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### **(2020 ID: 2603) Nomads of Knowledge: Analysis of Disruptive Pedagogical Practices in Secondary Education**

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This paper presents an exploratory study and a critical analysis of experiences of emerging pedagogies and disruptive practices in secondary education, developed in 4 universities, in Spain (Extremadura, Valladolid, Granada and Málaga). This study intends to transform these schools into an open space for educational experimentation through the production of shared designs, prototypes of experiences and cultural products.

In the current social framework, the School Institution is experiencing a decline, characterized by uncertainty (Robinson & Aronica, 2015) and by the deep disaffection with which young people live through it. It seems incapable of generating attractive, stimulating, challenging or creative practices (Alliaud and Antelo, 2009; Acaso, Manzanera and Piscitelli, 2015). Different studies on disruptive innovation (Christensen, Raynor & McDonald, 2016; Cobo, 2016) show that there is a need to rethink and modify, in a connective key, the restrictions that convert formal educational institutions into standardization machines. These studies propose to understand knowledge as something distributed in network and interdependent (Siemens, 2005) as well as to use new formats and heterodox supports. We believe that "opportunities spaces" are being opened within educational institutions with "disruptive" projects that experiment with new forms of social interaction (Wesch, 2009; Freire & Villar Onrubia, 2009). New experiences in a "knowmad" framework where oral, musical, audiovisual, narrative and digital cultures activate the playful component of citizen action and inclusive socio-political participation (Morduchowicz, 2012). These projects seem to increase the commitment and interest of young people and adolescents, as well as generate new forms of cooperation and collaboration, stimulated and implemented in these new informational environments (Wood et al., 2014). On the other hand, these projects allow the incorporation of values, contents and procedures characteristic of a democratic society in the education of students as a priority task with the generation of links and work experiences with the social environment (Hargreaves & Hartley, 2016; Jacoby, 2014; Coryell, Stewart, Wubben, Valverde-Poenie, & Spencer, 2016).

This project raises the debate about the need to reorganize formal institutions from uncertainties and not from certainties. A field where different agents of change join in new circuits of production, teaching, circulation and dissemination of processes and products, based on new knowledge more in accordance with the digital disorder of the 21st century (Piscitelli, 2010). Achieving the development of these disruptive methodologies converts the classrooms into laboratories of ideas that permanently seek production, participation and distributed learning as a challenge that is not only technical, but also cultural (Groom & Lamb, 2009).

The objectives set out in this project are:

1. Identify the elements that vertebrate the emerging pedagogies and disruptive educational practices in secondary education (compulsory and post-compulsory) through the opinions of experts in educational innovation that allow us to assess the potential and difficulties to which these educational projects face.
2. In-depth analysis of the creation, habilitation and maintenance of production, research and dissemination environments of disruptive educational projects in secondary education that explore the new forms of creative experimentation and collaborative learning that have emerged within the hyperconnected society and culture- Net.
3. Implement a cross-sectional virtual meeting space (Laboratory of Emerging Pedagogies and Disruptive Practices) to connect, translate, re-contextualize, articulate and recombine the knowledge generated in schools based on disruptive dynamics that seek to mediate in the creation, interaction and public participation processes.

#### *Methodology, Methods, Research Instruments or Sources Used*

Methodologically we opt for an interpretive approach. It develops in the following three phases. In the first one, a map of perceptions and representations about the basic elements or articulator axis of disruptive and emerging practices will be carried out through the Delphi methodology. The second one will deepen the study of these through the realization of case studies. In the third one, we propose the start-up of a Laboratory of Pedagogies and Emerging Practices that allows transferring the results of the research to society. This laboratory aims to make visible the initiatives studied and generate a space for exchange and co-creation of new proposals.

Currently it has completed phase 1 (Delphi methodology) and is being advanced in phase 2 (studies), while the second is subject to restrictions resulting from the COVID-19.

*Delphi Methodology:* A first open questionnaire was carried out around 4 focuses of interest, as a result of the bibliographic review carried out and the objectives of the research: 1) The school institution in relation to society and the global world 2) Learning outside of the formal educational context 3) The culture of innovation 4) Technological mediation. It was applied to 20 experts, (each university selected 5 of them).

With the responses of the participants, a list of items was prepared that were assessed by them in a second application. Both questionnaires have been analyzed according to a coding and categorization process in three stages: (i) open coding, (ii) selective coding and (iii) theoretical coding. As a complementary activity, individual interviews have been conducted with the experts in order to deepen their responses to the questionnaire and discussion groups have been held for a shared analysis of the results of this first phase.

Phase 2 consists of the development of 12 case studies (3 for each of the universities) selected by their involvement in

disruptive practices in secondary education according to the issues defined in the research:

- 1- Interactions between internal local educational demands and external demands
- 2- Skills in the production and exchange of knowledge in multiple contexts
- 3- Learning in hyper-connected schools
- 4- Expanded education and the ubiquities of learning
- 5- Disruptive methodological innovations in augmented societies

#### *Conclusions, Expected Outcomes or Findings*

The results that are emerging from the different methodological strategies can be framed in the following dimensions:

1. A map or refined cartography of the school ideology about innovation is offered, based on the application of the Delphi methodology and the panels and expert seminars (discussion groups), which provides a synthetic perspective of the different problems referred to participants, contexts, themes, resources or practices
2. Reports of descriptive evaluation of experiences characterized as emerging pedagogies and disruptive practices in secondary education, contributing conceptual frameworks, critical questioning and systematization of the factors and effects involved in their development.
3. Advances in knowledge about conditions of secondary education, in relation to the potential of these experiences in order to break the hegemonic conceptions of the curriculum and transform the current school scenarios through interaction and experimentation. It is expected to develop an understanding of the characteristics of secondary education that enable a relevant curricular and organizational change.
4. It provides a diagnosis on the strengths and weaknesses of these disruptive practices, identifying the axes and backbone elements in which they are articulated and the main challenges regarding the social value of learning. In this sense, progress is being made in the understanding of community processes in educational development; the construction of experiential, complex and relational knowledge that breaks with academic and disciplinary logic; the learning emanating from these serendipitous, invisible, trialological and situated practices, linked to alternative social and cultural practices; the value of different relational and communicative practices, such as those related to artistic production, social action, political practice, etc.
5. Social validation of the results of the project through the triangulation of the reports and the negotiation of the same with the participants in the study, with the purpose of carrying out a collaborative research process that allows feedback

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