education, independence, democracy, freedom, justice, culture, information and peace



(EZLN, 1994). The equivalent of the curriculum of Zapatist education is completed with the daily knowledge of their communities and the proposal of each one of the necessary subjects for their sons and daughters to learn. In the classes the reality of the country, the ways of coexistence and the language of the people are studied. As in the SERAZLN the differences are respected, the areas of knowledge vary according to the community and are divided into: languages, mathematics, natural sciences, social sciences, humanism and production, which covers the care of the environment, with the same number of hours of study a week. In secondary school, the development of their peoples and of global events are examined.

In La Garrucha, in the Tzeltal jungle, in 2008 the educational dynamic was renewed when the Semillita del Sol school was established, organized on three levels. They start by teaching children to write and draw, going through understanding the demands of the Zapatist movement, until analyzing communications, denunciations, organization of their government, the reasons for their struggle and the achievement of their autonomy. It includes knowledge of the sustainability of the territory. A transversal issue, as is common in current curricula, is agroecology because it is a concern in the communities.

The motto of the Zapatist schools: “That there be a real education and that it be for all”, under the principle of educating the student with the collective conscience, group learning didactics and non-directive. It is an ideal to learn in freedom, oriented towards each child reaching knowledge in collaboration with promoters, in an environment without abuse. If the Zapatist education is part of their resistance and the dissemination of their Zapatist philosophy, therefore, it is intended that the students reflect “(...) on the struggle, since the main objective that we propose is that (...) have a different vision of the life. That they do not make an individualistic life” (Muñoz, 2004, p.10). Upon graduation, young women and young people are asked to support the tasks of agroecology, in distribution centers, in pharma-

cies or in alphabetizing. The formative interest of the school focuses on serving the people, not to work in favor of capitalism; neither to differentiate between those who know more and avoid the hierarchy of capitalist education.

An advance of the Zapatist school is the assistance of girls to educate themselves and combat marginalization. In the certificates of the ESRAZ comes the legend: “For what our Educational System recognizes its effort, its contributions to the resistance struggle and invites you to share with our people, what the people have given (...) a liberating education, (...) scientific and popular! I put myself at the service of my people” (Marcos, 2003, par. 21). There are two evaluations: A (approved area) and ANA (area not approved). The school is free, and the education committees ensure that each student has a notebook and pen.

For a non-differentiating education grades, exams or certifications aren’t needed. The important thing is that the Zapatist youth applies their learning and their reading and writing skills in their daily and community life. Of course, different to the competences arising from the industry that in the schools models the graduate profile for Toyotista production (Silva, 2016). By the way, competences decided from Europe through the Tunning project, distant from the knowledge and contents decided from the community congruent with their understanding of reality. Reading and writing skills are useful for women to develop their tasks in the JBG. To govern, titles and academic degrees are not required. Unnecessary to keep the accounting of the expenses of the JBG or in the training of the midwives, *yerberas* and *hueseras*. It also serves women when they work as zone coordinators or education trainers.

5. Men and women who make non-mercantilist education possible

To support that Zapatist education is not subject to trade, the comments of my interview with three



promoters and of Oventik, in addition to conversations with an Acteal family during my attendance at the Zapatist school in January 2014 are exposed. The EZLN called to live with their support bases in their communities to learn through their teachings, their thoughts, and their freedom, the successes, errors, problems and solutions, the advances and obstacles of their autonomy (Moisés, 2013). The EZLN also produced “text-books” for attendees to study how they have built their self-government, the participation of women in politics, their advances in health and education. The families provided us with room and food. We share their productive activities, political meetings and talk about their resistance.

Thus, the community assembly elects those who educate in the Zapatist school and will be dismissed according to the criteria of the vigilance committee. They call them promoters of education, because they were not trained in some official normal, but with the people with teaching capacities in their towns. Acceptance to teach is voluntary and is part of a commitment to educate for liberation and struggle. He/she does not receive a posting and must work in the field, because he/she is committed to work for the support of the school (Baronnet, 2011b). Being a promoter of education is not a way to achieve economic solvency, nor privileges in the community. As Johnny, promoter of education, says: “(...) We work for consciousness nothing else and the conscience is what we earn ... we do not charge anything, because it is free” (Hijar, 2008, p.147).

The livelihood of the promoters consists of the community helping them with food, clothes or they work in the plots of their relatives during the holidays, in the elaboration of handicrafts or poultry farming. Therefore, educating implies the dedication to disseminate the Zapatist political, social and economic project that seeks autonomy and self-government. In summary, we do not work for capitalist economic remuneration. As Marx and Engels (1985) pointed out, the bourgeoisie with money buried

personal dignity by converting the doctor, the jurist, the poet, the priest, the man of science into wage-earners.

In the ESRAZ the promoters coordinate the school collectively and in a rotating way, they decide the school activities based on consensus, among many things, how to work. Thanks to their autonomy they determine the pedagogical and administrative issues. A form of teaching is through generating questions, taken from Freire, and the questioning of real-life issues, this produces the themes to be developed in the classroom. As a group, the student deliberates how to answer the questions to learn, supported by the review of documents, the observation of their environment or the development of experiments.

In its global perspective, the Rebel Autonomous Zapatist Center for Spanish and Mayan Languages CELMRAZ) welcomes people who wish to learn Tzotzil and Spanish. Without high tuition or limit the offer of languages to English as a lingua franca. As a solidary attitude, only three days of minimum wage are paid from the country where they reside and work, plus 150 pesos for food. In addition, they grant meals and housing, because the principle of CELMRAZ is: “We do not make the language one more commodity” (s.f., parr.2).

6. The organization of lessons and training for political autonomy

Regarding the lessons, the Zapatist pedagogy establishes the activities according to students and promoters, the schedules are flexible, and it is not restricted to a physical space. The sessions seek the collective construction and the animation of activities. As a result, videos of the Zapatist struggle are displayed; the spaces where economic projects are developed are visited; coexistence and joy are promoted with songs, dances and debates; volunteer work is invited in the library or in the sowing. The conversation and the collective reflection are encouraged.



The goal is to achieve the autonomy it implies for Zapatism, as synthesized by Adamovsky *et al.* (2011), the way of doing politics independently of the political class and its parties, rejecting authoritarianism and the relations of domination of daily life; the diversity that questions the hegemony of any kind; in favor of self-management and self-determination; and the emancipation of capital. They refuse to no longer be indigenous peoples and to be colonies of the landowners. In their form of government, the Zapatist indigenous communities are guided by the command-obeying. The people command and the authorities obey, there is no payment for governing and the posts are rotating and elected by the assemblies. López (2011) condenses the demand for autonomy of the indigenous movement: they demand collective rights for their peoples; the transformation of the State; they claim their territories and the ownership of their natural resources; the recognition of their forms of government and the administration of their own justice; respect for their culture.

In summary, Zapatism intends to educate for liberation based on the experiences of the communities. The structure of the tiered schools does not imply the rigorous division by age. This allows a coexistence in the classrooms of students of different ages and reinforces Freire's principle that no one educates anyone, and nobody educates alone. Zapatist education aims to achieve that young people in the communities identify with their past and present indigenous history, accept the difference between people and preserve their language. It is about educating to form in autonomy a new way of doing politics, direct democracy and rejecting that the land is an article to be sold to the highest bidder.

7. Reflections on the Zapatist school

Zapatist education fulfills three concepts absent in market globalization: 1) it is public, because it is designed from the people and is a right;

2) it is free, because it does not depend on the State or the transnationals of money or culture to design its curriculum, nor does it certify the student body to be one more file in the archives of the school bureaucracy; 3) doesn't have a cost, nobody pays to attend school, and nobody charges for teaching, so education is not a commodity. It does not correspond to the academic capitalism that in summary means: to carry out activities in the universities and the academic plant to respond to the economy based on knowledge, and those who investigate must obtain financing for their studies, in general, according to the sciences and disciplines related to the market. Thus, the humanities become unnecessary sciences for competitiveness, productivity and economic growth. Knowledge is a good to be marketed and generate profits of, as with patents (Maldonado, 2016).

A contribution of the Zapatist school is that it does not follow the linearity of the degrees to exercise a profession. In the logic of the social hierarchy and the merits, to be a doctor or a teacher, you need to study in specialized schools. In the Zapatist territory, *yerberas*, *hueseras* and midwives are formed to take care of the health of the inhabitants. To educate, promoters are trained, regardless of the academic degrees. The only requirement is that they know how to read and write, plus the language of the community and Spanish. The hierarchy is annulled with the denial of differentiation, and the meritocracy is replaced by the will.

The Zapatist education is not lived by the communities as a fetish to cure all social ills. Unlike the fashionable discourse of any neoliberal government that focuses on quality education (whatever this means) the solution to its problems, in the Zapatist experience it is a part of the political, economic, cultural and ideological resistance. Autonomous education is linked to self-government, the self-management of collective production projects, the strengthening of identity and the creation of its means of dissemination. In the midst of material deficiencies, they



advance in the processes of ideological emancipation and consolidation of their democracy from below. For this, computers, cannons and Power Point presentations are not indispensable. Neither are the round tables in the classrooms, fashionable for Piaget's constructivism, nor the well-painted walls, because their problem is political, not infrastructure.

The development of the Zapatist school continues because it is a demand for its uprising included in the San Andrés agreements. These signed in 1996, with a commission of negotiation with the federal government to solve the armed conflict, but that was not endorsed by the former president Ernesto Zedillo. As a result, the right of indigenous communities to implement an education in accordance with their culture and worldview was not legislated. On the other hand, the Law of Concord and Pacification was created in November 1996 to guarantee the transit through the country of members of the EZLN, while they did it unarmed and without calling for violence.

In this context, the EZLN organized its education in a direction contrary to the plans of the Mexican State. As mentioned in the Education Sector Plan 2013-2018, official education aims to train entrepreneurs with a business mentality. In addition, in 2017 it disseminated an educational model for basic education that includes high school. The use of information and communication technologies in the classroom is privileged; also learning throughout life to recycle the labor force according to the demands of the production sphere. In the aforementioned model, the relevant contents refer to: financial education, programming, robotics and entrepreneurship skills (Secretary of Public Education 2017, p.76). As if there were no context of financial speculation, the substitution of human work for robotics and automation, plus the increase in precarious employment, the government reproduces the contents suggested by international financial organizations. Education continues to be seen from an instrumental focus at the service of produc-

tion and employment (Silva, 2016). However, the elected president, Andrés Manuel López Obrador, expressed his opposition to neoliberal education. He promised to improve the working conditions of the teaching profession, increase enrollment in higher education and scholarships for high school. But in the context of the rulers there is no autonomous or emancipatory education, only the supposed national development.

Therefore, the Zapatist school does not follow the path of becoming a state apparatus, because it is created, recreated and conducted by the members of the community. It does not propagate a discourse of domination or obedience of political or economic power. It is their process they do not want to impose it, but to convince. The education-production nexus is not aimed at forging salaried labor, but at the development of the collectivization of the countryside, the constitution of cooperatives and communal stores. In their needs, students and promoters work in the milpa to harvest self-consumption food. So, they collaborate for the maintenance in the secondary schools that are shelters.

It is convenient to return to the meaning of the article: Zapatist education as a movement of resistance to the educational policies that exclude neoliberal globalization. It is the attempt to build an anti-systemic school, because it does not respond to the logic of rankings, terminal efficiency and the link with employment. Without certifications or qualifications, it is formed to serve the community, not the employers. In this sense, the difficulties of the Zapatist school are concentrated in the infrastructure and resources to maintain them, not so much in their educational philosophy and their autonomic goals. However, the promoters of education have faced the mockery of the official teachers who infiltrate the Zapatist zones and accuse them of not knowing how to teach. The effect is the resignation of promoters (EZLN, s.f.b). They also face the loss of the mother tongue because the official schools promote the English language. To counteract this situation the teaching of Tojolabal, Tzetal or



Tzotzil is reinforced. Or the inequality of women as responsible for the promotion of education. Baronnet (2011b) records that promoters recognize their lack of pedagogical training and, on occasion, use ineffective and tedious literacy methods, but they are also critical of their practice. In the Emiliano Zapata rancheria a promoter wants to resign because he needs more support and collective participation to carry out his work. Another problem is the failure of people in the community to provide food and firewood; and although there is collaboration from the people to work the milpa, it is not always enough, as a result, some promoters cannot combine teaching and agricultural cultivation.

In sum, the educational desire of the Zapatist movement is an experience that is renewed so as not to be institutionalized. From the capitalist and western schools, they radically changed the contents, the idea of being human and society. Although they apply multiple choice exams to know the learning level, they do not qualify and do not reproduce the logic of differentiation and rewards, such as scholarships. So far, there is no official certification and demonstrates that education is not the exclusive task of specialized institutions. It is envisioned that the autonomy of the student is respected. I hope that your school does not become rigid, bureaucratic or normalized as the experience inherited from modernity.

For the time being, the Zapatist school is taught against the current of global hegemonic thought. It seems that education for the non-existent. For example, that to transform society it is not essential to take the formal power of the State. Or build a government without professional politicians, with rotating charges and without charging to exercise them, seeking to eradicate the division between those who rule and those who obey to achieve self-management processes (Castellanos, 2008). Or the renunciation of all vanguard so that in everyday life the community defines its identity, lives the mandate and democracy from below, forging self-government under the principle of “obeying to

command” and collective being. How to teach? For all, everything, nothing for us! (EZLN, 1995, par 18) in a selfish and utilitarian world? This is what Zapatist education aspires to.

Notes

1. It is a form of government in the communities under the principle of command by obeying. The people decide, and the representatives carry out the actions of the people; there is no payment for governing, nor are privileges received, the charges are rotating and collective. There is always a woman as representative in the JBG.

Bibliographic references

- Adamovsky, E. *et al.* (2011). Problemas de la política autónoma: pensando el pasaje de lo social a lo político. En E. Adamovsky *et al.* (Eds.), *Pensar las autonomías. Alternativas de emancipación al capital y el Estado* (209-237). Distrito Federal, México: Bajo Tierra Ediciones-Sísifo Ediciones.
- Althusser, L. (2003). *Ideología y aparatos ideológicos del Estado. Freud y Lacan*. Buenos Aires: Ediciones Nueva Visión.
- Apple, M. (1997). *Teoría crítica y educación*. Buenos Aires: Miño y Dávila Editores.
- Baronnet, B. (julio, 2010). Zapatismo y educación autónoma: de la rebelión a la dignidad indígena. *Sociedade e Cultura*, 13(3), 247-258.
- Baronnet, B. (abril, 2011a). Autonomía educativa zapatista: hacia una pedagogía de la liberación india en Chiapas. *Em Aberto, Brasília*, 24(85), 127-144.
- Baronnet, B. (2011b). Entre el cargo comunitario y el compromiso zapatista. Los promotores de educación autónoma en la zona Selva Tseltal. En B. Baronnet, M. Mora & R. Stahler-Sholk, (Eds.), *Luchas “muy otras”: Zapatismo y autonomía en las comunidades indígenas de Chiapas* (195-235). Distrito Federal, México: UAM-CIESAS-UACH.
- Baronnet, B. (enero, 2015). Derecho a la educación y autonomía Zapatista en Chiapas, México. *Convergencia* 22(67) Recuperado de <https://goo.gl/x6z9bz>
- Castellanos, L. (2008). *Corte de Caja. Entrevista con el Subcomandante Marcos*. Distrito Federal, México: Endira-Bola de Cristal.



- Centro de Español y Lenguas Mayas Rebelde Autónomo Zapatista (s.f.). Recuperado de <https://goo.gl/bM8TpW>
- Ejército Zapatista de Liberación Nacional (1994). *Primera Declaración de la Selva Lacandona*. Recuperado de <https://goo.gl/ZN5LbQ>
- Ejército Zapatista de Liberación Nacional (1995). *Tercera Declaración de la Selva Lacandona*. Recuperado de <https://goo.gl/X4GQXF>
- Ejército Zapatista de Liberación Nacional (s.f. a). *Gobierno Autónomo II*. Cuaderno de texto de primer grado del curso de “La libertad según l@s Zapatistas”, s. p.i.
- Ejército Zapatista de Liberación Nacional (s.f. b). *Resistencia Autónoma*. Cuaderno de texto de primer grado del curso de “La libertad según l@s Zapatistas”, s. p.i.
- Feire, P. (1997). *Pedagogía de la autonomía*. Distrito Federal, México: Siglo XXI Editores.
- Giroux, H. (1992). *Teoría y resistencia en educación, una pedagogía para la oposición* (2ª ed.). Distrito Federal, México: Siglo XXI Editores-CISE.
- Giroux, H. (1997). *Los profesores como intelectuales. Hacia una pedagogía crítica del aprendizaje*. Barcelona: Páideos-M.E.C.
- Gómez, M., & Puiggrós, A. (1986). *La Educación Popular en América latina 2*. Distrito Federal, México: Ediciones Caballito-SEP.
- Hijar, C. (2008). *Autonomía Zapatista. Otro mundo es posible*. México, Distrito Federal: AMV.
- Illich, I. (1989). *Un mundo sin escuelas*. México, Distrito Federal: Nueva Imagen.
- Jørgensen, M. (1997). *Una escuela para la democracia. El instituto experimental de Oslo*. Madrid: Laertes.
- Lapassade, G. (1977). *Autogestión pedagógica*. Madrid: Gedisa.
- López, F. (2011). Las autonomías indígenas en América Latina. En E. Adamovsky *et al.* (Eds.), *Pensar las autonomías. Alternativas de emancipación al capital y el Estado* (67-102). Distrito Federal, México: Bajo Tierra Ediciones-Sísifo Ediciones.
- Maldonado, C. E. (2016). El capitalismo académico: las universidades como entidades del mercado y mercadeo. *Crítica Cl*, 20. Recuperado de <https://goo.gl/xCAyg5>
- Marcos, S. (2003). *Chiapas: la treceava estela. Quinta parte: una historia*. Recuperado de <https://goo.gl/CpNXXE>
- Marx, C. (1986). *Crítica del Programa de Gotha*. Moscú: Editorial Progreso.
- Marx, C., & Engels, F. (1985). *Manifiesto del Partido Comunista*. Moscú: Editorial Progreso.
- Moisés, S. (2013). *Fechas y otras cosas para la escuela zapatista*. Recuperado de <https://goo.gl/p1gGQe>
- Muñoz, G. (septiembre, 2004). Los caracoles: reconstruyendo la nación. *Rebeldía* 2(23), 3-24.
- Revelli, M. (noviembre, 2004). La nueva palabra zapatista. *Rebeldía*, 2(25), 33-41.
- Secretaría de Educación Pública (2013). *Programa Sectorial de Educación 2013-2018*. Distrito Federal, México: SEP.
- Secretaría de Educación Pública (2017). *Modelo Educativo para la educación obligatoria. Educar para la libertad y creatividad*. Versión PDF.
- Silva, C. (2016). *Currículo basado en competencias en el bachillerato mexicano: El enfoque unidimensional hacia el mercado*. Ciudad Juárez: UACJ.
- Silva, C. (2018). Perfil de egreso y empleo en el contexto del avance tecnológico. *Revista Pedagogía y Saberes*, (48), 83-96.
- Torres, I. (2012). La nueva educación zapatista: Formación de una identidad diferenciada en los niños de las comunidades autónomas zapatistas. *Revista Divergencia*, 1(2), 135-160.
- Tyack, D., & Cuban, L. (2001). *En busca de la utopía. Un siglo de reformas de las escuelas públicas* (2ª ed.). Distrito Federal, México: Fondo de Cultura Económica.
- Vaughan, M. K. (1997). El cambio ideológico en la política educativa de la SEP: Programas y libros de texto, 1921-1940. En Susana Quintanilla (Ed.), *Escuela y sociedad en el periodo Cardenista* (76-108). Distrito Federal, México: FCE.





Reflection strategy for teaching construction projects in Civil Engineering

Estrategia de reflexión para enseñanza de proyectos de construcción en Ingeniería Civil

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Received: 2018-05-20 / **Reviewed:** 2018-11-20 / **Accepted:** 2018-11-15 / **Published:** 2019-01-01

Abstract

The competitiveness of the educational programs on the universities requires an adjustment on the content of academic programs so that they can respond to the problems of their surroundings. For this reason, in regards to the profile of a civil engineer's occupational performance, particularly, it is useful for the student to identify administrative practices and processes that tend to reduce costs and time over the different works. In this work, it is presented a proposal of didactic strategies focused on the inside thought around concepts related to the administration of construction projects using reengineering and construction philosophy without losses (lean) concepts in different activities. For this, we started with information col-

lected in housing construction projects, in which the best practices for waste reduction were evaluated. The applicability of technical knowledge is combined with tools focused on reflection to strengthen concepts of resource management, both human and financial, using tools that use critical thinking, problem solving, social commitment, teamwork and communication skills, which, all together, contribute to strengthen ethical aspects and social responsibility of the engineering practice. It is concluded from the study that inside thought is a useful tool of the teaching-learning process, since it prepares the future professional to solve the problems surrounding it.

Keywords: Learning, construction, arrangement, skills development, fieldwork, working life.

Resumen

La competitividad de los programas educativos de las universidades exige que los contenidos de los programas académicos se ajusten de manera que puedan responder a las problemáticas del entorno. Por esta razón, en lo concerniente al perfil del desempeño ocupacional del ingeniero civil, en lo particular, resulta útil que el estudiante identifique prácticas y procesos administrativos que propendan por la reducción de costos y tiempos en las obras. En este artículo se presenta una propuesta de estrategias didácticas centradas en la reflexión alrededor de conceptos relacionados con administración de proyectos de construcción empleando reingeniería y la filosofía de construcción sin pérdidas (Lean) en diferentes actividades. Para ello, se parte de información recolectada en proyectos de construcción de vivienda en donde

se evaluaron las mejores prácticas para la disminución de desperdicios. Se conjuga los conocimientos técnicos con herramientas centradas en la reflexión para afianzar conceptos de administración de recursos, tanto humanos como financieros, mediante herramientas que emplean pensamiento crítico, solución de problemas, compromiso social, trabajo en equipo y habilidades comunicativas las cuales, en conjunto, contribuyen de manera transversal a fortalecer aspectos éticos y de la responsabilidad social del ejercicio de la ingeniería. Se concluye del estudio que la reflexión es una herramienta útil del proceso de enseñanza-aprendizaje, ya que prepara al futuro profesional a resolver problemáticas de su entorno.

Descriptores: Aprendizaje, construcción, organización, competencias, trabajo de campo, vida profesional.

1. Introduction

The curriculum of Civil Engineering in the universities include, in their academic offer, courses that, in their content, address topics related to the administration of works, construction projects and construction processes, among others, with which it is intended to provide skills to the future professional to perform in the construction sector. Commonly in the classroom, environment where different apprentices come together with different experiences and preconceptions (Ucol-Ganiron Jr. and Alaboodi, 2013), various educational strategies are employed that allow the formation of critical and reflective thinking for professionals (Arratia Figueroa, 2008) aimed at achieving the common good and towards a more just and democratic society (Palomer, L., Humeres, P., Sánchez, A., González, S., & Contreras, A. 2013). Usually, during the occupational performance, the engineer must use his knowledge to solve problems related to constructive processes.

Therefore, it is imperative to develop teaching strategies based on reflection on transversal skills that the student must acquire or develop on social commitment, critical thinking, problem solving and communication skills so

that the student faces preconceptions or prejudices and, at the same time, can anticipate possible contingencies (Montalva, Ponce, and Llorca, 2017; Erren, 2008) that may arise during the formulation or execution of a project. All under the premise that a good professional is not only the one who manages the theoretical or technical knowledge, but the one that demonstrates its competences to apply environmental problems with this knowledge (Sávio, D., Cândido Moraes, & Motta Barreto, 2017).

This new form of education is characteristic of the current state of affairs and responds to the permanent adaptation to the processes of change of the environment (Luengo, Luzón, and Torres, 2008), it is a proposal of effective training within the processes of professional training, which includes the acquisition of knowledge with approximation of realities (González, Mieres, Denegri, and Sepúlveda, 2014).

Concepts such as re-engineering and construction without losses are widely used in construction projects. While it is true that re-engineering has been considered an administrative trend that began in the 1990s in the United States as a strategy for documenting information that fell into disuse between 1997 and 2007 due to organizational failures (Vergara-Schmalbach,



Fontalvo, and Morelos, 2013, p.214), in recent years it has taken effect because, precisely, it is based on the lessons learned for the development of projects. In essence, re-engineering seeks fundamental revision and radical redesign of productive processes to achieve improvements in performance (Bustos, 2005, p.3). Therefore, from the premise of seeking competitiveness in construction companies, the recognition of the successes and failures of the past can help improve the production process in a work.

As for the Lean philosophy, what is intended is to achieve increased productivity, cost reduction, greater flexibility, greater added value to the final product and an increase in results using a reasonable cash flow with the necessary materials to provide a quality product (Raposo and Cardoso Viera Machado, 2013), eliminating overproduction, waiting times and unnecessary transport (Giroto and Rodrigues, 2013). According to this, Lean focuses on the raw material, the product, the process, the market and the way to manage it all (Flamarion, Petter, and Valle Antunes Jr., 2008), all these concepts closely related to the final product of a work civil.

In order to respond to the new challenges arising from the knowledge society (Luengo, Luzón, and Torres, 2008), this proposal of didactic activities is developed with the aim of consolidating concepts related to project management, basing the exercise on strategies of reflection around reengineering focused on the improvement in equipment and tools of construction and Lean applied for the analysis of waste in the masonry activity, management concepts that can influence the quality of the product to be delivered in a work. Although the methodological approach focuses on Works Administration, its applicability extends to the courses of Construction Methods and Construction Projects. In addition, although this approach is focused on pedagogical applications for Civil Engineering and Architecture, the methodological structure that supports it can be oriented towards other professions. The approach of reflection on different

stages of constructive processes aims that the future professionals analyze significant aspects of these concepts and find application in their work environment (Arratia, 2008) projecting their occupational performance in spaces where they should use their knowledge and skills in real situations in everyday life (Iglesias and Beltrán, 2012), but can also develop values and attitudes (Palomer *et al.*, 2013).

2. Methodology

The proposed reflection strategies combine the curricular and extracurricular activities and the contents of the Construction Projects course and incorporate questions that place the future professional in their occupational performance with positions in different situations. The design of the activities was oriented to respond to the difficulties encountered in teaching certain subjects in this course in three cohorts (consecutive semesters).

3. The pedagogical strategies of reflection as support to the tests of the state in Colombia

For the National Accreditation Council in Colombia, the concept of quality in higher education is associated with the fulfillment of characteristics that the educational institution possesses and under which an educational service in optimum quality is offered (Ministry of National Education, 1998). The approach of the pedagogical strategies based on reflection presented is designed to ensure that future professionals effectively acquire the required quality standards based on expected performance competencies. These competences are evaluated in the State Examinations of Higher Education in Colombia, now known as Pruebas Saber Pro (Ministry of National Education, 2010), exams that are mandatory since 2009 (Ministry of National Education, 2018).

In the results workshop conducted by the Ministry of National Education presented



the results of these tests that contain questions aimed at assessing general and specific skills using strategies of critical thinking, written communication, social responsibility among other modalities (Ministry of National Education, 2017). While it is true, traditional strategies continue to be used, the reality is that they do not meet the expectations that 21st century education requires (Sávio *et al.*, 2017).

This confirms the need to generate pedagogical actions within the classroom that allow the future professional to develop good communication skills to relate to the other in a healthy and productive organizational environment (Erren, 2008) (Bermúdez and González, 2011) (Serrano Guzmán *et al.*, 2017) that respects the contributions of the other and that learns to work as a team to achieve the goals (Ibarra and Rodríguez, 2011). At the same time, that he/she makes use of its intellectual autonomy to understand his/her context (Vélez, 2012) (Serrano Guzmán *et al.*, 2017) and responds responsibly in the formulation of technical solutions that respect the solidarity duties of the city (Muñoz, 2011).

The proposed pedagogical strategies have been implemented in the course of Construction Projects in the Civil Engineering program of the Pontificia Universidad Javeriana Cali and are aimed at concepts of construction without loss and re-engineering whose appropriation provides future graduates skills for occupational performance in the works in which he/she has the opportunity to work. However, the proposal presented can be implemented in different educational programs at the undergraduate level and at a graduate level in other disciplines.

4. Results

Reflection offers a bridge between theory and practice under the understanding that “an ounce of experience is better than a ton of theory” (Bringle and Hatcher, 1999). The reflection strategies were designed for the Construction Projects course starting from the guidelines provided in the Course Learning + Service of the

Pontifical Catholic University of Chile. These reflection strategies allow evaluating the learning of concepts, developing transversal skills/abilities as well as attitudes and values (Montalva, Ponce, and Llorca, 2017), covering critical thinking skills, problem solving, social commitment, teamwork and communicative skills. Precisely, if the future professional develops these strategies, it will be possible to offer the industry and the working environment creative professionals with a leadership spirit (Serrano Guzmán *et al.*, 2017, Shin *et al.*, 2013: Oehrtman *et al.*, 2010). Aptitudes and skills that will allow them to defend their positions in a critical and interpretive manner (Good and McIntyre, 2015) within the framework of an ethical environment (Vellurattil *et al.*, 2014) and social responsibility (Pérez de Maldonado, Bustamante, and Maldonado, 2009). In the particular case of the Construction Projects course, each activity is designed considering that it should allow for continuity, be related to the topic addressed, be a challenge for the student and contextualized to the reality of the group that approaches it (Montalva, Ponce, and Llorca, 2017). The fundamental parts of the reflection strategy include the objective of the course, the objective to be achieved with the activity, necessary resources, duration, description of the activity and annexes if applicable. These strategies are in line with the structuring of activities in the Learning + Service methodology (Jouannet, Salas, and Contreras, 2013) where, in some cases, community partners or beneficiaries are involved. It should also be noted that similar thinking strategies have been proposed in the Undergraduate Design I and Polluter Transport courses at the graduate level. Next, the proposed strategies are presented.

4.1. Proposal for reflection in critical thinking

Objective of the course: Identify the contemporary concepts of administration, organization and definition of a construction project.



Objective of the reflection strategy: Identify situations of the civil engineer's occupational practice supported by the custom and the social implication that this has in the development of a community.

Resources: Reading material, computer, pencil and paper

Modality of work: individual and group

Duration: 30 min

Description: The media constantly reports on the negative repercussions for the communities in the event of non-execution of infrastructure works required for the satisfaction of basic needs with the consequent deterioration of the quality of life of the inhabitants.

With this activity, personal criteria are identified to change this dynamic in the world. Students are asked to read the fragment extracted from (Vega, 2015) "The Legend of the Ring of Gyges" in 5 minutes, with the following content transcribed in verbatim:

Gyges was a shepherd in the service of the ruler of Lydia. One day there was a violent thunderstorm, and an earthquake broke open the ground and created a crater at the place where Gyges was tending his sheep. Seeing the big hole, Gyges was filled with amazement and went down into it. And there, in addition to many other wonders of which we are not told, he saw a hollow bronze horse. There were window-like openings in it, and peeping in, he saw a corpse, which seemed to be of more than human size, wearing nothing but a gold ring on its finger. He took the ring and came out of the crater. Gyges discovers that the ring confers him the power of invisibility and due to the power it offers, he gets to be named the shepherd responsible for going to report to the king. After much thought, he devised a sinister plan: go to the palace, seduce the queen, kill the king and seize the throne. Using the privilege of his ring, he manages to materialize his plan, becoming king, but not any king, a tyrant... He could have used the ring to discover, for example, the criminals, to make a more just society, but he decides that it is more interesting to grow by acquiring wealth and

power. Plato explains in this way the tyranny and corruption of the leaders, feeling superior, with power and impunity, and questions what each of us would have done if we had found the magic ring, distinguishing between expressing an opinion if we were asked and to really own the power of the ring '(Vega, 2015).

In Book II of the Republic is the well-known myth of the ring of Gyges which shows the notion of human injustice and identifies the energetic resurgence of justice (Higuera, 2016). The history of the ring of Gyges reveals that carrying the ring confers confidence and freedom to the shepherd, with which it transforms and allows it to be part of a different social group (Higuera, 2016).

Then, they are asked to read fragments taken from the text "The human being, corruption and politics" by Gerardo Berthin Siles in volume 5 of the magazine Ciencia y Cultura (Berthin, 1999) and which deals with the topic of ethics in politics.

... [...] in politics there is an ethics different from ethics. And it is proven that with the passage of time, progress in economic terms and in other terms has turned out to be more important than the spiritual development of the human being, showing that there is a great gap between what man wants to be and what he really is, then there would be two spaces, that of power and that of not power, the first, the scope of the political, the place where man lies, deceives, distorts, betrays, in this way wars would be justified, as an example. Finally, it tells us that political success is measured if one can maintain, increase or demonstrate power over others, while moral success is measured if it can be demonstrated in relation to others that these are objectives in themselves (Berthin, 1999, p.1).

Then, the teacher guides the group by saying that a discussion space is open for the students to answer the questions in plenary: 1) what do you think of the attitude of Gyges? 2) In what situations can civil engineers behave like him? 3) What coincidences can be found between the



attitude of Gyges and those who have the “ring” of state funds and are in charge of managing the funds of the municipalities in each country? 4) in what way can one be an active participant in politics while remaining within the framework of ethics and morals? For this, 20 minutes are allocated. The results of student participation are recorded on the board.

Reflection for the closing of the activity: It is finalized emphasizing that the custom of “a life of corruption” must be uprooted from the civil engineer’s occupational exercise.

Evidence of application of this strategy of reflection in other courses: critical thinking is a reflexive action-oriented activity (Zelaieta and Camino Ortiz de Barrón, 2018) and can be applied in different areas since it allows analyzing problems of all kinds (France, de la Garza, Slade, Lafortune, Pallascio, and Mongeau, 2003).

These types of exercises have been implemented in the Design I prerequisite course of the Design II course (Serrano *et al.*, 2018), leading to a degree at the undergraduate level in Civil Engineering and postgraduate courses at the level of the master’s degree in Pollutant Transport. At all times, for the development of this activity, an adequate environment is sought in which participants can present their arguments generating a practice committed to transformation and social improvement (Zelaieta and Camino Ortiz de Barrón, 2018).

4.2. Proposal for reflection on communication skills competence

Objectives: Develop written communication skills; strengthen strategies for the preparation of summaries.

Resources: Article on the web, computer with Word or word processor.

Modality: Group, minimum 2 and maximum 3 participants.

Duration: 20 to 30 minutes.

Description: Considering that the individual uses different processes and knowledge of different linguistic-sociolinguistic types to

communicate, strategies for the strengthening of discursive management should be encouraged (Viera, 2010). In the course of Construction Projects, the teacher can rely on the construction of definitions as the concept of the Lean philosophy applied to construction projects. The working groups are organized, and the following invitation is made: “in a dialogue, discuss what you know about Lean Manufacturing and, depending on what you know, prepare a paragraph that has between 30 and 35 words”. 10 minutes are granted.

Subsequently, each group is asked to read the definition that was structured, and the best definition is selected by vote. As recommended by the Teaching Development Center of the Pontifical Catholic University of Chile in the A + S Reflection Activities window: “no group can vote for its own definition” (Teaching Development Center, 2017a). In this activity, 5 minutes are allocated.

Once the best definition has been selected, the group is asked to read the textual quotation of the following paragraph of the article “The industrial engineer impacting the environment” by Ángela Patricia Anaya and Mario Fernando Acosta in the Journal of Engineering Education (Anaya y Acosta, 2010):

[...] Lean has the basics of identifying value activities, understanding the flow of products, services and information through the value chain and between the links of the supply chain, and, finally, the characterization of waste in the activities of the company. [...] in the areas of production and manufacturing the waste is easily identifiable, while, in the case of information, the waste is less visible. The information is what allows measuring the development of the activities to compare with the expected standards or the goals set and then then understand if the operation of the area, process or industry is appropriate (Anaya and Acosta, 2010, p.182).

And, to continue: read the definition of Lean taken and adapted from (Raposo Rosa and Cardoso Viera Machado, 2013):



Lean is a multidimensional approach that extends to groups for a variety of administrative practices that include just-in-time, quality system, teamwork, production by departments and administration of inputs in an integrated system. When the synergy between these factors is achieved, high quality with low waste is achieved (Raposo and Cardoso Viera, 2013, p. 887).

Subsequently, the group is instructed to supplement the definition that was selected with the definition provided by Anaya and Acosta (2010) and Raposo and Cardoso Viera (2013) and, finally, to write a paragraph that contains at least two sentences that summarize what could be the definition of the Lean Philosophy applied to construction. It is also requested that the new definition does not exceed 60 words and that it must have at least 55 words.

Reflection for the closing of the activity: The exercise ends inviting the participants to point out the difficulties encountered in preparing the definition.

Evidence of application of this reflection strategy in other courses: This activity was carried out with students of the Design I course,

using the concept of rural social interest housing. The exercise allowed to include in the definition of housing the concept of sustainability which was not initially considered.

4.3 Reflection proposal on competition problem solving

Objectives: Identify causes of waste in masonry activity; propose alternatives for the increase of the productivity in masonry.

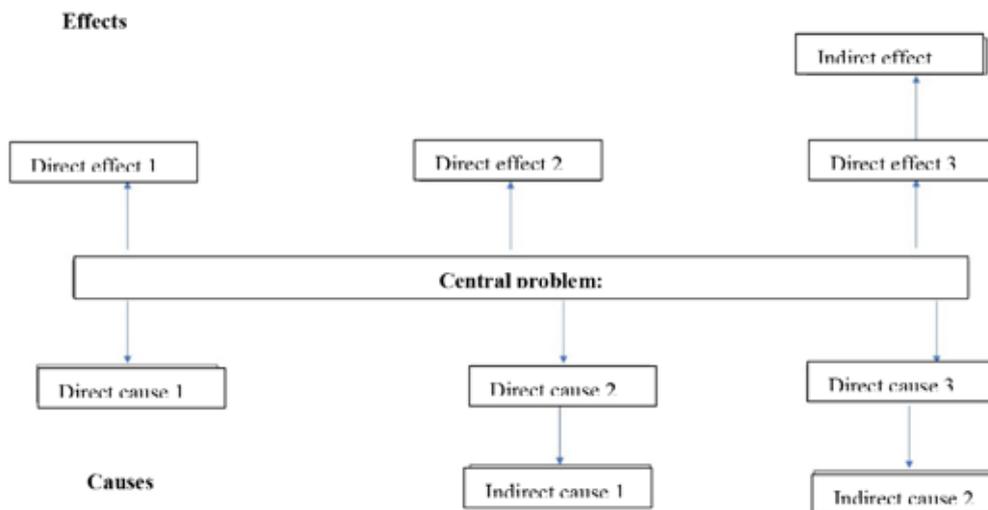
Resources: Field visit and reading of manuals for the completion of projects with the Adjusted General Matrix (MGA) of the National Planning Department.

Modality: Group, between 2 and 3 members.

Duration: 40 minutes.

Description: This activity is carried out after the field trip. The teacher guides students on the importance of observation to identify factors that affect performance in the masonry activity. In the field visit, the working group must record the causes of the loss of materials and time in the masonry activity in a construction company. The map of causes and effects is elaborated in an infographic like Figure 1.

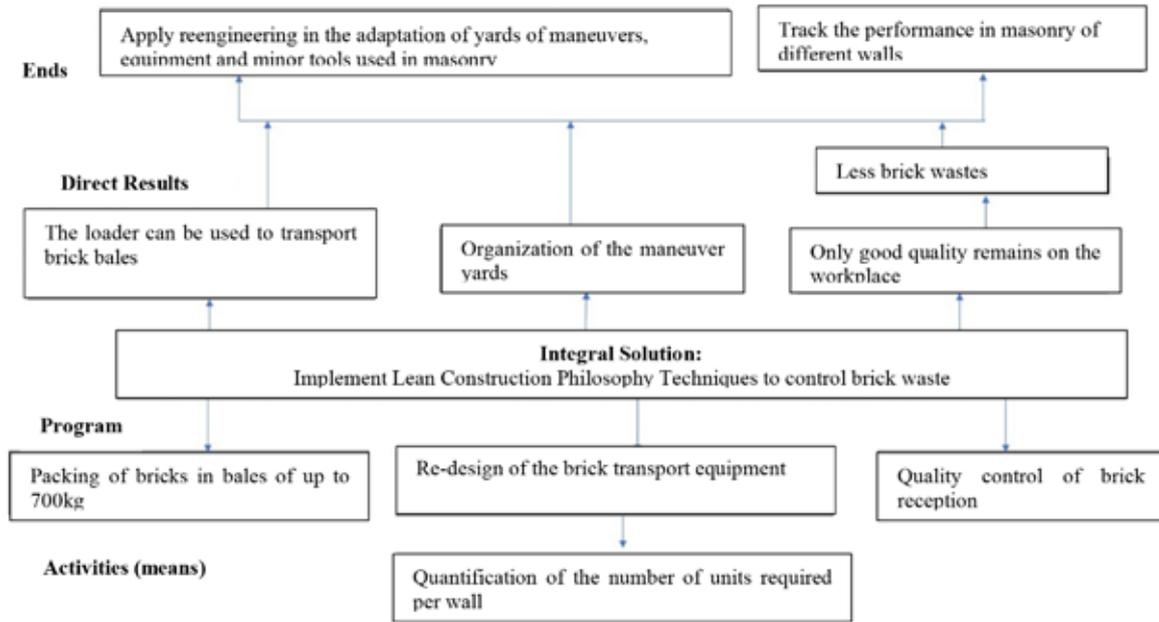
Figure 1. Problem map



Source: Authors with information adapted from Territorial Sub-directorate and Public Investments of the National Planning Department, 2013.



Figure 2. Map of problems identified during the visit

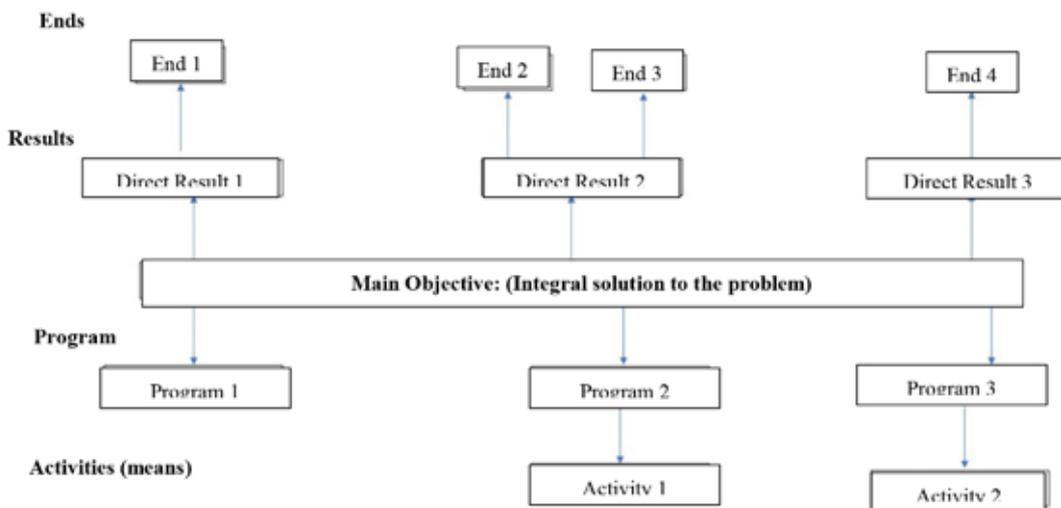


Source: Authors with information adapted from Bejarano (2017).

In each working group, the objective map is set up, with its corresponding purposes and means as established by the MGA methodology. Dedication time: 30 min.

The Objective Map is proactive to the problem map and allows to conceptually close the project in analysis (Figure 3).

Figure 3. Map of objectives or ends and means



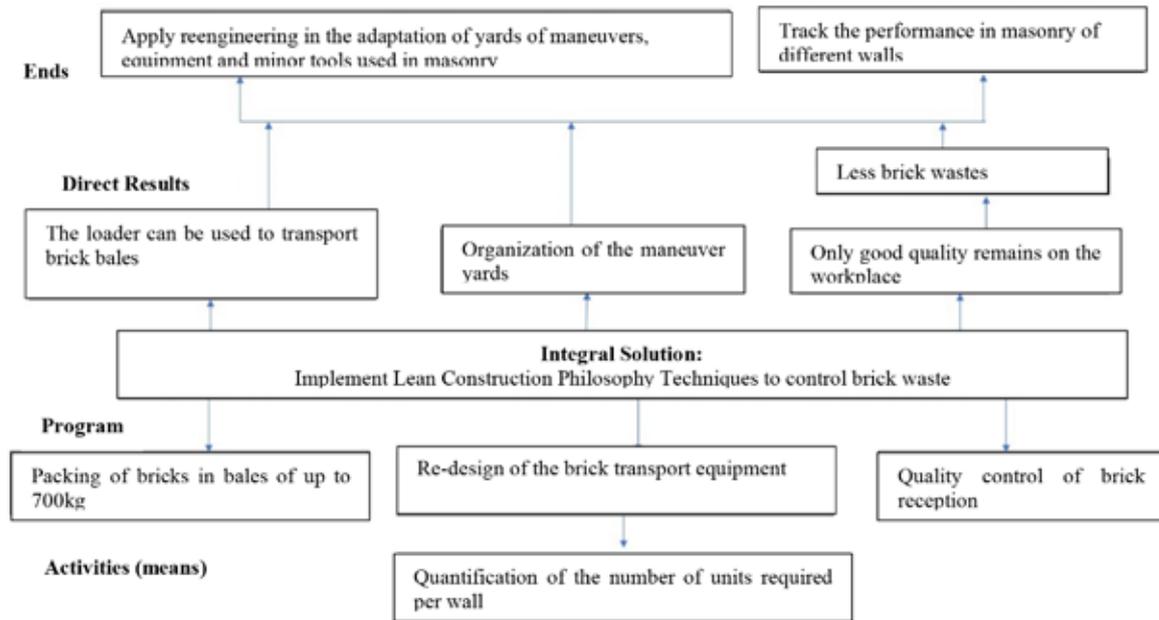
Source: Authors with information adapted from Bejarano (2017).



The student is expected to generate a map of objectives similar to that indicated in Figure 4.

The time allocated to this stage is 15 min.

Figure 4. Middle-end map



Source: Authors with information adapted from Bejarano (2017).

Reflection for the closing of the activity: The exercise is finalized by asking the group of students to evaluate the benefits of implementing a construction program without losses in other activities of a project. And, to point out the technical difficulties and human resources that could be faced by the work team that undertakes these activities. In this regard, this reflection activity allows the student to learn through social and practical interaction that collects the experiences of a work which allows him to perceive and transform reality (González, *et al.*, 2014) and adapt what he observes for an improvement of construction processes.

Evidence of application of this reflection strategy in other courses: This activity has been implemented in the Design I course where the student finally learns to prioritize investments (Serrano *et al.*, 2018). The experience advanced in the second semester of 2017 involved four groups of students who started from an existing

information of communities in the country and identified the projects that could meet the needs of the inhabitants.

4.4. Proposal for reflection on competence: social commitment

Objectives: To promote spaces for reflection on the importance of modification or radical changes in tools and construction equipment with a view to the implementation of the Lean philosophy in construction activities; sensitize students about the social responsibility of the engineer in relation to human resources.

Resources: tool images and equipment used in construction projects.

Modality: Group, between 2 and 3 people

Duration: 40 minutes

Description: The activity consists in deepening on the concept of re-engineering applied in equipment and construction materials used



in different processes in a work. It is based on a reading of a fragment quoted verbatim from (Vergara-Schmalbach, Fontalvo Herrera, and Morelos Gómez, 2013, p. 224), where they define the concept of reengineering:

... Re-engineering is the radical improvement of processes with high impact results, unlike other approaches that are characterized by seeking incremental and continuous results ... (Bustos, 2005, p.3). [...] ... As an administrative trend, reengineering is currently focusing on new project developments based on the study of errors and past successes (Vergara-Schmalbach, Fontalvo, and Morelos, 2013, p.224).

Afterwards, the students are invited to review the images in Chart 1 and to identify the radical changes that occurred to arrive at the adjustments in the constructive elements.

Reflection for the closing of the activity: The professor urges the group to elaborate the analysis of unit prices of each one of the executed changes and to estimate the useful life of the constructive elements presented and the possible risks of the workers.

Evidence of application of this strategy of reflection in other courses: This strategy has been adapted for new students who are asked to identify propitious conditions for the hazards within the work. The above because it is considered that the engineer must be committed to defend occupational health and provide conditions to mitigate occupational risks, although they are individual actions that concern the worker, the effect for the normal development of the works involves actions of all and each one of the members of an institution, in this case of a project (Guarro, 2005).

4.5. Proposal for reflection on competence: team work

Objective: To consolidate the knowledge of the working group on the organization on site for the implementation of the Lean Construction philosophy in the masonry activity.

Resources: Paper and computer

Modality: Group, minimum 2 and 3.

Duration: 50 min.

Description: This reflection seeks to be a mechanism for the group to review the learning achieved as a group (Teaching Development Center, 2017b) and should be carried out after the visit to the work. You can count on the presence of an official of the work visited.

We proceed to read the following facts found in three projects. Project 3 was executed after completion of 2 and 2 was executed once project 1 was completed.

Project 1 (522 housing units): The brick was initially delivered in bales of 1000 kg. Currently, it is stowed in bales of 700 kg. We proceeded to generate the practice of collection of broken brick, cracked or with some imperfection, to be used as media cuts, special cuts, cylinder heads or modified according to the modulation in usable parts. Modulations were made in brick cuts and ensured the leveling of the area on which the material was delivered. The masons were classified according to their level of expertise in certain walls.

Project 2 (968 housing units): With the learning of the previous work, the same strategies were applied, with the following improvements:

- Two people were assigned who were constantly in charge of the collection of left-overs and waste.
- Penalties for waste generation were implemented.
- The leveling of the brick collection sites was planned from the beginning of the ground movement.
- The brickyard accepted to receive the material with imperfections.

The previous actions had as consequence that the percentage of waste of the average structural brick was reduced from 5% to 2%.



Project 3 (565 housing units): in addition to the work carried out in 1 and 2, the following adjustments were made:

- The structural brick with vertical perforation was implemented instead of the dry pressed bricks.

- The maneuver yards were conditioned so that the beam-block brick was close to the cutter.
- The delivery of brick was scheduled according to the work schedule.

Chart 1. Reengineering in improvement of electrical panels

Element	Characteristics		Changes between the elements
	Costs	Number of uses	
1 			Between 1 & 2
2 			Between 2 & 3
3 			Between 1 & 3

Source: Authors with information adapted from Bejarano (2017).

In Chart 2 there are different activities associated with masonry. The work team must organize the activities in a way that guarantees compliance with aspects of Lean that were imple-

mented in the three projects for the masonry process.

Reflection for the closing of the activity: This activity is accompanied by a rubric of



evaluation that includes the co-evaluation of the work team.

The teacher can take advantage of the space to reflect on the relevance of the distribution of functions in a group for the good achievement of the objectives and the importance of defining the functions (roles) in a project.

Evidence of application of this strategy of reflection in other courses: This strategy has

been used in Design I, a prerequisite course of Design II and this in turn, a requirement for the completion of the civil engineering program. During the development of the program, complementarity was observed in the work teams, compliance with the schedule of activities for the execution of the projects of 98% and three of the four groups carried out the peer evaluation of their peers in an equitable manner.

Chart 2. Activities executed for the masonry work

<p>a. Internal transport with cart designed for transport of brick</p>	<p>b. In rainy season you must protect the brick with polyethylene type plastics</p>	<p>c. Ease of transportation with the loader, it must be available</p>
		
<p>d. Workplace storage</p>	<p>e. Storage in pallets of transportable dimensions</p>	<p>f. The material is separated (brick to be used)</p>
		
<p>g. Bales of 700 kg instead of 1000 kg</p>	<p>List the activities in the proper order so that the masonry process follows the guidelines of the Lean Philosophy in construction processes:</p>	
	<hr/> <hr/> <hr/> <hr/>	

Source: Authors with information adapted from Bejarano (2017).



5. Conclusions

The understanding of the constructive processes and the implications it has on the quality of the final product to be delivered in a construction project are key factors for the client or the end user to feel that the product, good or service delivered fully meets their expectations. The reflection strategies presented are adaptable for the teaching of human resource management and materials under the modalities of reengineering application and the implementation of Lean understanding, in addition, that this philosophy of construction without losses brings benefits to the builder, but mainly to the environment because material waste is diminished. The proposed reflection strategies are used to develop skills such as problem solving, communication skills, social commitment, critical thinking and teamwork, which together enable the future professional to use their knowledge of management aspects to solve problems that may arise during a project. The design of the strategies and their application to the teaching of civil engineering, specifically to contents on construction projects, promotes the implementation of reflective practices that consider the solid, ethical and solidary training of the future professional and the responsibility of the exercise during its performance occupational in the construction of a just and democratic society. It is expected that these strategies respond to the demands of globalized competitiveness that insistently demands changes to higher education institutions during the training of future professionals.

Bibliographic references

- Anaya, A., & Acosta, M. (junio de 2010). El ingeniero industrial impactando el medio ambiente. *Revista Educación en Ingeniería*, 5(9), 179-187. Recuperado de <https://goo.gl/ZRLYxb>
- Arratia Figueroa, A. (2008). Ética, solidaridad y "Aprendizaje Servicio" en Educación Superior. *Acta Bioethica*, 14(1), 61-67. <http://dx.doi.org/10.4067/S1726-569X2008000100008>
- Bejarano, A. (2017). *Prácticas constructivas en proyectos de vivienda en la Constructora Jaramillo Mora S.A.* Cali: Archivo de la empresa Jaramillo Mora S.A.
- Bermúdez, L., & González, L. (January-June de 2011). La competencia comunicativa: elemento clave en las organizaciones. *Quórum Académico*, 8(15), 95-110.
- Berthin Siles, G. (junio de 1999). El ser humano, la corrupción y la política. *Revista Ciencia y Cultura*, 5, 111-120.
- Bringle, R., & Hatcher, J. (1999). Reflection in service-learning: making meaning of experience. *Educational Horizons*, 179-185.
- Bustos, C. (2005). La reingeniería: herramienta controversial. *Visión Gerencial*, 1, 3-10. Recuperado de <https://goo.gl/r2VE7u>
- Centro de Desarrollo Docente (12 de octubre de 2017a). *Aprendizajes del equipo*. Campus San Joaquín, Chile: Pontificia Universidad Católica de Chile. Recuperado de <https://goo.gl/NaC2ft>
- Centro de Desarrollo Docente (2017b). *Mitad y mitades*. Campus San Joaquín: Pontificia Universidad Católica de Chile. Recuperado de <https://goo.gl/yhnuH5>
- Erren, M. (2008). La competencia comunicativa del orador. *Acta Poética*, 28(1), 121-156.
- Flamarion Klippel, A., Petter, C., & Valle Antunes Jr., J. (marzo de 2008). Lean management implementation in mining industries. *Dyna*, 75(154). Recuperado de <https://goo.gl/HjkcL3>
- France, D., de la Garza, M., Slade, C., Lafortune, L., Pallascio, R., & Mongeau, P. (2003). Qué es el pensamiento dialógico crítico? *Perfiles Educativos*, XXV(102), 22-39.
- Giroto Rebelato, M., & Rodrigues, A. (2013). As contradicoes do Lean Sig Sigma. *Revista de Administração da Unimep*, 11(2), 57-81. Recuperado de <https://goo.gl/HrFmKx>
- Good, D. J., & McIntyre, C. (2015). Use of journal clubs within senior capstone courses: Analysis of perceived gains in reviewing scientific literature. *Journal of Nutrition Education and Behavior*, 47(5), 477-479. doi: <https://doi.org/10.1016/j.jneb.2015.05.003>
- González Gómez, Y., Mieres Chacaltana, M., Denegri Coria, M., & Sepúlveda Aravena, J. (septiembre-diciembre de 2014). La enseñanza de nociones básicas de economía en la forma-



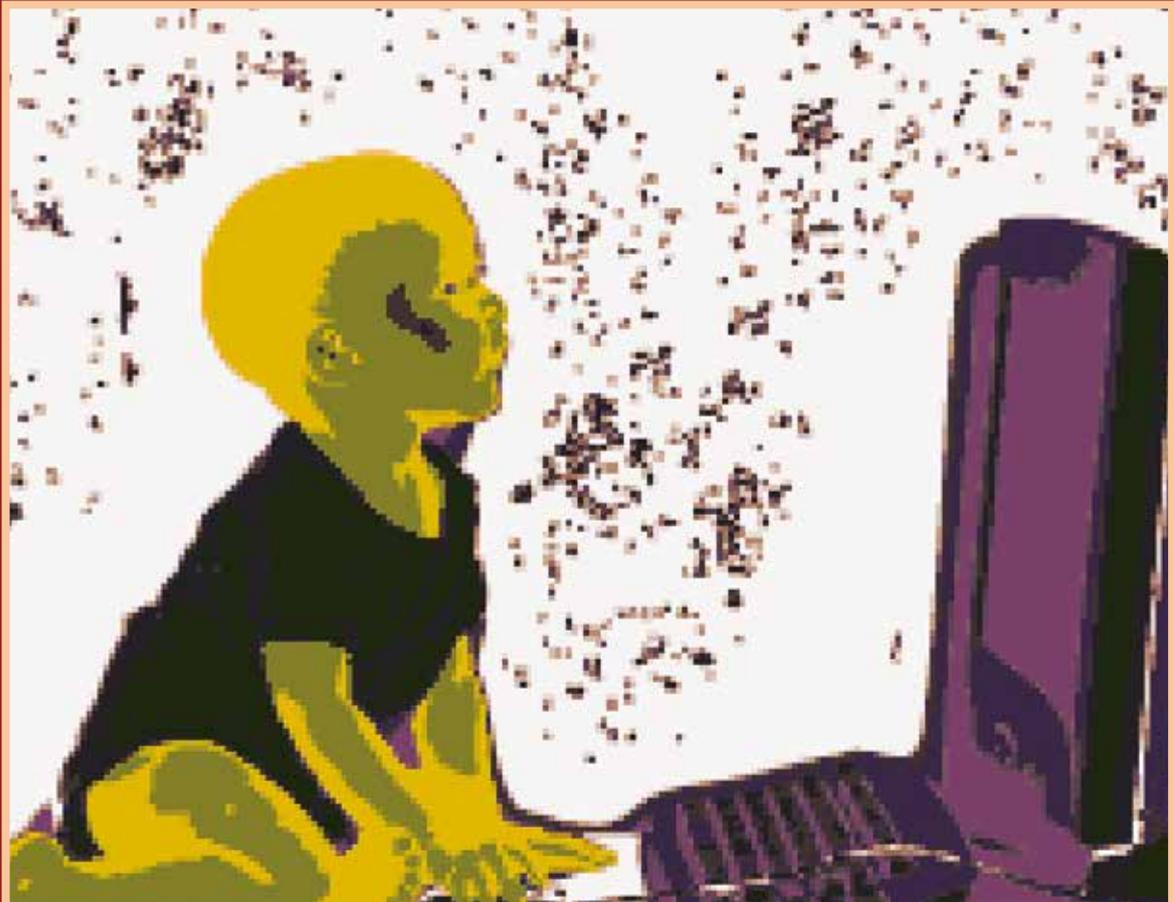
- ción docente. Una propuesta desde la experiencia de dos instituciones de Educación Superior Regional. *Profesorado: Revista de currículum y formación del profesorado*, 18(3), 411-430.
- Guarro Pallás, A. (2005). La transformación democrática de la cultura escolar: una respuesta justa a las necesidades del alumnado de zonas desfavorecidas. *Profesorado, revista de currículum y formación del profesorado*, 1(1), 1-48.
- Higuera Linares, M. (julio-diciembre de 2016). El mito del anillo de Gíges en la República de Platón. *Universitas Philosophica*, 33(67), 73-102. Recuperado de <https://goo.gl/8Ez6Bv>
- Ibarra Sáiz, M., & Rodríguez Gómez, G. (2011). Aprendizaje autónomo y trabajo en equipo: reflexiones desde la competencia percibida por los estudiantes universitarios. *Revista electrónica interuniversitaria de Formación del profesorado*, 14(4), 73-85.
- Iglesias Rodríguez, A., & Beltrán Llavador, F. (2012). Practicum sin fronteras: Estudio de un caso de reflexión intercultural y pedagógica. *Teoría de Educación*, 24, 105-131.
- Jouannet, C., Salas, M., & Contreras, M. (2013). Modelo de implementación de Aprendizaje Servicio (A+S) en la UC: Una experiencia que impacta positivamente en la formación profesional integral. *Calidad en la Educación*, 39, 197-212.
- Luengo Navas, J., Luzón Trujillo, A., & Torres Sánchez, M. (2008). Las reformas educativas basadas en el enfoque por competencias: una visión comparada. *Profesorado: revista del currículum y formación del profesorado*, 12(3), 1-10.
- Ministerio de Educación Nacional (febrero de 1998). Consejo Nacional de Acreditación Lineamientos para la Acreditación. Bogotá: Ministerio de Educación Nacional.
- Ministerio de Educación Nacional (27 de octubre de 2010). Las Pruebas Saber Pro (antes Ecaes), una ventaja competitiva en el campo laboral. Bogotá. Recuperado de <https://goo.gl/4C2rxU>
- Ministerio de Educación Nacional (18 de julio de 2017). Divulgación 2017 de Saber Pro. Bogotá. Recuperado de <https://goo.gl/NHKDqD>
- Ministerio de Educación Nacional (15 de enero de 2018). Portal Colombia Aprende. Recuperado de <https://goo.gl/W4MzQz>
- Montalva, J., Ponce, C., & Llorca, C. (4 de noviembre de 2017). Elementos claves para el diseño de una reflexión de calidad en Aprendizaje Servicio. Lectura obligatoria en el Diplomado Aprendizaje+Servicio de la Pontificia Universidad Católica de Chile. Santiago de Chile: Centro de Desarrollo Docente de la Pontificia Universidad Católica de Chile.
- Muñoz Gaviria, D. (january-june de 2011). El compromiso social de las facultades de educación: Reflexiones pedagógicas en torno a la educación y la crisis de la modernidad. *El Ágora USB*, 11(1), 125-152.
- Oehrtman, S. J., Smolen, D., Hoblet, K. & Phillips, K. A. (2010). The comprehensive examination: A viable master's of science in nursing capstone course. *Journal of Professional Nursing*, 26(6), 360-365. doi: <https://doi.org/10.1016/j.profnurs.2010.08.003>
- Palomer, L., Humeres, P., Sánchez, A., González, S., & Contreras, A. (junio de 2013). Una experiencia de "aprendizaje-servicio": fomentando el desarrollo de valores en estudiantes de odontología chilenos. *FEM: Revista de la Fundación Educación Médica*, 16(2), 91-96. <http://dx.doi.org/10.4321/S2014-98322013000200007>
- Pérez de Maldonado, I., Bustamante Uzcátegui, S., & Maldonado Pérez, M. (2009). El trabajo en equipo y el desarrollo de habilidades conversacionales en organizaciones educativas. *Omnia*, 15(3), 78-96.
- Raposo Rosa, A., & Cardoso Viera Machado, M. (2013). Lean Accounting: Accounting contribution for Lean Management Philosophy. *Tourism y Management Studies*, 3, 886-895. Recuperado de <https://goo.gl/fWTfgp>
- Sávio Giordani, D., Cândido Moraes, E. d. J., & Motta Barreto, M. A. (2017). Simulation of a competitive business environment: a case study in a Chemical Engineering Program. *Production*, 24(27), 1-12.
- Serrano Guzmán, M., Pérez Ruiz, D., Torrado Gómez, L., & Solarte Vanegas, N. (mayo-agosto de 2017). Consideraciones académicas y administrativas para implementación de Capstone



- en ingeniería civil: Estudio de caso. *Revista Electrónica Educare*, 21(2), 1-22.
<http://dx.doi.org/10.15359/ree.21-2.17>
- Serrano Guzmán, M., Pérez Ruiz, D., Torrado Gómez, L., & Solarte Vanegas, N. (2018). Estrategias de reflexión en trabajo final requisito para grado: estudio de caso en Ingeniería Civil. *Revista Dilemas Contemporáneos: Educación, Política y Valores*, 3(15), 1-24, mayo.
- Shin, Y.-S., Lee K-W., Ahn, J-S. & Jung, J-W. (2013). Development of Internship & Capstone Design Integrated Program for University-Industry Collaboration. *Procedia - Social and Behavioral Sciences*, 102, 386-391. doi: <https://doi.org/10.1016/j.sbspro.2013.10.753>
- Subdirección Territorial y de Inversiones Públicas del Departamento Nacional de Planeación. (2013). Prototipo Proyectos Productivos Metodología General para la Formulación y Evaluación de Proyectos de Inversión Pública- MGA, Sistema general de Regalías SGR, Versión 1.0. Bogotá. Recuperado de <https://goo.gl/BvWKHM>
- Ucol-Ganiron Jr. T., & Alaboodi, A. S. (2013). Cultural Learning Environment in Structural Engineering Courses of Architecture and Civil Engineering Students in Qassim University. *Procedia - Social and Behavioral Sciences*, 102, 300-310.
- Vega, G. (23 de Mayo de 2015). *La ética. La leyenda del anillo de Giges*. Valladolid. Recuperado de <https://goo.gl/aBCnQR>
- Vélez Gutiérrez, C. (julio-diciembre de 2012). Una reflexión interdisciplinar sobre el pensamiento crítico. *Revista Latinoamericana de estudios educativos*, 9(2), 11-39.
- Vergara-Schmalbach, J., Fontalvo Herrera, T., & Morelos Gómez, J. (septiembre-diciembre de 2013). ¿Es la ingeniería una moda administrativa? *Revista Virtual Universidad Católica del Norte*, 40, 216-225. Recuperado de <https://goo.gl/dHtnnj>
- Vellurattil, R. P., Puglisi, M. P., Johnson, C. L., & Slonek, J. (2014). Introduction of a capstone research program in a new college of pharmacy: Student perceptions. *Currents in Pharmacy Teaching and Learning*, 6(3), 429-436. <https://doi.org/10.1016/j.cptl.2014.02.008>
- Viera Bayeaux, I. (abril-junio de 2010). Algunos criterios acerca de la competencia comunicativa. *EduSol*, 10, 29-38.
- Zelaieta Anta, E., & Camino Ortiz de Barrón, I. (enero-marzo de 2018). El desarrollo del pensamiento crítico en la formación inicial del profesorado: análisis de una estrategia pedagógica desde la visión del alumnado. *Profesorado: revista de currículo y de formación del profesorado*, 22(1), 197-214.



Publication guidelines (*Normas Editoriales*)



Digital native, digital illustration, 18 cm x 12 cm

Alteridad. Revista de Educación

<http://alteridad.ups.edu.ec/>

p-ISSN:1390-325X / e-ISSN:1390-8642

Publication guidelines in “Alteridad”

1. General information

“Alteridad” is a bilingual scientific publication of the Universidad Politécnica Salesiana of Ecuador, published since January 2006 in an uninterrupted manner, with a fixed biannual periodicity, specialized in Education and its transdisciplinary lines such as Didactics, Public Policies, Management of Schools, Educommunication, ICT, among others.

It is scientific journal, which uses the peer-review system, under double-blind review methodology, according to the publication standards of the American Psychological Association (APA). Compliance with this system allows authors to guarantee an objective, impartial and transparent review process, which facilitates the publication of their inclusion in reference databases, repositories and international indexing.

“Alteridad” is indexed in the directory and selective catalog of the Regional Online Information System for Scientific Journals of Latin America, the Caribbean, Spain and Portugal (Latindex), in the Scientific Information System REDALYC, in the Directory of Journals of Open Access DOAJ and in repositories, libraries and specialized catalogs of Latin America.

The journal is published in a double version: printed (ISSN: 1390-325X) and digital (e-ISSN: 1390-8642), in English and Spanish, each work being identified with a DOI (Digital Object Identifier System).

2. Scope and policy

1.1 Theme

Original contributions in Education, as well as related areas: Didactics, Public Policies, Management of Schools, Edu-communication, ICT... and all interdisciplinary disciplines related to the central theme.

1.2 Contributions

“Alteridad” preferably publishes results of empirical research on Education, written in Spanish and / or English, as well as reports, studies and proposals, as well as selected state-of-the-art literature reviews.

All works must be original, have not been published in any medium or be in the process of arbitration or publication.

- **Research:** 5,000 to 6,500 words of text, including title, abstracts, descriptors, charts and references.
- **Reports, studies and proposals:** 5,000 to 6,500 words of text, including title, abstracts, charts and references.
- **Reviews:** 6,000 to 7,000 words of text, including charts and references. Justified references, would be specially valued. (current and selected from among 70 works)



“Alteridad” has a biannual periodicity (20 articles per year), published in January and July and counts by number with two sections of five articles each, the first referring to a **Monographic** topic prepared in advance and with thematic editors and the second, a section of **Miscellaneous**, composed of varied contributions within the theme of the publication.

3. Presentation, structure and style of the manuscripts

Texts will be presented in Arial 10 font, single line spacing, complete justification and no tabs or white spaces between paragraphs. Only large blocks (title, authors, summaries, descriptors, credits and headings) will be separated with a blank space. The p. should be 2 centimeters in all its margins.

Papers must be submitted in a Microsoft Word document (.doc or docx), requiring that the file be anonymized in File Properties, so that the author/s identification does not appear.

These publication guidelines are based on the standards of APA 6: (<http://www.apastyle.org/>).

3.1 Structure of the manuscript

For those works that are empirical investigations, the manuscripts will follow the IMRDC structure, being optional the Notes and Supports. Those papers that, on the contrary, deal with reports, studies, proposals and reviews may be more flexible in their epigraphs, particularly in material and methods, analysis, results, discussion and conclusions. In all typologies of works, references are mandatory.

1. **Title (Spanish) / Title (English):** Concise but informative, in Spanish on the first line and in English on the second. A maximum of 80 characters with spaces are accepted. The title is not only the responsibility of the authors, changes being able to be proposed by the Editorial Board.
2. **Abstract (Spanish) / Abstract (English):** It will have a maximum extension of 230 words, first in Spanish and then in English. : 1) Justification of the topic; 2) Objectives; 3) Methodology and sample; 4) Main results; 5) Main conclusions. It must be impersonally written “This paper analyzes ..”. In the case of the abstract, the use of automatic translators will not be accepted due to their poor quality.
3. **Descriptors (Spanish) / Keywords (English):** 6 descriptors must be presented for each language version directly related to the subject of the work. The use of the key words set out in UNESCO’s Thesaurus will be positively valued.
4. **Introduction and state of the issue:** It should include the problem statement, context of the problem, justification, rationale and purpose of the study, using bibliographical citations, as well as the most significant and current literature on the topic at national and international level.
5. **Material and methods:** It must be written so that the reader can easily understand the development of the research. If applicable, it will describe the methodology, the sample and the form of sampling, as well as the type of statistical analysis used. If it is an original methodology, it is necessary to explain the reasons that led to its use and to describe its possible limitations.
6. **Analysis and results:** It will try to highlight the most important observations, describing, without making value judgments, the material and methods used. They will appear in a logical sequence in the text and the essential charts and figures avoiding the duplication of data.
7. **Discussion and conclusions:** Summarize the most important findings, relating the observations themselves with relevant studies, indicating contributions and limitations, without adding data already mentioned in other sections. Also, the



discussion and conclusions section should include the deductions and lines for future research.

8. **Supports and acknowledgments (optional):** The Council Science Editors recommends the author (s) to specify the source of funding for the research. Priority will be given to projects supported by national and international competitive projects. In any case, for the scientific evaluation of the manuscript, it should be only anonymized with XXXX for its initial evaluation, in order not to identify authors and research teams, which should be explained in the Cover Letter and later in the final manuscript.
9. **The notes (optional)** will go, only if necessary, at the end of the article (before the references). They must be manually annotated, since the system of footnotes or the end of Word is not recognized by the layout systems. The numbers of notes are placed in superscript, both in the text and in the final note. The numbers of notes are placed in superscript, both in the text and in the final note. No notes are allowed that collect simple bibliographic citations (without comments), as these should go in the references.
10. **References:** Bibliographical citations should be reviewed in the form of references to the text. Under no circumstances should references not mentioned in the text be included. Their number should be sufficient to contextualize the theoretical framework with current and important criteria. They will be presented alphabetically by the first last name of the author.

3.2 Guidelines for references

Periodic publications

Journal article (author): Valdés-Pérez, D. (2016). Incidencia de las técnicas de gestión en la mejora de decisiones administrativas [Impact of Management Techniques

on the Improvement of Administrative Decisions]. *Retos*, 12(6), 199-2013. <https://doi.org/10.17163/ret.n12.2016.05>

Journal Article (Up to six authors): Ospina, M.C., Alvarado, S.V., Fefferman, M., & Llanos, D. (2016). Introducción del dossier temático “Infancias y juventudes: violencias, conflictos, memorias y procesos de construcción de paz” [Introduction of the thematic dossier “Infancy and Youth: Violence, Conflicts, Memories and Peace Construction Processes”]. *Universitas*, 25(14), 91-95. <https://doi.org/10.17163/uni.n25.%25x>

Journal article (more than six authors): Smith, S.W., Smith, S.L., Pieper, K.M., Yoo, J.H., Ferrys, A.L., Downs, E.,... Bowden, B. (2006). Altruism on American Television: Examining the Amount of, and Context Surrounding, Acts of Helping and Sharing. *Journal of Communication*, 56(4), 707-727. <https://doi.org/10.1111/j.1460-2466.2006.00316.x>

Journal article (without DOI): Rodríguez, A. (2007). Desde la promoción de salud mental hacia la promoción de salud: La concepción de lo comunitario en la implementación de proyectos sociales. *Alteridad*, 2(1), 28-40. (<https://goo.gl/zDb3Me>) (2017-01-29).

Books and book chapters

Full books: Cuéllar, J.C., & Moncada-Paredes, M.C. (2014). *El peso de la deuda externa ecuatoriana*. Quito: Abya-Yala.

Chapter of book: Zambrano-Quiñones, D. (2015). *El ecoturismo comunitario en Manglaralto y Colonche*. En V.H. Torres (Ed.), *Alternativas de Vida: Trece experiencias de desarrollo endógeno en Ecuador (175-198)*. Quito: Abya-Yala.

Digital media

Pérez-Rodríguez, M.A., Ramírez, A., & García-Ruiz, R. (2015). La competencia mediática en educación infantil. Análisis del nivel de desarrollo en España. *Universitas Psychologica*, 14(2), 619-630. <https://doi.org/10.11144/Javeriana.upsy14-2.cmei>



It is prescriptive that all quotations that have DOI (Digital Object Identifier System) are reflected in the References (can be obtained at <http://goo.gl/gfruh1>). All journals and books that do not have DOI should appear with their link (in their online version, if they have it, shortened by Google Shortened: <http://goo.gl>) and date of consultation in the indicated format.

Journal articles should be presented in English, except for those in Spanish and English, in which case it will be displayed in both languages using brackets. All web addresses submitted must be shortened in the manuscript, except for the DOI that must be in the indicated format (<https://doi.org/XXX>).

3.3. Epigraphs, Figures and Charts

The epigraphs of the body of the article will be numbered in Arabic. They should go without

a full box of capital letters, neither underlined nor bold. The numbering must be a maximum of three levels: 1. / 1.1. / 1.1.1. A carriage return will be established at the end of each numbered epigraph.

The charts must be included in the text in Word format according to order of appearance, numbered in Arabic and subtitled with the description of the content.

The graphics or figures will be adjusted to the minimum number required and will be presented incorporated in the text, according to their order of appearance, numbered in Arabic and subtitled with the abbreviated description. Their quality should not be less than 300 dpi, and it may be necessary to have the graph in TIFF, PNG or JPEG format.



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p-ISSN:1390-325X / e-ISSN:1390-8642

Normas de Publicación en “Alteridad”

1. Información general

“Alteridad” es una publicación científica bilingüe de la Universidad Politécnica Salesiana de Ecuador, editada desde enero de 2006 de forma ininterrumpida, con periodicidad fija semestral, especializada en Educación y sus líneas transdisciplinarias como Didáctica, Políticas Públicas, Gerencia de Centros Escolares, Educomunicación, TIC, entre otras.

Es una revista científica arbitrada, que utiliza el sistema de evaluación externa por expertos (*peer-review*), bajo metodología de pares ciegos (*double-blind review*), conforme a las normas de publicación de la American Psychological Association (APA). El cumplimiento de este sistema permite garantizar a los autores un proceso de revisión objetivo, imparcial y transparente, lo que facilita a la publicación su inclusión en bases de datos, repositorios e indexaciones internacionales de referencia.

“Alteridad” se encuentra indexada en el directorio y catálogo selectivo del Sistema Regional de Información en Línea para Revistas Científicas de América Latina, el Caribe, España y Portugal (Latinex), en el Sistema de Información Científica REDALYC, en el Directorio de Revistas de Acceso Abierto DOAJ y en repositorios, bibliotecas y catálogos especializados de Iberoamérica.

La revista se edita en doble versión: impresa (ISSN: 1390-325X) y electrónica (e-ISSN: 1390-8642), en español e inglés, siendo identificado además cada trabajo con un DOI (Digital Object Identifier System).

2. Alcance y política

2.1. Temática

Contribuciones originales en materia de Educación, así como áreas afines: Didáctica, Políticas Públicas, Gerencia de Centros Escolares, Educomunicación, TIC... y todas aquellas disciplinas conexas interdisciplinariamente con la línea temática central.

2.2. Aportaciones

“Alteridad” edita preferentemente resultados de investigación empírica sobre Educación, redactados en español y/o inglés, siendo también admisibles informes, estudios y propuestas, así como selectas revisiones de la literatura (*state-of-the-art*).

Todos los trabajos deben ser originales, no haber sido publicados en ningún medio ni estar en proceso de arbitraje o publicación. De esta manera, las aportaciones en la revista pueden ser:

- **Investigaciones:** 5.000 a 6.500 palabras de texto, incluyendo título, resúmenes, descriptores, tablas y referencias.
- **Informes, estudios y propuestas:** 5.000 a 6.500 palabras de texto, incluyendo título, resúmenes, tablas y referencias.
- **Revisiones:** 6.000 a 7.000 palabras de texto, incluidas tablas y referencias. Se



valorará especialmente las referencias justificadas, actuales y selectivas de alrededor de unas 70 obras.

“Alteridad” tiene periodicidad semestral (20 artículos por año), publicada en los meses de enero y julio y cuenta por número con dos secciones de cinco artículos cada una, la primera referida a un tema **Monográfico** preparado con antelación y con editores temáticos y la segunda, una sección de **Misceláneas**, compuesta por aportaciones variadas dentro de la temática de la publicación.

3. Presentación, estructura y estilo de los manuscritos

Los trabajos se presentarán en tipo de letra Arial 10, interlineado simple, justificado completo y sin tabuladores ni espacios en blanco entre párrafos. Solo se separarán con un espacio en blanco los grandes bloques (título, autores, resúmenes, descriptores, créditos y epígrafes). La página debe tener 2 centímetros en todos sus márgenes.

Los trabajos deben presentarse en documento de Microsoft Word (.doc o docx), siendo necesario que el archivo esté anonimizado en Propiedades de Archivo, de forma que no aparezca la identificación de autor/es.

Las Normas de publicación se basan en APA 6 (<https://goo.gl/x4PyFw>).

3.1. Estructura del manuscrito

Para aquellos trabajos que se traten de investigaciones de carácter empírico, los manuscritos seguirán la estructura IMRDC, siendo opcionales los epígrafes de Notas y Apoyos. Aquellos trabajos que por el contrario se traten de informes, estudios, propuestas y revisiones podrán ser más flexibles en sus epígrafes, especialmente en Material y métodos, Análisis y resultados y Discusión y conclusiones. En todas las tipologías de trabajos son obligatorias las Referencias.

11. **Título (español) / Title (inglés):** Conciso pero informativo, en castellano en primera línea y en inglés en segunda. Se aceptan como máximo 80 caracteres con espacio. El título no solo es responsabilidad de los autores, pudiéndose proponer cambios por parte del Consejo Editorial.
12. **Resumen (español) / Abstract (inglés):** Tendrá como extensión máxima 230 palabras, primero en español y después en inglés. En el resumen se describirá de forma concisa y en este orden: 1) Justificación del tema; 2) Objetivos; 3) Metodología y muestra; 4) Principales resultados; 5) Principales conclusiones. Ha de estar escrito de manera impersonal “El presente trabajo analiza...”. En el caso del abstract no se admitirá el empleo de traductores automáticos por su pésima calidad.
13. **Descriptores (español) / Keywords (inglés):** Se deben exponer 6 descriptores por cada versión idiomática relacionados directamente con el tema del trabajo. Será valorado positivamente el uso de las palabras claves expuestas en el Thesaurus de la UNESCO.
14. **Introducción y estado de la cuestión:** Debe incluir el planteamiento del problema, el contexto de la problemática, la justificación, fundamentos y propósito del estudio, utilizando citas bibliográficas, así como la literatura más significativa y actual del tema a escala nacional e internacional.
15. **Material y métodos:** Debe ser redactado de forma que el lector pueda comprender con facilidad el desarrollo de la investigación. En su caso, describirá la metodología, la muestra y la forma de muestreo, así como se hará referencia al tipo de análisis estadístico empleado. Si se trata de una metodología original, es necesario exponer las razones que han conducido a su empleo y describir sus posibles limitaciones.
16. **Análisis y resultados:** Se procurará resaltar las observaciones más importantes,



describiéndose, sin hacer juicios de valor, el material y métodos empleados. Aparecerán en una secuencia lógica en el texto y las tablas y figuras imprescindibles evitando la duplicidad de datos.

17. **Discusión y conclusiones:** Resumirá los hallazgos más importantes, relacionando las propias observaciones con estudios de interés, señalando aportaciones y limitaciones, sin redundar datos ya comentados en otros apartados. Asimismo, el apartado de discusión y conclusiones debe incluir las deducciones y líneas para futuras investigaciones.
18. **Aposos y agradecimientos (opcionales):** El Council Science Editors recomienda a los autor/es especificar la fuente de financiación de la investigación. Se considerarán prioritarios los trabajos con aval de proyectos competitivos nacionales e internacionales. En todo caso, para la valoración científica del manuscrito, este debe ir anonimizado con XXXX solo para su evaluación inicial, a fin de no identificar autores y equipos de investigación, que deben ser explicitados en la Carta de Presentación y posteriormente en el manuscrito final.
19. **Las notas** (opcionales) irán, solo en caso necesario, al final del artículo (antes de las referencias). Deben anotarse manualmente, ya que el sistema de notas al pie o al final de Word no es reconocido por los sistemas de maquetación. Los números de notas se colocan en superíndice, tanto en el texto como en la nota final. No se permiten notas que recojan citas bibliográficas simples (sin comentarios), pues éstas deben ir en las referencias.
20. **Referencias:** Las citas bibliográficas deben reseñarse en forma de referencias al texto. Bajo ningún caso deben incluirse referencias no citadas en el texto. Su número debe ser suficiente para contextualizar el marco teórico con criterios de actualidad e importancia. Se presentarán alfabéticamente por el primer apellido del autor.

3.2. Normas para las referencias

Publicaciones periódicas

Artículo de revista (un autor): Valdés-Pérez, D. (2016). Incidencia de las técnicas de gestión en la mejora de decisiones administrativas [Impact of Management Techniques on the Improvement of Administrative Decisions]. *Retos*, 12(6), 199-213. <https://doi.org/10.17163/ret.n12.2016.05>

Artículo de revista (hasta seis autores): Ospina, M.C., Alvarado, S.V., Fefferman, M., & Llanos, D. (2016). Introducción del dossier temático “Infancias y juventudes: violencias, conflictos, memorias y procesos de construcción de paz” [Introduction of the thematic dossier “Infancy and Youth: Violence, Conflicts, Memories and Peace Construction Processes”]. *Universitas*, 25(14), 91-95. <https://doi.org/10.17163/uni.n25.%25x>

Artículo de revista (más de seis autores): Smith, S.W., Smith, S.L. Pieper, K.M., Yoo, J.H., Ferrys, A.L., Downs, E.,... Bowden, B. (2006). Altruism on American Television: Examining the Amount of, and Context Surrounding. Acts of Helping and Sharing. *Journal of Communication*, 56(4), 707-727. <https://doi.org/10.1111/j.1460-2466.2006.00316.x>

Artículo de revista (sin DOI): Rodríguez, A. (2007). Desde la promoción de salud mental hacia la promoción de salud: La concepción de lo comunitario en la implementación de proyectos sociales. *Alteridad*, 2(1), 28-40. (<https://goo.gl/zDb3Me>) (2017-01-29).

Libros y capítulos de libro

Libros completos: Cuéllar, J.C., & Moncada-Paredes, M.C. (2014). *El peso de la deuda externa ecuatoriana*. Quito: Abya-Yala.



Capítulos de libro: Zambrano-Quiñones, D. (2015). *El ecoturismo comunitario en Manglaralto y Colonche*. En V.H. Torres (Ed.), *Alternativas de Vida: Trece experiencias de desarrollo endógeno en Ecuador (175-198)*. Quito: Abya-Yala.

Medios electrónicos

Pérez-Rodríguez, M.A., Ramírez, A., & García-Ruiz, R. (2015). La competencia mediática en educación infantil. Análisis del nivel de desarrollo en España. *Universitas Psychologica*, 14(2), 619-630. <https://doi.org/10.11144/Javeriana.upsy14-2.cmei>

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