

Danish University Colleges

Educational Inclusion Through Cooperative Learning And ICT. A View Of Denmark From The Spanish Context

Pedrajas, Lorena; Graf, Stefan Ting; Torrego, Juan Carlos

Publication date:
2016

[Link to publication](#)

Citation for published version (APA):
Pedrajas, L., Graf, S. T., & Torrego, J. C. (2016). *Educational Inclusion Through Cooperative Learning And ICT. A View Of Denmark From The Spanish Context.*

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Download policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/307545737>

Educational Inclusion Through Cooperative Learning And ICT. A View Of Denmark From The Spanish Context

Conference Paper · August 2016

CITATIONS

0

READS

77

3 authors:



Lorena Pedrajas

University of Alcalá

4 PUBLICATIONS 19 CITATIONS

[SEE PROFILE](#)



Stefan Ting Graf

University College Lillebælt

9 PUBLICATIONS 2 CITATIONS

[SEE PROFILE](#)



Juan Carlos Torrego

University of Alcalá

85 PUBLICATIONS 295 CITATIONS

[SEE PROFILE](#)

Some of the authors of this publication are also working on these related projects:



ICT Demonstration Schools in Denmark [View project](#)



The Impact of Cooperative Learning on the Inclusion of Gifted Pupils [View project](#)

Proposal Information of Contribution 983

ID: 983 / 04 SES 04 A: 2

04. Inclusive Education

Format of Presentation: Paper

Alternative EERA Network: 16. ICT in Education and Training

Keywords: educational inclusion, ICT, cooperative learning, digital environments, qualitative research

Educational Inclusion Through Cooperative Learning And ICT. A View Of Denmark From The Spanish Context.

Mercedes Lorena Pedrajas López¹, Juan Carlos Torrego Seijo¹, Stefan Ting Graf²

¹University of Alcalá, Spain; ²Læremiddel.dk, Denmark

Presenting Author: Pedrajas López, Mercedes Lorena

One of the principal characteristics of the XXI century is the rapid shift of its citizens to what we know as the Society of Information and Knowledge. We are surrounded by technology that pervades our daily lives, from the entertainment to training and employment; that is why since the 90's reforms were started in all European countries for the introduction of ICT in the classroom. Spain has made over the last 15 years remarkable economic efforts that have significantly improved the technological equipment in schools, but although the ratio of computers per students has been lowered to 8 students for each computer, OECD (2011) shows use quotes of 18% of the hours in scientific subjects for 15 years old students and worse results in other subjects such as maths with 10% of the total hours of the course. These results get worse in primary education.

Existence does not mean use; there is a huge disconnection between social development and educational reality in our country (Cabero and Córdoba, 2009) and teaching methodology is the turning point, not only for the inclusion in education, but also for the social advances that our own contexts and students demand. After years of attempts to achieve inclusion working in the introduction of new tools and new aims for the school of the XXI century, there is something that does not work yet: it is impossible to achieve social progress with individualistic thoughts and actions (Calzadilla, 2002). This is the main objective of the research that we propose: to strengthen the path towards inclusive education from two essential keys: ICT and cooperative learning (CL).

We base these work points on the ideas for inclusive change that were underlined by the United Nations Convention for the Rights of Persons with Disabilities held in 2006 (European Agency, 2013), where ICT were referred as key tools for promoting equal opportunities in education, and also on the targets set by OECD as essential characteristics of the students of the XXI century on its DeSeCo project (OECD, 2005): use of wide range of tools, interacting in heterogeneous groups and individual responsibility in the management of his life. In Spain, the ICT, as a means and as an end (González and Zariquiey, 2012), has been written as a right and we are working hard on its development, but the use of CL as principal methodology in the classroom has been showed important problems, requiring constant justification to the educational community and families.

We should consider CL as an appropriate teaching methodology to optimize the use of digital medias and to develop learning environments that promote the integral development of students and their multiple capacities (Basilotta and Herrada, 2013). With the aim of clarify the keys that exist in the use of both, tools and methodology, to conduct a true personalization of education, we present the first part of this research which is focused on the study of best practices in schools.

We are working on the first part which takes place in Denmark, a country that ranks as the main reference for conducting a sound analysis and realistic goal for the use of both pillars for key educational inclusion and where the research led by Stefan Graf "Inklusion og digitale læringsmiljøer undervisningsdifferentiering i" (IDDL) will be the benchmark for our analysis. This project is financed by the Ministry of Education with the aim of creating inclusive digital environments in the classroom by differentiated teaching. They are working on three dimensions: technologies, didactic aspects and organization, which are guiding the data analysis of our project.

Methodology, Methods, Research Instruments or Sources Used

The general goal divided the proposed research on two phases: the first phase in Denmark is focused on find the keys of ICT and CL, and the second phase in Spain, where we are going to implement CL and ICT in a classroom following the keys found in the previous phase. We are currently focused on the first phase whose methodology is qualitative, concretely it is a case-study research (Stake, 1999). Within the wide variety of case-studies that are defined by different authors, we are working on an inclusive case-study design (Yin, 2009).

The population sample for the study are the Danish schools of IDDL project who have agreed to participate in the process, as well as families and the researchers of the project whose concrete experiences have reported important aspects for the development of the second phase of the research in Spain.

This research has been divided into four periods: a first period for the access to the study field and the definition of the sample. To do so, we have been working with researchers from the Danish project on the different profiles of the participating schools. The second period corresponds to the instrument development and data collection. In this phase we have been working with: schemes-observation of the class, which has been helpful in the first contact and also to get deeper information that has led the design of the rest of instruments; semi-structured interviews with teachers, other agents of the educational community and researchers; and focus groups of students that were needed for the data triangulation and the fulfillment of the research objectives.

Currently, the research is immersed in analyzing the data, whose information is being encoded categorically preserving its textual nature to prepare the research report. This report will concrete the key points of change and the use of ICT and collaborative learning to promote Inclusion in the classroom, which will guide the counseling of the spanish classroom of the second part of this thesis.

Conclusions, Expected Outcomes or Findings

As expected outcomes, we have been able to advance some key points of the use of ICT and cooperative learning as tools of inclusion. One of these key factors is the existence of training counselors for Danish teachers, whose work focuses on the support and advice to teachers on issues that present difficulties for them in the classroom, as well as their support on the needs that the teachers have in their response of diversity in the classroom. Another highlight is the training of teachers in the educational use of digital tools. We are finding large differences in the profiles of ICT use among Danish and Spanish teachers: while teachers in Spain know how to use the tools but not how to fit them into their classroom work beyond the presentation of information, Danish teachers are prepared to use the tools in an educational way, using ICT as a help to attend the diversity that occurs in the classroom. Finally, it is important to emphasize the introduction of a tool for evaluating educational inclusion: the Danish students themselves assess the activity in which they participated showing if it was or not inclusive, if they have felt included and what they think about the activity, while in Spain we haven't got continuous assessment methods for the teacher to get feedback on the activity by the students, which make very difficult for these teachers to improve their task of attention to diversity beyond the ratings.

References

Basilotta, V. y Herrada, G. (2013). Aprendizaje a través de proyectos colaborativos con TIC. Análisis de dos experiencias en el contexto educativo. EDUTEC, Revista Electrónica de Tecnología Educativa, 44, 1-13.

Cabero, J. y Córdoba, M. (2009). Inclusión educativa: inclusión digital. Revista Educación Inclusiva, 2(1), 61-77.

Calzadilla, M.E. (2002). Aprendizaje colaborativo y tecnologías de la información y la comunicación. Retrieved from <http://www.rieoei.org/deloslectores/322Calzadilla.pdf>

European Agency (2013). Information and Communication Technology for Inclusion. Developments and Opportunities for European Countries. Retrieved from <http://www.european-agency.org/sites/default/files/ICT%20for%20Inclusion-EN.pdf>

González, E. and Zariquiey, F. (2012). Las TIC y el aprendizaje cooperativo. In J.C. Torrego y A. Negro (Coords.), Aprendizaje cooperativo en las aulas. Fundamentos y recursos para su implantación, (pp. 21-45). Madrid: Alianza Editorial.

OECD (2005). La definición y selección de competencias clave. Retrieved from

<http://www.deseco.admin.ch/bfs/desece/en/index/03/02.parsys.78532.downloadList.94248.DownloadFile.tmp/2005.dscexecutivesummary.sp.pdf>

OECD (2011). PISA 2009 Results: Students On Line. Digital Technologies and Performance. Paris: OECD Publishing.

Stake, R.E. (1999). Investigación con estudio de casos (4ª ed.). Madrid: Ediciones Morata S.L.

Yin, R. (2009). Case Study Research: Design and Methods (4ª ed.). Thousand Oaks, CA: Sage.