

CONTENT AND METHOD AT THE FOREFRONT OF
UNIVERSITY INSTRUCTION

COORDINATED BY

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"The first task of education is to challenge life, but leave it free for you to grow"

- María Montessori

INTRODUCTION

This book, *Content and Method at the Forefront of University Instruction*, aims to show to the Academy original research in the field of teaching, research and innovation, applied mainly to the fields of Communication, Sociology, Audiovisual Technology and Communication.

To this end, three publishers, Vision Books (Spain), Media XXI (Portugal) and Journal of alternative Perspectives in the Social Sciences (USA) have decided to join forces and edited in three languages chapters that help give a body to the new landscape Communication and Classrooms in the XXI century.

The following chapters are the results of new contributions within the American collection '*Educational innovations in higher education*' so that they are exposed through its dissemination to the scientific community specializing in the subject area of educational innovation and new teaching spaces.

Also, this project consciously makes a scientific effort to provide an updated, critical and evaluative study from specialized sources of information and analysis training of subject area in order to develop the present study.

Requirements for compliance with quality criteria with the necessary zeal, it was found that the chapters presented have not been previously published in full, and are therefore original, the result of research and / or self-reflection (for type essay) and that have never been nominated for other publications of whatever type.

It also notes that its publication has received the consent of all the authors and the responsible authorities (implicitly or explicitly) the research ones that some chapters are based.

In order to maintain a very high level of demand in terms of quality of content, always from the approach of scientific rigor in the U.S. or Edit (like their Spanish and Portuguese counterparts) of this Collection-university scientific and professional verifies that the manuscript review process has been done under the principle of arbitral review by categorical pairs, with two blind reports (and a deciding third for discrepancies between both), external to the editorial's three reviewers is (Vision Books, Media XXI, and the Journal of Alternative Perspectives in the Social Sciences) and belonging to the International Academic Community.

The coordinator of these three collections and each Editor verifies that the job done by reviewers is assigned to the proper scholars in its arbitration work. Reviewers have evaluated the following aspects:

- a) Originality of the manuscript;
- b) Methodology employed;
- c) Quality of the results and conclusions as well as consistency with the goals outlined in the book and in the Collection '*Educational innovations in higher education*', 'and
- d) Quality of the consulted references.

All this effort for excellence in reporting on formal plans and content is reflected in the following pages, which combine innovation in teaching, leading to new curricular challenges, with the classic university tradition of the learner-teacher relationship.

Drs. David Caldevilla Dominguez and Otto F. von Feigenblatt
Complutense University of Madrid (Spain) and Northwood University (Florida, USA)
Collection Coordinators of '*Educational innovations in Higher Education*

PROLOGUE

The failure as search engine in Latin America. The research based on the development of contemporary societies

Night falls and in the month of April convenes a purpose: to share the research we have been doing in the last year in our work areas. These lines describe (or attempt to describe) experience in Latin America, a piece of the planet that seem to converge hopes and mistakes alike. What are the topics of research in Latin America?, What are their objectives of study ?, How Do They Do It? Are the same objects of study that embraced by researchers from other latitudes?

The latest report published by Human Rights Watch last year was a terrible description string of misunderstandings with which we have to live daily from this side of the pond. In Bolivia, for example, are counted in more than 140 homicides linked to domestic violence only in the last year. In Argentina, the increasingly narrow fence castrating defined as "media escenarios" those who oppose the government and "bullets ink" of complaints can still be made on the pages of newspapers.

In Colombia only in the last year more than 5,000,000 million displaced were found because of the guerrillas and drug trafficking. In Mexico, in the same period were calculated missing more than 26,000 different and unjustified reasons and at the end of the alphabet Little Venice, is wound on all sides by the highest inflation in the world, a shortage that makes the buy enough to feed a family, a rally distasteful, ill is a luxury that only the luckiest can occur, collapsed prisons, 1462 under precautionary measures, 138 prisoners, more than 2636 prisoners, to raise his voice against the darkness that covers all this already in 2014. Only in one weekend, and stopping only in the capital more than 72 people by crime, entering a crowded morgue.

As if this were not enough, Andrés Oppenheimer, in his book Enough Stories, we described as a continent back to the future, forming professionals who do not need and focused on a useless hero worship yesterday, armed with rusty bronze statues in places that are the focus of proselytizing faiths. The reader of these lines insurance will be experiencing a kind of overdose of pessimism, but there is the beauty of what we describe. In this adverse context, the very simple problems would go along as a group of tropical Quixote who had decided to row against the sea.

In a reality where research takes pulse on an empty stomach, all of which will be described below takes a lot of courage. Numerous researchers chose Latin America as an object of study, some of whom were born in these latitudes and some other very distant. The Europeans study us or are studying us as one searches remembrance in memory. They try to be discovered in different cultural artifacts in which their influence is evident alongside with them and contained in the heading "highly specialized work: Popular science and science outreach." Find research from very different angles care to delve in such vital topics as health, politics, economics, biology, education or building supra-national identities within frameworks such as Europe itself or America. Very probably the most heterogeneous of all the thematic lines, Agora 2 has become the perfect occasion to learn the scientific realities of virtually all areas of knowledge. A pleasant surprise that allowed us to assess the chances of an open space, an agora where they have been accommodated the most innovative and varied proposals.

The issues addressed are: motley and diverse ranging from the need for community management in the management of natural resources, study the specifics of gender discourse, attributes the practice of journalism, anonymous biographical reconstruction of past masters, representation of immigrants in the local cinema, implications of multiculturalism in distant to major metropolises, sexuality, film critic, national political and electoral systems, security, renewable energy and society localities, and trans-disciplinarity as a tool for addressing educational content.

In Agora 1 set a kaleidoscope discipline that shows the determined and sustained efforts of researchers who are revealed to the inability to rethink their realities, reflecting the strong desire of those who want to write their future with good spelling. The reality is on the ropes but as a tropical Beethoven, the arpeggiated. The region of Latin America is full of problems but it is looking for solutions, Latin America more historical than ever (to say Kant) because it has been rife with contradictions, working everyday for achieving more just and happy realities.

In Agora 2 has sought to enhance research and multidisciplinary knowledge through scientific studies from different areas of knowledge, also allowing specialization in certain lines of research. The intention has become an opportunity to stimulate research interests, showing the different theoretical and methodological alternatives for accessing new knowledge to solve cognitive and practical problems. The highly specialized in providing and offering different alternatives, research becomes a necessity to advance social development, allowing us to approach the world of knowledge, creativity, innovation and the development of critical skills through generating questions and strategies for resolution.

Science is knowledge produced by humans in order to explain the why of things, and to understand why things change. Humans have tried to explain the variability of things, has sought the explanation for the phenomena, deciphering their order, as determined changes occur as the causes and effects.

Current discussions of science advocate a methodological pluralism, where research, the choice of method and techniques come from different epistemological horizons, and the division between quantitative methods can be diluted. Agora thus becomes the privileged space where science and society come together in everlasting search for answers to questions that come from old Europe or depart from an incipient Latin America. But ultimately, it comes raise questions and seek answers that will lead, from its resolution, to more distant horizons and full of unknown knowledge.

Even knowing that what we see is not all there and that heard are not the only voices in Latin America, but for all the Quixotes of the World, but especially for those who have genuine monstrous feeling against those who fight, all are in our admiration.

Maria Elena Del Valle and Emma Camarero Calandria

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I. INNOVADIETA: WEB PAGE WITH INTERNET RESOURCES FOR TRAINING AND PRACTICE OF DIET AND NUTRITION AND NUTRITIONAL DISCLOSURE

Beatriz Beltrán de Miguel (On behalf of the Group Innovadieta. Department. Nutrition. Faculty of Pharmacy. (Universidad Complutense de Madrid, Spain))

Agora (from gr. Ἀγορά) 3 f. Place of meeting or discussion¹

1. Background

"The Diet, like painting and music, is an art. The musician, with a limited number of musical notes, can create infinite melodies; the painter with his brush and colors interpreted in a thousand ways the world and feelings; Dietetic professional plasma, scientifically, creatively, with history and innovation, multiple combinations of foods and preparations, while leading to better health, delight our senses, just as we enjoy the music, color and images in the painting" (Beltrán, 2013).

In the process of adaptation to the European Higher Education Area (EHEA) system based on the student's autonomous learning, development of materials and tools that contribute to this is a key issue. The use of Information Technology and Communication (ICT) has become a very versatile tool compulsory learning that allows teachers to use in multiple ways according to their creative ability and the characteristics of the disciplines to which it applies. In this paper we focus on those

¹ Dictionary of the Spanish Language (DRAE) (2001).

related to knowledge of Nutrition and Dietetics taught in Levels of Human Nutrition and Dietetics, Science and Technology of Food and Pharmacy, offered by the Universidad Complutense de Madrid (UCM). In all three grades, training and acquisition of own knowledge of these skills are well represented in the skills and outcomes that students must acquire (ANECA, 2004, 2005), with particular importance in practical self-learning and capacity to adapt to the rapid evolution of knowledge in the Science of Nutrition (Beltrán et al., 2010).

Nutrition, Dietetics and other disciplines derived from them are eminently practical and require part of the learning of:

- An ability to integrate knowledge in related fields studied,
- An ability to transmit acquired easily and reliably that information to the population increasingly interested in the relationship and Nutrition Health and therefore more in need of food multidimensional training. From this need the concept of "*Food Literacy*" arises: Food Literacy or Basic Food Culture, defined as "*the basic training that every person must achieve and update on the food in its many dimensions (health, tourism, culture, gastronomy, culinary, convenience, price, ...). trained in the practice habits to follow a proper diet and in the environment and living conditions and enable it to achieve optimum health and quality of life*" (Beltrán, 2014) ,
- Continuous updating of content that extends beyond the classroom to professional practice, always based on scientific evidence according to the changing reality of these sciences and social / health claims for nutritional information and training each time.

Take an example. If we know the main diets for weight loss would not have more to go to where there is Internet available to scholars, students and the general public almost boundless information on dieting amount. Through various means (websites, databases, blogs, ...) from various sources (government agencies, academic institutions, private initiatives, ...) can access periodicals, books, courses, programs and guides very different profiles, all dietary treatments on weight loss (dated April 4, 2014 appearing in Google with the term "dieting" about 1,500,000 web references). But this very vastness of data, together with the shortage of quality control of the information they provide, often generated in the surfer a sense of misinformation and mistrust. In addition, the constant renewal of content

and addresses dynamic instrument requires mediation between the ocean and the network user (students, users,...).

In short, this new scenario where everything is so readily at hand, it is important to unify and contrast all the information, not always equally reliable, sometimes contradictory, confusing to a user becoming more interested and therefore increasingly vulnerable . With this purpose the web **Innovadieta** (<https://www.ucm.es/innovadieta/>), developed by a group of professors from the Department of Nutrition, Faculty of Pharmacy, Complutense University of Madrid --desde **Innovadieta Group**-- now arises, and has its roots in two Teaching Innovation Projects (PID) (Beltran et al, 2010;.. Cuadrado et al, 2011) (Figures 1-4), which are specified as such in a subsequent website (Beltrán et al., 2013; Carbajal et al, 2012).



Figure 1 Innovadieta Group (from left to right: Luis García-Diz, Angels Carbajal, Beatriz Beltrán, Isabel Goñi, Carmen Cuadrado and José Luis Sierra)

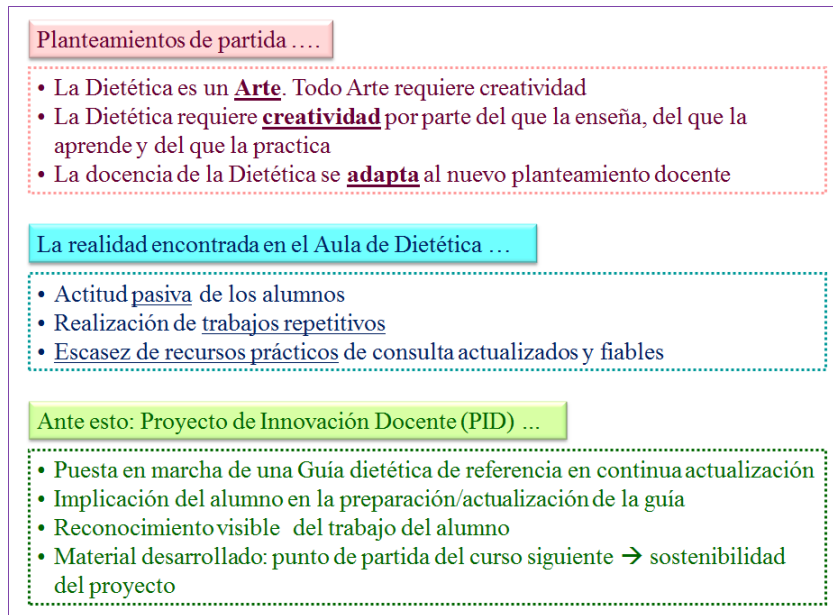


Figure 2 approaches starting the path to web Innovadieta (Beltrán et al., 2011)



Figure 3. Brand Innovadieta

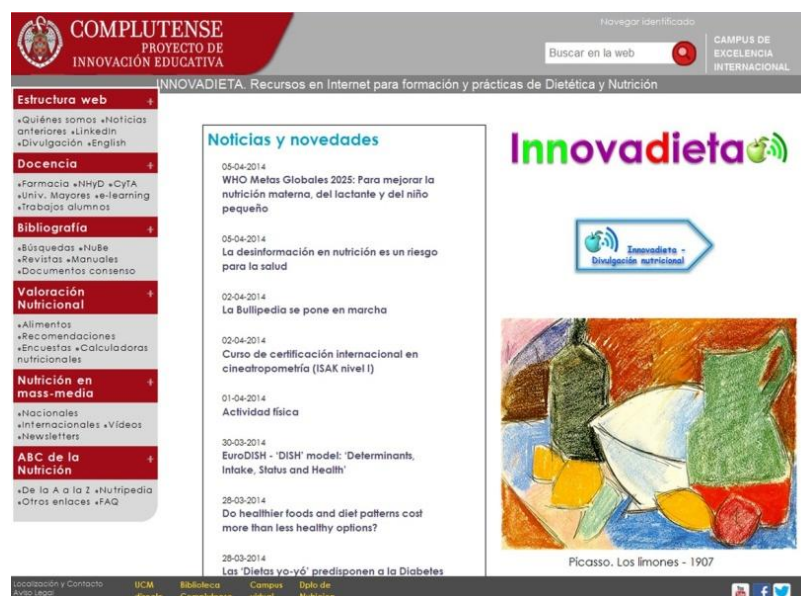


Figure 4 Cover Innovadieta

2. Web Innovadieta: Objectives and current projection

Innovadieta is a "web page". Born with the idea of being a digital encyclopedia websites Nutrition and Dietetics, an open, living book, fed, evolves and grows, without the inconvenience of the limits of the binding (Carbajal et al., 2012). In the review at the beginning of the project among the online resources preferentially targeting the Spanish-speaking population, oriented specialists, students and professionals of Dietetics and Nutrition with specific characteristics such as site was not found.

The rapid growth of Innovadieta in this year of living increases our expectations and we hope this will become a great library, and --bautizada **Nutripedia**-- organized and accessible as a leader in Nutrition, Dietetics, and other disciplines that go as deriving from these Culinary and Gastronomic Diet, but newly established large development perspectives in research and outreach in our country. We define it as *"the application of the principles of nutrition, along with knowledge of other -Bromatología Food Science, Science and Technology Food and especially Dietética- handling and proper use of culinary skills preparing food, pleasant appearance and promoting the cultural and gastronomic value of these and according to nutritional recommendations applicable at all times"* (Beltrán, 2013).

The web Innovadieta, freely available since January 2013 and since August 2013 the new UCM web manager, aims to create, maintain and update a directory of resources and tools available online on Nutrition and Dietetics, selected, with scientific criteria of quality, reliability and from a critic standpoint, classified and commented.

Its purpose is to be an aid in teaching-learning and continuing education of health care and give all those interested in Nutrition and Dietetics rigorous information service and nutrition education outreach activities prioritized by national and international agencies. Note that the science in general and nutrition in particular is gaining more prominence in universities as an important and necessary link between teaching, research and society. As such it is worth spending time and specialized human resources.

Although it is still early to talk about the spread of Innovadieta and not have figures at this time of evolution or most visited pages, we present a brief statistical report of the impact of the web on the Internet with information provided by the Area of Web Development and eLearning UCM:

- Visits Innovadieta has received in 6 months (from 01/08/13 to 26/02/14): **114,399** (average of **544 visits** / day)
- Average number of pages per visit: **2.97**
- Number of visitors unduplicated (counted only once) that have accessed the website during the specified time period: **42,789**
- Total number of page views; repeated visits to the same page are also recognized: **339,626**
- Estimated number of visits for the first time Percentage: **37.06%**
- Average speed does a session: **4 min. 6 sec.**
- Geodata: Spain: 106.346 visits / 92.96% of visits; Mexico: 1,236 / 1.08%; Colombia: 697 / 0.61%; United States: 615 / 0.54%; Italy: 408 / 0.36%; UK: 394 / 0.34%; France: 317 / 0.28%; Peru: 317 / 0.28%; Argentina: 312 / 0.27%; Germany: 307 / 0,27%.

We believe the data give a first idea of the consolidation of the page. For example, only 37.06% are new visitors, the remaining 63% are repeat visitors. In a "web of webs" in which the user to link to an external link, you leave the page, the average duration of each session of 4 min is high. We also particularly interested international impact, so we are currently considering the preparation of the English version.

In our informative work, website also includes resources and materials developed by members of our own team of research, development and innovation (R + D + i) (Figure 5) and a variety of other activities that are reflected in the web, have a common purpose: to convey the principles and most important advances in nutrition and correct pseudoscience beliefs that have moved into our society. We want that transmission is made so affordable, accessible and understandable by the population that we are going, adding a playful and fun component to encourage and facilitate the assimilation of the disclosed concepts (Beltrán et al., 2013).



Figure 5 Mantel Innovadieta

Its purpose is to be an aid in teaching-learning and continuing education of health care and give all those interested in Nutrition and Dietetics rigorous information service and nutrition education outreach activities prioritized by national and international agencies. Note that the science in general and nutrition in particular is gaining more prominence in universities as an important and necessary link between teaching, research and society. As such it is worth spending time and specialized human resources. In our outreach work we have developed different materials and a variety of activities from now will be reflected in the web and have a common purpose: to convey the principles and most important advances in nutrition and correct those beliefs of pseudoscience that have moved to our society. We want that transmission is made so affordable, accessible and understandable by the population that we are going, adding a playful and fun component to encourage and facilitate the assimilation of the disclosed concepts (Carbajal et al., 2012).

2.1. Innovadieta as an aid in teaching-learning and continuous professional training

Since its inception, Innovadieta is used as a tool in theoretical and practical teaching in different subjects of Nutrition and Dietetics taught in the Department. Nutrition, facilitating quick and updated to the most common resources used in these disciplines in solving theoretical and practical cases raised in the classroom.

An essential feature of the web as a learning tool is student involvement in the development and maintenance of the same, so that their work is dynamically integrated in the learning of the subject, encouraging their participation in the construction of knowledge and a stimulus by performing useful work and visible. It also seeks to encourage scientific curiosity among the students, which leads to permanently be predisposed to learning, beyond the scope of the classroom, what constitutes effective teaching formula (Cuadrado et al., 2011).

The website is linked to Innovadieta Virtual Campus (UCM), through teacher-student communication for students of the subjects addressed by teachers in Grades Innovadieta Group Pharmacy, Science and Human Nutrition and Dietetics and Food Technology.

Innovadieta, open server, is accessible to the entire university and scientific community, with repercussions in science, and more specialized academic and professional world. In this respect, facilitating the work of other teachers or researchers not directly involved in the project, providing a point of "concentration" of information updated weekly. The Group Innovadieta available to stakeholders through its website, teaching materials designed by him, from the perspective of new methodologies for teaching in subjects related to Nutrition.

2.2. Innovadieta nutritional disclosure

The web Innovadieta has the characteristics of simplicity, accessibility and information assurance for professional and consumer associations may also make inquiries, thus fulfilling one of the main objectives of a Public University: promote outreach and scientific culture and research, working towards providing quality service demanded by society itself. Furthermore, in order to facilitate understanding of the information to anyone interested in improving their eating habits and exercise, recently has included a section specifically for general

population (Innovadieta - Nutritional Disclosure) which by their nature tend to be over time an independent web (Beltrán et al., 2013).

2.3. Current Projection Innovadieta

It is a fact that the specific requirements of teaching encourage and promote research curiosity Innovadieta group of teachers establishing a teacher-student positive feedback that maintains and ensures continuous improvement of teaching quality. This is one reason why, over the first year of life, Innovadieta has grown rapidly and has become a "platform" on which currently is constructed:

- (1) A dynamic tool, communication and almost daily update.
- (2) A date teaching methodology (theory and practice) including new models of learning (*flipped* classroom) teaching materials adapted to these new (Carbajal, 2013; Cuadrado et al, 2011.; Carbajal et al, 2013.) creative ways to encourage student curiosity, a ride to the desire to learn for personal satisfaction move forward with a sense of responsibility and enthusiasm useful to him and to the whole university community work (Carbajal et al., 2012).
- (3) Update media, communication and contact, through social media, specifically LinkedIn, to create and maintain a link to facilitate the exchange of ideas, views and experiences among different practice areas of Sciences Food (Professional, Teaching and Research) and provide provide an overview of the issues in which they interact, especially Nutrition, Dietetics and Food. This will surely contribute to the effectiveness of the programs and activities developed in each science, directing future research and continuing education for professionals, teachers and / or researchers in the most appropriate direction, boosting turn their innovative creativity.
- (4) A vehicle inciting students to approach other essential cultural aspects in their comprehensive training and included in the general competencies of Grades (Beltrán et al., 2014).

The current projection --**Marca Innovadieta**-- this work is presented as a common way of dealing with the teaching, research, professional practice and nutritional disclosure, as components necessarily interact in the large and growing field of knowledge of the Sciences food, optimizing resources to the fullest and continuing the use of various ICTs with a role in this interaction.

3. Structure Innovadieta

Innovadieta currently has over 100 pages under the following main headings:

- Cover with news and updates that are updated weekly
- Web structure for quick search
- About Us
- LinkedIn, link to the 3 groups of existing work
- Teaching resources, links to web pages about e-learning, MOOCs, videoconferencing, webinars and webcast free access. Student work.
- Bibliographic databases:
 - Bibliographic searches
 - Nutrition and Dietetics or evidence-based
 - Metasearch of Evidence-based Practice
 - Other databases, portals and search engines
 - Scientific journals
 - Additional documentation or
 - Manuals, books and monographs Nutrition
 - Webs or collection of books with Nutrition
 - External websites or publications from A to Z
 - Search and book
 - Documents or consensus
- Assessment of nutritional status
 - Databases or food composition
 - Databases classified by country
 - Recommended / Dietary Reference Intakes Intakes
 - Nutritional Goals
 - Food-based dietary guidelines
 - Food rations and weights
 - Pictures of food rations and weights
 - Dietary Polls
 - Nutritional Calculators
 - Body composition
 - Baseline Studies, national and international
- Nutrition and Dietetics in the media
 - National
 - International
 - other periodicals with informative content

- Internet - pages and blogs
- Videos and podcasts
- Newsletters
- ABC of Nutrition and Dietetics
 - A to Z
 - Publications A to Z
 - **Nutripedia: Glossary of Dietetics, Nutrition and Health**
 - Other links or classified
 - Culinary and Gastronomic Nutrition and Dietetics
 - National and international organizations feeding, diet and nutrition
 - national and international scientific societies of nutrition and dietetics
 - domestic and international Foundations nutrition-related
 - Other links
 - "Frequently Asked Questions" - FAQ

Given the Innovadieta open and accessible to any user character, most of the links do not need official connections, subscriptions or previous records. When you have seen fit to include any, for your interest, this aspect indicated.

In particular care Innovadieta continuous updating of the web as a means of user loyalty and positioning it as a meeting and exchange between teachers - learners - researchers - consumers professionals.

Given the instability and the possibility of changes in the web spaces that still exists in the network, a review of all the links is done twice a year.

And besides, the web offers a walk through the pictorial and literary art, culture, trying to contribute to the integral formation of students and building a Culture of Quality. Dietetics is an art and we believe combines very well with other arts.



Figure 6. Diet is an Art Or not?
Hyperrealistic painting Tjalf Sparnaay (Holland, 1954) - Draadjjesvlees,
http://www.tjalfsparnaay.nl/contact_eng.html

4. Examples of useful

The web Innovadieta facilitates the resolution of doubts quickly in the different areas covered (Gil Casares, 2013). Here are some examples:

(1) Teaching and Research

- What scientific evidence exists on the relationship between intake of cranberry and urinary tract infections? View: <https://www.ucm.es/innovadieta/nube>
- What scientific information is available on the Mediterranean Diet? View: <https://www.ucm.es/innovadieta/d>
- Where I can find information about MOOCs? View: <https://www.ucm.es/innovadieta/e-learning>
- What manual of Nutrition and Dietetics are currently open access? View: <https://www.ucm.es/innovadieta/libros-nutrition-and-dietetics>

(2) Professional Practice

- What is the energy and nutrient content of ice cream? View: <https://www.ucm.es/innovadieta/por-countries>
- What dietary survey is more suitable for the first dietary interview to a 8 year old? View: <https://www.ucm.es/innovadieta/encuestas>

- Where I can find nutrition education materials for my clients? View: <https://www.ucm.es/innovadieta/divulgacion-nutritional>
- (3) Nutritional Disclosure
- What is my BMI? View: <https://www.ucm.es/innovadieta/calculadoras>
 - What is quinoa? <https://www.ucm.es/innovadieta/q>
 - Am I getting enough iron? View: <https://www.ucm.es/innovadieta/calculadoras>
 - How to interpret nutrition labeling? View: <https://www.ucm.es/innovadieta/e>
 - How many diets are there? View: <https://www.ucm.es/innovadieta/d>

5. Conclusions

The joint work of Professors of Innovadieta Group, whose teaching and research focuses on Nutrition and Dietetics and the group have been working as such for four years, can pool expertise and resources contribute to the achievement of the project and its continuity over time . Applying educational innovation general systems theory, one could also state here that "the whole is more than the sum of its parts".

The current projection Innovadieta Brand proves that any educational initiative in which the student has an active and responsible, managed and shared participation by the teacher, is very positive and encouraging and is destined for success.

The Innovadieta Group, committed to innovation and teaching improvement currently working on ensuring the sustainability of particular care Brand Innovadieta continuous updating of the web as a means of user loyalty and positioning it as a meeting and exchange between teachers - learners - investigators - professionals - consumers.

We invite you to visit! <https://www.ucm.es/innovadieta>

6. Bibliography

Paper or electronic books, reports and theses:

- ANECA, AGENCIA NACIONAL DE EVALUACIÓN DE LA CALIDAD Y ACREDITACIÓN (2005): Libro Blanco del Título de Grado de Ciencia y Tecnología de Alimentos / Nutrición Humana y Dietética. Disponible en: www.aneca.es/media/150384/libroblanco_jun05_nutricion.pdf. Consultado el 15 de marzo de 2014.
- ANECA, AGENCIA NACIONAL DE EVALUACIÓN DE LA CALIDAD Y ACREDITACIÓN (2004): Libro Blanco del Título de Grado de Farmacia. Disponible en: www.aneca.es/media/150368/libroblanco_farmacia_def.pdf. Consultado el 15 de marzo de 2014.
- BELTRÁN, Beatriz, CARBAJAL, Ángeles, CUADRADO, Carmen, GOÑI, Isabel, GARCÍA-DIZ, Luis, SIERRA, José Luis (2010): Diseño y desarrollo de un manual teórico-práctico de dietética. Participación del alumno en su desarrollo y actualización virtual. Proyecto de Innovación Docente, Ref.: 213.
- CARBAJAL, Ángeles (2013): Manual de Nutrición y Dietética. Disponible en: <http://eprints.ucm.es/22755/>. Consultado el 15 de marzo de 2014.
- CARBAJAL, Ángeles (2013): Materiales docentes. Disponible en: <https://www.ucm.es/nutricioncarbajal/>. Consultado el 15 de marzo de 2014.
- CARBAJAL, Ángeles, BELTRÁN, Beatriz, CUADRADO, Carmen, GOÑI, Isabel, GARCÍA-DIZ, Luis, SIERRA, José Luis (2012): Desarrollo de la web Innovadieta. Implicación y participación activa del alumno en la recopilación de recursos para formación y prácticas de Dietética y Nutrición. Proyecto de Innovación Docente, Ref.: 157.
- CUADRADO, Carmen, BELTRÁN, Beatriz, CARBAJAL, Ángeles, GOÑI, Isabel, GARCÍA-DIZ, Luis, SIERRA, José Luis (2011): Adaptación al Espacio Europeo de Educación Superior. Actualización de los recursos y herramientas en Nutrición y Dietética. Proyecto de Innovación Docente, Ref.: 106.
- CUADRADO, Carmen, BELTRÁN, Beatriz, CARBAJAL, Ángeles, MARTÍN, María Luisa (2011): *Alimentación y Nutrición en las Personas Mayores*. Universidad del País Vasco. Disponible en: [http://www.ehu.es/argitalpenak/images/stories/libros_gratuitos_en_pdf/Ciencias de la Vida/Alimentacion%20y%20Nutricion%20en%20las%20Personas%20Mayores.pdf](http://www.ehu.es/argitalpenak/images/stories/libros_gratuitos_en_pdf/Ciencias_de_la_Vida/Alimentacion%20y%20Nutricion%20en%20las%20Personas%20Mayores.pdf). Consultado el 15 de marzo de 2014.

Chapters in books, reports and articles in newspapers or magazines on paper:

- CARBAJAL, Ángeles, BELTRÁN, Beatriz, CUADRADO, Carmen (2013): Guía de prácticas de Dietética. Valoración y programación de dietas, en MOREIRAS et al.: *Tablas de composición de alimentos*. Ediciones Pirámide. Madrid.

Articles, blogs or web publications records:

- BELTRÁN, Beatriz, (2014): Innovadieta. Disponible en: <https://www.ucm.es/innovadieta/divulgacion-nutricional>. Consultado el 15 de marzo de 2014.
- BELTRÁN, Beatriz (2013): Innovadieta. Disponible en <https://www.ucm.es/innovadieta/gastronomia>. Consultado el 15 de marzo de 2014.
- BELTRÁN, Beatriz, CARBAJAL, Ángeles, CUADRADO, Carmen, GARCÍA-DIZ, Luis, GOÑI, Isabel, SIERRA, José Luis (2013): Innovadieta, Recursos en Internet para formación y prácticas de Dietética y Nutrición. Universidad Complutense de Madrid. Disponible en: <https://www.ucm.es/innovadieta/>. Consultado el 15 de marzo de 2014.
- BELTRÁN, Beatriz, CARBAJAL, Ángeles, CUADRADO, Carmen, GOÑI, Isabel, SIERRA, José Luis, GARCÍA-DIZ, Luis (2011): Implicación activa del alumnado en el desarrollo de herramientas para dietética aplicada, en VIII Foro sobre Evaluación de la Calidad de la Investigación y de la Educación Superior. Libro de Capítulos. AEPC. Granada. Disponible en: <http://www.ugr.es/~aepc/VIIIFORO/LibrocapitulosVIIIfecies.pdf>. Consultado el 15 de marzo de 2014.
- BELTRÁN, Beatriz, CUADRADO, Carmen, GARCÍA-DIZ, Luis, GOÑI, Isabel, SIERRA, José Luis, CARBAJAL, Ángeles (Grupo Innovadieta) (2014): INNOVADIETA: Utilidad en la práctica profesional y en la divulgación de la ciencia, en XVIII Jornadas de Nutrición Práctica y IX Congreso Internacional de Nutrición, Alimentación. Disponible en: <http://www.nutricionpractica.org/programa>. Consultado el 15 de marzo de 2014.
- GIL CASARES, Fátima (2013): Presentación de la web INNOVADIETA con recursos de internet para la formación y prácticas de Dietética y Nutrición. Tutores: BELTRÁN, Beatriz y CARBAJAL, Ángeles. VIII Jornadas

Complutenses, VII Congreso Nacional de Investigación en Ciencias de la salud para alumnos pregraduados y XII Congreso de Ciencias Veterinarias y Biomédica. Disponible en: http://147.96.70.122/congreso_salud/. Consultado el 15 de marzo de 2014.

II. THE DEGREE OF EXPERTISE OF ECONOMIC TEXTS IN ENGLISH: AN APPROACH FROM APPLIED LINGUISTICS

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1. Introduction and objectives

Economics as a discipline has a specific linguistic features. Despite the popularity of some of the terms used due to its continued use, especially in the media, a deepening in the language of economics and finance in order to determine what features is determined and differentiate is necessary.

Significantly above, have already made approaches to this field, although they have been carried out, especially from a theoretical rather than experimental and is of late field when applied linguistics is at greater depth to the languages specialty or languages for specialized purposes.

In this case, although our study is part of a wider investigation which also includes the characteristics of the context in which the economic texts and syntactic features of this type of discourse is produced, we decided to focus our research in the field of lexicon.

We started our journey in investigating the lexicon of economic texts through the English language, in order that our work not be purely descriptive and can be complemented by a comparative study of the texts produced in English and Spanish language.

The main objective, therefore, first passed by a descriptive paragraph, then seeks to achieve comparative value and finally, should serve as a classification tool, as long as we bear in mind the criteria that our approach has been performed to to establish a range where the complex lexical encompass various texts.

2. Specific languages or specialty

There are a number of common features between general language and the language of a particular specialty. The languages used in the areas of specialization are no strangers to the use and linguistic evolution of a particular language but does have a number of elements that make them different and deserve to be studied independently.

Lehrberger (1986: 22) believes there are "six factors that can help define a sublanguage or specialty language:

1. *Specific subject;*
2. *Lexical, syntactic and semantic constraints;*
3. *Grammar rules "anomalous";*
4. *High frequency of occurrence of certain constructions;*
5. *Textual structure;*
6. *Use of specific symbols."*

Beyond these textual elements observable through the whole text, Cabre includes something that, in our view, assumes critical for textual classification, including the context in which the communicative interaction occurs and its peculiarities and participants that performed. Ie pragmatic elements that help determine the characteristics of the specialized language and also to determine what level of expertise can locate each one of our ultimate goals. Here, (1993, 137) specialized languages defined as:

"Any speech that departs from the general characteristics for any of the following element. Thematic, the specific characteristics of the partners, the specific characteristics of the communicative situation or channel data transmission"

2.1 The level of specialized texts

Apart from the linguistic elements, particularly those having to do with the lexical structure of the texts analyzed, and a number of factors that determine the particularities of a text; they are exogenous and cater to the specific circumstances in which the text is produced.

"Language comes alive when operating in a context and cannot be seen in isolation, but in relation to a scenario of people, actions and deeds, from

which what is said acquires full significance; thus a close relationship between the variation of every language and social context is established" (Halliday 1978: 29-32).

These factors include, for example; the sender, recipient, subject, the communicative situation, among others which help to establish specialized types of communication, understood as the process by which it is taught or share expertise. To illustrate, the communication that occurs between a pair of specialists in some field of knowledge does not imply greater cognitive effort on the use of specific terminology, quite the opposite when you want to make between a specialist and the general public.

"The transmission of specialized knowledge admits of degree, which could be described by linguistic units involved in the text. Communication specialist responds to the property of adequacy, according to which the conditions of production and reception of texts are given by the communicative context, which represents the production of specialized texts such as the environment of terminology, according the pragmatic conditions that drive the production of such texts" (Cabre, Guantiva and Castellá, 2008: 17).

Since our initial goal is to classify a number of specialized in economic texts, according to their level of specific expertise for the linguistic features that characterize them, we have taken as a reference, with the modifications we consider appropriate and explain in methodological section, which is known as *"vertical variation of discourse"* (Hoffmann, 1998: 62) is determined by both the amount of information shared between the partners as the purpose of the text.

"If you want to make an array of publications, citations or scientific-technical abstracts, it is pertinent to the establishment of one or more criteria to group classifiers and reasonably consistent, so that the inclusion of language in a particular class may provide some information on properties of the text." (Sevilla and Sevilla, 2003)

Hoffman (1998) initially proposed to carry out a distinction between: specialized discourse and directed to specialists; didactic discourse-oriented personnel training and informative speech, focused on the general public.

In the same vein, Sevilla and Sevilla (2003) also committed to the distinction of three levels in which a differentiated use of technical scientific record is done with reference approaches ranging from the channel or text theme. Suggest this classification:

- "1.Communication between specialists through scientific publications.*
- 2.Communication between scientists and technicians in an informal setting.*
- 3.The transmission of scientific and technical information, but not professionals but the public in general, informative publications, specific to the various media."*

The classification of texts within the field of communication also focuses Fernandez del Moral and Esteve (1996: 122), who determined a classification of the articles of scientific specialty, from the extent of lexical specialization thereof. According to the segmentation proposed by these authors, texts can also be grouped in three sections; a basic level of disclosure of the contents, an intermediate level and finally a level of specialization in the upper echelon. While the revision and adaptation of the formulas proposed by these specialists may be necessary, it is necessary to recognize that their approach moves from more theoretical to the practical application of a series of mathematical formulas, which based on the analysis of the elements lexicons of selections allow the researcher to classify them into one of the ranges estimated by the authors, which have some default values for themselves.

This criterion, the analysis of the specialty, from the count of lexical items and applying a certain formula has been one of those chosen to carry out a study on the information related to the "risk premium" in three Spanish general media. The findings pointed to "a very high use of polysemic terms and specialized monosemic trend as well as excessive use of numerical data and borrowed English terms whose use in as low a level of disclosure, such as the national general newspapers, involves a little work of "translation" by the editor." Berdasco (2012: 13). However, as mentioned above, it is quite possible that a review of this proposal becomes necessary to adapt to certain texts.

3. Methodology

The purpose of our study focuses on the search for linguistic criteria that allow us to determine the criteria for assessing the level of expertise of an

economic text written in English are because, although they have been analyzed from variety of perspectives on this type texts, there are few practical attempts by level, although there are, as we have seen, theoretical frameworks that have previously addressed this issue.

Drawing on lexical elements in a series of fifteen texts, in English, all belonging to the field of economics and finance and segmented into three sections, according to the levels that would be expected according to previous theoretical proclamations, we performed a lexical analysis of the data to determine which features have each other and know how to behave. Importantly, this study is part of a wider investigation with a larger sample range, and also the behavior of the lexicon, a number of linguistic elements are used to obtain accurate conclusions.

The texts have been taken from various sources; general newspapers such as The Guardian and The Independent, specialized publications like The Economist in economics from official publications or agencies in the UK, present in the internet portals thereof; HM Treasury, British Chambers of Commerce or Bank of England. In addition, to homogenize the sample, have been taken as reference for the analysis of texts over five hundred words in which subject matter encompasses the economic sphere and are written in the British variant of English.

The entire sample was selected in a stratified manner and taking into account the need for balance to have the same amount of information from the three proposed levels are comparable so that the results obtained from the quantitative analysis that have been submitted.

We decided to select terms, belonging to three categories of words: nouns, verbs and adjectives, of which at least one of its meanings is found framed within the lexical field of economics. This initial selection is based on the proposal by Fernandez del Moral and Esteve, although we considered it necessary to make adjustments in the formulas proposed by these authors for more accurate results and appropriate to our study and add another category I can throw us meaningful data for our study.

To differentiate between their level of expertise, we have classified the terms in the following categories:

- Monosemic: Those who have in the dictionary with a single meaning, or several, but they all belong to the field of economics.

- Polysemous: The terms have several meanings, of which at least one of them belongs to the economic field. We have also included in this section, those whose meaning is not determined in dictionaries in this economic environment but, from the use made of them in recent times, acquired this meaning because of the popularity of the same; as is the case of "*rescue*".
- Posting of specific economic field: structures formed by two or more words that do not respond to a single compound term, but a placement (*collocation*) used frequently in the source language texts.
- Proper names in the field of specialization. in which are included all those referred to people, policies, institutions, etc. related to the economic sphere and also the number of repetitions of the same is posted. It also takes into account the abbreviations thereof. For example, we recorded both "*Bank of England*" as "*BoE*".
- Elements and numerical data, provided they are over ten or, if accompanied by other significant information (percentages, parts, etc.)

With the aim to establish more profound differences in the use of this type of this type of terms, we have recorded not only his only appearance in the text, but we have taken as a reference also the number of times to repeat each. The authors originally proposed a total count, regardless of whether there were repetitions of each of the types, which in our opinion can not be more appropriate in some cases, as the reader, especially at the intermediate level and the disclosure, you may be familiar with the terms once you have read and decode its meaning. In this sense, the repetitions of the terms should be considered independently and not be comparable to a text which has a number of unique monosemous or polysemous with another, in which the same number of lexical items identified but the latter from the repetition of a small group of them.

After analyzing the different variables and coding the results, we have chosen to perform several calculations, in order to make comparisons between the results obtained and to perform a descriptive analysis of the relationships established between them lexical items.

4. Results of the analysis of specialization of economic texts

4.1 *Formula specialization del Moral Fernández and Esteve*

It is necessary to note that the ranges proposed by del Moral Fernández and Esteve for textual classification according to the degree of specialization of the same lexical adheres to the Spanish language, so we have omitted them in conducting this study. However, it does the application of the formula considered necessary given by these authors, as it serves to contrast, for example, if the informative texts themselves have a lower than proposed by the authors when applying the formula result Specialization Degree mentioned.

We have plotted the result of lexical analysis of selected texts, according to the formula del Moral Fernández and Esteve (1996) and have found that there is a clear trend of evolution, according to the levels described above.

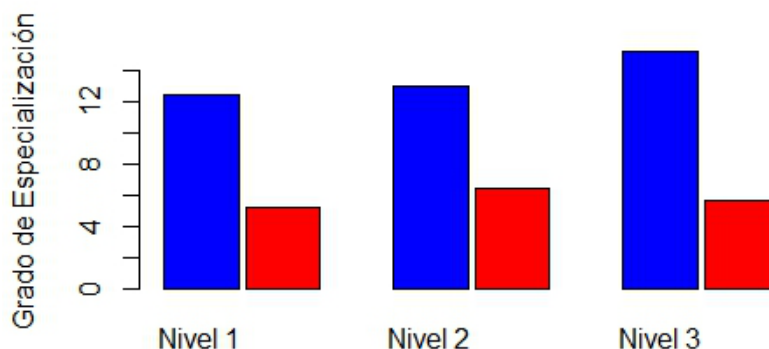


Figure 1: Mean GE analyzed at three levels. Source: Authors.

After calculating the Degree of Specialization for the texts of the three levels - five for each of them, we found the average of the results obtained in each of the three. The result of calculating the average value is represented by the blue and as you can see bars, maintains a continuous upward trend between the first level, the informative and the third level, the most specialized of the three, according to the previous classification we have done, based on questions of form and content, as well as pragmatic elements that allow us to determine the expected level of the texts chosen.

In addition, we used the red bars shows the average degree of specialization of each subset of texts that would be obtained if we apply the formula proposed by these authors, but using for calculating the number of monosemous, polysemic and proper nouns specialized only, that is, omitting the repetition thereof.

In this case, the output would vary as even a slight increase in the first two levels is produced; shows a decline in the third, the supposed highest level in terms of specialization.

This change, which might initially seem incongruous and disconcerting to explaining the analysis performed may suppose, something relevant to our judgment; the fact that there is a constant linear relationship between the level of the texts and the number of economic terms (monosemic, polysemic and proper names) and the degree of expertise expected of them. What it does demonstrate the application of this formula, taking into account only the terms as a unit is that there is a high tendency to use them in the lowest levels of specialization, in which however, these terms are repeated less frequently.

As mentioned above, the proposed analysis of Fernandez del Moral and Esteve is indicated for texts written in Spanish and a wide range of issues, in the dissemination of specialized knowledge, which can cover areas as diverse as medicine, aerospace engineering, botany or electronics. That is why the ranges that determine the level of expertise of a text, according to the work of these authors, not serve to our analysis.

In essence, del Moral Fernández and Esteve (1996: 127) claim that a text defined as Divulgativo level has to have a Generic Degree Specialization, calculated according to the formula developed by them, less than 1 This expands for Intermediate texts to a range of between 1 and 5, and finally, to texts Specialty Tier, are credited with a score above 5.

As is apparent from the graph drawn, the average results offered by these texts to be analyzed, including the lower level or greater disclosure, far exceeding the value of 5 nor have offered inferior results to that figure the texts treated as individually, without finding the average value of the same.

4.2 Collocations

The study of word collocations, both formally and in terms of meaning, has for decades been the subject of study of the different areas that focus their research

in linguistics from a point of view that speakers make use of languages. To summarize, we can say that placements *"are formed by the combination of a name, an adjective, a verb or an adverb units"* (Castillo Carballo, 1998) in which *"one of them determines the presence of another, this is, one is the base, which has semantic autonomy and not just choose the other, which is the colocativo, but it selects a special meaning, usually abstract or figurative sense"* (Corpas Pastor: 1996: 66).

In the pragmatic sense of the use of loans, other renowned authors add that *"language is full of lexical phrases that streamline the conversation and the speaker has memorized as a whole and who comes and goes as joining elements repeated speech."* (Nattinger and De Carrico: 1992)

Thus, we believe that the use of placements in specialized texts helps make them more accessible, in general, for all speakers of a language, in this case, English.

Below is a graph of how it evolves, relatively, the appearance of placements, along with other items mentioned above.

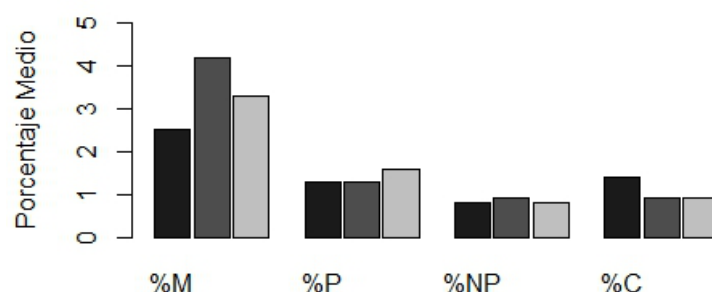


Figure 2: Evolution of the average monosemic, polysemic, Proper Names and economic Placements specialized in the texts of the three levels analyzed. (Data offered including replays and percentage). Source: Own elaboration.

As can be seen, the percentage of loans that are included in the texts of the lowest level of our study is considerably higher than can be found in the texts of the two highest levels. This helps us to conclude that the use of collocations is more common in the texts of most elementary level and that there is some

connection, reverse character, including more frequent use of this type of linguistic structures and the degree of specialization economic texts in English.

4.3 The numerical elements

We have been observing that the analysis of specialization of texts serves generically and almost only, lexical items that set. It is a peculiarity which makes studies can be applied to an unspecified number of subjects vary without the elements forming part of the study.

In our case, since from the beginning we clear our goal of obtaining valid for the area of economic and financial results, we have chosen to refer one of the variables in other cases probably would not make much sense to analyze the presence of numerical elements. We understand as "numeric items", all the figures or references, so as cardinal ordinal that are part of complex elements as percentages partitive etc.; automatically excluding figures that are not part of financial data itself, but merely serve to bind individuals, such as "the two banks of the alliance members" and also leaving out dates; years, quarters, etc. appearing in most texts. This decision is determined because they are only of interest to our study, those figures whose employment might pose a greater or lesser degree of specialization in the analyzed text.

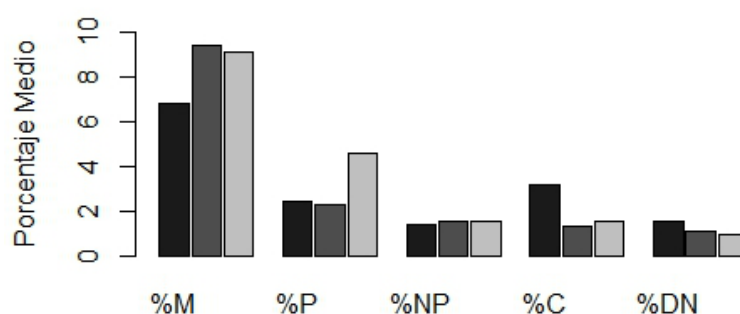


Figure 3: Evolution of the average monosemic, polysemic, specialized Proper Names, economic and Numeric Data Sets and the texts of the three levels analyzed. (Facts percentage offered unique individuals). Source: Own elaboration.

In this case, we have taken as reference the only cases of each of these sections to produce a graph that shows the average percentage of variables that

shape our lexical study. We collect individually since repetition of data is not something usual in texts.

While one might expect higher for this variable as it increases the degree of specialization of text values, the results obtained after analyzing our sample offer a contrary view to this statement. The reasons can be offered on this vary. On the one hand, higher level texts tend to be very descriptive and generic data provide macroeconomic issues, for example, while the lower level, mostly by betting into more detail, such as the general economic information from newspapers. The latter could be explained because of the impossibility of explaining certain economic issues, the editor tends to use the figures as mentioned in a report or in an appearance. If we consider that subsequently condense this information in much less space, it is understandable that there is a higher percentage of these elements in such texts.

5. Conclusions

After the analysis of lexical items in the selected sample, we can conclude that:

- There is a need to look further linguistic criteria to complement the analysis and to establish general more suitable for economic texts specialty features.
- There is a linear relationship between the degree of specialization obtained using generic formula del Moral Fernández and Esteve and the level of expertise expected in the selection of texts, provided that they take into account the repeated elements to calculate the same. However, we believe it is important to work with unique elements to determine the textual level, as repetitions of terms may be familiar to the listener and deflect the study outcome.
- The numerical ranges within which the results are expected to apply the formula of these authors are not met for economic specialty texts in English.
- The presence of collocations is inversely related to the degree of specialization of the texts. That is, the greater the presence of such structures, the lower degree of specialization.

- A similar relationship is that you can see the number of numeric elements in the texts analyzed and the Degree of Specialization of texts. A higher level, lower presence of such elements.
- Finally, it is necessary to remember that these data were derived from the analysis of a sample to be extended during the course of the investigation and that there are several elements that can substantially modify the results obtained in the course of it. The same analysis, with identical reference variables, but with texts of different issues within the economic sphere, or other sources, for example, could provide different results and conclusions.

6. Bibliography

Paper or electronic books, reports and theses:

- CABRÉ CASTELLVÍ, M^a Teresa (1993): *Terminología: Teoría, metodología, aplicaciones*. Empúries. Barcelona.
- CORPAS, Gloria (1996): *Manual de fraseología española*. Gredos. Madrid.
- ESTEVE, Francisco y FDEZ. DEL MORAL, Javier (1996): *Fundamentos de la información periodística especializada*. Síntesis. Madrid.
- HALLIDAY, Michael (1978): *El lenguaje como semiótica social*. Fondo de Cultura Económica. México.
- HOFFMANN, Lothar (1998): *Llenguatges d'especialitat. Selecció de textos*. Universidad Pompeu Fabra. Barcelona.
- LEHRBERGER, John (1986): *Small corpus studies and ELT: Theory and Practice*. John Benjamins Publishing Company. Amsterdam.
- NATTINGER, James y DE CARRICO, Jeanette (1992): *Lexical Phrases and Language Teaching*. Oxford University Press. Oxford (UK).

Chapters in books, reports and articles in newspapers or magazines on paper:

- CABRÉ CASTELLVÍ, M^a Teresa (2004): ¿Lenguajes especializados o lenguajes para propósitos específicos? En: Van Hooft, Andreu. *Textos y discursos de especialidad: el español de los negocios*. Revista Foro Hipánico, nº 26. pp. 19-34.
- CASTILLO CARBALLO, M^a Auxiliadora (1998): El término 'colocación' en la lingüística actual. En: *Lingüística Española Actual*, nº 20/1. pp 41-54.

Articles, blogs or web publications records:

- BERDASCO GANCEDO, Yolanda (2013): *Las informaciones de prima de riesgo en la prensa escrita española. Análisis desde una perspectiva lingüística* en Historia y Comunicación social. Vol. 18. Disponible en: <http://revistas.ucm.es/index.php/HICS/article/view/44309>. Consultado: 27 de marzo de 2014.
- CABRÉ CASTELLVÍ, M^a Teresa, GUANTIVA ACOSTA, Ricardo y CASTELLÀ LIDON, Josep M. (2008): *Clasificación de textos especializados a partir de su terminología* en Íkala, revista de lenguaje y cultura. Vol 13. Disponible en:
- http://quimbaya.udea.edu.co/ikala/images/PDFs/%CDkala%20vol%2013%20n%2019_01.pdf . Consultado: 24 de marzo de 2014.
- SEVILLA MUÑOZ, Julia y SEVILLA MUÑOZ, Manuel (2003): *Una clasificación del texto científico-técnico desde un enfoque multidireccional* en Language Design. Vol 5. Disponible en:
- <http://www.itescham.com/Syllabus/Doctos/r89.PDF> . Consultado: 12 de marzo de 2014.

NÍHIL ÓBSTAT. IMPRIMÁTUR

III. INDUSTRY ANALYSIS OF THE GENERAL AND UNIVERSITY EDUCATION: SPAIN VS EUROPA

Rafael Carrasco Polaino (Universidad Complutense de Madrid -Spain-)

Partially funded by the Villanueva University Centre, affiliated with the Complutense University of Madrid

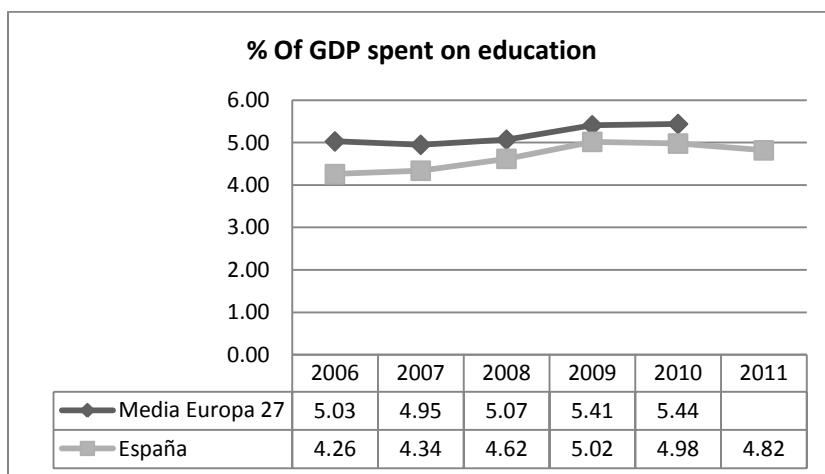
Since the beginning of the global economic crisis in 2014, education in Spain is still suffering the Spanish government has made some cuts in social purposes in which has not been spared the education sector.

Throughout this text a quantitative analysis of what the situation of Spain in education in general and higher education in particular with respect to the European average, with respect to different leading countries in Europe, with the United States and Japan.

The analysis of the data shown reflect whether the cuts in the education sector has been carried out is Spanish government has left this country at a disadvantage compared to other countries of relevance or if these cuts, when applied to most other countries, have not made the situation of Spain with the rest too much has changed, retained their relative position. Because, although there have been significant cuts in Spain, maybe in other countries has also been, these may be even more important.

Data is extracted from secondary sources, the main databases of Eurostat office²

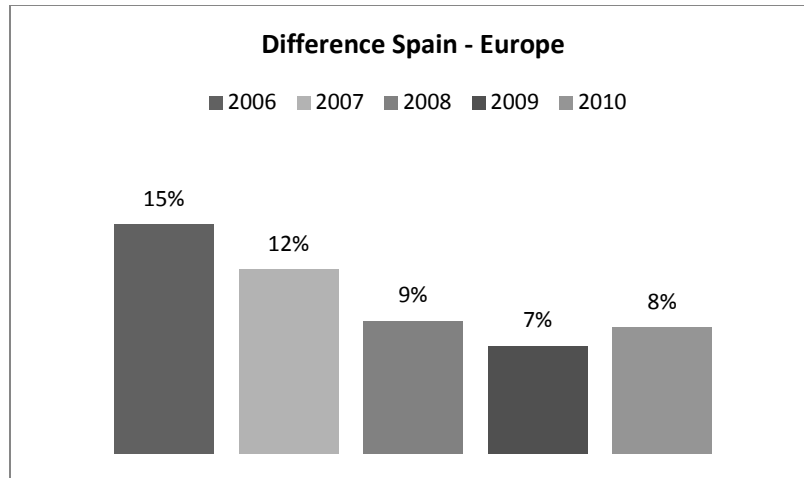
1. Public investment in education to GDP



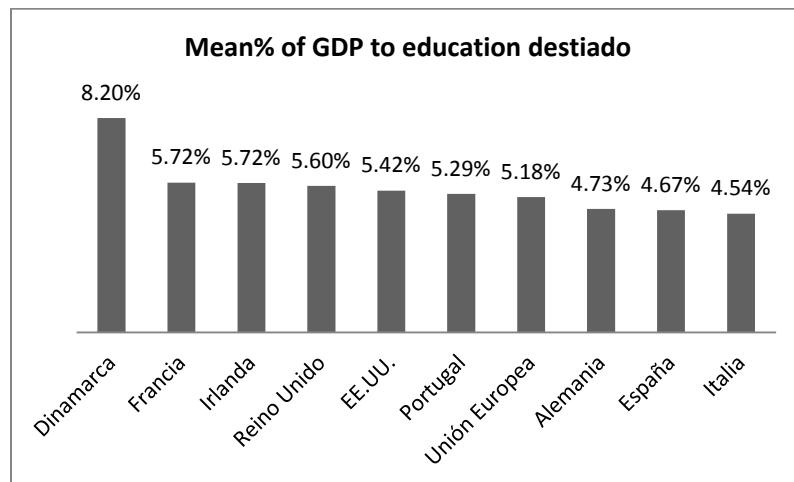
Analyzing data to Eurostat provides can see how since since 2006 and until 2009 public investment in education has steadily increased. Spain has always invested lower than the average of the countries in the EU-27, although this gap has been declining over the years.

It is from 2010 when investments in education to GDP begin to decline, this being greater reduction in Spain than in the European average.

² Eurostat is the statistical office of the European Union. Known as the official name of Statistical Office of the European Communities, its main purpose is to collect and manage all statistical information on various aspects of the Union. Headquartered in Luxembourg, is one of the Directorates General of the European Union, which depend on the European Commission.



If the difference in the percentages of investment is analyzed it is found more clearly as Spain has been closing the gap with Europe very significantly from the years 2006 to 2009, achieving that is reduced by about 50%. But in 2010 Spain returned to earmark a percentage of GDP to less education on average in Europe.



An analysis of the mean percentage of GDP spent on education between 2006 and 2011 resulted in no country in Europe that percentage of national resources is invested Denmark, with 8.2%, well above the average Europe, which stood at 5.18%, leaving Spain in recent posts from the nearest countries, with 4.67%, just ahead of Italy, which invests 4.54% of its GDP to this sector.

2. Public investment and higher education intended to GDP

Making a more detailed analysis can be seen how much of the GDP allocated to public administration university levels. To define the university level in the

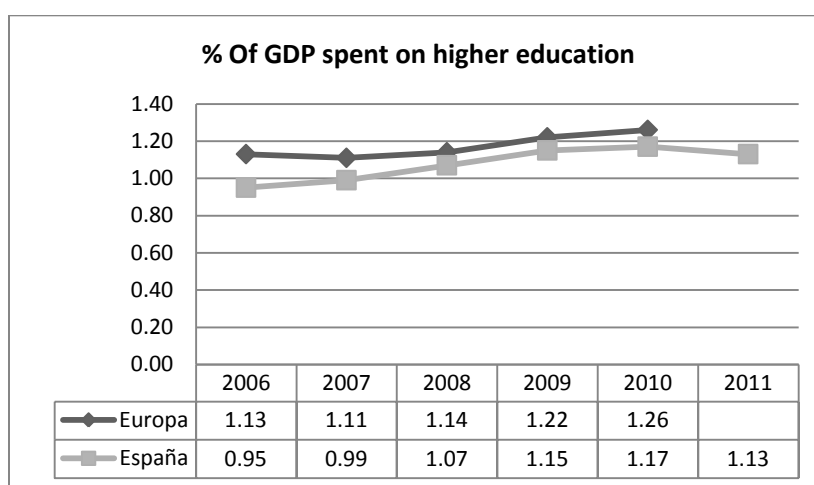
different countries of Europe, the International Standard Classification of Education (ISCED)³ is followed.

This organism classified into six levels of education levels, being in this interesting section levels 5 and 6 The ISCED level 5 defined as:

The first stage of tertiary education programs. Tertiary programs with an advanced educational content, cross-classified by the field.

Similarly define educational level 6 as a:

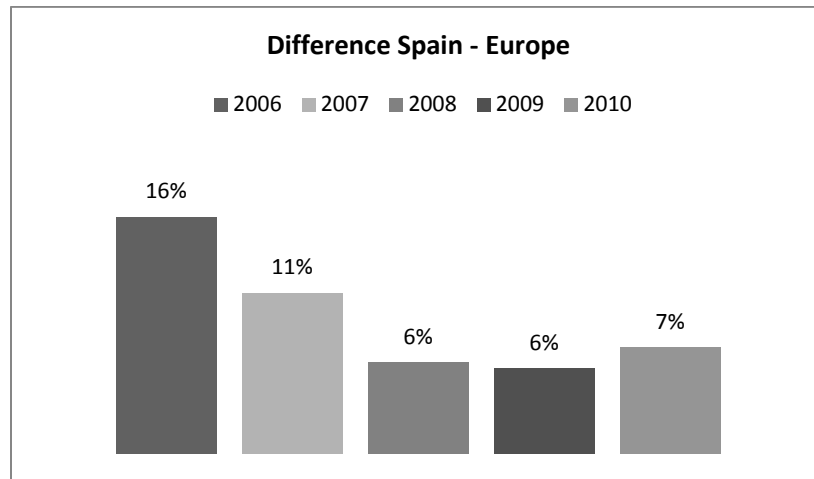
Second stage of tertiary education programs. Conducive to obtaining an advanced research qualification, eg PhD, cross-classified by field tertiary programs.



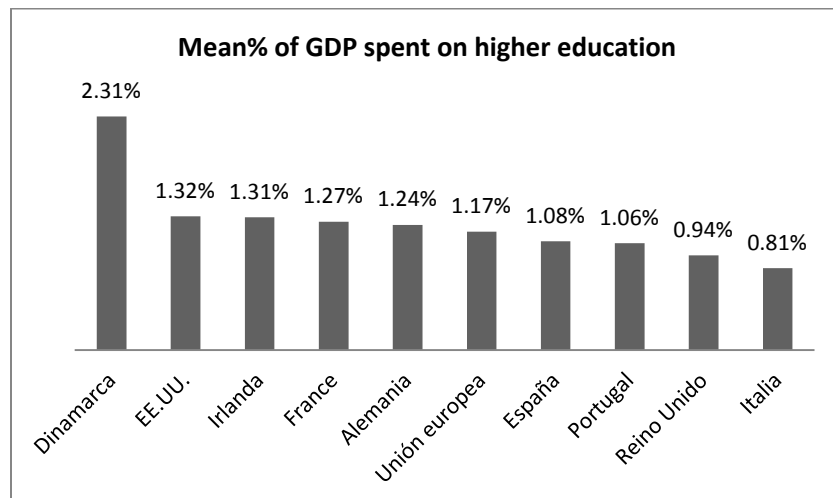
Analyzing the trend over the years proves that the trend of investment in the university sector have followed the same steps throughout the education sector in general.

³ The International Standard Classification of Education (ISCED English, CINEMA in Spanish) is the classification structure for organizing information on education and training led by UNESCO. It is part of the international family of economic and social classifications of the United Nations. (Stadistics, 2014)

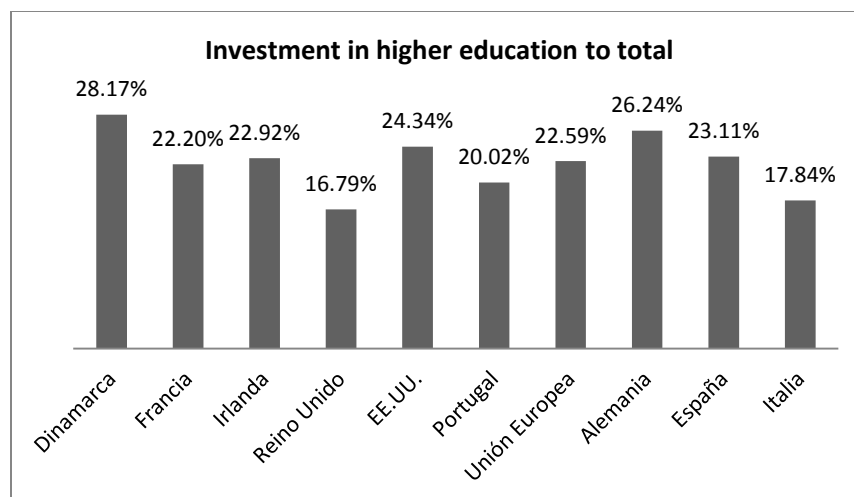
Until 2010 investments rise both in Europe and in Spain, being in Spain appeared higher, while that from the year 2010 the trend starts to go down.



Analyzing the difference between Spain and Europe in percentages rechecked the same trend in college levels across the education sector in general. Spain since 2006 has always been below the average of Europe. This gap has been significantly reduced it from 2006 to 2008, stagnated in 2009 and again increased in 2010.

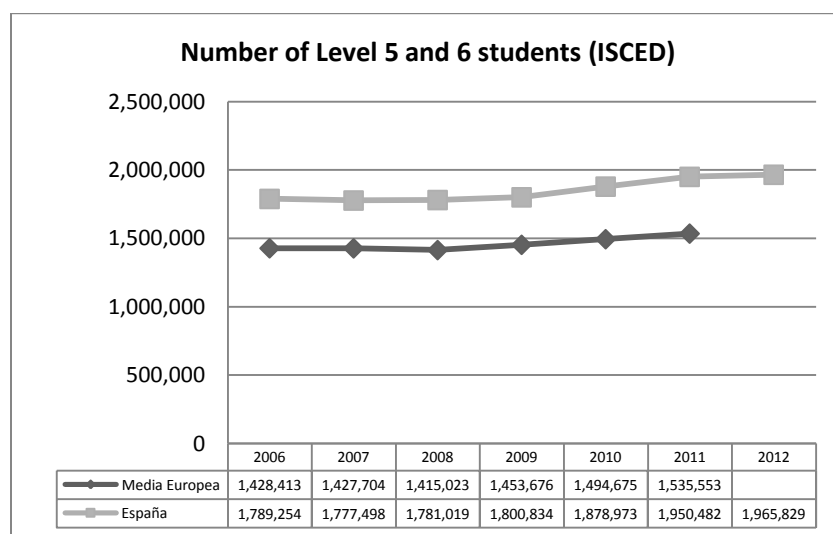


Following the trend of the previous section still stands Denmark as a country with more investment in university education, well above the European average. Spain returns to be toward the bottom, just ahead of Italy.



Once you have found what countries spend most of their GDP on education in general and the university sector in particular, is of great interest to see what the relationship between these two variables. In the chart above you can see how highlighting some countries to allocate much of their GDP to education, they do not devote many resources to the university sector, so that should lead others or lower levels, above. Noteworthy is the case of United Kingdom, one of the countries that share of GDP spent on education is well below the average investment in the university level. Spain, by contrast, is one of the leading countries to invest in the university level much of which goes to the education industry, ranking above the European average.

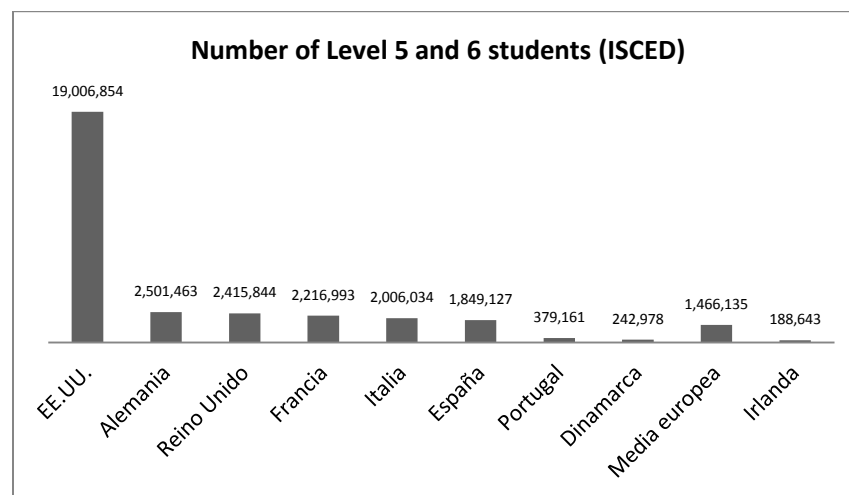
3. University students



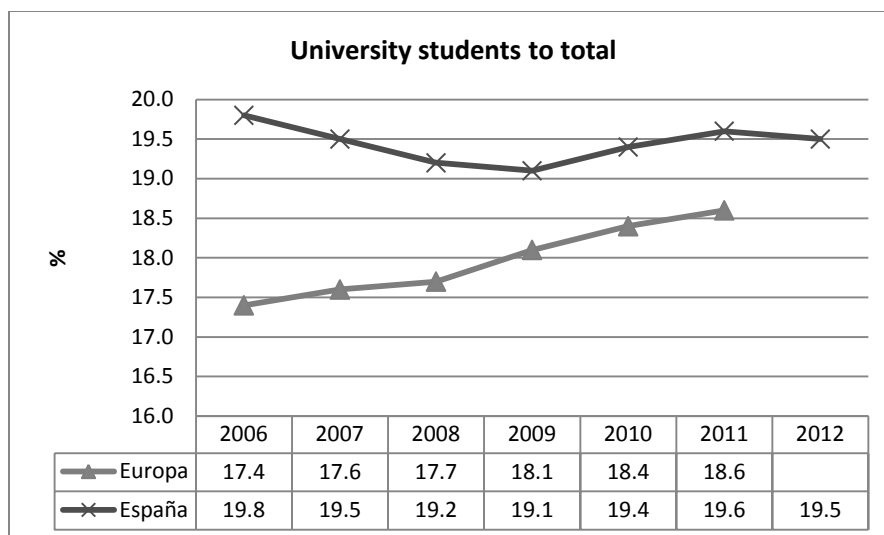
By studying the numbers of students in university level in recent years it is found that, despite being a country Spain below the European average investment in the education sector is above the European average by the number of students takes into university levels.

Over time it has said that Spain has too few students and university students at Levels 3 and 4 of ISCED, for vocational training. This seems to be confirmed if this infographic is analyzed. In addition, the number of students has not stopped growing since 2006, although it is true that growth has slowed since 2011.

On the other hand, trend following Spain is not opposed to the European average, where the number of university students has followed the same upward trend, albeit more gently.

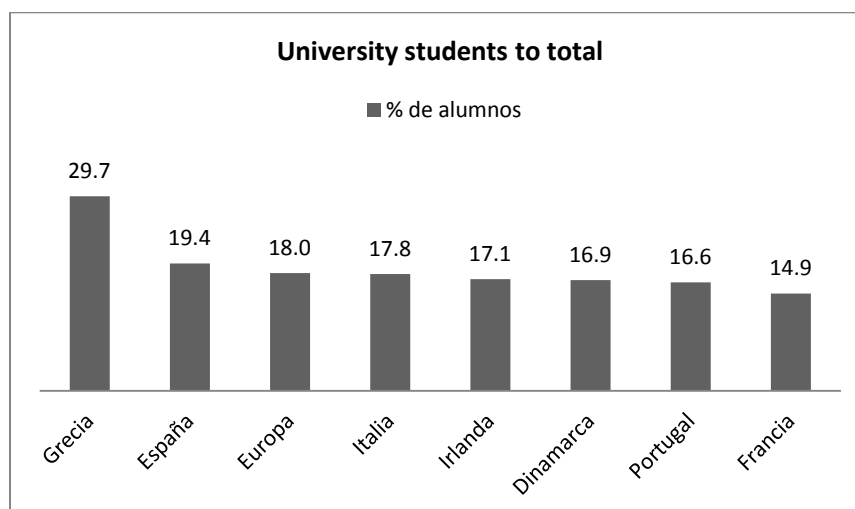


Making a study by countries, Germany is the country with more students at levels 5 and 6 of ISCED, making an average between the years 2006 to 2012 with 2,501,463 students followed UK. Spain is in 5th place, with 1,849,127 students, above the European average, which is 1,466,135 students. In last place with Ireland is 188,643 students.



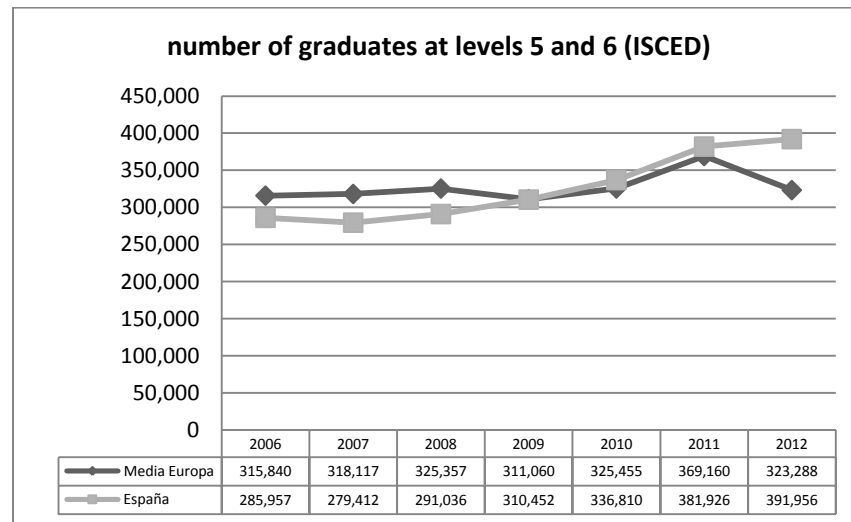
Much clarifiers may be data percentages of college students to total students. In this case more clearly where is the difference between Spain and the average of the European countries closer or relevant to this study.

Since 2006 the percentage of college students in Spain has been much broader than from the average in Europe, with the highest difference in 2006. Starting this year the differences fade away and, while in Spain until 2009, the percentage decreases, in Europe it grows very relevantly. From this year the percentage of college students to total students grows, albeit very gently, and again is reduced in 2012, however, the European average is growing steadily and with a fairly aggressive tendency compared to that of Spain, which shows smoother changes.



Analyzing the data by country is as curious story of Greece in the percentage of college students, ranking first in the countries of the area near Spain with 29.7%, well above the European average, which has a 18%. Spain is in second place with 19.4%. France is the country closest to Spain lower percentage of college students have with 14.9%.

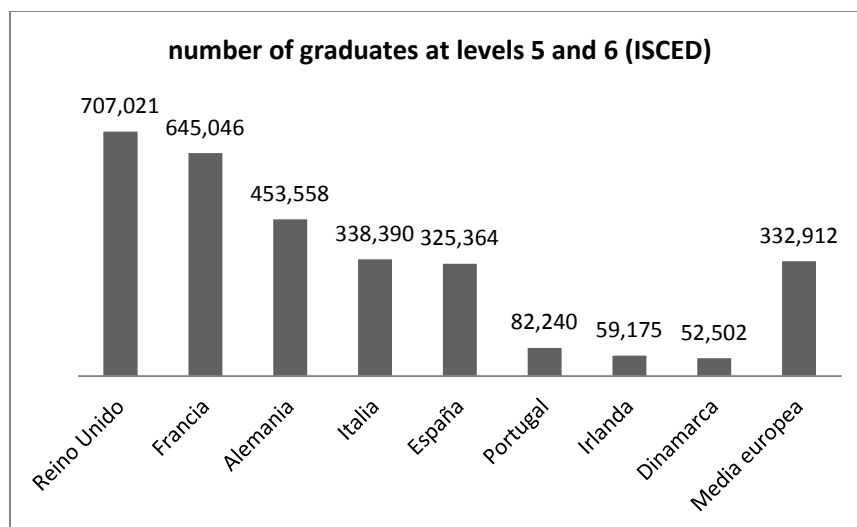
4. University Graduates



Once the data shown in the number of students in college can be analyzed Eurostat provides data on the number of graduates in these levels 5 and 6 of ISCED.

With these data it is found as the number of graduates between 2006 and 2008 in Spain was lower than the European average. However, from these data are equal 2009 and Spain graduates number becomes greater than in the middle of Europe.

In 2012 the average number of university graduates in Europe descends relevantly Spain while this number is still growing, although it is true that undergoes little deceleration.



For countries, analyzing the average graduate between 2006 and 2012, it is found that the UK is the country that most graduates have a year, with 797,021 graduates doubling the European average and, leaving Spain in 5th place with 325,364 graduates, slightly below the middle of Europe. Denmark ranks last with 52.502 graduates, well below the European average.

5. Conclusions

After analyzing the data provided by Eurostat office can conclude that the relationship between investments in education, investments in university levels, number of students at university level and number of graduates in these levels suffer many differences and deviations in the different European countries .

A relevant case is that of Denmark: it is a country that allocates significant resources to the education sector and, within these investments very relevant to university level form, being a country with very few students and especially very few students at levels 5 and 6 of ISCED when compared to the European average.

Spain, on the other hand, is a country that occupies the last positions of GDP investment in education, especially university education, which, however, has a large number of students at these levels, the most relevant of which is the second country with the highest percentage of college is compared to the number of students from all over Europe, second only to Greece.

If Spain has one of the highest levels of unemployment in young people and companies leave positions unfilled (Fernández, 2014) it may be for several reasons,

highlighting perhaps the high number of students and graduates on the one hand and, secondly, low investments in Spain are made in the education sector compared to other countries in Europe.

6. Bibliography

Articles, blogs or web publications records:

- Fernández, T. (21 de 01 de 2014). ¿Por qué hay puestos de trabajo que no se cubren? Recuperado el 03 de 04 de 2014, de Expansión.com:
[http://www.expansion.com/2013/12/25/emprendedores-
empleo/1387997052.html](http://www.expansion.com/2013/12/25/emprendedores-empleo/1387997052.html)
- stadistics, U. I. (2014). ISCED: International Standard Classification of Education. Recuperado el 03 de 04 de 2014, de UNESCO Institute for stadistics:
[http://www.uis.unesco.org/Education/Pages/international-standard-
classification-of-education.aspx](http://www.uis.unesco.org/Education/Pages/international-standard-classification-of-education.aspx)

IV. PROPOSED METHODOLOGY FOR ANALYSIS, AND DISPLAY THE MEANING OF COLOR IN THE PICTURE FILM

Laura Cortés-Selva (Universidad Católica de Murcia -Spain-)

María Mercedes Carmona-Martínez (Universidad Católica de Murcia -Spain-)

1. Introduction

The study of the image is now crucial day in any process of communication in the field of journalism, advertising or audiovisual communication.

The multitude of images, both still and moving, that shape our culture has meant that their study is approached from various perspectives, raising the need for a profound reflection on the different methods of analysis. Among them, this paper aims to highlight those that permit the study of a large volume of images in real time and with high accuracy. This commitment is now possible thanks to the introduction and development of digital media, and creates a new reflection on the validity of certain traditional methods of analysis.

The image is composed of a lot of expressive elements among which the color. Its high communicative potential study draws from different disciplines and in different media (fixed or moving image, graphic or photographic).

This study proposes a methodological tool for measuring color and its meaning in the film image, and its potential is tested through its implementation in the film *Career Girls* (Mike Leigh, 1997).

The main perspectives from which color analysis is possible in a film are mainly decisions made by the creators, the medium in which they are translated or printed and the effects on the audience. The latter approach is more variable because, unlike the link between a film and its makers, which remains unchanged over time, the relationship with the audience changes depending on different variables, including the temporal dimension is (the contemporary audience reaction to a film of the silent period differs considerably from that of a public-twenties).

Therefore, the study of color from the decisions made by the creators and the projected outcome in cinematic storytelling allows the collection of information that does not depend on who is receiving, but remains unchanged over time as a historical legacy of the authors. Such decisions we communicate the existence of certain descriptive elements sometimes become recurrent, able to identify a possible style either linked to an individual work or a set of the same reasons. Similarly, the reflection of the decision also speaks of possible meanings associated with the use of color in a work or set of works.

The complex nature of color has caused mainstream film research study have relegated to the background. However some theorists who warn of its expressive capacity dare to think about it, coming from different perspectives such as visual perception Classics Arnheim (2002, 1996 and 1986); or film aesthetics of the works of Aumont (2001, 1997, 1995 and 1992) and Aumont & Marie (1993).

Among the most recent academic activity highlights Richard Misek (2010), which provides a historical overview of the evolution of color, their shifting meanings and applications from hand-painted frames to the latest trends in digital manipulation. Sarah Street has led a research project -The negotiation of innovation: color films in Britain-which is the first book on the history of color in British films of the 40s and 50s, specifically focusing on the economic, cultural and aesthetic aspects.

Vacche Dalle (2006) addresses-from different perspectives metodológicas-topics related to technology and the visual style of the films, color theory and the creator as a theorist.

The most fruitful research activity on color in film focuses on aspects of the visual style, and among the most important researchers emphasize Kindem (1982), Neale (1985), Haines (1993), Bordwell (1998 and 2006), Higgins (2000) or Bordwell, Thompson and Staiger (1997).

The application of different methodologies for the analysis of the color image is one of the most controversial issues in the field of communication due to the ease of descriptive variables associated with subjective meanings. Edward Branigan (2006: 170) argues that the color does not have an identity for itself, but acquires its meaning through its relationship with other tones or difference present in the audiovisual work. This research argues that the color takes on meaning when

associated with certain elements of the staging as space, time or characters that can be shown numerically and visually such links.

Among the methodologies of the photographic image analysis tool set out by the research group of the University Jaume I of Castellón, ITHACA-UJI (<http://www.analisisfotografia.uji.es/root/analisi/METODOLOGIA%20ANALISIS%20FOTOGRAFIA.pdf>). Covers a lot of variables present in the image (which is between color and black and white) that are characterized by a process of direct observation. The difference between black and white and color in an image is thus perfectly verifiable, but analysis of other qualities such as warmth or coldness of an image, the predominant colors, contrast or brightness, can be supplemented with other type of methodology to provide data that are inaccessible to the individual observer.

One of the most interesting descriptive methodologies - although not specifically focused on cinematográfica- image is developed by the researchers Martinez, Monserrat and Tur (2012) who analyze the color in children's advertising, particularly in television commercials or spots. The methodology of these authors shares our desire to quantify objectively and inventory the use of color in the field of communication studies.

In the scope of the search of the meaning of color, a classic approach is present in the work of Goethe (1992). Stresses in particular the association of their color-sensitive moral categories to social status and revealing clear ideological. Among them, the link between red purple, the beautiful and the rulers, against whose violet moral category is useless from the economic point of view and that associated with the social status of artists. In Goethe's work is not too clear what method used to reach those conclusions. However, Goethe's theory strongly influences the color settings of the German people, as shown in research conducted by Eva Heller (2004). Centered in Germany, addresses a survey-based study performed to 2000 people from different professions, to which they were questioned about their preferences in colorimetric terms, impressions caused by each color and its association with different feelings. The study results show that colors and feelings combine accidentally, their associations are not matters of taste, but deeply entrenched universal experiences from childhood, in our language and in our thinking.

Among the most effective methods for analyzing the present image stands in stylometry investigations conducted by Barry Salt

(<http://www.cinemetrics.lv/salt.php>). Later, other scientists as Bordwell (<http://www.cinemetrics.lv/bordwell.php>), Elsaesser and Buckland (2002), Bishop (1985), Charles O'Brian (<http://www.cinemetrics.lv/obrien.php>) and Yuri Tsivan (<http://www.cinemetrics.lv/tsivian.php>) applied an empirical methodology as it is visible in the collective project Cinemetrics. Barry Salt (2006 and 1992), used for the statistical average on various image parameters such as scale or type of planes, their duration, the camera movements, the shot-reverse shots, subjective shots and the, -insert flat because the author believes that these variables depend directly on the control of the principal and they are measurable. Although his initial research analyzes the whole of the works, the experience led him to choose years later, a sample of the first thirty to forty minutes of each film, which considered representative of all of them. However, recent publications chosen subject to scan planes sequentially along the film.

On the other hand, in a similar methodological work developed by online research group of the Department of Visual Arts at the University of California, led by Lev Manovich highlights (<http://lab.softwarestudies.com/2008/09/cultural-analytics.html>). Build a series of methods and techniques called Cultural analytics, which is based on the use of digital technology to create visualizations that allow you to explore large amounts of images and video. David M. Berry (2011) argues that this digital technology is transforming our ability to use and understand information differently than they do the structures of traditional knowledge and, therefore, is changing the research process and especially methods traditional analysis of what has been called digital humanities.

Digital technology enables massive, immediate and objective quantitative data collection in real time, allowing the analysis of large-scale visual data.

This paper proposes a methodology that provides the ability to objectively measure the colorimetric variables of a large volume of images automatically with objective, verifiable and generalizable results. Furthermore, this tool is also possible to show how visual and numerical color, its evolution along the narrative development of the film and how it relates to other variables such as the time dimension of the narrative, specifically the different periods that coincide in the film.

Thus, two objectives are considered. First present a methodological tool to automatically learning through digital platforms, a large volume of data related to colorimetry and image viewing. The second goal of analytical nature arises from

the application of the methodological tool the film *Career Girls* (Mike Leigh, 1997). The color is analyzed, its evolution along the narrative development and which acquires meaning attaching to the time variable, namely the time.

2. Material and methods

To address this research has used different techniques: the first phase of research and reflection documentary for the construction of the theoretical framework and methodology (the latter inspired by the methods and techniques employed by Cinematics and Cultural analytics), and a second phase in which the methodological tool designed to the analysis of the film applies *Career girls*. This film like many others, is available in DVD format. The files of that format are in .m2v, and although one is aware of having compression versus celluloid, and affecting the colorimetry, it is possible to easily manage a single digital platform, and compare the results obtained with other films in the same format.

As the unit of analysis of this research is the individual level, it is necessary to determine the optimum sample size in which it will work⁴. *Career For girls* there is a total of 966 planes and therefore the optimum sample is composed of 243 planes, with a sampling error of $\pm 5.44\%$.

It should be noted that the film was previously divided into quartiles, taking account of its duration in minutes-in order that the random choice of the 243 planes are distributed throughout the film homogeneously.

⁴ As the number of planes of the film is finite and known, the optimal sample size is given by the following expression (Pérez, 2009)

$$n = \frac{Z^2 \times N \times p(1-p)}{(N-1) \times e^2 + Z^2 \times P(1-p)}$$

where n = optimum sample size; N = population size (ie total number of planes that make up the film); Z = value of the Normal distribution that ensures a level of confidence of 95% (so Z = 1.96), which is the probability that the results are true; p = proportion of the population with certain characteristics being studied. As its value is unknown, it is considered that p = 0.5; e = maximum permissible difference between the sample result and that would be obtained by analyzing the entire film.

Once elected the 243 planes of the film, we proceed to the analysis of pitch and time variables, respectively related to the colorimetry of the image and the temporal dimension of the plane.

With respect to the time variable associated with narrative content that refers to the time determined by the viewing of each of the selected planes. His relationship with the hue may indicate the existence of a meaning.

For analysis of the variable on the color, it is necessary to obtain a still picture or representing the entire plane of each frame. The program allows automatic ImageJ64 obtaining numerical results for the tone variable, such as mean, median, standard deviation.

Measuring the tone is done on a quantitative scale ranging from 0 to 360, matching the color wheel. Furthermore, the results concerning the tonality of the image have been categorized into two qualitative variables: A polytomous which provides for six colors (red, orange-yellow, green, cyan, blue and magenta), and another dummy that differentiates between the cold tones and warm (Table 1 and Table 2):

Scale (Degrees)	Tone
330°-30°	Red
31°-90°	Orange-Yellow
91°-150°	Green
151°-210°	Cyan
211°-270°	Blue
271°-330°	Magenta

Table 1: Coding of tone divided in six shades

Scale (Degrees)	Tone
315°-134°	Warm
135°-314°	Cold

Table 2: Coding of tone divided into warm and cool

Qualitative variable named content refers to the time period (past, present or future) in which the story takes place. The last refers to the narrative time that passes in decades prior to the recording of the film; this means that the narrative

this time shows a similar to that performed in the recording; and the future offers a narrative moment that represents a future time to the real time of recording.

After obtaining the data variables described, was performed statistical analysis of the same model using the SPSS v.21.

First, there has been a descriptive analysis of the variables, which allows to know the basic performance. The results in the case of the quantitative variable (pitch) refer to the mean value, standard deviation, maximum value and minimum value, while the results for the qualitative variables are presented in contingency tables, which provide values percentage.

This descriptive analysis also provides information about the behavior of the variables in each quartile and how they evolve over them.

Secondly there has been a multivariate analysis, based on statistical inference, with which it is intended to study possible links between colorimetry and time, which could indicate the existence of a meaning of the color. To determine if the behavior of the quantitative variable (pitch) is the same in each of the groups defined by the qualitative variable (*time*) has been applied the Kruskal-Wallis⁵.

3. Analysis and results

In this section the results obtained after the application of the proposed analysis methodology are discussed. First, Table 3 shows that the average on the tonality is 134,70° Career girls. In addition, the highest average hue is in the first and second quartile.

Concerning the evolution of the pitch along the narrative development of the film, is observed to increase from first to second quartile and the two following

⁵ The Kolmogorov-Smirnov test applied to the data available shows that varying the tone does not meet the assumption of normality (symmetric distribution with a single mode), so you can not apply the analysis of variance (ANOVA) but must resort to a nonparametric test.

decreases progressively. However, if you consider the average change in the tone from the first to the fourth quartile, - amount decreases.

	1st Quartile	2nd Quartile	3rd Quartile	4th Quartile	MEDIA
Media	136,65	180,82	123,76	97,57	134,70
Standard Deviation	57,36	52,30	67,84	47,29	56,20
Minimum	58	61	35	40	49
Maximum	229	223	313	202	242

Table 3: Percentages Quartile halftone.

In Figure 1, shown in the "X" the order of planes according to the narrative development of the film, and the Y axis "Y" halftone of each plane on a scale of 0 to 360. This image shows the structure of the film visually based on the hue planes.

The general trend prevailing in this image shows a trend toward warmer hues. It also offers a clear pattern of distribution of midtones, visible in all quartiles, especially in the first and second. The first quartile is divided into two sections: the first and cool tones dominate in the second warm; and in the case of the second quartile virtually all shades are cool.

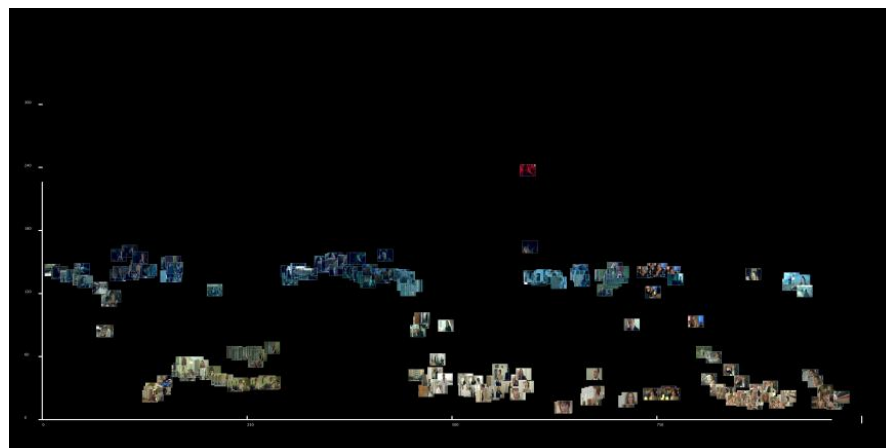


Figure 1: Evolution of tone throughout the film. Source: Prepared

Referring to the six tones that make up the tonal scale of Career girls, Table 4 shows that all keys are present in all quartiles except for the blue-existing in three- and magenta, present only in the third.

On the set of the film include the yellow-orange with 39.10% of all plans analyzed and cyan with 35.80%. Then the green with a 15.60% blue with 9.10%, the 0.4% magenta and red with 0%.

Moreover, the evolution of different shades along the four quartiles is irregular, as seems to be no clear pattern in their behavior.

		1st Quartile	2nd Quartile	3rd Quartile	4th Quartile	Total planes
Orange- Yellow	No Planes	18	7	38	32	95
	%	18.9%	7.4%	40.0%	33.7%	39.1%
Green	No Planes	20	4	4	10	38
	%	52.6%	10.5%	10.5%	26.3%	15.6%
Cian	No Planes	23	25	27	12	87
	%	26.4%	28.7%	31.0%	13.8%	35.8%
Blue	No Planes	6	15	1	0	22
	%	27.3%	68.2%	4.5%	0.0%	9.1%
Magenta	No Planes	0	0	1	0	1
	%	0.0%	0.0%	100%	0.0%	0.4%

Table 4: Percentage of the tonal scale quartiles.

Table 5 shows the distribution of warm and cold along tones Career girls: in the second quartile highlight the cool shades, and dominate the room warm. In the first and third quartiles cold and warm tones are fairly balanced.

		1 st Quartile	2 nd Quartile	3 rd Quartile	4 th Quartile	Total planes
Warm	No Planes	36	11	42	40	129
	%	53.7%	21.6%	59.2%	74.1%	53.1%
Cold	No Planes	31	40	29	14	114
	%	46.3%	78.4%	40.8%	25.9%	46.9%

Table 5: Percentages of cool and warm tones Quartile ..

3.1. Relationship between pitch and time

In this section the relationship between the quantitative variable pitch and variable time qualitative analyzes.

The corresponding Kruskal-Wallis tests show (sig. = 0.000) that the tone of the analyzed planes is related to the temporal dimension of the film. That is, in *Career girls* there were significant differences between the tone of the plans relating to the past and plans relating to this.

Thus, Table 6 shows that, in this film, the planes of the past have an average pitch of 202 ° and this, of 85,51°.

	Tone (Grades)		
	Media	Min.	Max.
Past	202,05	154	313
Present	85,51	35	213
Total	133,47	35	313

Table 6: Descriptive results of tonality and time. Source: own.

4. Conclusions

First, the methodological tool presented allows to obtain in real time and in a systematic, objective and verifiable data on the colorimetry of a large volume of images and viewing. So let's describe and visualize the color, observe their evolution throughout the film and find possible meanings to link with elements of narrative content.

This type of methodology transforms the perspective of traditional analysis focused on a limited number of images, one that includes a higher volume. It offers an alternative to the use of subjective terminology for describing the color-related variables, as well as improper association with possible meanings.

For analysis of the film, it is shown numerically and visually *Career girls* has a halftone 134,70°, ie green and warm.

Regarding the scale of colors present in the film and in order of highest to lowest the presence → anaranjado-yellow-very cyan- subsequently followed by green, blue and finally, with underside pocentase- magenta stands. Particularly striking is the absence of red.

Although *Career girls* is a film that is considered medium warm, there is a similar ratio between the warm tones (accounting for 53% of the plans analyzed) and cold (47%).

The colorimetric variables evolve in parallel with the narrative describing an expressive program, because if the beginning and end of the film is taken into account, it becomes warmer.

Regarding the significance of color also shows that the key is closely linked to the different periods that are present in the film narrative. From the numerical point of view it is possible to associate the past half tone 202nd (cyan and cold), and present a halftone 85,51° (orange-yellow and warm).

5. Bibliography

Paper or electronic books, reports and theses:

- ARNHEIM, Rudolph (1986): *El pensamiento visual*. Paidós. Barcelona.
- ARNHEIM, Rudolph (1996): *El cine como arte*. Paidós. Barcelona.
- ARNHEIM, Rudolph (2002): *Arte y percepción visual. Psicología del ojo creador*. Alianza Editorial. Madrid
- AUMONT, Jacques (1992): *La imagen*. Paidós. Barcelona.
- AUMONT, Jacques (1995): *Le couleur en cinema*. Cinématèque Française. París.
- AUMONT, Jacques (1997): *El ojo interminable*. Paidós. Barcelona.
- AUMONT, Jacques (2001): *La estética hoy*. Cátedra. Madrid.
- AUMONT, Jacques y MARIE, Michel (1993): *Análisis del film*. Paidós. Barcelona.
- BORDWELL, David (1998): *On the history of film style*. Harvard University Press. Cambridge.
- BORDWELL, David (2006): *The way Hollywood tells it: Story and style in modern movies*. University of California Press. Berkeley & Los Angeles.
- BORDWELL, David, THOMPSON, Kristin y STAIGER, Janet (1997): *El cine clásico de Hollywood. Estilo cinematográfico y modo de producción hasta 1960*. Paidós Comunicación. Barcelona.
- DALLE VACCHE, Ángela y PRICE, Brian (eds.) (2006): *Color, the film reader*. Routledge. New York.
- ELSAESSER, Thomas y BUCKLAND, Warren (2002): *Studying Contemporary American Film. A Guide to Movie Analysis*. Arnold. London.
- GOETHE, Johann Wolfgang Von (1992): *Teoría de los colores*. Consejo General de la Arquitectura Técnica de España. Madrid.
- HAINES, Richard (1993): *Technicolor Movies. The history of Dye Transfer printing*. McFarland & Co. Jefferson, N.C.

- HELLER, Eva (2004): *Psicología del color. Cómo actúan los colores sobre los sentimientos y la razón*. Gustavo Gil. Barcelona.
- MISEK, Richard (2010): *Chromatic Cinema*. Wiley-Blackwell. Oxford.
- NEALE, Steve (1985): *Cinema and Technology. Image, sound, colour*. Macmillan. London.
- PÉREZ, César (2009): *Técnicas de muestreo estadístico*. Madrid. Garceta.
- SALT, Barry (1992): *Film style and technology. History & Analysis*. Starword. London.
- SALT, Barry (2006): *Moving into pictures*. London. Starword.

Chapters in books, reports and articles in newspapers or magazines on paper:

- BRANIGAN, Edward (2006): “The articulation of color in a filmic system”, en DALLE VACCHE, Ángela y PRICE, Brian (eds.): *Color, the film reader*. Routledge. New York.
- BERRY, David M. (2011): “The computational turn: thinking about the digital humanities”. *Culture Machine*, nº 12. pp. 1-22.
- BISHOP, Harvey John (1985): “A medium variable analysis in film: a comparison of Bogdanovich with Ford, Hawks, Hitchcock and Welles”. *MA Journalism*. University of Colorado. Boulder.
- HIGGINS, Scott (2000): “Demonstrating Three-Colour Technicolor. Early Three-Colour Aesthetics”. *Film History*, vol. 12, nº 4. pp. 358-383.
- KINDEM, Gorham (ed.) (1982): “Hollywood’s conversion to color. The technological, economic and aesthetic factors”. *The American Movie Industry*. Southern Illinois Press. Carbondale. pp. 146-158.
- MARTÍNEZ, Luis, MONSERRAT, Juan y TUR, Victoria (2012): “El color en spots infantiles. Prevalencia cromática y relación con el logotipo de marca”. *Comunicar*, nº 38. pp. 157-165.

Articles, blogs or web publications records:

- BORDWELL, David: <http://www.cinemetrics.lv/bordwell.php>. Consultado el 3 de febrero de 2014.
- MANOVICH, Lev y DOUGLAS, Jeremy (2009): Visualizing temporal patterns in visual media. Disponible en:
- http://softwarestudies.com/cultural_analytics/visualizing_temporal_patterns.pdf. Consultado el 5 de febrero de 2014.

- SALT, Barry: Statistical style analysis. Disponible en
- <http://www.cinematics.lv/salt.php>. Consultado el 3 de febrero de 2014.
- O'BRIEN: Multiple language versions and national films, 1930-1933. Disponible en: <http://www.cinematics.lv/obrien.php>. Consultado el 3 de febrero de 2014.
- TSIVIAN, Yuri: Intolerance study. Disponible en: <http://www.cinematics.lv/tsivian.php>. Consultado el 3 de febrero de 2014.
- <http://www.analisisfotografia.uji.es/root/analisis/METODOLOGIA%20ANALISIS%20FOTOGRAFIA.pdf>. Consultado el 3 de febrero de 2014.

V. ISLAMIC FINANCE AS MUSLIM RESPONSE TO FINANCIAL CLIENT

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1. Introduction

Since 2007, the world has changed the result of a crisis that has changed the behavior of economic agents in their various fields of action. In the case of the financial sector, has generated a strong distrust of the traditional approach to banking by the citizenry, in some cases, have developed radical action penalty was their banks. Thus, under this scenario, it has been an enhancement of the so-called alternative finance, a parallel activity that was already developing a minority. Thus qualify because configured as a response to various needs not met by traditional banking, which also have been exacerbated by the crisis. This is for those savers looking for an institution governed by binding ethical criteria such as ethical banking and Islamic finance. And also for those individuals who need funding for any activity, whether personal or business going, as another option, microfinance and crowdfunding (funding through social networks).

This new demand is causing financial institutions begin to change the behaviors of customer relationships. No longer apply classic marketing strategies. Innovation is imposed and, with it, the search for new markets mainly based on micro, since they are not enough traditional variables, are aimed at new ways to attract and retain customers. In this new search and specifically considering the demand for more ethical banking, Religion appears as a new variable that can become essential when planning new strategies. In the Islamic world there is this type of customer and Islamic banking has attempted to respond to those needs. While early indications us back to the seventh century, born as such in the 70's with a different approach to conventional banking. Different because it is guided by the precepts of Islamic law which defined what appears Halal, ie permissible and beneficial to the individual. In the case of Finance, the key lies in the

conception of money as it is considered to be not a good in itself, but a means to generate wealth, so speculation and usury is prohibited.

Today's consumer is much more demanding in their decision making. It is more educated and demanding that companies they trust, are worthy in terms of values, ethics and social commitment. In this case the Islamic Finance are an alternative to traditional banking. Our work tries to analyze how Islamic Finance client and what may be their prospecting.

2. Religion as a new variable financial client

Innovation in banking should go through the search for new markets. A change of perspective is needed. It is no longer sufficient to classify customers by variables such as gender, age or social class. The new marketing focuses on micro, in marketing "one to one" and thus, in the search for new-old differentiation variables and religion can be one of them. At the end of the day, "purchases and pray" or what is the same, each person lives, acts, and consume according to their degree of belief.

Religion plays a very important role in the culture of humanity. Culture and religion influence each other. Religion shapes the belief systems and practices that are part of the particular culture that applies. Culture in turn, influences the modes of practice, religious integration and necessary to carry out their rituals in social beliefs. No culture acting outside a religion, either directly or indirectly. And no culture developed without adequate understanding of their religion (Parekh, 2005 and Sanchez and Padilla. P. 450).

Religion, in itself, aims to combine the reality of humanity with the universal reality. Therefore, a religious belief which serves to legitimize and maintain the reality of a society profess. It becomes a catalyst and tool for transforming the culture of the host society and can contribute to the cohesion of society (Garreta, 2003).

In our case, we think that society, religion and banking are closely related. A financial client decides what type of contract products depending on the society to which he belongs and this in turn has a cultural structure and, therefore, a religion that dominates it. We believe that religion is a symbiotic identity between the person and his soul, and to make them behave, at times making business and financial decisions, a specific and differentiated way. In some cases, as in Islam,

the religion marks the type of behavior that have been members of the society who profess that religion.

From this analytical perspective, it is worth noting what the situation of religion in Spain. At this time, the Spanish State classifies religious groups into four groups. In the first group, the Catholic Church would be found. In a second group would be those that have signed agreements with the state, as are the Muslim, Jewish and Evangelical (or Protestant). In a third group called religions are "deeply-rooted", such as the Mormons, Orthodox and Jehovah's Witnesses. Finally, there are other religions in Spain under-represented, as might be Odinists or the Church of Scientology (Vela and Ballesteros, 2011.Pag.367).

Islam has a fundamental role in the culture of the Islamic community, as people who profess religion considered as an essential element in their lives. Your future depends on how the component elements interrelate: languages, customs and artistic expressions and, secondly, how the texts are interpreted. (Sanchez, 2014). For Islamologists Bahige Mulla Mohamed Atta and Abdelouahab (. Sanchez and Padilla, 2013 pp 450-451), Islam has three elements: (i) Fe and worship: they are personal characteristics that occupy the restricted space. Islam is primarily a social religion whose primary objective is to prepare the human being to function healthily in the life of this world. (ii) The law or Sharia: the set of legal provisions; very similar to what we call legal framework and, therefore, open to innovations include context are legislative provisions regulating public life provided they do not violate the basis and spirit of Islam. And (iii) the message is the third basic element. In all Islam defines what is forbidden and what is haram possible and advisable for a good Muslim, halal. Thus, Islam is not just a religion, is a way of life for those who profess.

In the case of Spain and according to the Union of Islamic Communities in Spain (2013), in our country there are 1.7 million Muslims. Planet (2008) highlights that 70% of Muslims who declare themselves as such, are immigrants. Notes the Moroccans as the largest group, followed, in order, by Algerians, Pakistanis, Iranians, Lebanese, Syrians and Tunisians, among other nationalities. The remaining 30% are Spanish, and includes those who have obtained Spanish nationality and the Spanish who have converted to Islamic faith. We believe these data on immigration, today, will change as a result of the economic crisis, which has caused many immigrants return to their countries of origin. On the other hand, as a result of armed conflicts, we assume that they have come to Spain's Muslim

immigrants as refugees. Either way, and generally given their illegal nature, we can not have recent reliable data.

To Losada (. 1995 pp 189-199), we can distinguish four streams of Islam in Spain: (i) Practitioners installed. Are first-generation immigrants who generally try to avoid assimilate into the host society. (ii) second-generation Muslims. Those who do not reject the culture or religion of their parents and adapt to the Western way of life, looking for a proper integration into the host society. (iii) Islamist Muslims: a negative priming regarding the emigration of their country due to fear of assimilation and the loss of their religious identity and (iv) sociological Muslims: a reference to the cultural Islam rather than Islam cult.

We believe that the Spanish Islam, except the type (iii), calls for the respect and support of the Spanish securities and harmony. In this line, coexistence and respect for others, we are. Therefore, we can consider that our country has set a new financial microsegment enough to offer "custom" actions, the customer Muslim identity. As such, demand a seat adapted to their beliefs and lifestyle. This type of banking already exists in other countries and is part of has been called Islamic finance, a new concept for developing financial activity from an ethical perspective.

3. Muslim Islamic finance customer

3.1. Initiation and development of Islamic finance.

Early indications of Islamic finance dating from s. VII, at the Qur'an and other texts of the Prophet (the foundations of Islamic law) begin to govern the relationship between capital, trade and business, based on its economy (De Anca, 2014). In the s. XIX, the expansion of traditional banks made the Muslim community to refrain from using their services for not complying with Islamic law-the Shairah- (Sánchez, 2006), it was then that the challenge of creating a bench raised according to their beliefs. Into the s. XX, the first attempts occurred in Malaysia in the 40s, 50 in Pakistan and Egypt in the 60s, albeit in a disguised form (Abuamria, 2006). But it is in the 70s when a major boost by the governments decided to private enterprise and the creation of the Islamic Development Bank in order to promote economic cooperation under the principles of Islamic law advancement occurs. In 1971 the first institution in Egypt free of interest, the Nasser Social Bank in 1975 and the Dubai Islamic Bank, the first private Islamic bank (Terdeyet, 2008) is established.

In the 80 purely Islamic banks (Garcia-Herrero, Moreno and Solé, 2008) emerge and a strong expansion in the Middle East and Southeast Asia occurs. In the West, the so-called "Islamic windows or subsidiaries of conventional banks such as HSBC, Deutsche Bank, Citibank, BNP Paribas, Societe Generale and Calyon (Terdey, 2008) offering Islamic financial products also appear. Since 2000, the real growth occurs in Western countries and develops what Solé (2008) describes as third stage in the process of Islamic banking with the creation of an Islamic capital market and the development of banking products investments adapted to Islamic law, thus completing the entire spectrum that makes the concept of finance. And since 2011 there has been a revival and some analysts considering 2013 as the final launch of the industry (Wigglesworth, 2013). London has set a goal to be the world's first Islamic finance space in the West (Cameron, 2013), thus competing with Dubai and Bahrain currently vying to be the Islamic financial center in the Middle East.

3.2. Distinguishing features of Islamic finance against conventional finance

Islamic finance are based on the application of religious precepts contained in Islamic law (Shariah) focused on two basic concepts that govern the way of life of Muslims. That value system led to the financial field we could summarize in the following principles.

First, and as a basic element, is the idea that Islamic law has money. Faced with the consideration of conventional banking where money is a good in itself (raw material), Muslims use it as a means through which to develop economic activity. Second, it is considered that any gain should be subject to possible loss or risk certain component with a strong commitment it must be assumed from the beginning to the end of the investment by the parties involved. It is also contemplated that the gain is related to the effort and work of individuals. Thus, all enrichment is only legitimate when risk is shared or no counterpart in the form of work. And finally, certain prohibitions are established with the aim of trying economic transactions resulting fair, honest and equitable. In particular, in the field of Islamic finance law states: charging interest, usury (riba), the excessive risk or uncertainty existence of imperfect and asymmetric information between both parties to the transaction (gharar), the speculation sense of commitment (Mays) and activities related industries not halal (pork, alcohol, snuff, weapons, etc.)

Under these principles and prohibitions, the modus operandi of Islamic finance is based on three pillars: establishing distribution agreements of income,

the existence of a real asset to support the operation and not consider investments related to the forbidden (haram). This has developed a range of contracts and services that respond to the financial needs of the Muslim community in compliance with Shariah.

Defined these principles, the question of how to ensure that Islamic banks meet these they arise. To do this, there are two basic mechanisms established. One, the existence of a Religious Supervisory Committee with the responsibility of controlling the activity of the bank not to deviate from the provisions of Shariah, in charge of introducing the principle of justice as regulator of banking. This committee is composed of experts in the interpretation of Islamic law specifically in the financial sector, which need to demonstrate their skills through accreditation. Thus, compliance or compliance takes more than the time may have conventional banking, as the breach of Islamic law invalidate operation (Cervera, 2009) role. This committee would be the twin of the current ethics committees established in enterprises implementing CSR policies.

Another mechanism is the existence of zakat within the bank itself. Zakat is the third pillar of the five Islamic law contemplates. It consists of a mandatory duty for Muslims and proceeds go to the poor and needy. In the case of Islamic banks this tax on assets (deposits and current accounts) and idle funds is established, thus penalizing capital investments not involved in (can be between 1% and 2.5%). With this, the bank meets the objectives of this tax as it encourages the resources are assets in the economy and at the same time, encourages participation in a society based on solidarity and not charity, using a portion of the resources idle for social purposes.

Ultimately, as Hasan and Dridi point (2010), in Islamic investment banks revolves around the exchange of assets or property and thus, their products are closer to the real economy than the theoretical or virtual products conventional banks. In this respect, this system based on justice applied to the financial field would consider Islamic finance as a case of ethical finance, a concept developed in the West. Thus, it could be argued that the different approach of Islamic finance from traditional makes them authentic ethical finance.

3.3. Current status and potential of the sector

The Islamic financial sector right now is a small part of the world, but has great potential. Currently there are 716 financial institutions that comply with

Islamic law, of which 511 offer only Islamic products and 205 are conventional banks with Islamic windows (The Banker, 2012) and are deployed in over 75 countries (García-Herrero, Moreno and Solé , 2008).

According to Ernst & Young (2013), the volume of bank assets amounted to \$ 1.8 trillion, representing only 0.2% of the world, but its annual growth is around 20%, 50% higher than the banking conventional. Also estimated 38 million customers with an average of 2.1 products per customer, well below the 4.9 from conventional banking. Thus, there is a significant potential that also come also driven by the economic rise of emerging countries, the increasing wealth of the oil-exporting countries, the increase in the Muslim population inside and outside the Islamic countries and also by the strong development of the halal industry. In the latter case, the turnover of this industry in the world amounts to 3 trillion (Halal India, 2014) and it is estimated that only 10% use Islamic finance for their financial transactions (Hasan, 2014).

4. Conclusions

Islamic finance, as a new way of developing financial activity based on ethics, has proven to be a viable option in line with the religious beliefs of their clients. Furthermore, this approach to banking has allowed the Islamic financial sector has behaved better than the traditional during the financial crisis of these years (Hasan and Dridi, 2010). However, there are still major challenges to overcome as creating a uniform legal framework and adequate regulation for development, increased transparency and liquidity of its markets, finding institutional mechanisms for the resolution of troubled financial institutions, the improving the efficiency of Islamic banks (reduce excessive concentration in certain sectors or types of borrowers), and higher education and training of professionals working in this sector for their growing sophistication.

In Spain there are currently no any presence of Islamic finance, halal industry although thanks to the impetus from the Islamic Board (Escudero, 2014). On the financial front, there was a project that included several phases for the creation of an Islamic bank, starting with the offer of accounts halal conventional banks (Contreras, 2007) and has subsequently been other initiatives in 2007, but so far have not I fruition. At the same time, the alternative of Spanish companies financed through bonds sukuk has not been possible because of legal problems (Saiz, 2013).

However, globally, Islamic finance is now a reality with expanding future, as reflected in the strong growth noted above, it is expected to continue overcoming the challenges it faces.

5. Bibliography

Paper or electronic books, reports and theses:

- ESCUDERO, Hanif (2014): “La certificación halal en el sector de los servicios turísticos”. En DE LA ORDEN, M.C., SÁNCHEZ, P. y BERNAL, P. (2014): “Turismo Halal en España”. Madrid: OMM Campus Libros.
- GARRETA, Jordi (2003): *La integración sociocultural de las minorías étnicas*. Barcelona: Anthropos.
- PAREKH, Bhikhu (2005): *Repensando el multiculturalismo*. Madrid: Itsmo
- SANCHEZ, Pilar (2014): “La religión en marketing, variable imprescindible en la búsqueda del turista musulmán”. En DE LA ORDEN, M.C., SÁNCHEZ, P. y BERNAL, P. (2014): “Turismo Halal en España”. Madrid: OMM Campus Libros.
- VELA, Carmelina y BALLESTEROS, Carlos (2011): La influencia de las creencias religiosas en el consumo. Una aproximación desde las tres religiones del Libro, en *Revista de las Facultades de Derecho y Ciencias Económicas y Empresariales*. Madrid, ICADE, 361-392.

Chapters in books, reports and articles in newspapers or magazines on paper:

- ABUAMRIA, Faeyz M.J. (2006): La banca islámica en el mundo: principales rasgos y análisis de eficiencia en *Cuadernos de Información Económica*, nº 193, págs. 87-94.
- LOSADA, Teresa (1995): “Inmigración musulmana: restos humanos, culturales y religiosos”, en ABUMALHAM, Montserrat: *Comunidades islámicas en Europa*. Madrid, Trotta
- PLANET, Ana (2008): “Islam y emigración: elementos para un análisis y propuestas de gestión”. Foro de Inmigración. Madrid, Centro de Estudios Políticos y Constitucionales.
- SOLÉ, Juan. (2008). Introducing Islamic Banks into Conventional Banking Systems, *Journal of Islamic Economics, Banking and Finance*, vol. 4, n.º 2 (mayo-agosto).

- THE BANKER (2012).” Top Islamic Financial Institutions ranking”, November
- WIGGLESWORTH, Robin (2013):“London to Bolster Islamic Finance credentials” artículo publicado el 11 de marzo de 2013 en el diario *Financial Times*.

Articles, blogs or web publications records:

- DE ANCA, Celia (2014): Finanzas islámicas: ¿Cuál es el interés para Europa? *Observatorio de Divulgación Financiera*, Instituto de Estudios Financieros. Documento de Trabajo nº 14, marzo. Disponible en: <http://www.iefweb.org/es/finanzas/visordocumentospdf/38>. Consultado el 15 de febrero de 2014.
- CAMERON, David. (2013). World Islamic Economic Forum: Prime Minister's speech. Disponible en <https://www.gov.uk/government/speeches/world-islamic-economic-forum-prime-ministers-speech>. Consultado el 18 de febrero de 2014.
- CERVERA, P. (2009). “Finanzas Islámicas: El Otro Modo De Hacer Banca-1”. *Estrategia Financiera*, 267, octubre. Disponible en: <http://pdfs.wke.es/0/3/9/6/pd0000050396.pdf>. Consultado el 21 de febrero de 2014.
- CONTRERAS, José (2007). “Un banco islámico español para dos millones de musulmanes” publicado el 22 de junio de 2007 en el diario *El Economista*. Disponible en <http://www.eleconomista.es/empresas-finanzas/noticias/233258/06/07/Un-banco-islamico-espanol-para-dos-millones-de-musulmanes.html> Consultado el 28 de febrero de 2014.
- ERNEST & YOUNG (2013): “World Islamic Banking Competitiveness Report 2013-14”. Disponible en [http://www.ey.com/Publication/vwLUAssets/EY_-_World_Islamic_Banking_Competitiveness_Report_2013%E2%80%9314/\\$FILE/EY-World-Islamic-Banking-Competitiveness-Report-2013-14.pdf](http://www.ey.com/Publication/vwLUAssets/EY_-_World_Islamic_Banking_Competitiveness_Report_2013%E2%80%9314/$FILE/EY-World-Islamic-Banking-Competitiveness-Report-2013-14.pdf). Consultado el 24 de febrero de 2014.
- GARCÍA-HERRERO, Alicia; MORENO, Carlos, & SOLÉ, Juan. (2008). Finanzas islámicas: Desarrollo reciente y oportunidades. *Revista de Estabilidad Financiera*–Banco de España, 15, 120-130. Disponible en: <http://www.bde.es/f/webbde/Secciones/Publicaciones/InformesBoletinesRevisitas/RevistaEstabilidadFinanciera/08/Nov/Fic/IEF200815.pdf> Consultado el 12 de febrero de 2014.

- HALAL INDIA (2014). Disponible en:
http://www.halalindia.co.in/program_PHI5.html Consultado el 26 de febrero de 2014.
- HASAN, Maher & DRIDI, Jemma (2010). Puestos a prueba: los bancos islámicos fueron más resistentes que los bancos convencionales durante la crisis financiera mundial. Finanzas y desarrollo: publicación trimestral del Fondo Monetario Internacional y del Banco Mundial, 47(4), 1-2. Disponible en: <http://www.imf.org/external/pubs/ft/fandd/spa/2010/12/pdf/Hasan.pdf> Consultado el 21 de febrero de 2014
- SAIZ, S. (2013). “España pone un velo legal a la inversión de la banca islámica” publicado el 26 de septiembre de 2013 en el diario *Expansión*. Disponible en
<http://www.expansion.com/2013/09/20/juridico/1379696815.html> Consultado el 27 de febrero de 2014.
- SÁNCHEZ GONZÁLEZ, P., (2006). La banca islámica: situación actual y retos, en *Revista de la SEECI*, nº 13. Disponible en:
<http://www.seeci.net/revista/hemeroteca/Numeros/Numero%2013/PilarSan.pdf> Consultado el 17 de febrero de 2014.
- SANCHEZ GONZALEZ, Pilar y PADILLA CASTILLO, Graciela (2013): “La importancia del tratamiento de la religión en medios de comunicación. El caso del islam en España”, en *Estudios sobre el Mensaje Publicitario*. Nº 19. Disponible en:
<http://revistas.ucm.es/index.php/ESMP/article/viewFile/42052/40033> Consultado el 15 de febrero de 2014.
- TERDEYET, Zoubeir Ben (2008). Sistema financiero islámico en países no musulmanes, en *Afkar ideas: Revista trimestral para el diálogo entre el Magreb, España y Europa*, (20), 19. Disponible en <http://www.afkar-ideas.com/wp-content/uploads/files/3-20-19.pdf> Consultado el 20 de febrero de 2014.
- UNIÓN DE COMUNIDADES ISLÁMICAS DE ESPAÑA (2013): Estudio demográfico de la población musulmana 2012. Observatorio Andalús. Febrero. Disponible en: <http://ucide.org/es/content/estudio-demogr%C3%A1fico-de-la-poblaci%C3%B3n-musulmana-2012> Consultado el 2 de marzo de 2014.

VI. PUBLIC OPINION POLLS AND VOTING: WHAT DETERMINES THE SOCIAL PERCEPTION OF BORING?

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Focusing on the social perception of the polls, several studies have raised what is really the utility and / or the ultimate validity of the polls and, therefore, what is the true opinion that people have of them

As a pioneer in the study of social perception surveys should target Sjoberg author who with his article "A questionnaire on Questionnaires" (A questionnaire survey) responded to questions about attitudes and past actions of public opinion around the surveys (Sjoberg, 1955). Since then and over the years, several aspects of these data have attracted the interest of various researchers in relation to our subject matter. In this sense, then what is exposed is a synthesis of existing studies on social perception surveys. First, it should be noted that this section begins by detailing the research conducted in the United States because the literature review found that there is a strong current study on this issue and that is in this country have developed research more powerful in this area.

1. Surveys in the United States

Situated within the context of social perception surveys, some authors have shown a particular interest in the so-called "pseudo-surveyors" (Biel, 1967) have raised concerns from commercial tactic some companies that are close to homes posing as pollsters when in reality are nothing more than salespeople or commercial aimed at attracting potential new customers (Arnold, 1964; Baxte, 1964, Biel, 1967, Allen and Colfax, 1968; Rugg, 1972). Other authors have reported in different studies some of the irregular practices around the world in the survey as using the phone book as a database, lack of professionalism and training of interviewers and the use of fake pollsters are actually sellers (Arnold, 1964) and the need for legislation limiting such abuses (Allen and Colfax, 1968).

But not only the fallacies that can surround this technique have been analyzed for sociologists and experts in public opinion research. The contact form is used when a survey is also an aspect widely studied. The reasons were recorded in surveys to provide a negative to its completion and to what extent it was possible a change of attitude on the part of the respondent which were depending on their demographic characteristics (age, sex, race, income level ...) (DeMaio, 1980).

In conclusion, Schwartz got a lot of data from different studies to address these issues and try to summarize the main attitudes that exist in the respondents to the surveys and / or the interviewer and the factors that actually influence nonresponse (Schwartz, 1964).

Probably the most comprehensive study related surveys survey is a study of the Census Bureau of the United States (US Census Bureau) for a report from the National Research Council (National Research Council) held in 1979 This was partly reflected in Article "Surveys on surveys: limitations and potentialities" in 1986 in the journal Public Opinion Quarterly (50) where an assessment of the possibilities and potential limitations of these data is done. So, the associate John Goyder Department of Sociology, University of Waterloo, Ontario, Canada Professor used data from two of these "surveys surveys" to assess attitudes of public opinion against the polls.

Interested to know the reasons for rejecting or accepting interviews; attitudes or opinions on past surveys, contact preferences, the questionnaire format and theme. Were also asked about the perceived social pressure in responding to surveys, the point of view of the social legitimacy of the polls and legislative control over the surveys. The surveys also collected stories answer. After analyzing attitudes by a factorial analysis of twelve items, it was felt that the attitude of the people in front of the surveys is directly related to exposure to the same; well, the more times a person has participated in a survey, worst is your opinion towards this method. However, the author notes that the evidence presented did not really let anybody know negative surveys surveys because, as indicated in the design of their research, the epistemological limitations of the survey is quite evident since a survey should be used to obtain information on different aspects of the climate of opinion and using an instrument to measure their own performance is immediately contradictory (Goyder, 1986).

A decade later, researchers Frank Newport, Lydia Saad and David Moore published an article entitled "How are polls conducted?" In the annual book Where

America Stands, 1997 In this text, the authors relied on data from a Gallup study that the United States had carried out and the main objective was to know the opinion of people about opinion polls. The results collected a majority distrust of scientific surveys and a high degree of skepticism when it comes to talk about the possibility of knowing the American public from a fairly small sample of people interviewed.

2. The perception of social surveys in Europe

Pierre Bourdieu argued that assume that polls accurately reflect the real public opinion means accepting seemingly simple three postulates: that every opinion poll assumes that everyone can have an opinion; it is supposed that all opinions have equal weight and assume that pose the same question to everyone implies that there is a consensus on issues, among other words, there is an agreement on the questions worth asking (Bourdieu, 1984: 220-250).

Elisabeth Noelle-Neumann understood that opinion polls can generate a certain feeling of distrust and / or rejection because these respondents limit individual liberty of the respondent. The fact of knowing statistical textbooks and objectively, without regard to its idiosyncrasies can generate some distaste in the individual. (Noelle-Neumann, 1970)

In October 2004, the University of Leuven, Belgium, did study to assess the reliability and validity of the surveys. We randomly selected 960 people between 18 and 80 years. And, regarding the content of the survey, five aspects or dimensions that were considered as the most appropriate measure to review the surveys were used: Value Survey, the value of the survey; Cost Survey, the cost of the surveys; Enjoyment Survey, taste or entertainment that involves conducting a survey; Survey Reliability, reliability surveys and Survey Privacy, privacy in the polls. The questionnaire was constructed from these five measurable dimensions and corresponding items.

Three years later, after some more study, and Storms Loosveldt published an article entitled "Measuring Public Opinions acerca Surveys" (Measuring public opinion polls) in The International Journal of Public Opinion Research (vol.20) in which central issue was addressed as the possibility and usefulness of measuring public opinion on surveys. The authors stated that it was possible to create a reliable measurement scale to collect the five major aspects that defined the

attitudes of people versus surveys: value, cost of conducting business or pleasure, reliability and privacy.

Also pointed to except the concept based on the reliability of the survey, opinions on these were related to the intention to participate in future surveys and the question of whether or not to complete the questionnaire. So, people who do not respond to the surveys have a worse opinion of value, cost, or taste the pleasure of conducting, reliability and privacy of the polls. Similarly, these results also supported the idea that the opinion polls could have an indirect effect on participation, so it appeared that people who have a better opinion surveys is less reticent to participate therein. (Loosveldt and Storms, 2008).

3. What do we believe Spanish surveys?

In Spain we have an investigation of this kind in 1976 by the Institute of Public Opinion. Entitled "The survey polls" and Maria M. García Ferrando. E. García Llamas, published in the Spanish Journal of Public Opinion a note of the results (García García Ferrando and Llamas, 1976).

This study consisted of a survey whose main purpose was to gather information on the acceptance of polls and surveys, topics on which people preferred to be interviewed, they aroused trust between the population and the usefulness and influence of citizens believed that had this technique. 76% of respondents had heard of the polls and that 35% had been interviewed previously. In addition, nearly half of respondents to the interview (44%) believed that more needed to be made surveys.

On the other hand and talking about trust and the representativeness of the survey, 47% of the surveyed population was divided between the options "absolutely confident" and "confident enough"; while 36% chose "little trust" or "do not trust anything." To them declaring no confidence in the surveys were asked about the reasons for the distrust and the main reasons given were linked to the manipulation of the results, the insincerity of people to answer and lack of representativeness of the sample.

Regarding the usefulness of the surveys, 66% of respondents responded positively adhering to responses like: used to know the opinion of the majority (32%); serve as an information item (20%) or serve to fix things (14%). Only 10% thought that the surveys did not have any use.

By working this same item, trust, also wondered about for whom surveys were useful. In this regard, 23% felt that the surveys were useful for the government and for the people; 17% said they were useful only for the government and another 17% believed that the surveys were useful only for the people. 10% of respondents expressed that the surveys had no use to anyone.

Finally, the study aimed to know the opinion of the respondents about the influence they can have opinion polls. Here 20% stated that the polls could influence the decisions taken by the Government; 18% said that they could influence both the decisions taken by the government and changing public opinion and 29% thought that the surveys did not influence anyone and anything.

As the years went by you could see a decline in the credibility of the polls by the population. Still, the majority relied on data. Therefore, in 1980 the Center for Sociological Research conducted a similar study mentioned 1976, not only in order to obtain the views of Spanish citizens about surveys, but compared with the 1976 study, these surveys it was also noted that the main reasons for mistrust again based on the belief that people are not telling the truth when he is interviewed and only those results that interest or agree are published.

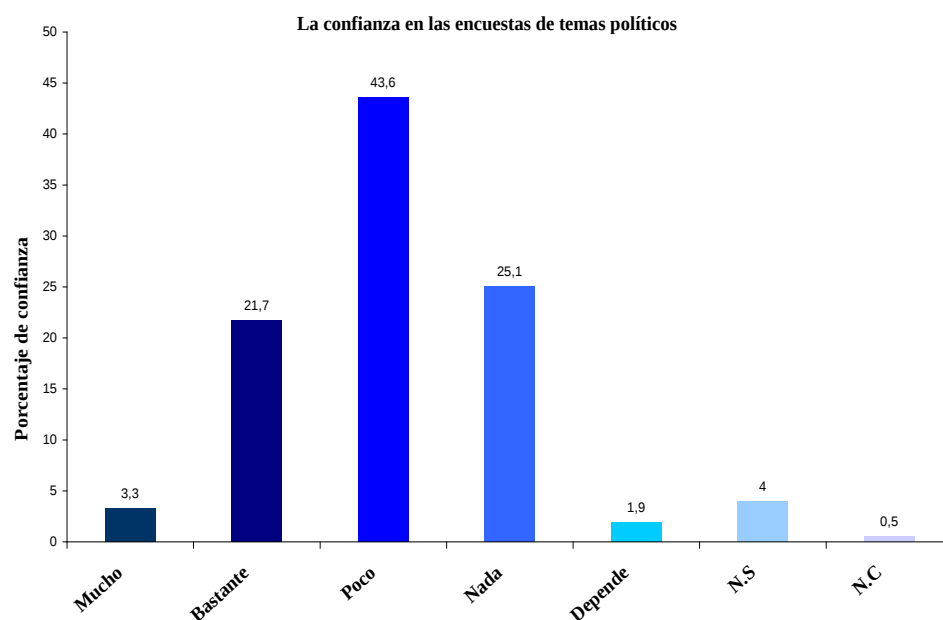
Recently, the Center for Social Research has conducted a study on the perception that they deserve the Spanish polls entitled "Social perception surveys". These surveys were conducted in February 2007, and are available on the website of the CIS, offering a renewed vision of the current opinion that the Spanish have on the polls⁶. A total of 58 questions (numbered to 40) designed to study the knowledge or lack of knowledge people had about the polls, whether or not they had been previously interviewed, whether they liked it or not, the issues on which they preferred to answer the issues that made them feel uncomfortable answering, confidence surveys that deserved to be treated depending on the topic, the reasons for such trust or distrust ... and a host of other details in order to provide an overview of the opinion that the survey technique deserves the Spaniards.

⁶ They used a sample of 1,500 people (only personal interviews) about their views on the polls in general.

This part of the research presented in this article is based on the exploitation of data do shed some light on the issue that concerns us here. We have focused on three variables which may be useful in the further development of this research: the level of confidence that the Spanish have in surveys political issue; the pleasure to be interviewed about politics and; the unease among Spanish being asked for their vote.

So, what is presented here are graphics that will serve to meet the social perception of electoral surveys but surveys in general.

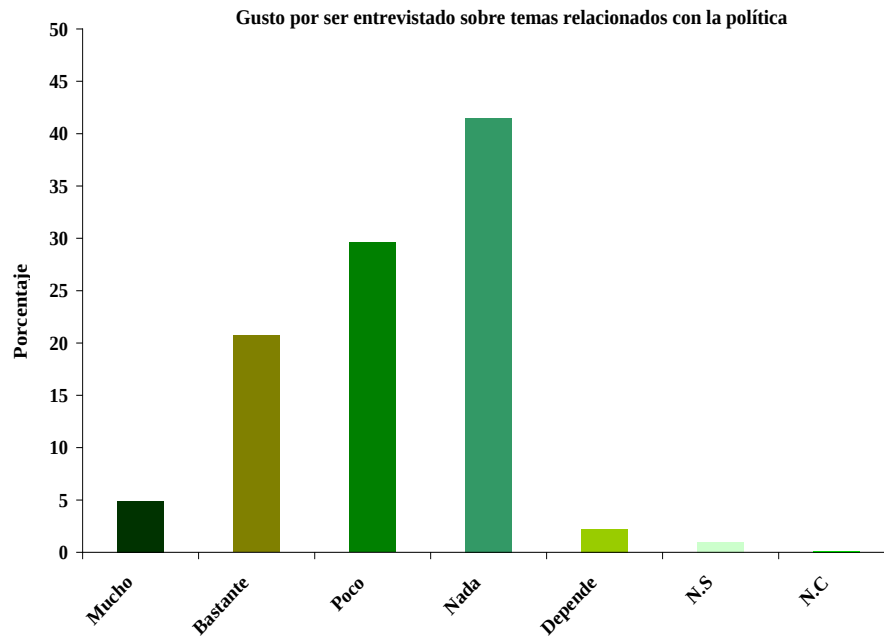
Figure 1



*Source: "The perception of social surveys." CIS Data
Prepared*

As we can see, the confidence that the Spanish deposited on the results of political polls is quite small. 68, 7% of respondents state that they rely on this type of survey (resulting sum of the categories "little" (43.6%) and "nothing" (25.1%)) compared to 22% who say yes do (sum resulting from the categories "much" (3.3%) and "very" (21.7%)). Only 1.9% of respondents favored a more ambiguous response (dependent) while 4% do not know and the remaining 0.5% preferred not to answer.

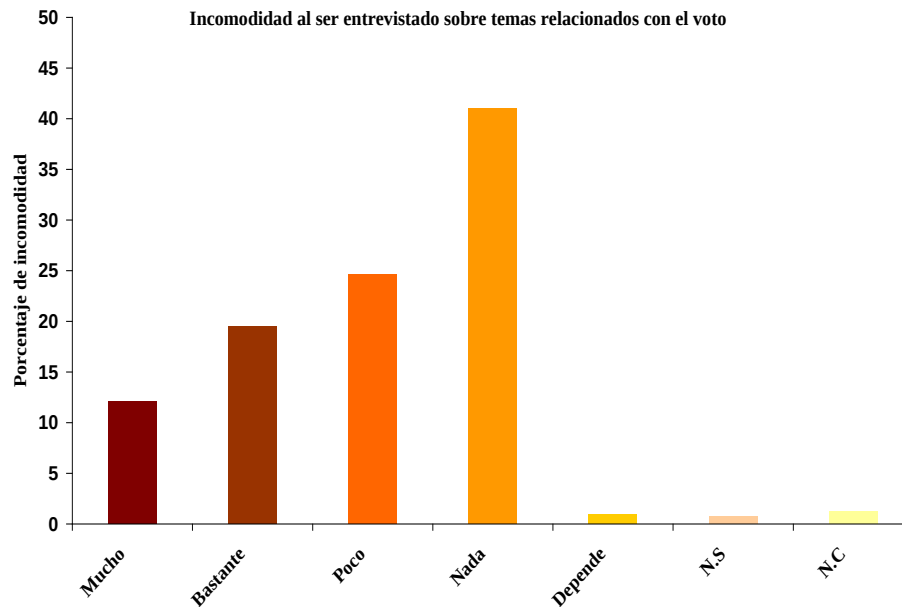
Figure 2



Source: "The perception of social surveys." CIS Data Authors.

Using this graph we see that few Spaniards declare that they like to be interviewed on policy issues. Only 25.6% of respondents answered positively (4.9% like it says "a lot" and 20, 7% "fairly"). While 71.1% of respondents say they do not like to be interviewed on this topic (sum of the results of the categories "little" (29.6%) and "nothing" (41.5%)).

Figure 3



Source: "The perception of social surveys." CIS Data Authors.

In the latter table we see that, despite not liking to be interviewed on political issues, more than half of respondents declared to have no problem answering questions concerning their vote. In fact, 65.6% of the sample responded that it is "nothing" (41%) or "somewhat" (24.6%) uncomfortable answering this question. They are both 31, 6% of those who do feel uncomfortable with this issue (the result of the sum of the categories "very" (19.5%) and "long" (12.1%)). Only 0.9% said "it depends", 0.7% did not know what to answer and 1.2% of the respondents preferred not to answer.

Finally, Professor Alejandro Almazan in his doctoral thesis on the measurement of public opinion and its effect argues that the fact that the surveys were incorporated into the social and political life, makes our perception of them will change and if, also published in the media and generate skepticism and distrust "has important effects on political perception. (...) "(Almazan, 2009: 266-270).

4. What really influences social perception surveys? Discussion and conclusions.

As we have seen and according to the data provided by the study of the CIS, we can see that the perception the public has of the election polls is not particularly good. 90% of respondents aware of any surveys and 70% is little or no surveys political. We could say, well, they do not trust them, they do not believe they represent the majority of the population who would not like that they entrevistase on political issues and doubts about the degree of sincerity of people when interviewed about politics.

However, besides these purely descriptive data, we can dig a little deeper and look at the degree of confidence that the surveys arise between the Spanish population. It is also important to consider other factors such as the level of representation that gives people the polls, the sincerity of the respondent, the degree of profit that the sample declares that in this technique ... So, then, in accordance with the evidence obtained as a result of work with data of this questionnaire, we can make the following deductions and / or results in relation to the public image of the electoral polls.

1. Initially, we note that the interest the public has by election surveys or political polling is quite relative since almost 70% of respondents (69.9% to be exact) states that the frequency with following this type of study is little or none. And besides, more than 71.1% of the sample said that he would not like entrevistasen on policy issues. Something contradictory, 65.6% of respondents say they feel uncomfortable when they are asked to vote for their choice.

2. We can point, too, that a priori confidence that people have in the polls is generally quite low. 43.2% of the sample said little trust in surveys in general. In this vein, those who said little or no confidence in the polls insist that the main reasons why they do not reside in the fact that they only consider that the results agree (40.1%) or believe that people are not telling the truth when you are in this type of study. However, if we talk about political polls distrust is even greater. Almost 69% of respondents state that they rely little or no trust in such surveys.

3. On the other hand, we see that being male or female does not influence the degree of confidence we have on the polls but it does age, being older than 65 years the most confident and young people (aged 18 and 30) the least likely.

4. Another factor that can influence the level of trust that is given to surveys is the level of education as people who have not been to school a more positive attitude towards respondents who have actually gone to school who are more skeptical when it comes to trust the results of the polls.

5. Far from what might seem obvious, confidence in the polls does not improve for having heard of them, and even the fact of having participated in a study also helps to have a better opinion as these facts are not nearly related in fact rely heavily, pretty, little or nothing in the polls.

6. When talking about representativeness of surveys, we found that only 18.5% of the sample believed that surveys really represent the entire Spanish population against 65.5% who think they represent only some sectors (50.7%) or not represented at all (14.8%). Again no, the fact of having been previously interviewed facilitates the respondent think positively about the representativeness of the polls.

7. When it comes to honesty, we could say that more than half of respondents (57.8%) believe that, in part, the people are sincere when you are in a studio, but it is noteworthy that only 6.5 % respondents believe sincerely respond to political issues.

8. Finally, with regard to the usefulness of the surveys, we note that on a scale of 0 to 10 (where the values 0-1 = not helpful and 9-10 = very useful) only 32.7% are located above 7. Moreover, once again, having been previously interviewed no positive effect on the opinion on the level of utility that is conferred to the polls.

As elaborated above, the social perception of public opinion polling is not particularly good in Spain. In general, we can note that the surveys suspended as to inspire confidence, representativeness and usefulness that the public gives them.

Having analyzed in the previous section the different side of which we have data, it seems necessary to ask how to improve the public image of election polls and what are the causes and why not, possible solutions to this negative social perception electoral polls.

5. Bibliography

Paper or electronic books, reports and theses:

- ALMAZÁN, Alejandro. (2009): La medida de la opinión pública y sus efectos: el caso español. Tesis Doctoral, Madrid, UNED.
- NEWPORT, Frank. SAAD, Lydia & MOORE, David. (1997): "How are polls conducted?" en GOLAY MICHAEL: Where America Stands, 1997. USA, John Wiley & Sons Inc.

Chapters in books, reports and articles in newspapers or magazines on paper:

- ALLEN, Irving., & COLFAX, David. (1968): "Respondent's attitudes toward legitimate surveys in four cities", Journal of Marketing Research (5), 431-33.
- ÁLVAREZ, Rosario., & FONT, Joan. (2007): "Las encuestas a encuestas", Boletín CIS (3), Estudio 2676.
- ARNOLD, Rome. (1964): "The interview in jeopardy: a problem in public relations", Public Opinion Quarterly (28), 119-23.
- Baxter, Richard. (1964): "An inquiry into the misuse of the survey technique by sales solicitors", Public Opinion Quarterly (28), 124-34.
- BIEL, Alexander. (1967): "Abuses of survey research techniques: the phony interview", Public Opinion Quarterly (31), 298.
- BOURDIEU, Pierre. (1984): Questions de sociologie. París, Minuit.
- DEMAIO, Theresa. J. (1980): "Refusals: who, where, and why?", Public Opinion Quarterly 44: 223-33.
- GARCÍA FERRANDO, Manuel. y GARCÍA LLAMAS, Etelvina. (1976): "Las Encuestas a Encuesta" Revista Española de Opinión Pública. Nº 45
- GOYDER, John. (1986): "Surveys on Surveys: Limitations and Potentialities", Public Opinion Quarterly 50:27-41
- NOELLE-NEUMANN, ELISABETH. (1970): "Wanted: rules for wording structures questionnaires", Public Opinion Quarterly 34:191-201.
- LOOSVELDT, Geert. Y STORMS, Vicky. (2008): "Measuring Public Opinions about Surveys", International Journal of Public Opinion Research, Vol.20, Nº 1.
- RUGG, W. Donald. (1972): "Interviewer opinion on the "salesman as interviewer" problem", Public Opinion Quarterly (35), 625-26.
- SCHWARTZ, Alvin. (1964): "Interviewing and the public", Public Opinion Quarterly 28:135-42.

- SJOBERG, Gideon. (1955):” A questionnaire on questionnaires”, Public Opinion Quarterly (18), 423-427.

VII. ANALYSIS OF WORKERS IN SPAIN. STUDY BY REGION

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Josefa García Mestanza (Universidad de Malaga -Spain-)

1. Introduction

In Spain, and much of the world, there is growing concern about accidents at work and labor issues. It is considered that workplace accidents is a major injury to the person, for the sector and for society in general.

Such consideration is that, today, numerous studies have been performed, whose purpose is simply to understand the causes of the accident and what mechanisms are needed to achieve prevention.

For example, the high rate of accidents that occurred in our country a little over a decade led to the development and submission of the report referred to Duran (2001), coordinated by the President of the Economic and Social Council of Spain.

This report sheds some very important information about the topic under study and specifically identified the following variables that affect the increase in accidents in the workplace:

- The segmentation of the labor market and employment.
- The specific concentration of occupational hazard that occurs in certain sectors or in some branches of economic activity.
- Segmentation of the business sector in our country.

Furthermore, it is considered that the accident involves two important terms. On the one hand, work accidents, and other diseases professionals. Although both

issues adversely affect the quality of working life of the professional and also have a negative impact on society, as noted at the top of this page.

It is therefore necessary to conduct further studies to understanding, in all its dimensionality why accidents occur and what are the ways to prevent or actions are.

To this end, the aim of this work is simply to make a comparative Autonomous Communities in Spain in the incidence rate and accidents, considering the type of minor, serious and fatal, and assess its evolution over the previous period.

2. Statement of the empirical study

The Fieldwork presented in this research is descriptive in nature, used quantitative data on industrial accidents in the different Spanish Autonomous Communities and by referencing then the previous period.

Study data are drawn from the statistics published by the National Institute for Safety and Health at Work (Table 1).

AUTONOMOUS	NAT LIGHT			ISERIOUS IMPACTS	MINOR IMPACT	AT GRAVES	NAT TOTAL	ITOTAL IMPACT	Variation % over previous period	OBLATION AFFILIATEA
ANDALUCIA	63.7 32	2.779	743	32.4	59	2.6	64.5 34	2.814	3.5%	2.293. 549
ARAGON	10.6 61	2.601	69	16.8	17	4.1	10.7 47	2.622	1.2%	409.86 1
Asturias	9.80 0	3.436	79	27.7	21	7.4	9.90 0	3.471	-1.6%	285.23 5
Balearic	13.0 48	3.962	75	22.8	4	1.2	13.1 27	3.986	2.9%	329.32 1

CON. CANARY	19.0 25	3.317	107	18.7	24	4.2	19.1 56	3.340	-0.5%	573.61 8
Cantabria	4.15 0	2.555	43	26.5	4	2.5	4.19 7	2.584	-1.5%	162.39 7
CASTILLA LA MANCHA	16.6 81	3.374	112	22.7	25	5.1	16.8 18	3.402	1.1%	494.38 7
CASTILLA LEON	18.2 21	2.691	191	28.2	41	6.1	18.4 53	2.726	-1.3%	677.00 8
CATALAN	65.0 96	2.671	489	20.1	44	1.8	65.6 29	2.693	-3.3%	2.437. 130
COM. VALENCIA	33.7 31	2.625	276	21.5	29	2.3	34.0 36	2.649	2.9%	1.284. 823
Extremadura	7.67 5	2.573	128	42.9	13	4.4	7.81 6	2.621	2.2%	298.24 7
GALICIA	20.9 83	2.778	394	52.2	45	6.0	21.4 22	2.836	-4.1%	755.45 5
COM. MADRID	59.7 57	2.507	220	9.2	55	2.3	60.0 32	2.518	-2.8%	2.383. 746
MURCIA	11.48 0	2.810	53	13,0	18	4.4	11.5 51	2.828	3.9%	408.51 9
NAVARRRE	5.89 0	2.790	59	27,9	9	4.3	5.95 8	2.822	1.0%	211.11 2
BASQUE COUNTRY	22.2 13	3.098	119	16,6	22	3.1	22.3 54	3.118	-2.6%	717.01 1
LA Rioja	2.70 4	2.908	27	29,0	3	3.2	2.73 4	2.940	0.8%	92.980
CEUTA	495	2.837	2	11,5		0.0	497	2.849	-3.8%	17.447

MELILLA	461	2.751	4	23.9		0.0	465	2.774	-5.7%	16.761
Total	385. 803	2.786	3.190	23.0	433	3.1	389. 426	2.812	-0.4%	13.848 .606

Table 1 TABLE OF INCIDENCE AND WORKERS WITH LOW WORKING DAY AND DISTRIBUTION BY AUTONOMOUS REGION. Period: December 2012 - November 2013 compared to December 2011 - November 2012.

Source: National Institute for Safety and Health at Work. Ministry of Employment and Social Security. Government of Spain, 2014.

Mean Population Affiliated to Social Security has been taken to the contingency covered work accident and incident rate that is taken is obtained by dividing the number of accidents by people affiliated multiplied by 100,000.

In addition, accidents are recorded in the province of the labor authority who receives the part of accident need not necessarily coincide with the province in which it occurred.

The period analyzed is relatively recent, spanning from December 2012 to November 2013 compared to December 2011-November 2012.

1. Results

In the first graph the percentages of minor accidents are represented by Autonomous Community. If the figures in the first table are taken shows that Catalonia and Andalusia are the regions with the highest number of Ceuta and Melilla mild while those who have less accidents. However, these figures must be taken with some caution, because although it is true that are presented, respectively, higher and lower number of minor accidents in absolute values should be calculated their relative values for your actual weight.

Considering the rates of minor accidents, this time, still standing at the head, Catalonia and Andalusia as Communities with percentages of 17%, while Ceuta and Melilla are possess a lower value, in fact zero since it is a very small number compared to the number of members of Social Security.

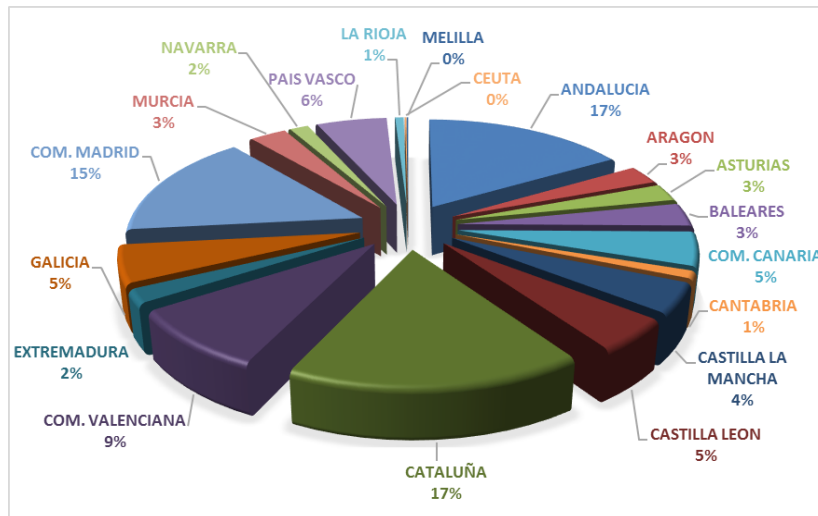


Figure 1: Percentage of Working MINOR Accidents by region.
Source: Prepared by the data in Table 1.

In this second graph the percentages of minor incidents for Communities, unlike what happens in the previous case, the data varies slightly, being the regions of Catalonia and Andalusia, as the mean incidence rate is among the values are collected media with 5%, while stresses negatively Balearic 7%.

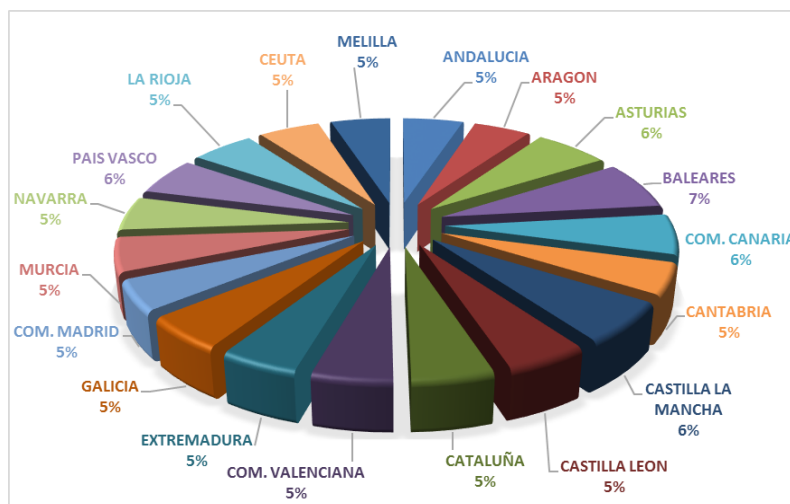


Figure 2 Percentage of Incidents LEVES by region.
Source: Prepared by the data in Table 1.

As for the number of serious accidents in the table is the absolute values Andalusia Community largest numbers, followed by Catalonia, but as we noted earlier this overall number is meaningless but relate it to the affiliated population. Unfortunately, on this occasion, also the highest percentages correspond to these two communities, well above the average.

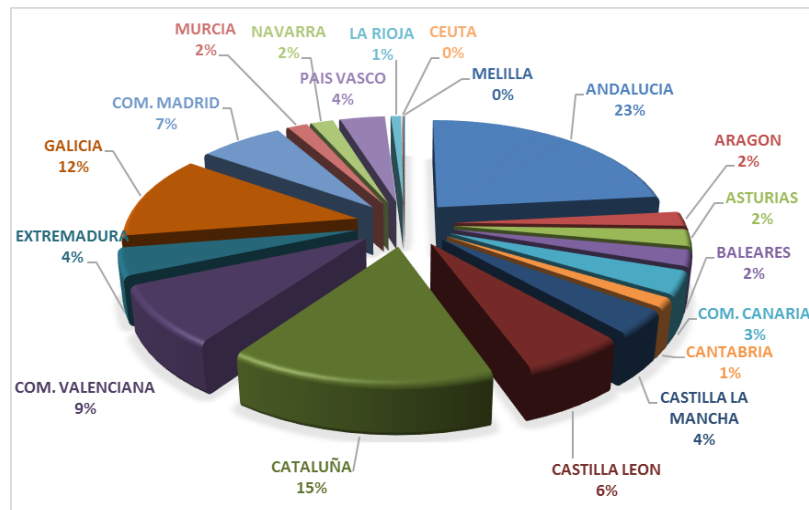


Figure 3: *Percentage of serious occupational accidents by region.*
Source: *Prepared by the data in Table 1.*

Now that we calculated the rate of serious incidents, is observed as Galicia is the community with the highest level and the case of Andalusia (which in the above graph it was the one with most number of serious accidents) is a little above average but away from the values of Galicia and Extremadura.

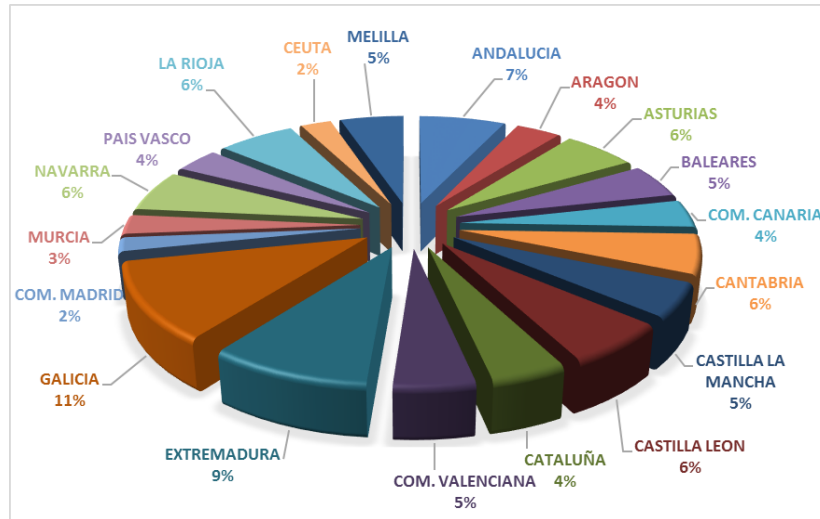


Figure 4: Percentage of *SERIOUS Trouble* by region.

Source: Prepared by the data in Table 1.

The graph of fatalities we can highlight Ceuta and Melilla presents no accident of this type, therefore, no longer is reflected in this chart.

As in the previous case, the rates of fatal incidents in Ceuta and Melilla are not shown in the figure by not calling either in absolute values. Instead, Asturias, Castilla León and Galicia are the three communities with the highest rate of fatal incidents.

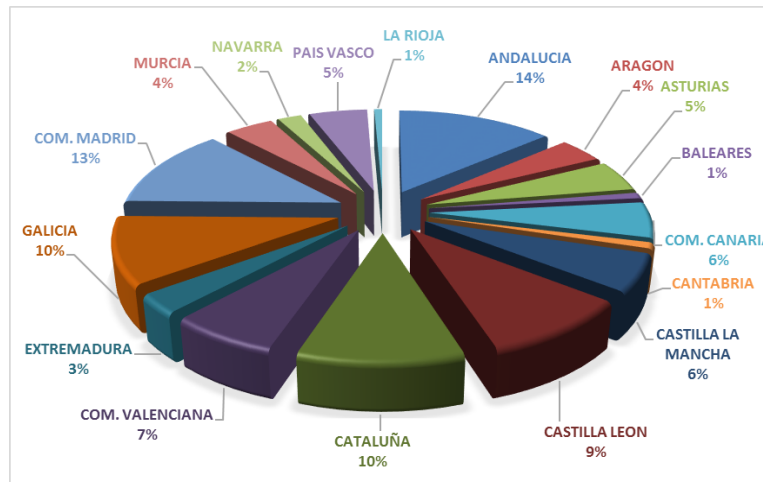


Figure 5: Percentage of occupational fatalities by region.

Source: Prepared by the data in Table 1.

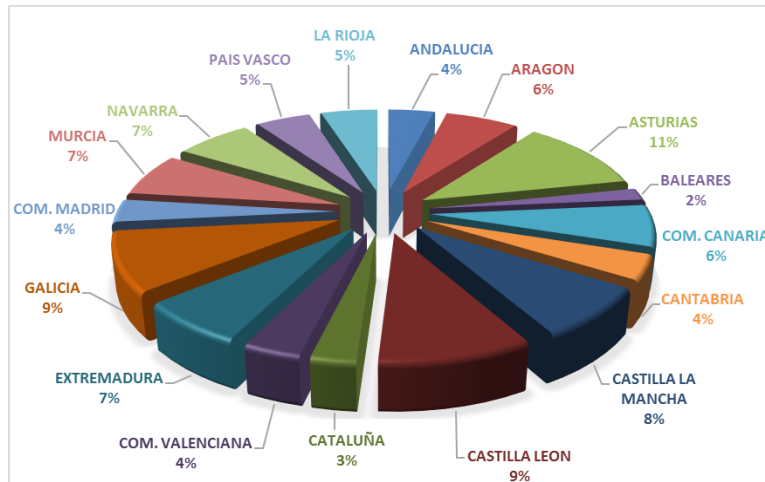


Figure 6: Percentage of MORTAL Trouble by region.

Source: Prepared by the data in Table 1

On aggregate of accidents (minor, serious and fatal), Catalonia and Andalusia are the communities with the highest percentage number seventeen of Ceuta and Melilla.

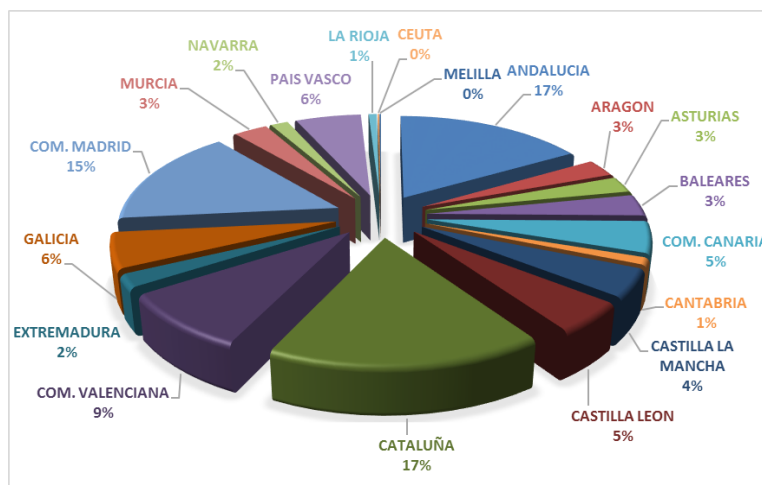


Figure 7: Percentage of Total Accidents by region.

Source: Prepared by the data in Table 1.

As for the values of the total incidence rate, virtually all communities are about 5%, except Basque Country, Asturias, Com. Canaria and Castilla la Mancha with 6% and 7% Balears.

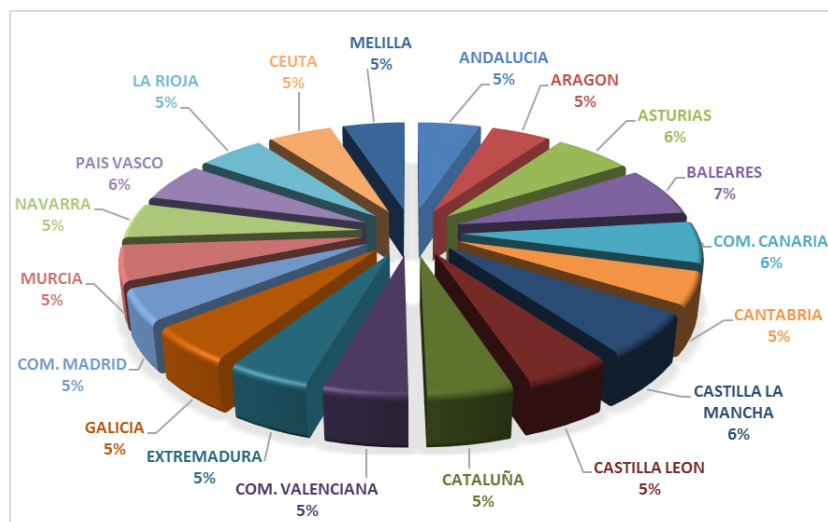


Figure 8: Percentage of Total Incidents by region.

Source: Prepared by the data in Table 1.

So far we have not mentioned, but it is quite evident from Table 1 as the highest number of incidents represent minor accidents, indeed, plotting the values of the three types of accidents for different communities is seen as a major carry weight as mild.

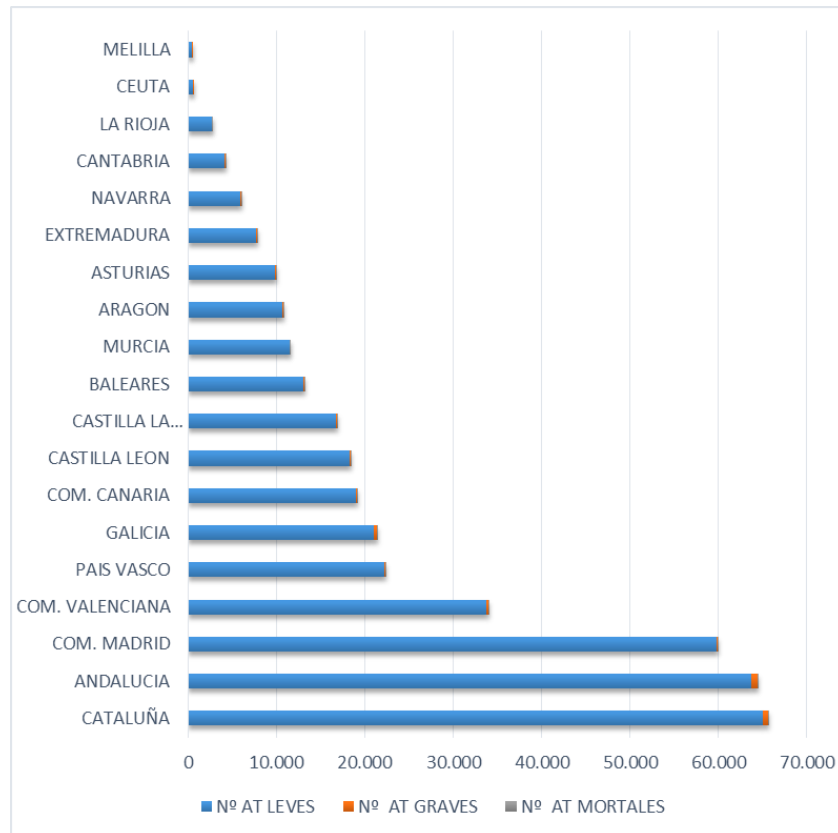


Figure 9: Number of accidents, minor, serious and fatal, by region.
Source: Prepared by the data in Table 1.

Finally, it is also important to see the variation of these values with respect to the previous period, therefore we have ordered in Figure 10, the Autonomous Communities to represent percentage as accidents have changed (increased or decreased) in each. Being Melilla and Galicia Communities with greater decline on the other end and Murcia and Andalusia as Communities where more has increased by almost four percent.

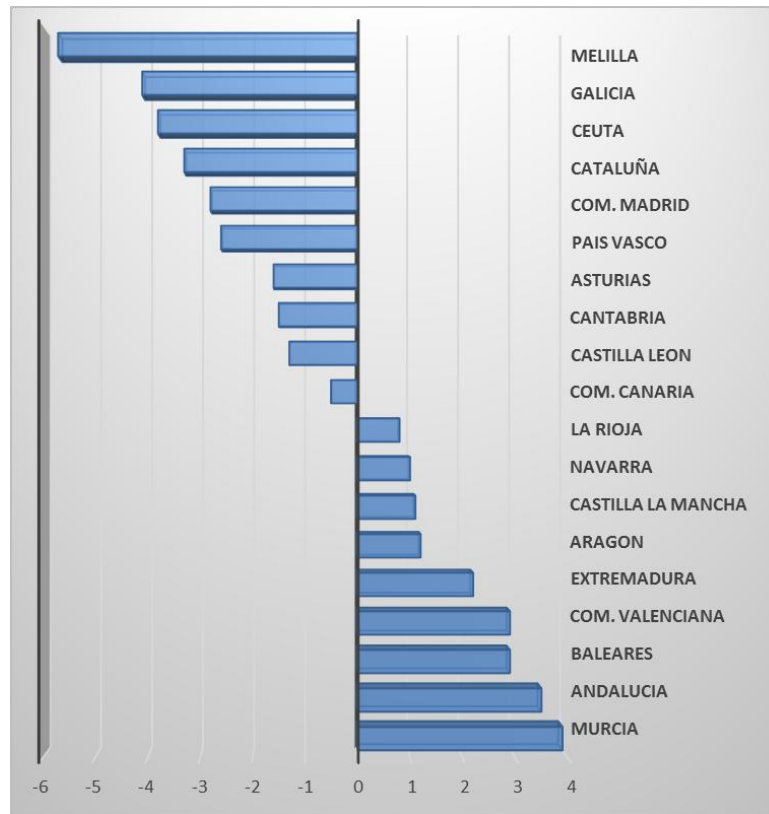


Figure 10: Percentage change over the previous period.
Source: Prepared by the data in Table 1.

2. Discussion

Regarding the number of minor accidents per Region, Catalonia and Andalusia are the regions with the highest number of accidents and Ceuta and Melilla, which have fewer accidents. But these numbers have to be taken with some caution, because although it is true that there are those with highest and lowest number of accidents, respectively, should be related to the number of population affiliated, to provide a more consistent value that allow for more appropriate comparisons .

As for the number of serious accidents, Andalucía is the region with highest number of accidents, followed by Catalonia, but again this overall number is meaningless but relate it to the affiliated population.

As for the values of the total incidence rate, virtually all communities are about 5%, except Basque Country, Asturias, Com. Canaria and Castilla la Mancha with 6% and 7% Baleares

Finally, it is also important to see the variation of these values with respect to the previous period, therefore we have ordered in the Figure 9, the Autonomous Communities to represent percentage as accidents have decreased (or increased) in each. Being Melilla and Galicia Communities with higher and at the other end Murcia and Andalusia as Communities where more have increased descent.

3. Conclusions

Today there is a growing concern in Spain about workplace accidents and workplace accidents. It is considered one of the most important problems and numerous studies that aim to understand the causes of the accident and what mechanisms are needed to ensure its prevention have been made.

In this paper to analyze the incidence rate and accidents with low working hours by regions, according to their different minor, serious and fatal types it can be concluded that minor accidents are the most frequent. With regard to the number and percentage, autonomous region, Catalonia and Andalusia are those that account for more losses while Ceuta and Melilla the least. But while the differences in incidence is 5% in accidents rises to 17%.

As for the number of serious accidents, Andalucía is the region with highest number of accidents, followed by Catalonia, but the overall number is meaningless but relate it to the affiliated population.

As for the values of the total incidence rate, virtually all communities are about 5%, except Basque Country, Asturias, Com. Canaria and Castilla la Mancha with 6% and 7% Baleares.

4. Bibliography

- AMABLE, M. y BENACH, J. (2000): La precariedad laboral ¿un nuevo problema de salud pública? *Gaceta Sanitaria*, 14 (6), págs. 418-421.
- BENAVIDES, F.G., BENACH, J. y ROMÁN, C. (1999): Tipos de empleo y salud: análisis de la Segunda Encuesta Europea de Condiciones de Trabajo. *Gaceta Sanitaria*, 13, págs. 425-430.

- DURÁN, F. (2001): Informe sobre riesgos laborales y su prevención. Presidencia del Gobierno. Madrid. EUROPEAN COMMISSION
- PITA, C. y DOMÍNGUEZ, B. (1998): Los accidentes laborales en España: la importancia de la temporalidad. *Documentación Laboral*, nº 55, págs. 37-59.

VIII. PRESENCE OF SMES BIOTECHNOLOGY AND TECHNOLOGY PARKS IN LOCAL MEDIA ANDALUCES

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Says Capriotti (1999) that there are three primary sources involved in the formation of corporate image creating a public company: The organization itself, the media and external parties such as associations, movements of opinion, etc. Furthermore, any action that runs the company transmits values or attributes and between intentional actions to achieve wider dissemination of its activities related to the media you enroll.

Thus, the media are, at once, a source through which each public agency builds its image and receiver group actions by the organization. Its importance, therefore, is not less, even if the weight of traditional media as a source of information has waned in favor of open channels through Internet (Victoria Mas & García Hernández, 2013).

This framework is no different in the case of any biotech company. In fact, the progressive increase in the interest of the Spanish society issues related to science in general (BBVA Foundation, 2012; Fecyt, 2012) and biotechnology in particular (European Commission, 2010) has been covered in part by media, including written, which have substantially increased the coverage given to these issues. Remains to be seen if the local media have entered into this dynamic, especially if used as a conduit to the biotech companies have closer. If they are grouped in specific venues, such as technology parks, it seems, a priori, that accessibility is guaranteed. A new path to scientific sources, which should no longer be limited to university or public research centers, which have been the traditional is so open.

We know that science communication researcher conceived as the final part of the research process to the point of considering "as an ethical duty of the researcher in this commitment to share the advances in knowledge with the rest of the scientific community" (Maqueda, Gamo, & Veiga-Cabo Cortés, 2013 p. 160). A conception of communication with peers that seems completely assumed. Different

question arises whether the process does not end there, but when the results of an investigation are shared "also with those who can benefit from it, use it and have an interest in it" (Fathalla, 2004, p. 122).

The distrust between journalists and scientists, in the case of many biotech SMEs also tend to be entrepreneurs, only further away those two worlds. But they are required to bridge the gap, as outlined in the editorial of the journal *Nature Methods* (2006 Page 3.)

"Researchers may be tempted to avoid all contact with the press, for fear of being misunderstood or misquoted. But considering the importance of the media to provide information to an influential audience, opting out of such communication does a disservice to all. A poorly trained about the progress and challenges of research groups can not be interested in supporting policies, such as education and science funding, or worse, may fall into the propaganda of ideological groups or political trying to influence public opinion on flimsy grounds."

1. Presence of biotechnology media

The media interest in biotechnology and companies operating with it has grown exponentially in recent years and stamp away from the informative to delve into their business practices particularities and consequences of specific investigations. In this sense, Vladimir de Semir (2003) show the substantial increase related to biotechnology, in *Financial Times*, newspaper of the economic and financial journalism, as in *The New York Times* news.

In Spain the presence of biotechnology in the media also show substantial increases. The study by Escribano & Quintanilla (2005) that analyzes the news on biotechnology in the newspapers *El Mundo* and *El Pais* and EFE, between 1994 and 2002, recorded in the diaries jumped from 200 articles in 1994 to 600 in 2002. EFE, meanwhile, the news on biotech issues rose from 500 the first year to 1,500 last. These authors detected a significant increase in the sources that originate in companies, more substantial in the case of EFE, which in the newspapers analyzed, showing preference for government informants in the field. They insist the scarcity of information with local origin.

Closer in time are the data compiled by the IBAC 3.5 Zeltia Observatory. In the third report (2013) information of interest based on the analysis of 22 national

print media and different points and 71 digital are provided. And in 2012 they collected a total of 11,595 reports on the biotechnology sector, representing a daily average of 13 information. As in the study by Escribano and Quintanilla, the IBAC 3.5 also referred to the increased presence of private companies acting as a source of information; still, they represent only 16% of all information and media on the total, were the economic newspapers who have given more prominence in their pages to private companies and laboratories.

2. Objectives and methodology

Scarcity of information on biotechnology that provided the local print media, the poor contribution of the sector companies to this information, provide the boost economic news in this area and the primacy of institutional sources pointed above address business . And on that basis we propose our research.

So that to check what is the actual situation in the case of small and medium enterprises will focus on four technology parks Andalusian presence of biotech companies, Technological Park of Health Sciences of Granada (PTS); Technological Park of Andalusia, Malaga (PTA); Tecnológico Cartuja 93 in Seville (PCT Cartuja) Science Park and Technology Rabanales Science Park 21, Cordoba (Rabanales 21). That choice is not accidental because, as biotechnology is a dynamic sector in the region; in fact, according to the 2012 report ASEBIO Andalusia was confirmed for the fourth consecutive year as the region that creates such companies.

As local newspapers have selected the most widespread and readers during 2012 in the provinces of Granada, Malaga, Seville and Cordoba, according to data from the Office for Justification of Dissemination (OJD) and the General Media Study (EGM). Respectively, Ideal, South edition of ABC Sevilla and Cordoba.

To analyze the presence and treatment that newspapers give to the four parks under study and biotech companies are based there we turned to content analysis of texts dedicated to them in the daily paper and online, chosen by considering appropriate if applied to the sense that gives Berelson (1952, p.18) to "a research technique for the objective, systematic and quantitative description of the manifest content of communication"

Among the categories analyzed attend to the appearances of businesses and parks in the newspaper of record in the province, length, genre, actors, addressing topics such information and focus with which face.

Our hypothesis is that biotech firms and the parks that house them are not fully incorporated into its environment so that, even though some of the sites met the majority, their existence parallels to that develops around; the local media, which are closely linked to the closest, and also obviate approaches are purely cyclical.

With this framework, our goal is starting to know what kind of presence have had in the local print media for small and medium enterprises engaged in biotechnology based on their activity and technological parks in which they settle.

To collect the material to be analyzed we have followed as a selection criterion the appearance of the name of the park or its biotech companies in the texts of each of the reference papers (paper and digital) in their respective province during the 2012 year this process we obtained a corpus of texts on which we have worked with him in its entirety. All results, compiled and codified, have moved to tables for easy handling and, finally, we have accumulated a total of 366 reports, almost double when you consider that most of them is present twice in the digital and paper editions of newspapers.

3. Results

3.1. The PTS and its companies in Ideal

A total of 101 references to the Technological Park of Health Sciences of Granada, or any of the companies located there, appeared throughout 2012 in the newspaper Ideal, edition of Granada, most with double replica in paper and digital. Not seem an excessively poor record, an average of two weekly references, except that when analyzing allusions to what the results confront us with an unexpected reality to an operating park since 2003.

3.1.1. Biotech companies

The first block we have isolated and in which we stop is made up of eight of those appearances, in a year, having as one of the companies under study axis, ie biotechnology, 8% of the total, all addressed them with a positive treatment, but one that can be described as neutral. There are, in all cases, to newspaper articles

embodied in the paper and paper only twice replicated in the digital edition. This circumstance is justified by the fact that 75% of locations corresponding to internal supplements Ideal.

On the subject, the texts dominate business elements, present in 75% of cases, as corresponds to the location occupied majority, a specialist in economics and supplement companies. As the scope of dissemination of biotechnology is concerned, is present in half of these texts.

Very unequal the area occupied by texts. Ranged from three (37.5%) that do not exceed the column and lack of graphics, and two (25%) that exceed the entire page.

3.1.2. The Science Technological Park of Health

The next block is constituted by the remaining 93 information mentioned in the PTS, most of them, 78% have double reference, in paper and digital edition, with merely formal differences between them and focused on changes of ownership and extension. The package ten pieces of information (10.7%) in which simply appointing any of the biotech companies settled in the PTS are included, although written to address different issues or business research thereof.

Of particular importance is the issue that address these references, since 69% of them as policy framework and as an element of P appears partisan confrontation. One focus of this "anger" has been in the use of money from grants from the Agency Idea bound to conclude sanitation works. In 43.7% of these political topic revolves around those sewers; sometimes even aggravated by the prosecution of his enlightenment, what accounted for 20.3% of the references. The other focus of this partisan tension in which the PTS has been immersed, and repeatedly appeared as added to the previous topic has been the delays in the recruitment of University Hospital equipment that is located in the Park, 14% of the texts.

Less controversial activities have been introduced, including forums and agreements, in which participated the Technology Park Health Foundation, this chapter corresponds to 10.7% of the information recorded in 2012 by Ideal. It was financial partnerships with lenders Grenadines, institutional visits and participation in events, without much media transcendence.

In the presence of issues related to the economy in newspaper stories about the PTS, appearing in 12.9%. Anything less, 11.8% represent the elements of disclosure, but they almost always appear in confluence with other issues.

We referred above to attempt to turn the park into a weapon for or against party interests, well, on paper, that tension has meant that although most of the information they receive treatment from a neutral editors, the truth is that the taste is certainly leaving negative in 56% of cases.

The graphic elements accompanying texts are only present in 43% of cases, a figure which is not surprising if we remember that almost two thirds of the information referenced occupy less than half a page.

The reference to the manager of the texts analyzed PTS misses 13% of the information, and poorer still is the presence of his statements, only in 5.3% of cases.

3.2. The PTA and the newspaper companies in South

There are three features that stand above the rest when analyzing the information in which are references to the Technological Park of Andalusia in Malaga: the positive approach that is facing; their low attachment to political matters, if anything become of this collaboration bodies with public institutions in the organization of events, and finally, the presence of some significance compared to other parks, its manager, Felipe Romera.

A total of 133 references to the PTA or any of its companies in the printed edition of the newspaper Sur realize that this park has carved a niche in the pages of the newspaper, so that an average peeked in 2012 of just over 2.5 times a week. In the online edition this presence goes up to 148 times, although, although predominantly correspondence between paper and digital editions of the information, in 27% of the texts there is no such correspondence. In total we have 172 information presented in a format to another, or both.

One thing to note from this analysis is that, although the names of any of the companies listed in the park 55 times, nearly a third of the analyzed information (32%), only one of them appears a biotechnology and addition, we have a report in which the company has no relevance.

To analyze the extent of the texts we stuck to the paper edition of the newspaper SUR, and found that 32% of them are too short, columns, sils and any equivalent graphical distribution, and correspond, mostly, with notes press and information agencies. The bulk of the information, namely more than 46%, corresponding to units of around half page or slightly exceed that size.

As for the topics covered in the text, highlight the economic and business framework, in 62% of cases. Innovation is present in 27% of them. While elements linked to the disclosure contained in 18%, although on several occasions the clarifier attempt is futile and also empty into what Escribano and Quintanilla (2005) called science policy, rather than attempt to transmit scientific knowledge to a non-expert audience, which only appears in two of these texts.

Meanwhile, the political references are present in 18% of the information, although these issues are not usually the focus of the analyzed information, but its character is more tangential.

And deserve mention allusions to activities and events organized by the PTA or in the park works, and that in 34% of cases it is the context that frames the news story. The presence of the park as an institution deserves highlighting as realize the commitment that make the site the various public and private and social presence of PTA in various forums agencies.

One of the things that stand out in the analysis of the texts is the treatment they receive this information, with positive approaches in 74% of cases and 20% neutral.

In the presence of PTA manager at the newspaper, he is appointed in a total of 45 of the analyzed pieces, representing 26% of the total. This presence is complemented by his statements in 20% of the texts under study.

3.3. The PCT Cartuja and its companies in the Seville edition of ABC

Just 50 Tecnológico Cartuja information on the Science Park spread over 2012 journal pages by ABC, where Seville edition, and only one of them appointing a biotechnology company, namely NBT (Newbiotechnic). Neutral treatment, hardly a slight reference to the activity of the company is made, although some information is provided about business plans for the future.

Throughout all of 2012 recorded eight information on citing enclosure companies, 16%, and in none of the cases is in-depth, but respond to circumstances in a timely relevance.

In the block of information in which allusion is made to the PCT notes that 17 of them, 34% are directly related to the twentieth anniversary of Expo 92 and the references to the park is limited, almost all, remember that the location is the same.

As for the issues that are, besides the aforementioned alluded Expo, highlights the economic, present in 40% of the stories; allusions to infrastructure and equipment are in 32% of the texts, a figure that includes written about the difficulties of traffic generated by the Torre Pelli; and political aspects appear in 36% of cases. Also point out that we do not find in the pages analyzed, no mention of innovation, or allusions to the presence of the park as an organizer or participant in events corporate or informative, collaboration agreements, etc.

With respect to the treatment given to these 50 reports 38% is positive, as it is for the acts of claim the legacy of the Expo or investments and rehabilitation of buildings; by contrast, 38% have a negative closer to treatment and are at the stories that address issues of a political nature, regarding the difficulties of access to the park, to the economic situation faced by companies or excessive weight of the sector public site facilities. The remaining text is neutral.

Also noteworthy is the extent of the referenced information. In fact, contrary to what happens in other newspapers analyzed in the paper edition, 30% of the texts competence occupies a page or more; round 61% average page.

We have also verified the presence of the responsible PCT Cartuja in the information under study. Remarks by the President only appear in a text that recounts his resignation he had held for five years. The same number that captures the general manager.

3.4. Rabanales and 21 companies in the daily Córdoba

Daily Córdoba makes during the year 2012 a total of 43 references to Rabanales 21 Technology Park, four of which are specifically mentioned any of the biotech companies based there.

Two of the information related to the buildings that house them. It is news that does not reach the extension column and in which only realizes the business to

develop. Something more extensive and deeper are the treatments that are given to the other two reports, both Seneca Green Catalyst appears; although the first time is not focused on the activity of this company but in another created by its CEO, which are their statements. As for the second, responds to a press release in which he realizes the "emprenderverde" prize awarded by the Ministry, without quotation marks from your head, but with positive treatment.

In daily Córdoba distortion in the count comes on the heels of the closure in the business incubator of entrepreneurs that had been built for a default. Attention to this conflict represents over 25% of all information relating to the site, a total of 11 news, with negative treatment splashing the Park.

It is worth noting the parallels between that year and the online edition of the daily paper Córdoba, in fact, with some modifications, of the texts analyzed only 4, 9%, no paper correspondence. Similarly, the presence of political issues in matters related to the Park is at 30%, a percentage exceeded for any information that rotate on activities undertaken or participated by Rabanales 21, 32.5%. Meanwhile, the information they touch, although not the focus of this information, economic and business implications of the enclosure reaches 32%, and if we add those relating to the closure of employers, reached 55%; if the topic is innovation, alone or linked to other, we are at 11.6%, and the presence of informative elements is 18%. However, in the latter group the pieces of what we call science policy (almost 10%) predominate.

46% of the information involved, at most, a column or a skirt and almost 42% round the middle page. We have also taken care to verify the presence of the President (35%) and general manager (23%) of 21 Rabanales.

4. Conclusions and discussion

We wanted to know whether biotech SMEs settled in Andalusia technology parks have opened a channel of communication with their environment, through the pages of local newspapers reference in their provinces, and the answer is no; if their managers, scientists usually in cases that concern us have become recurring themes in addressing biotechnology-related sources, and the answer is no; if companies are parks channel through which passes the social communication of science through the closest media, again, no.

In fact, of the thirty-one biotech SMEs Andalusian parks spread over in 2012 only four have arranged their own space in the pages of the local media and in almost all of them, have dominated the business and economic aspects of own activity. Since then the volume is too small, but that approach does not seem negligible because, as noted above, we are dealing with companies that create wealth in their environment and, above all, generate skilled employment. So that this information influence the knowledge and appreciation that make readers a small and, in most cases, with early activity. However, you should not miss the opportunity to deepen their research plot and the social consequences involved.

But is that this under-representation in the media is not limited to a few SMEs that perhaps not even be aware of the importance of establishing fluid communication lines with their environment, using or not for it to local newspapers. The disconnection is exacerbated if the parks themselves have a ridiculous presence in the media, with the exception of the PTA.

The Technology Park of Andalusia is open daily recess in the South, where their companies have even counted for several months with a page in its Sunday supplement budget. Participation in events of various kinds, in collaboration with public institutions, of different political, more can not speak well of management who are on the forums that is torn or promotes entrepreneurship, innovation, research collaboration, etc. For 21 Rabanales their limited presence in the daily Córdoba seems justified since the first business incubator managed municipal occupancy permits in December 2011, however, that there is no excuse for the PTS and PCT Cartuja.

This study aimed to do just fixed that allow us to know what degree of relationship between local media and biotech SMEs Andalusians parks, and we have a photo. We also try to note the existence of links from the parks themselves with their environment through participation in activities that echo the media and do have it. The result in both cases is such poverty that should give pause to business leaders, park managers and means on how to build relationships, because they are so scarce can only get better. Our hypothesis, therefore, is demonstrated.

The questions that arise from there are: What creates the public image in his imagination on some campuses whose name is linked for a whole year to remember more or less glorious or used as a weapon against the party last front? What avenues can use the media to approach companies and technology parks and tell your neighbors what they do and how it affects them or the way to go is the

reverse? So little activity and presence in the social life of their environment and enclosures have these companies as reflected in the mainstream media in their settlement?

5. Bibliography

Paper or electronic books, reports and theses:

- ASEBIO (2013): *Informe Asebio 2012. Situación y tendencias del sector de la biotecnología en España*. Madrid: Asebio. Disponible en: http://www.asebio.com/es/documents/Asebio_2012_web_001.pdf. Consultado el 23 de marzo de 2013.
- BERELSON, Bernard (1952): *Content analysis in communication research*. The Free Press. New York.
- CAPRIOTTI, Paul (1999): *Planificación estratégica de la imagen corporativa*. Ariel. Barcelona. Disponible en: <http://www.bidireccional.net>. Consultado el 15 de junio de 2012.
- EUROPEAN COMMISSION (2010): *Europeans and Biotechnology in 2010. Winds of change?* Publications Office of the European Union. Luxembourg. Disponible en: http://ec.europa.eu/public_opinion/archives/ebs/ebs_341_winds_en.pdf. Consultado el 3 de noviembre de 2012.
- FATHALLA, Mahmoud (2008): *Guía práctica de investigación en salud*. Washington: Organización Panamericana de la Salud. Disponible en: <http://www.bvsde.paho.org/texcom/cd045364/PC620.pdf>. Consultado el 15 de octubre 2012.
- FECYT (2012): *Sexta encuesta de percepción social de la Ciencia 2012*. Disponible en: <http://www.fecyt.es/fecyt/docs/tmp/363174605.pdf>. Consultado el 3 de junio de 2013.
- FUNDACIÓN BBVA (2012): *Estudio internacional de cultura científica. Actitudes hacia la ciencia*. Disponible en: <http://www.fbbva.es/TLFU/dat/presentacionciencia.pdf>. Consultado el 4 de septiembre de 2012.
- OBSERVATORIO ZELTIA (2013): *III Informe de Biotecnología Aplicada a la Comunicación (IBAC 3.5)*. Disponible en: http://www.zeltia.com/media/docs/IBAC35_2013.pdf?ie=UTF-8&oe=UTF-8&q=prettyphoto&iframe=true&width=100%&height=100%. Consultado el 5 de julio de 2013.

Articles, blogs or web publications records:

- DE SEMIR, Vladimir (2003): Medios de comunicación y cultura científica. *Quark*, 28-29. Disponible en: <http://quark.prbb.org/28-29/> Consultado el 14 de septiembre 2012.
- EDITORIAL (2006): Meet the press! *Nature Methods*, 3, (151). Disponible en: <http://www.nature.com/nmeth/journal/v3/n3/full/nmeth0306-151.html>. Consultado el 5 marzo de 2012.
- ESCRIBANO, Mercedes & QUINTANILLA, Miguel Ángel (2005): La biotecnología y los medios de comunicación en España. *Revista Iberoamericana de Ciencia, Tecnología y Sociedad*, 4, (2), 21-39. Disponible en: http://www.revistacts.net/index.php?option=com_content&view=article&id=87:la-biotecnologia-y-los-medios-de-comunicacion-en-espana&catid=39:articulos. Consultado el 7 de junio de 2012.
- MAQUEDA, Jerónimo; GAMO, M^a Fe; CORTÉS, Rosana & VEIGA-CABO, Jorge (2013): Estructura y contenidos de la comunicación y redacción de artículos científicos. *Medicina y Seguridad en el Trabajo*, 59 (213), 159-170. Disponible en: <http://gesdoc.isciii.es/gesdoccontroller?action=download&id=14/05/2013-51a76971b9> Consultado el 2 junio de 2013.
- VICTORIA MAS, Juan & GARCÍA HERNÁNDEZ, M^a Luisa (2013): La web corporativa en las empresas biotecnológicas de los Parques Tecnológicos de Andalucía (2013). Una propuesta de análisis de prácticas de comunicación a través de plataformas online. *Historia y Comunicación Social*, 18 (Especial Oct.), 61-73. Disponible en: <http://revistas.ucm.es/index.php/HICS/article/view/43948>. Consultado el 12 de febrero de 2014.

IX. LOJANO THE JOURNALISM DURING AND AFTER THE LIBERAL REVOLUTION: 1895-1925

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1. Introduction

The collection and analysis of primary and secondary sources of journalism lojano (Ecuador) in step 1895 to 1924, a period covering the emergence, development and decline of the Liberal Revolution of Eloy Alfaro, has two interests. First, because this episode is one of the most significant for Ecuador. In the words of Salvador Lara (1995: 422), is the second revolution itself, which lives Ecuador after Independence. Revolution understood as profound transformation, and bloody controversy that ended the Progressive Party and almost conservative. Second, because journalism developed in Loja at that time was one of great wealth. Nevertheless, there is little interest in public institutions to preserve the primary, scattered and endangered sources and the academic community to deepen its significance in relation to the political, social and cultural fabric of the time.

With this double objective, the present research, part of a national and inter-university project on the History of Communication in Ecuador, has meant developing several phases. The first, recovery and literature review of all published and researched on the subject, to develop a state of the art as comprehensive as possible, following which have detected the important contributions of historians and journalists lojanos well as limitations and gaps. Then, have compiled the primary sources of journalism Loja, tracing the various public and private archives and files, logging into a database online. Following these findings and descriptive analysis with the help of chips and arrays fed online and collaboratively, debugging and comparison was made also going to qualitative techniques and unstructured interviews that helped gauge the role of each publication. Finally a

preliminary content analysis on the socio-political and cultural reach of journalism done dela time, beating cataloger excessive zeal of the existing historiography.

The publications have appeared which are 46 newspapers, 39 magazines and 17 leaflets are analyzed in two periods: the outbreak and decline of the Alfarist Revolution (1895 and 1912) and the term view period (1912-1925).

2. Recovery of primary and secondary sources of journalism lojano

According to a previous study (Gonzalez et al, 2013. 796), the historiography of lojano journalism is scarce and lacks precision at the hemerográficos incomplete files. However, we must recognize the great efforts of Máximo Rodríguez Augustine in his book the lojano journalism (Quito, 1948), who personally collected numerous primary sources and provides valuable information and quotes. His collection was donated to the House of Ecuadorian Culture Core Loja, who unfortunately lost part of that heritage (Moreira, 2013: 33). Let us add that several publications were written or directed by him. What is not found physically Agustín Carrión took him in a brief history of journalism in Loja and writers (Loja, 1918), despite the errors worthy of dates, and to a lesser extent Juan Bautista Ceriola work, in its Compendium history of journalism in Ecuador (Guayaquil, 1909). The work of Pío Jaramillo Alvarado, lojana Literature (Quito, 1922), but adds no new sources registered by Rodriguez and is long on data, is significant for its analysis of journalism, in which he took an active part from explicit membership liberal. Jaramillo is also history and Loja province (1955, Quito), which includes some publications without adding significant data.

Another author who aims to summarize the lojano journalism is Hernan Moscoso Gallardo in 400 years lojana culture (1977, Loja), but is based largely on the work of Rodriguez and bottom of the eponymous Library of the House of Culture Loja Ecuador, so nothing new.

Regarding general works on the history of journalism of Ecuador is the aforementioned JB Ceriola, which are not meant to be exhaustive but synthetic so it does not add new data. So does Carlos A. Rolando in his Chronology of Ecuadorian journalism pseudonyms of the national press, 1920, while making several inaccuracies years.

With the state of art were numerous data contrasting with the findings of the primary sources, which are mostly found in the Library of the House of Ecuadorian

Culture, in which were found some not yet mentioned as University Gazette (1911) Southern Border (1919) and El Condor (1919). Others were found in the Library Aurelio Espinosa Polit (BEAEP) of Quito, in the Newspaper Carlos A. Rolando, the Municipality of Guayaquil, in the private library of the Valdivieso Teresa Mora, who led South La Opinión and other newspapers and magazines, and school Bernardo Valdivieso.

Of the total publications, 15 leaflets, four newspapers and three magazines were found in the BEAEP, most of the nineteenth century; in the Library of the House of Ecuadorian Culture Core Loja 32 magazines and 8 newspapers were found; eight journals were placed in the personal library of Teresa Mora and a magazine Rigoberto Chauvín; three newspapers and two magazines in Guayaquil Rolando Newspaper and magazine in the Library of Bernardo Valdivieso College. Except the first library and care of libraries and personal archives, there to mourn the loss of funding, lack of technical organization and poor storage conditions faced by newspaper collections.

After purification and reconciliation of information through a virtual logbook and field notebook, a quantitative analysis was made of all the primary sources describing and recording them in a database on line, which in the future will be the most comprehensive source of information on the historiography of the Ecuadorian journalism.

Through observation, reading and qualitative analysis of these sources, aided by some unstructured interviews, we have found regularities and peculiarities of the history of the press of the period 1895-1925 lojana identify major actors and the historical context. This mattered if we consider the relevance of literary journals and opinion shaping the lojana culture magazines mostly from the Colegio Bernardo Valdivieso and a core of young liberal intellectuals who saw the great potential of the press to the political, not only political but cultural, in such a turbulent time debate and discussion of ideas.

3. The pop journalism and rise of the Liberal Revolution: 1895-1912

With the rise of radical liberals June 5, 1895 and arrived in the country a fortnight after its exiled leader, General Eloy Alfaro, initiates a hard stage of civil war in which Alfaro officially ruled twice (1896-1901 and 1906-1911), but he dominated all the time. A conservative insurgency that fought in the early years followed the struggle between the two sides Liberals emerged from the first

successor Alfaro, Leonidas Plaza (1901-1905), one of his own generals who opposed radically. This struggle finally ended with a hoist term view, the resignation and exile of Alfaro, and a cruel civil war that culminated in the bloody murder of General and its dome in Quito on January 28, 1912 (Salvador Lara, 2010: 192 et seq.)

A defense of freedom and the great geopolitical work Guayaquil-Quito Railroad, extolling his supporters, violent religious intolerance as materialized church-state separation contrasts. His radicalism and internal contradictions seen in the way Alfaro 'he combined' the consolidation of certain individual rights and freedoms, such as the abolition of the death penalty, with the use of summary executions whenever wanted. According Salvador Lara, "he aherrojó in the name of freedom all freedoms" chasing and shooting enemies, closing down newspapers and empastelando printers, and breaking the laws and the Constitution.

Loja has to thank Alfaro grant to the Faculty of Law the power to confer degrees of licentiate and doctor in a decree of 26.12.1896. (Jaramillo, 2002: 366)

Amidst all this, years term policies were "respect and consideration to the press reporters," according to Isaac Barrera, who mentions an anecdote that when crossed Plaza on the street with a conservative journalist who could not get that day the paper out of paper that day sent all the necessary editing (Barrera, 1955: 60-61) paper.

In this context, it is not surprising that arose a fierce liberal journalism, published in part in the printing of the Republican Union of Loja, in contrast to the conservative journalism step (Gonzalez et al, 2013). Pío Jaramillo (1922: 16) mentions as the first newspaper emerged in the era of the liberal revolution combative and confrontational weekly Patriot driven by Manuel Benigno Cueva, who would become Vice President. We have found in the Newspaper Carlos A. Rolando and found that it is 1886, long before these years.

03/04/1896 is the newspaper of the Village Voice (found in BEAEP), casual and free, advocate Alfaro, according to Rodriguez (1948: 23), although in its first issue states that the birth born as a replica of the Views publication, published in the press of the Clergy days ago (02/25/1896). Indeed, in the prospectus (or the first number of reproductions criticize the intention of wanting abrogated as the only defenders of religion, while this publication in its second issue (03/18/1896) prevents, in turn, of the anti-periodic Catholic doctrine. This case reflects that

religious issues were among the topics of discussion in newspapers, understandable by the climate of intolerance printed Alfaro.



Image 1: Home Number 6 Red verb (16/10/1906). Source: Newspaper Carlos A. Rolando.

1900 is the Republican's weekly, which is an official publication of the Government of the province and, therefore, defense of President Eloy Alfaro. Liberalism is a radical verb red (Figure 1), which provides no further details Rodríguez; however, we have found in the Newspaper Rolando number 6, of 16.10.1906, which implies that the first issue was in September of that year. Also be liberal newspaper Free Vote (1913), which comes in line with the election of deputies of the time. Also, the Liberal Democratic Society edited Free People (1911) to defend the candidacy of the Ecuadorian Liberal Party councilors. Only he edited two issues. Moderate liberals also had their newspapers like the popular vote (24-3-1912), (Figure 2) was created to defend the presidential candidacy of Leonidas Plaza.

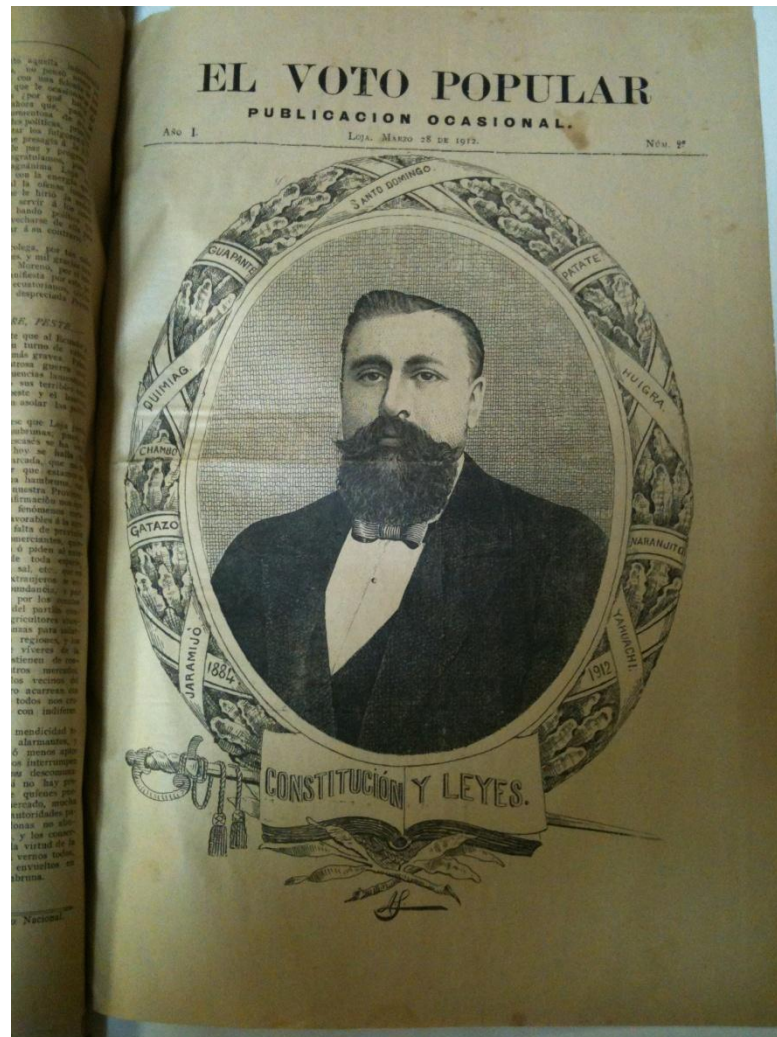


Image 2: Cover Number 2 The popular vote (03/18/1912). Source: Newspaper Carlos A. Rolando.

Rodríguez (1948: 22) mentions the newspaper Ray, 1895, strong opposition to Alfaro and edited in a clandestine printing press, which barely reached three numbers. Publications were the one day lojana situation (July 1908) and the lojana defense (20/09/1909) both to defend the interests of the village in a land dispute with a group of indigenous ejidos industry.

The Catholic press, as in the previous stage, was present. Rodríguez (1948: 27) mentions the *Bulletin of the Society of St. Vincent de Paul* (15/01/1904) and the *Bulletin of the golden anniversary* (09/08/1904) which had a unique number on the occasion of the fiftieth anniversary the dogmatic declaration of the Immaculate Conception of Mary. Because of the golden jubilee of priesthood Pius X, the

diocese published the *friend of Pope* (10-10-1908), with only three numbers, which collaborated Max A. Rodriguez. Also, fifteen leaflets found in Aurelio Espinosa Polit Library between 1895 and 1900, are the most religious nature. There are also some policies as for the motherland, (14-11-1900) defending the figure of Leonidas Plaza, or *to Arms and The winners of the South*, a radical liberalism. The phenomenon disappears in Loja flyers with the new century.

Early in the century emerge in Loja early labor movements, and with them, the labor journalism. In 1904 comes the first working society, "Workers Union", founded by the priest Lautaro V. Loaiza (Rodríguez, 1948: 30), that same year he released *The Lojano Workers* (08/01/1904), newspaper moral sciences, economic, arts, industries, workshops, useful knowledge and recreational work, with the motto "moral perfection and industrial progress." He had a second and third times turning to edit from 05.01.1923 and 24.05.1928.

Also the town had its newspapers, including the *sectional advance*, published from 31/01/1905 until 31/12/1905. It was monthly, oriented report acts of cantonal and edited Council, among others, Max A. Rodriguez, who was very prolific collaboration in production or in newspapers. As of 31/03/1906 *The lojano* appears, *biweekly municipality continuity first*, and at various times and formats published until 1941 As stated by Rodríguez, is a true witness to the history of Loja in the first four decades the s. XX. For example, recounts the great flood suffered by Loja on 23/03/1917. (Rodriguez, 1948: 36).

Newspapers emerge as civic intention *Loja* in the *exhibition* (09/04/1909), with only three issues long, born to commemorate the centenary of independence. It was directed by Lautaro V. and above Loaiza, priest, journalist and prolific producer and collaborator. Lasted five numbers *Patriotic Bulletin Board* (04/05/1910) emerged from the conflict with Peru in those years. With the same patriotic interests and in defense of Pio Jaramillo railroad founded *The East* (10-2-1910) that will edit 18 issues until 1911 that disappears.

The publication of *The Railway* (10-8-1909) by the Railway Committee of Loja, but had only three numbers away in January 1910, is a clear example of the national issue of the moment and emblem alfarismo, aimed at the railroad came to Loja and Zamora and opened an outlet to the sea. Again and Rodríguez Loaiza listed. The journalistic capacity Rodriguez again demonstrated in the fortnightly *La Selva* (1911-1912), who printed 24 issues.

For cultural journalism school Liceo Bernardo Valdivieso his will be the main character, as reflected in Figure 1 Edits magazine *The New Horizon* (1895-1897); *the Bulletin of the Society Bernardo Valdivieso* (02/01/1908), who becomes a champion body Alfaro (Rodriguez, 23); *Literary Magazine* (1901-1905), weekly, although Rodriguez dating the last number (23) on 01.08.1902 (ibid, 26) and scientific and *literary magazine* (1913-1918), directed by Rodriguez. To these he adds Rodríguez *The Phoenix* (1907-1910), and literary fortnightly, led by Pio Jaramillo in his second season (1909), and edited by the Circle Bernardo Valdivieso, successor of the Lyceum, consisting of students from the College Board. Almost every month, multi-year, and 25 to 30, reflecting the importance that is attached (Carrión, 1918: s / n). Carrión emphasizes that 1901-1918 twelve literary magazines that served real gateway of the literati and intellectuals of the time were published, including some poets as yojanas Rosario Carrion Rosa Matilde Hidalgo and sisters and Eloiza Duarte Cave.

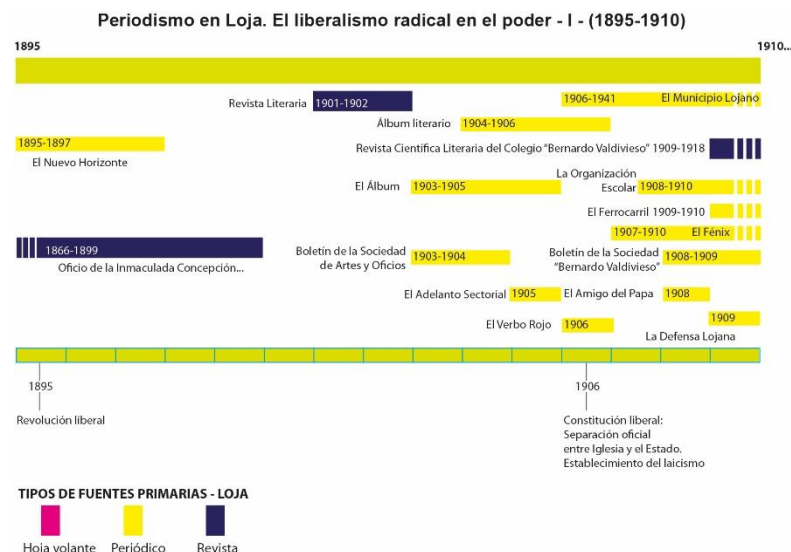


Image 3: Chronology of journals in the period 1895-1910 Loja. Source: Authors.

About *The New Horizon* Rodríguez (1948: 21) states that it was monthly, at least 16 pages, the first issue dates from December 1, 1895 and the twelfth of 15/01/1897. It became the most important magazine and served off of important writers such as Manuel E. Rengel, Agustín Cueva and Miguel Sanchez (Rodriguez, 1948: 24)

Bernardo Valdivieso school also will the weekly publication *The Aura* (05/01/1904), the company founded by Dawn, formed by students of the school,

and has among its members Pío Jaramillo, who was then 20 years. (Rodriguez, 1948: 30). Rodriguez also mentioned the Bulletin of *the Society of Arts and Crafts* (1903-1904), weekly.

Ceriola literary magazine mentions *Album* (1903-1905) as one of the most important, which mentions that Pius Jaramillo was the first lojana magazine insert illustrations (1922: 19). Rodriguez (28) states that the first number was the 06/01/1904 and the last on 01/08/1906, created by three former students of the Lyceum Court Bernardo Valdivieso, including himself, and had distinguished national and foreign partners . It was monthly, illustrated and consisted of 28 pages.

At this time it is important to the educational press with the publication of the *school organization* as the diffuser body 01/05/1908 provincial education agency, and written by Lautaro V. Loaiza, 16 pages (Rodríguez, 1948: 36 and 37). Although presented as a weekly sheet in its first issue, the second issue, May 1908, expressed monthly. His number is 22 and last April 1910 and played an important role in educational outreach.

4. Journalism after the Liberal Revolution period 1913-1925 term view.

The main figure of this stage is the general Leonidas Plaza Gutierrez, who establishes a civilian regime, but economically dominates guayaquileño Urvina Jado Francisco banker, son of General and former president Urvina, which has earned him the nickname this time "bancocracia" suffered by the agency that the state bankrupted by the crisis in cocoa exports and the effects of the First World War. Other distinctive features of the time were the predominance of mountain landowners and bankers and merchants of the coast; the consolidation of electoral fraud, introduced by Alfaro, a common practice in all successive governments and the general strike of 1922 which began with the trade union movement, cruelly repressed (Salvador Lara, 2010: 200 and 201). In this regard, Ayala Mora (Ayala, 2008: 71) underlines the strength gained since 1920 by the trade, craft and trade unions, which together with radical groups burst onto the political scene with the new ideological trend: socialism. Here the labor press charges much boom.

A military coup military moralistic zeal of young liberals, not radicals, July 9, 1925 (Julian Revolution) ends plutocracy and involves the end of the dominance of the Radical Liberal Party (Salvador Lara, *ibid*).

As for the press, Ona (1988: 90) agree with Salvador Lara during the second term view government press freedom is respected, and claims that by 1924, under President Córdova Segundo Rivera, was resumed again gag.

Pío Jaramillo Alvarado, in the previous period had a prolific liberal journalism, published in 1922 *The Ecuadorian Indian*, who, according to Salvador Lara, a landmark in indigenous reflection (ibid, 209). Becomes a minister in 1924 and on an important Córdova journalism in *The Day*, seeking to reconcile the two liberal positions and being critical of the Julian Revolution, which earned him exile.

At this stage there are also many liberal newspapers like *New Life* (1914-1917), who from number 8 becomes reaching 67 weekly editions, and *The Tribune* (1914-1944), bi and very durable as it is edited down 1945 is also liberal reaction (1917-1918), and critical eventual "the acts of the Council and the Government." The Liberal eco 10/10/1920 appears, and *The Sentinel* in 1915 came only six numbers. In the following decade the liberal Union of Loja edit the time (13-3-1921) which together with the sanction (27-6-1921) defend the Governor of Loja. Be moderate *Liberal South El Herald*, which appears weekly durable 10.08.1923, and after the 50th became fortnightly and intraday.

A union newspaper the monthly rate shall *civic duty* (01/01/1918), Commercial Union, which seeks to "the union of partners and carry out all the improvements streams related to goodwill and progress of Loja (Carrión, 1918: s / n).

The perfect lojano (01/01/1917) bi-monthly newspaper, impartial ideology, which comes out in defense of the charges brought against him at that time to Loja. His last number 7 and was dedicated to the victims of the flood Malacatos River. The government of the province edit the *Administrative Bulletin of the province of Loja* (February 1913).

It is remarkable, again, as shown in Figure 4, the role of pedagogical press Omnibus (1916), edited by the Research Department of the province, with 68 pages and editing only two monthly issues and the Bulletin of the Directorate (June 1922), directed by Clovis Jaramillo, who in 1924 published a single issue of Education and in 1923 the magazine Restless. Jaramillo highlighted in recent years as a major publisher of newspapers and magazines. Two years later the same instance publishes the Journal of *Primary Instruction*, fortnightly basis, reaching

four numbers. In 1924 the inaugural *Bulletin of the Public Library* in 1925 and *Master Activity magazine*, the Provincial Education Society is edited.

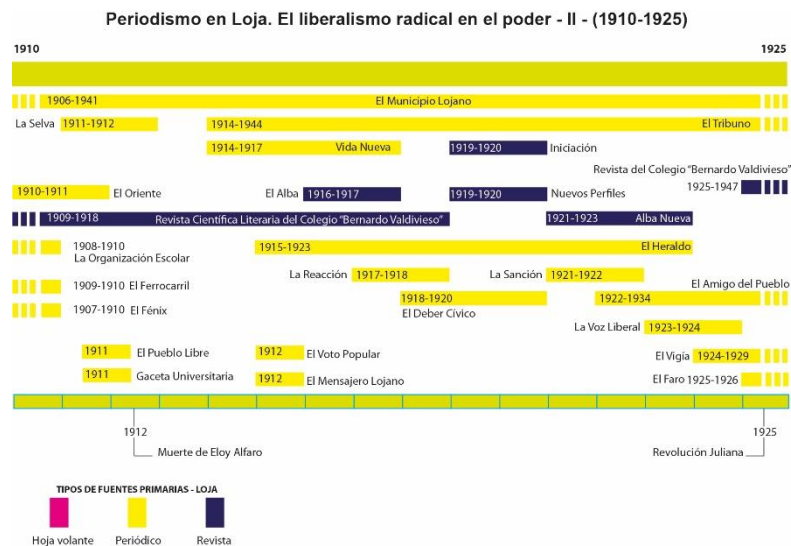


Image 4: Chronology of periodicals of Loja in the period 1910-1925. Source: Authors.

Other academic bodies, then called Schools of Jurisprudence and Science, have an active life with publishing the Journal of the *Faculty of Law* (24-5-1921), 48 pages with six issues published; and Cocoon, with one number in October 1922.

The school will continue publishing Bernardo Valdivieso cultural magazines such as *Scientific and Literary Magazine* (1913-1918), *rising Luz* (1916), *Dawn* (1916) and *Initiation* (1919) monthly journal of the Society for Literary Studies of the school, which only edited six numbers between 1919 and 1920 In the next decade the school publish publishing new *Alba* (04/01/1921) which until 1923 had eleven numbers disappeared and *Culture* (1922), edited by the faculty of the college. Magazine Association of Bernardo Valdivieso first quarter, and from 1929 mode appears bimonthly in 1925, until 1933 Other cultural journals will *Germinal* (28/05/1919), monthly, published only a number, and *new sections* (1 -11 to 1919), which reached four numbers. In the following decade, *Iris* (01/02/1924) journal of literature and art shows, with only two numbers.

As Catholic newspapers, Carrion mentions the *lojano messenger* (2.6.1912), founded in honor of Bishop Carlos María de la Torre, and only released two numbers as well as the weekly newspaper *El Heraldo* (1915-1918), of more durable. In the latter figure we inaccuracies setting Carrión in 1918 to this newspaper when Rodriguez tells us that the last number is the 03/26/1923. In its

first issue (10-7-1915) expresses his defense of Catholic dogma and the interests "of the historical party of 69". It will become bisemanarios and intraday.



Image 5: Number 1 Home of The Herald (07/10/1915). Source: Newspaper Carlos A. Rolando.

The Catholics will also *homeboy* (30-4-1922), edited by the Bishop of the Diocese, weekly, four pages and had nearly 300 numbers until 1934 that disappeared. Another Catholic *Loja* published in 1924, with only two numbers, and with the sole purpose of deterring the Bishop of to renounce.

There will be provincial newspapers as *The hummingbird* (1915-1917), the first newspaper of Canton Celica with moral purpose, and the population of Alamor, the same canton, *The southern border* (1917), biweekly, and *The alamoreña Woman* (1917) whose objective is the construction of a temple.

Newspapers are curious *Kitten* (26-11-1915), monthly, commercial advertising, and jokingly and *Don Domingo* (24-4-1921), with only two numbers. There will be very possible publications like *The thermometer*, in 1913, with seven numbers; *The Sentinel*, 1915, with four, and really, the only two numbers appear in 1918 appear the next decade numerous possible newspapers of different political ideologies, as *Our Time* (1924), *New Time* (1924), *The day* (1925), *fighting* (1925), *La Vanguardia* (1925) and *El Faro* (1925-1926), all with an average of ten editions.

Pío Jaramillo stands out (in Rodriguez, 1948: VII) that this time will be the birth of long-lived newspapers like *El Heraldo* (1915-1923) and *The Watcher* (5.1.1924), which took six years to reach the issue 286.

5. Conclusions

In this research we have been collecting for 80% of all primary sources of news production given in the period between 1895 and 1925 consisting of 44 newspapers, 37 magazines and 15 loose sheets reflecting intensive publishing and informative activity.

A first characteristic of these sources is the liberal position a number of newspapers and magazines, developed by young intellectuals and writers of that trend, directed and wrote numerous publications in the College and Liceo Bernardo Valdivieso and of the Faculty of Law attached. Clearly the liberal political dominance of those years was reflected in journalism, being smaller newspapers affiliated to the Progressive Conservative Party.

With respect to the previous stage (1856-1895), decreases the creation of newspapers, as a general phenomenon across the country, but years of consolidation of newspapers and more durable appearance of headers, as Czech (2008: 284) states, I mention the case of *El Comercio*, Quito emerged in the January 1, 1906 and still in force. In the case of Loja, are remarkable *The chief* and the *Municipality of Loja*, with 40 and 35 respectively, and two Catholic newspapers: *The Herald* and *The friend of the people*, with 8 and 12 years.

The Catholic press will also have a significant presence in reaction to anticlerical political environment, and which also emerge within the first workers journalism lojano The workers and the rise of the educational press with the important work of the *school organization*, both directed by prolific editor and priest Lautaro V. Loaiza, who along with Rodriguez and Maximo A. Pio Jaramillo Alvarado brothers and Clovis, are the great promoters of lojana press time.

As always, cultural journalism and representative Loja be flourishing, as evidenced by the 22 journals published in the span of 30 years, some very durable as *Bernardo Valdivieso Scientific Literary Magazine of the College*, effective, despite interruptions, even today day. We emphasize cultural intense deployed by that school. We also note the case of the newspaper *El Nuevo Horizonte*, 1895, whose editors were students of jurisprudence, some of which are now important figures in literature as Agustín Cueva lojana and Manuel E. Rengel, among others.

Given the scope of this work is to further research an analysis of deep content to gauge the political, cultural and educational contribution of journalistic material collected, contributing, along with this research, revive research on the history of communication Loja and to protect their sources. Both tasks that have so far not been a serious public and academic concern.

6. Bibliography

Books and theses:

- AYALA MORA, E. (2008). *II Manual de Historia del Ecuador Época Republicana*. Quito: Corporación Editora Nacional.
- BARRERA, Isaac J. (1955): *La prensa en el Ecuador*. Quito, Casa de la Cultura Ecuatoriana.
- CARRIÓN, Agustín (1918). *Breve historia del periodismo en Loja y sus escritores*. Loja: El Heraldito.
- CERIOLO, Juan Bautista (1909). *Compendio de la historia del periodismo en el Ecuador*. Quito: Biblioteca Casa de la Cultura Ecuatoriana.
- CHECA GODOY, A. (1993). “El periodismo ecuatoriano en el XIX”, “El Ecuador liberal, 1895-1934”, en *Historia de la prensa en Iberoamérica*. Sevilla: Alfar.
- GALLARDO MOSCOSO, Hernán (1975): *400 años de cultura lojana*. Loja, Editorial Universitaria, Universidad Nacional de Loja.
- GONZÁLEZ PORTELA, M. L.; MOREIRA ORTEGA, R. N.; CHECA GODOY, A. (2013): Fuentes y características del primer periodismo lojano (Ecuador): 1856-1895. *Historia y Comunicación Social*. Vol. 18. Nº Especial Diciembre. Pp. 795-811.
- JARAMILLO ALVARADO, Pío (2002). *Historia de Loja y su provincia*. Guayaquil: Senefelder. (4ª. edición).
- (1922). *Literatura lojana*. Quito: Imprenta de la Universidad Central del Ecuador.
- MOREIRA ORTEGA, R.N. (2013): *Estado y levantamiento de las fuentes primarias para la Historia de la Comunicación Social en las provincias de Loja y El Oro: 1856-1925*. Loja: Universidad Técnica Particular de Loja. Tesis de licenciatura.
- OÑA VILLARREAL, Humberto (1988): *Fechas históricas y hombres notables del Ecuador*. Guayaquil: Editorial del Pacífico.
- RODRÍGUEZ, Máximo Agustín (1948). *El periodismo lojano*. Quito: Publicaciones de la Casa de la Cultura Ecuatoriana.

- (2008): *El periodismo lojano y Escritos de prensa*. Loja: Ilustre Municipio de Loja (2^a. ed. aumentada).
- ROLANDO, Carlos A. (1920). *Cronología del periodismo ecuatoriano: seudónimos de la prensa nacional*. Guayaquil: Imprenta y papelería mercantil-Monte Verde & Velarde.
- SALVADOR LARA, Jorge (2010). *Breve historia contemporánea del Ecuador*. Bogotá: Fondo de Cultura Económica.

7. Attachments

Annex 1 Table Loja newspaper of the period 1895-1925. (To reflect where physically lie or where your reference)

Newspapers of the period 1895-1925				
	Publication	Year	Physical Location	Reference
1	El Rayo	1895		MAR
2	Views	1896	BEAEP	
3	Voice of the People	1896	BEAEP	
4	the Republican	1900	BEAEP	
5	The worker lojano	1904		MAR
6	The Adelanto Branch	1905	BCCE	
7	The Red Word	1906	HCR	
8	The Municipality lojano	1906	BCCE	
9	Evolution	1906		MAR
10	The situation lojana	1908		MAR
11	The friend of Pope	1908	BCCE	
12	the Railway	1909	BCCE	
13	Loja in the exhibition	1909		MAR
14	The defense lojana	1909	BCCE	
15	the East	1910	BCCE	
16	La Selva	1911		MAR
17	The Free People	1911	BCCE	
18	The Messenger Lojano	1912	BCCE	
19	The Popular Vote	1912	BCCE	
20	THE cosmopolitan	1912		MAR
21	Thermometer	1913	BCCE	
22	the Tribune	1914	BEAEP/MML	
23	the Sentinel	1915	BCCE	
24	Kitten	1915	BCCE	
25	the Herald	1915	BCCE	
26	the Hummingbird	1915	HCR	
27	The perfect lojano	1917	BCCE	
28	the Reaction	1917	BCCE	
29	the Truth	1918	BCCE	
30	The Southern Border	1919	BCCE	
31	the Condor	1919	BCCE	
32	The Eco Liberal	1920	BCCE	
33	Don Domingo	1921	BCCE	
34	Punishment	1921	BCCE	

35	the Age	1921	BCCE
36	Opinion	1923	BCCE
37	The Liberal Voice	1923	BCCE
38	The Herald South	1923	HCR
39	our Time	1924	BCCE
40	Loja Catholic	1924	BCCE
41	New Time	1924	BCCE
42	the Watcher	1924	BCCE
43	the Lighthouse	1925	BCCE
44	La Jornada	1925	BCCE
45	the Fight	1925	BCCE
46	La Vanguardia	1925	BCCE

BEAEP: Aurelio Espinosa Polit Library; BCCE: House of Ecuadorian Culture; HCR: Newspaper Carlos A. Rolando; MML: Music Museum of Loja; MAR: Max A. Rodriguez.

Annex 2 Table Loja magazines of the period 1895-1925. (To reflect where physically lie or where your reference)

	Publication	Year	Physical Location	Reference
1	The New Horizon	1895	BEAEP	
2	the Aurora	1897	BEAEP	
3	Bulletin of the Society Bernardo Valdivieso	1899		MAR
4	literary Magazine	1901	BTMV	
5	Bulletin of the Society of Arts and Crafts	1903	HCR	
6	Bulletin of the Conference of St. Vincent de Paul	1904		MAR
	Bulletin of the Golden Jubilee of the dogmatic	1904		
7	statement Inmaculasa Conception			MAR
8	Literary album	1904	BRCh	
9	the Aura	1904	BEAEP	
10	the Phoenix	1907	BCCE	
11	Bulletin of the Society Bernardo Valdivieso	1908		MAR
12	School organization	1908	HCR	
13	Patriotic Bulletin Board	1910		MAR
14	University Gazette	1911	BCCE	
	Scientific College Literary Magazine Bernardo	1913	BCBV	
15	Valdivieso			
16	New life	1914		MAR
17	Administrative Bulletin of the Province of Loja	1913		MAR
18	Dawning light	1916	BCCE	
19	Omnibus	1916		MAR
20	the Alba	1916	BTMV	
21	The public clock Alamor	1917		MAR
22	Civic Duty	1918	BCCE	
23	Bulletin of Primary Instruction	1918	BCCE	
24	The Airplane Shop	1918		MAR
25	new Profiles	1919	BTMV	
26	initiation	1919	BTMV	
27	germinal	1919		MAR
28	Journal of the Faculty of Law	1921		MAR
29	culture	1922	BTMV	
30	chrysalis	1922		MAR
31	Bulletin of the Research Department of the	1923	BCCE	

	Province			
32	Alba New	1921	BTMV	
33	restlessness	1923		MAR
34	Iris	1924	BCCE	
35	Inaugural Public Library Bulletin Master	1924	BCCE	
36	education	1924		MAR
37	Occasional Bulletin	1925		MAR
38	activity	1925	BTMV	
39	Colegio Bernardo Valdivieso Magazine	1925	BTMV	
BEAEP: Aurelio Espinosa Polit Library; BCCE: House of Ecuadorian Culture; HCR: Newspaper Carlos A. Rolando; BTMV: Library Teresa Mora de Valdivieso; Brch: Rigoberto Library Chauvin; MAR: Max A. Rodriguez.				

Annex 3 Table of leaflets Loja period 1895-1925. (To reflect where physically lie or where your reference)

	Publication	Year	Physical Location	Reference
1	Eloy Alfaro	1896	BEAEP	
2	Católicos y no Católicos	1897	BEAEP	
3	Novena o Setena al Espíritu Santo	1898	BEAEP	
4	Algo para S. Francisco	1898	BEAEP	
5	Los Dres. Duarte y Aguirre	1899	BEAEP	
6	Dos Frailes	1899	BEAEP	
7	A las armas	1899	BEAEP	
8	Basta	1899	BEAEP	
9	A los vencedores del Sur	1899	BEAEP	
10	Reto a la calumnia	1899	BEAEP	
	Ramón Riofrío B., Gobernador de la Provincia de Loja	1899	BEAEP	
11				
12	Por la Patria	1900	BEAEP	
13	La Proclama	1900	BEAEP	
14	Cooperación	1900	BEAEP	
15	Explicación necesaria	1900	BEAEP	
16	La mujer alamoreña y su templo	1918		MAR
17	Pro juvenil	1922		MAR

BEAEP: Aurelio Espinosa Polit Library; MAR: Max A. Rodriguez.

X. MUTUAL INFLUENCE BETWEEN SEXUALITY AND PHYSICAL PRACTICE IN SPORTS

Gloria González Campos (Universidad de Sevilla -Spain-)

1. Introduction.

According to the World Health Organization (WHO) (2006), sexuality is a basic and inherent to the human being that develops over a lifetime process. It involves eroticism, pleasure, reproduction and sexual orientation, among others. It is experienced through thoughts, attitudes, practices and relationships and has an influence of biological, psychological, social, cultural and religious factors.

We can say that human sexuality includes all physical and psycho-physiological aspects influenced by environmental conditions marked evolutionary development in all its phases.

Meanwhile, the sport involves physical concepts of physical activity, exercise and sport. These terms are sometimes used interchangeably as synonyms, yet each has its own and different meaning.

Physical activity is defined as any bodily movement performed by the skeletal muscles, resulting in a cost higher than the basal metabolic rate (Caspersen, Powell and Christenson, 1985; Bouchard, Shephard, Stephens, Surton and McPherson, 1990; Blair, Kohl, Gordon and Paffenbarger, 1992).

Exercise according to Ortega (1992) is the physical activity performed by the body that is planned, structured and repetitive, with a higher or lower power consumption, which is designed to produce a better functioning of the organism itself, and through it is not necessary to establish competitions.

Sport, as Castejón (2004), is a regulated game where no physical activity and competition, and that these elements are interrelated.

The relationship between these terms is that the sexual practice is not a sport but involves physical activity that depending on personal characteristics of the

subject, the intensity, frequency and environmental conditions in which it develops, this activity may be a strain considerable physical.

There is a popular belief that sexual practice weakens or removes energy for the later development of activities, whether mental nature or primarily physical.

These convictions are supported according to Gordon (1988) certainties of the times of ancient Greece where it was stated that the semen was a "substance from the brain" and "pour" or "lose" would allow a mental imbalance and physical weakness. Even in the nineteenth century, American doctors warned their soldiers in harm posed by the loss of sperm.

Hence, even today there is a belief that sport requiring high physical and psychological demands, required that the athlete take a limited sex life. This leads to the coaches at concentrations avoid distractions, including sex, especially men, to dominate the idea that the expulsion of seminal fluid, being energetic, deprives him of that energy, causing athlete in a state of relaxation, tiredness or weakness that would generate a decrease in athletic performance.

2. Consequences of repressive sexual behaviors

Sometimes the removal of couples in athletes can lead to prolonged states of sadness or depression. Moreover, subjection to repression or inhibition of desirable and pleasurable behaviors can cause the opposite effect, developing rebellious behavior.

Many young athletes suffering in silence psychological conflicts as a result of not knowing positively channeling certain sexual behaviors. The enormous volume and erotic potential they possess, sometimes restrained to a libidinal imposed discipline, which facilitates a state of confusion in developing appropriate behavior and result in a negative impact on his career.

According to psychiatrist and sexologist Sapetti Argentina (1992), the technicians of the Argentine Football Association (AFA) argue that most young players placed on teams in lower categories coincide in their sexual concerns, among them: masturbation, the history of sexual abuse, promiscuity, fear of sexual debut and all kinds of sexual fears that cause suffering anguish. Hence the importance of having within sports clubs of Eastern competent professional advice on all these issues properly causing uncertainty and insecurity in the player.

So it should be clear that the search for sexual orientation is not a sign of weakness, but on the contrary, strength to say, "I do not know, but I want to know."

3. Influence of sex on the athlete

Sexual intercourse is a physical activity in mild to moderate, in which muscular strength and endurance, particularly in the abdominal and lower back is compromised.

Usually, studies agree that intercourse consume between 150 and 300 calories. This will depend on the amount of movement, speed and intensity and duration thereof. This is equivalent to brisk climb two flights of stairs 20 steps or the equivalent, the wear amounts to quickly climb two flights of stairs. This is replenished with a sandwich or a cup of milk and a cookie.

Lazarus (1987) published in the medical records of sport results from some studies on the physical performance before and after sexual activity in men, including:

- Implementation of Test Kalamen Margaria power (12 steps are 17.5 cm each. Were up 3 in 3), concluding that no significant differences in performance between athletes who had not maintained sexual activity were and others who had kept the night before or in the morning, an hour before the sporting event.
- Implementation of the Wingate Test (explores high fatigue index and anaerobic capacity). The results agree with the above.

These studies showed no significant and measurable differences in the performance of a group of athletes who had not had sex before the competitive test and another that had sex an hour before the competition.

Ultimately, abstinence and prohibition to have sex before a sporting event lack of physiological and scientific bases.

The Test Margaria and Wingate Test, reach the same conclusions. Athletes such as football players, rugby players and boxers have said they have sex or masturbate before competition because it makes them feel relaxed and focused mentally.

Sexual relations are operated hormone testosterone in both men and women (in smaller amounts) which is responsible for providing physical male characteristics such as hairiness or muscle development, among others. Testosterone has anabolic properties (it is a natural anabolic). Anabolic processes are constructive processes in which large molecules are obtained from smaller ones. Through these processes, molecules needed to form new cells are created.

This hormone, apart from fulfilling a key role in reproduction, it stimulates spermatogenesis, is involved in protein metabolism, muscle growth, increases the deposit phosphocreatine (molecule that stores energy in muscle) and muscle glycogen synthesized. Also generates aggressiveness. Increase the power of sportsmen and women.

The professor of exercise physiology Boone (1995) from the University of Minnesota (USA) made a comparison with 11 volunteers undergoing a stress test. Some sex remained eight hours before the test and others abstained. Results published in the journal of sports medicine and exercise showed no difference between groups.

Another study, conducted by Newton (1987) with a sample of 10 athletes, was to see if having sex the night before or maintaining sexual abstinence affect on athletic performance in a battery of physical tests. No statistically significant differences between the two experimental conditions were found.

Gordon (1988) conducted a survey of 129 baseball and basketball coaches asking if they have sex the night before or hours before a competition negatively affect athletic performance of the players. Only 8.6% said yes. 50% said no, and 41.1 did not know. Hence, scientific ignorance existing in this field.

4. What believing the negative influence of sexual practice is based on the athlete?

Actually, this belief is not based on the sex itself, but factors associated with sexual activity. The negative influence involvement and performance attenuator is in the environmental courtship that depends on how they perform and wear can distract the athlete.

In this case, the following behaviors are considered negative or distorting effect on athletic performance: the experiences that lead to late nights, stressful physical and emotional stresses, alcohol, snuff or other substances, thought or

belief that sexual intercourse before the game, weaken, precipitating a negative suggestion or consolidating self-fulfilling prophecy in future athletic performance.

It seems that sexual relations do not contribute to a physical or psychological impairment in athletes are those that are caused in controlled circumstances and stable partner which do not involve a physical or emotional exhaustion.

The factor that may distort the performance has more to do, first, with the ability to concentrate and emotional and personal conflicts, and on the other, with the physical exhaustion from lack of rest or consumption of substances harmful to health.

In fact, Carlin (1994) states that many coaches postulate that sexual practice could benefit the athlete as to minimize stress or anxiety precompetitive

4.1. Some cases found in sport pros and cons of sexual practice before sports practice

In favor:

- Classius Clay won many battles despite his hectic sex life.
- Carlos Alberto Parreira, who coached the Brazilian team, says that having sex before a game does not adversely affect the player and the problem is that the player does not sleep, smoke, or drink alcohol. He says that in fact this may pose difficulties due to a mental rather than physical. Believing that having sex will do wrong.
- Tassos Stalikas, Greek sport psychologist, states that if the athlete has social or religious conditioning, the influence of sex is negative. But it has not been scientifically proven that sex before competing influences negatively.
- In 1974, the coach Rinus Michels the Dutch allowed to travel to the world of Argentina with their wives and were runners-up in the world and was ranked the most spectacular team play.
- Elias Figueroa, 67 today, was outstanding Chilean player, commented that when he played for Porto Alegre (Brazil) coach advised him to have sex the evening before the match and that he used to do because it was relaxing.
- Pele, 73 years now, was player of the Brazilian team and confessed to having sex with his wife and never be suspended for a game.

- The American athlete Bob Beamon made the world record in the long jump at the 1968 Olympic Games in Mexico and had sex the morning before the test with an American competitor. The broken record was in force for almost 23 years and kept secret, too.
- Johan Cruyff did not give up sex before games. He claimed it helped him play better.
- Some athletes perform sexual intercourse or masturbation practice before competitions exclusively as precompetitive rituals intended to neutralize the competitive pressure.

Cons:

- Berti Vogts, coach of the German national team, was in favor of the players did not have sex before competitions to surrender more.
- Zanon Jaskula, the cyclist who was 3rd in the Tour de France in 1993 stated that avoiding sex three weeks before the competition to become more fit.

5. Influence of physical sports in the sexual life of a person

According to Jürgens (2006) is scientifically proven that regular physical exercise as a lifestyle, it is a must to stay healthy. Even contributes to happiness itself (Zagalaz, Moreno and Chacon, 2001). However, it is important to note that to be considered as such would be a regular exercise, practiced systematic and sustained, daily or almost daily way, because I do sporadically, although it is better than nothing, does not get to have enough importance on the body nor on the mind (Garrote, 1993; Annicchiarico, 2002).

Directly, exercise maintains and improves skeletal muscle, osteo-articular, cardio-circulatory, respiratory, endocrine-metabolic, immunological and psycho-neurological function. Indirectly, has beneficial effects in most body functions, helping to enhance the adaptive response and possess greater resistance to disease (Castillo-Garzon et al., 2006).

So, as a result of vascular parallel improvements resulting from aerobic exercise, there are benefits for erectile function, promoting better sexual response (Hannan, Maio, Komolova and Adams, 2009)

Clearly, the physical-sport activity improves cardiovascular, respiratory control, pelvic floor muscles that are exercised through these voluntary contractions are to promote orgasms for both men and women. Similarly, in man may contribute to improve erection and control ejaculation, and women, to improve blood flow to the clitoris and thus enhance sexual function.

But within the sports physical should clarify that some ways of doing sports are beneficial for sexual health, but others are not.

Generally, sport or hobby in moderation is usually a stress factor and a source of pleasure, because you can release endorphins, which will provide a better mood, and improves blood pressure, peripheral circulation, respiratory function, increases good cholesterol (HDL), calories consumed, the weight low, improves sleep and better muscle tone is achieved. All this can contribute to better erections and sexual enjoyment.

However, if competitive sports are practiced from a certain age people poorly trained, could promote both the high risk categories as locomotor cardiovascularly level, and this will adversely reverse in subsequent sex.

Also, if the person makes a sports obsessive, consuming a lot of energy compulsively, you can reach the sexual act, exhausted, sore or injured. It is known that back pain and lumbosciaticas are enemies of pelvic movements.

Whitten and Whiteside (1989) conducted research on 160 swimmers, checking the frequency of sexual practice related to physical sports, reaching determine that those who trained more than 18 hours per week did not have the same sex drive than trained less time.

A hormonal levels, sexual and sports promotes the generation of hormones like estrogen, testosterone, adrenaline and endorphins. Both practices improve blood circulation and the nervous system. In addition, physical improvement increases self-esteem, which will be reflected in sex.

American sex therapist De Villers (2002) conducted an investigation in California with 8,000 women between 18 and 45 years who applied them an intensive exercise program and once completed resulted in 40% of these women had a more intense sexual arousal, and 31% practiced sex more often than before.

The professor of the University of Turkey Karatas Faith (2010) conducted research in 50 women comparing clitoral blood flow in healthy women athletes and non-athletes. This is done using a Doppler (technique assesses blood flow through the blood vessels. For this, women completed the questionnaire of Female Sexual Function Index (FSFI). Our results indicated that women athletes are more clitoral blood flow, improving orgasm and sexual function.

Palacios (2012), director of Medical Center Women's Health in Madrid, confirms that sport is a tool to improve blood flow to the genital area of both men and women. Indicates that physical activity works on two levels: raising endorphins and increasing blood flow.

Frauman (1982) conducted a study on 244 people to assess the relationship between physical and sexual relations practice, concluding that people who exercise also maintain more sex and have a higher sex drive. Thus, athletes would be a population with a high probability of having sex.

After the above, you could do a general question such as: What are the best sports fans?

Sexuality is not a sport but involves physical activity, but does not provide competition. What matters is the spontaneity, curiosity, expression of affection or inhibitions.

What is certain is that athletes handle lower cholesterol and fat levels have improved circulation, have further strengthened the heart, through the exercise also reduce stress and remain active for longer than sedentary subjects. All this will affect sexual pleasure.

6. Conclusions

Most research confirms that sex before sport and physical practice does not determine significant changes in the body and to improve athletic performance or worse.

Some studies argue that the negative influence involvement and performance attenuator is in the environmental courtship, depending on how it is done can be distracting and cause wear on the athlete.

Many authors claim that the body Care through moderate physical and sports activities, take care of food, maintaining desirable weight, and not using harmful substances will provide a better quality of life and healthier, and consequently an erotic and sexual life longer.

There is unanimity that physical sport itself positively influences profit of sexual practice.

Sexuality and sport should not be considered as enemies and incompatible but as complementary.

7. Bibliography

Paper or electronic books, reports and theses:

- DE VILLERS, L. (2002): *Love Skills. A fun, unbeatable guide to sex-cessful relationships*. Aphrodite Media. California.
- ORTEGA, R. (1992): *Medicina del Ejercicio Físico y del Deporte para la Atención a la Salud*. Díaz de Santos, S.L. Madrid.
- SAPETTI A. y KAPLAN MV. (1992): *La Sexualidad masculina*. Editorial Galerna. Buenos Aires.

Chapters in books, reports and articles in newspapers or magazines on paper:

- BLAIR, S.N., KOHL, H.W., GORDON, N.F. y PAFFENBARGER, R.S. (1992): How much physical activity is for health? *Annual Review of Public Health*, nº 13, p. 99-126.
- BOONE, T. y GILMORE, S. (1995): Effects of sexual intercourse on maximal aerobic power, oxygen pulse, and double product in male sedentary subjects. *Journal of Sports Medicine and Physical Fitness*, 35(3), 214-217.
- BOUCHARD, C., SHEPHARD, R.J., STEPHENS, T., SURTON, J.R., y MCPHERSON, B.D: (1990): Exercise, fitness and health: the consensus statement. En Bouchard, R.J. Shephard, T. Stephens, Surton, J.R., McPherson, B.D. (eds.) *Exercise, Fitness and Health. A Consensus of Current Knowledge* (pp. 3-28). Champaign: Human Kinetics.
- CARLIN, A. (1994): Athletic performance and coitus. *Modern Athlete and Coach*, 32(3), 34-36.

- CASPERSEN, C.J., POWELL, K.E. y CHRISTENSON, G.M. (1985): Physical activity, exercise, and physical fitness: definitions and distinctions for health-related research. *Public Health Reports*, 100, 126-131.
 - GARROTE, N. (1993): Educación Física y su contexto. En MARTÍNEZ, V. (Coord.). *La Educación Física Primaria. Reforma, 6 a 12 años*. Vol. I. Paidotribo. Barcelona.
 - HANNAN, J.L., MAIO, M.T., KOMOLOVA, M. y ADAMS, M.A. (2009): Beneficial impact of exercise and obesity interventions on erectile function and its risk factors. *Journal of Sexual Medicine*, 6(3), 254-261.
 - KARATAS, O.F, BALTACI G., ILERISOY Z., BAYRAK O., CIMENTEPE E., IRMAK R. y UNAL D. (2010): The evaluation of clitoral blood flow and sexual function in elite female athletes. *The Journal of Sexual Medicine*, 7(3), 1185-1189.
 - LÁZARO, A.J., ORO, L.A. y BARRAL, J.R. (1987): Estudio comparativo del rendimiento físico antes y después de la actividad sexual en varones. *Archivos de Medicina del Deporte* 4(14), 145-149.
 - PALACIOS, S., JESÚS M., CASTELO-BRANCO, C., GONZÁLEZ, S. y OLALLA, M.A. (2012): Recomendaciones de la Sociedad Española de Ginecología y Obstetricia sobre la prevención y el tratamiento de la atrofia vaginal. *Progresos de Obstetricia y Ginecología*, 55(8), 408-415.
 - WHITTEN, P. y WHITESIDE, E. J. (1989): Can exercise make you sexier? *Psychology Today*, 23(4), 42-43.
 - ZAGALAZ, M. L., MORENO, R. y CACHÓN, J. (2001): Nuevas tendencias en la educación física. *Contextos educativos* (4), 263-294.
- Articles, blogs or web publications records:**
- ANNICCHIARICO, R.J. (2002): La actividad física y su influencia en una vida Saludable. *Revista Digital*, 8(51). Disponible en: <http://www.efdeportes.com>. Consultado en octubre de 2003.
 - CASTEJÓN, F. J. (2004): Una aproximación a la utilización del deporte en la educación. Lecturas: educación física y deportes. *Revista digital*, 10(73). Buenos Aires. Disponible en: <http://www.efdeportes.com/efd73/deporte.htm>
 - CASTILLO-GARZÓN, M.J., RUIZ, J.R., ORTEGA, F.B. y GUTIÉRREZ, A. (2006): Anti-aging therapy through fitness enhancement. *Clinical interventions in aging*, 1(3), 213-220.
 - JÜRGENS, I. (2006): Práctica deportiva y percepción de calidad de vida. *Revista Internacional de Medicina y Ciencias de la Actividad Física y el Deporte*, 6(22) pp. 62-74. Disponible en: <http://cdeporte.rediris.es/revista/revista22/artsalud20.htm>

XI. PATHOLOGY: TEACHING INNOVATION THROUGH APPLICATION OF NEW TECHNOLOGIES FOR RECOGNITION OF EXISTING BUILDING

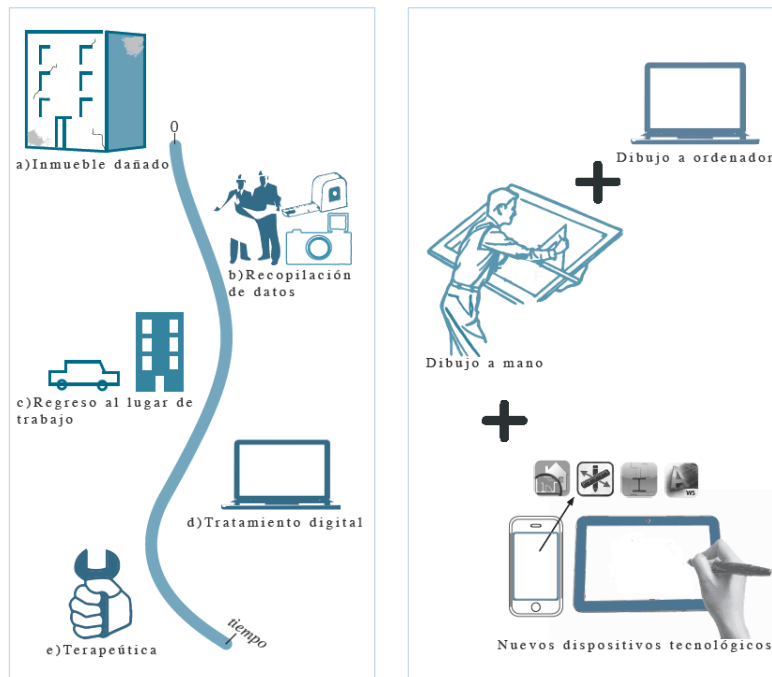
Emilio Herrera Cardenete (Universidad de Granada -Spain-)
Roser and Martinez-Ramos Cazorla (Universidad de Granada -Spain-)
Juan Francisco García Nofuentes (Universidad de Granada -Spain-)

This is the analysis and methodological assessment of the incorporation of new technological tools that behave the available applications (Apps) for current mobile touch devices, such as aid training process scholar of construction referred to intervention in existing buildings and , concretely, in the field of recognition of buildings subjected to pathological processes, on which it must make a clear identification of symptoms for a correct diagnosis, to define the causes and evolution of the process.

Currently, the study of disease processes of construction, since the data are collected until they are processed, (organize, formalize and interpret information), some time elapses, which often are not available to determine the causes and estimate the evolution of the condition.

Sometimes fieldwork becomes a long and difficult process. After obtaining in situ data must return to the workplace to perform the work of staff including the organization and analysis of graphic and photographic materials to generate finally a "digital card" that allows to issue an estimate of the evolution of process and suggest possible therapeutic intervention.

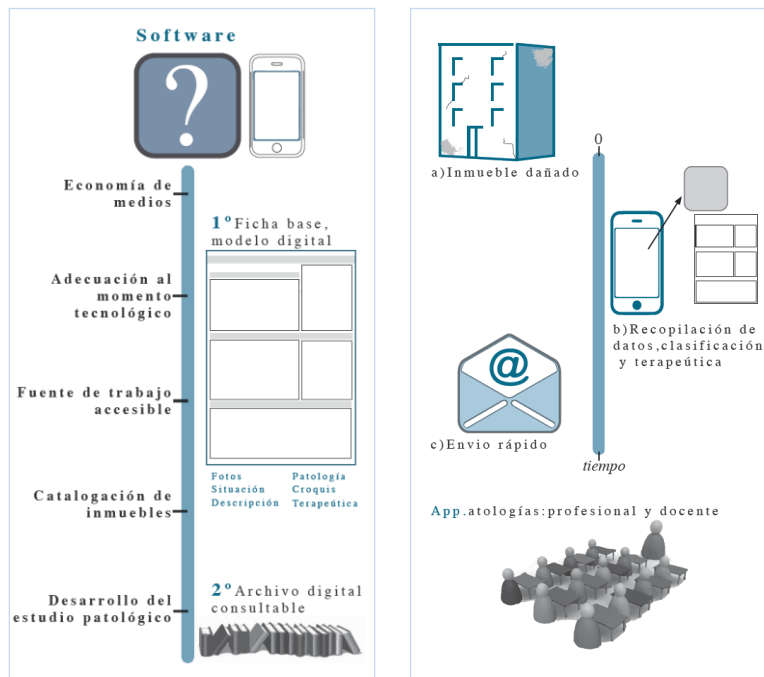
However, the use of touch, very accessible mobile devices allows us to raise the necessary information in situ, move using telematic services and process, facilitating and shortening the development process, however, loses no rigor and precision, allowing to establish a fast and effective diagnosis.



Flowchart of a traditional process and through applications Apps. Source: Martínez-Ramos / Rodríguez Peis

The said communication devices of today available for personal use a large majority of the student population are provided with camera, internet and "Apps" applications are a set of tools and sufficient for lifting data processing in the recognition of the building, allowing your organization and graphic treatment, including on-site photo media captured, marking its exact location and ending costs telematic workplace. Thus, vocational technical office, may be provided sufficient data in real time or, in another order of activity, the procedure can be didactically used by the teacher in the classroom.

Therefore, the initiative includes the use of existing applications on the market for the collection of data required by the relevant computer implementación development of the methodological process constructively pathology and may extend to other specific factors cataloging properties, with or no hedge.



Features of the procedure and organization chart. Source: Martínez-Ramos / Rodríguez Peis

The collection and classification of material shall comply with key preset for this work intervention in existing building, I being translated into "tokens base" with the necessary graphical and photographic information, identifying the disease by cause and effect that determines the diagnosis. A brief qualitative and quantitative assessment of pathology and concise indication of possible formulas for therapeutic intervention may be part of the database.

From the information gathered, once classified by building types and construction systems can extract objective findings on common or most representative building pathologies, allowing you to edit digital catalogs accessible and downloadable teaching materials and or inquiry.

The graphical information that follows, a particular case of a professional nature based on the use of the technology described, which may take the classroom experience and teaching innovation in relation to the study of a disease process of the building is exposed.

In the place, having contact with the building to recognize, which previously they have been analyzed various data and technical documents to be available,

proceed to photographically lift those elements of it that interest (facades, roofs, building elements symptoms of injury, etc).

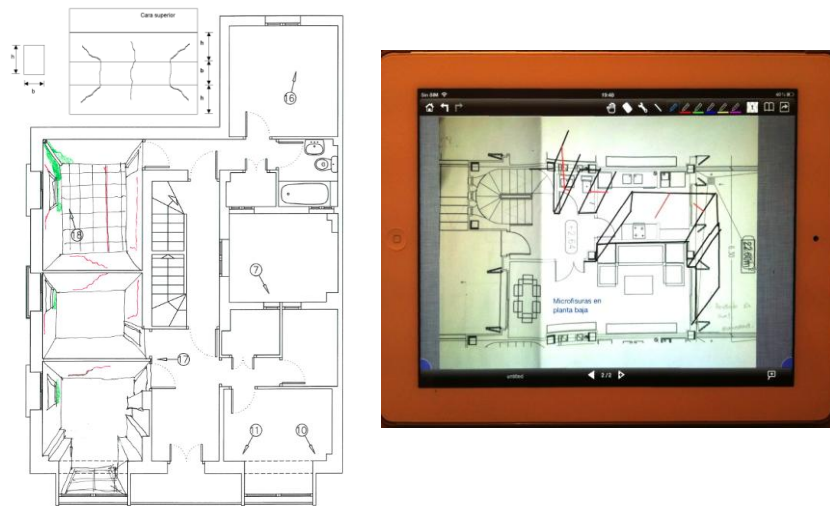


1. Data collection in situ
2. Development
3. Shipping

Fieldwork: Collecting information in situ.

Source: Martínez-RamosFuente: Elaboración Martínez-Ramos

We use applications such as SketchBookX or Draw Pad with which we can annotate graphic or written about mapping type; ArcGIS for geolocation of the place; MideMapasL to locate specific points of an area and get perimeters, distances and surfaces; equally with My Measures grafiamos dimensional linear and quadratic dimensions marked on photographic documentation obtained in situ; with Level or sightLevel we make leveling; MagicPlan allows us to capture real points in a concrete enclosure and relate to trace its perimeter, dimensions and surfaces; AutoCAD 360, digital tablets and smartphones, such as graphical editing tool levels; etc.



Cabinet work: Preparation and processing of information. Source: Martínez-Ramos

Then it proceeds to send these documents via email or any of the formulas currently allow managing files like Dropbox, iCloud, Wetransfer, etc.

In the technical department proceeds to finish the development work to its ultimate consequences, taking the decisions necessary to evaluate the symptoms, making the pathological diagnosis determined in the same, to estimate the evolutionary process and, from this, from therapeutic prescriptions.

The same sequence would be used in the classroom teaching activities, being able to proceed with the development of the issue with the decision of the teacher, in what would be a lecture, and through the participation of learners in a practical class.

2.patología de los materiales

1. Situación

Esquina de la C/ San Jerónimo con la Plaza de la Encarnación, Granada



2. Descripción

Edificio público de 3 niveles de altura. Construido con una estructura de muros de carga de fábrica de ladrillo con cubierta inclinada de teja.



3. Sintomatología

Desprendimiento del revestimiento exterior en la parte superior del zócalo dejando al descubierto el muro de fábrica de ladrillo. Presencia de humedades en la fachada.



4. Diagnóstico

Causa: La humedad del terreno ha ascendido por capilaridad al muro de fábrica, destruyendo el revestimiento de esta estructura portante dejándola expuesta a la agresión de agentes físicos y químicos.

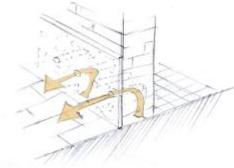
Evolución: con el paso del tiempo este proceso irá agravándose ocasionando un deterioro en esta parte de la estructura.

5. Terapéutica

1.Limpieza de la fábrica de ladrillo y picado del revestimiento en las zonas más afectadas.

2.Ejecución de conductos de ventilación localizados en las zonas de mayor concentración de humedades cuya profundidad será de 2/3 del espesor del muro.

3.Por último se procederá a reconstitución del revestimiento a base de cal grasa que permite la transpiración del muro a la vez que lo protege de la intemperie.



6. Observaciones

Al tratarse de una patología inestable que afecta de forma directa a la estructura del edificio provocando la pérdida de su capacidad portante, es necesaria su intervención. Añadir, que al encontrarse en una de las fachadas, también repercute desde el punto de vista estético.

Se trata de una intervención que no requiere mano de obra especializada ni maquinaria concreta por lo que el coste económico no será excesivo.

Cabinet work: Listing results based.

Source: Martínez-Ramos

The documentation resulting from this process will be reflected on the basis of the type reproduced in the image above, which includes the necessary information, identifying the disease by cause and effect that determines the diagnostic chips.

XII. FOCUS ON BIOGRAPHICAL AND SOCIOLOGY

José Francisco Jiménez Díaz (Universidad Pablo de Olavide, Seville - Spain-)

Francisco Entrena Durán (Universidad de Granada - Spain-)

1. Introduction

Sociology studies the social life, groups and human societies, trying to more or less everyday realities on which explores their conditioning and social implications (Giddens, 1993). That means you can do, and in fact made, Sociology of virtually all actions, problems and social situations. However, this does not mean that sociology exhausted the study of social realities that analyzes, as the first of its intellectual task is accompanied by other social sciences such as economics, social anthropology, history, political science, etc. (Train, 2012). What a difference from other social sciences is perhaps mainly dissimilar perspectives, approaches or looks that these sciences face the study of social realities. Particularly when it comes to sociology is understood that it studies the social system and wider society sector, but also analyzes the economic, political, cultural subsystems, etc.

In this direction, Simmel defines sociology as a crisscross arrangement of looks, through which you can see how relevant between multiple forms and content that shape the social world. Thus for Simmel, Sociology is a perspective or way of seeing the world that studies:

"The production of phenomena by means of social life, and certainly in a double sense, by the coexistence of interacting individuals produced in each which is not explicable from him alone, and the succession of generations, whose heritages and traditions are blended inextricably with the acquisition itself and make the social man" (Simmel, 1986, p. 237).

Undoubtedly, the sociological perspective is not a natural disposition of human beings, for to them as partners, or actors everyday world world of common sense presuppose the existence rather than trying to dominate understand (Schütz,

1974), it is only possible to look at society from a certain social position. This position is linked to certain schemes of perception, thought and / or action (habitus) and structural removals historical societies (Bourdieu, 2002), while at the same time setting limits, is the enabler; ie opens possibilities. Therefore, sociology does not deny the reality of everyday experiences and personal interactions with them as a “*sensitivity to the broader universe of social activity that surrounds us*” (Giddens, 1993, p. 39) is acquired. In addition, the sociological perspective, since it is the product of human action and choice, is reflective, which implies that it is selective, creative and even biased. Precisely to avoid distortions on the looks of the social, it must be acknowledged that the sociological perspective, the prospect of any other science, “*is always partial and that other perspectives are possible*” (Berger and Kellner, 1985, p. 136). Therefore, a key task of sociology is to make those who listen to various human stories and narrate such stories as closely as possible.

Thus, in the development of the sociological perspective has recognizing its dual humanistic and historical side, through which it seeks to understand various group, social and individual human experiences. Such experiences are embedded in the everyday world, allowing it to humans share a set of mutual and tacit knowledge, which, in turn, enable social interaction through communicative actions include collective meanings in ordinary language (Giddens, 2012, Habermas, 1987). Because of this, a real encounter of glances between biographical studies and sociological studies are required, without this implying a loss of rigor of any such studies. Indeed, sociology has been conceived as a social and historical-hermeneutic science that aims to understand, interpreting the meanings of social action embedded in human experiences (Schütz, 1974, Weber, 1982; Bourdieu and Wacquant, 2008). These meanings are constructed for biographical and historical processes and in the course of interactions of humans characterized by three constitutive features of social action: a communication with meaning; certain moral order; and development of power relations (Giddens, 2012).

This means that the sociological perspective is part of a framework that makes it possible to perceive human life as a movement within and through certain social worlds that have specific meanings (Berger, 1988; Schütz, 1974). Such meanings are produced and reproduced in the everyday world and are shared by social actors, sitting by them in a wide variety of habitus, biographical situations and prospects dependent social position occupied at all times. Thus, when applied sociological

perspective awareness habitus of the plurality of views and biographical situations existing in the social context that seeks to investigate is acquired; which requires the perspectives and situations of those who observe, overcoming the partial views and understand the various points of view (Estruch, 2003).

The everyday world can be built from different modes of social action located in multiple and/or successive spatiotemporal contexts in which such action may occur. For example, such a world can be associated with a type of social action involving the development of certain biographical trajectory; ie passing through different periods and social institutions such as family, school, work, etc., as well as the adoption of certain moral career. By this is meant that all stars in a single subject social history that involves attitudes and beliefs (respect or contempt) that others have of him, and perceptions about himself that he conforms interpreting the perceptions of others (Goffman, 1974).

Thus, the nuclear family, paid work or school education are examples of social worlds focused on specific areas of contemporary everyday life. Thus, from the biographical approach have made excellent sociological studies on the various social worlds in which cotidianeidades and life paths are developed and / or social-labor people. In this sense, fit noted the following works: the study of Polish immigrants in Europe and America (Thomas and Znaniecki, 2004); the autobiography of a Spanish immigrant (Marsal, 1972); changes of Catholic identity in Spain (Carmona, 1995) and the study of French classes (Bourdieu, 1999).

Starting from the above ideas, in this paper a critical reflection on the biographical approach in sociology is. It is argued that the deployment of the sociological perspective must be based on the biographical approach, since it facilitates the understanding of the dialectical relationship between individuals and societies and the consequent integration micro-macro, thus contributing to deeply understand the social reality.

2. Biographical and narrative approach to sociology

The biographical approach is one of the most profitable to develop approaches sociological knowledge, for when a collection of stories about the life experiences of certain actors are obtained, the analysis of these stories allows understanding how personal events are articulated with social structures and institutions. In other words, biographical narratives that account for a form of social existence, in turn,

allow us to find the mechanisms that link individuals to social groups, and vice versa. Like this:

"Talking about himself and his past, is to talk about people or groups that have been frequented by the institutions that has happened, which have left marks subjective: in the most personal reads as impersonal, as more single most collective" (Lahire, 2009 p. 5-6).

Also, the biographical approach develops between two fundamental assumptions. First, a central assumption of the biographical sketch is that the explanation of the memory of what I lived biographical configured as a total social fact-where multiple levels and social institutions are concentrated, depending on recreating the past and present present depending on the past (Alonso, 1998 pp. 71-72).

So, with biographical narratives can be seen the deployment of social action situated in specific contexts that evolve over time in both micro and macro-social levels. Whereupon, obtaining life stories helps build testimonies that describe from the inside of people multiple social microcosm and logical step from one to another. This hypothesis was central to many works of the Chicago School of Sociology (Thomas and Znaniecki, 2004; Beds-Baena, 2001), the symbolic interactionist and new sociologies (Corcuff, 1998).

Moreover, another important assumption of the biographical approach is that *"all history depends ultimately on its social purpose [...] And sometimes the social purpose of history is obscure"* (Thompson, 2000 p. 1). That is, the story is constructed and interpreted from a temporal context in which subjects who occupy different social positions have certain stories that affected them directly or indirectly. Therefore, the question arises: how people interpret their life from this?; Narrative frames by what people tell their lives?; What limits people such frameworks are imposed? (Lahire, 2009). Also, there is continually a danger of forgetting, gaps in memory, biased interpretations and manipulations, alterations of the facts; in short, the justifications that help endorse the perspective of someone who tells what happened. Thus, common sense is wrong to believe that the past is unchangeable and unchanging when compared with the evolution of historical change. Furthermore, seen from the inner self of human beings, the past is flexible and changes according to how the *"memory again interprets and explains what has happened. So many lives as we have points of view"* (Berger, 1988, p. 85). But it is precisely this flexibility and openness in the reconstruction of the past, the most

important to grasp the possible orientations, deformation or interpretations of social actors. In sum, in the process of creation and recreation of biographical narratives, humans construct and reconstruct the facts and what they mean to them, while seen themselves as social subjects. And this is how they offer social definitions of situations experienced.

However, there is a continuing danger to the biographical illusion, conceived as Bourdieu (2002). Illusion that, in turn, causes frequent *fabulación*, so that the historical events meet social

"Everything you need to be transfigured in the mythology. They are close to us, are human and therefore we are inevitably tempted to attribute them to the clear and resolute will of some people, individuals or groups, who become angels or monsters same reason good or bad are assumed causing [...]" (Aron, 1993, p. 31).

But turn the myth structure depending on certain events values, beliefs and worldviews (*Weltanschauung*) of social actors. Therefore, the myth is another way to explain human experience in the world. In fact, autobiographical stories involve the major challenge to dig into the set of myths that make up the various ways of building *"social reality, while bounding contour of systems of meaning"* (Lyndon, 1999, p. 307-308).

In any case, human beings have always told their personal stories and everyday have heard the stories about past events offered his contemporaries. Actually, the point of view "target" on the narration of historical events and / or a life does not exist, because every time there is a guy who remembers what happened or has highlighting some events and forgetting others, depending on the position busy social and biographical situation at that time. Therefore, a key issue is to make explicit both the social status and living conditions around the subject or subjects that builds storytelling.

Despite these difficulties, scholars of the social world can analyze the social basis in which the perspectives of the individuals who tell their experiences are supported, as well as facts that are repeated and / or differentiate into one or more accounts of some human group. The social bases of these stories and their recurrences or differentiations corresponding to the structures and changes that human realities are inserted. Therefore, in studying them, can not be stressed enough the importance of capturing its historical reality, which is dialogic and

communicating (discursive); and proper interpretation of the historical tradition requires examining the specific knowledge of the community where language and tradition come together (Alonso, 1998).

In this regard, oral history is a process of narrative and descriptive knowledge as old as human history, being "the first type of history" (Thompson, 2000 p. 25) as well as the first means of oral transmission events, memories and collective knowledge. Therefore, oral history and life history are interdisciplinary meeting places since, by oral, substantive interpretations of socio-historical processes and phenomena occur. The life history is not presented as a unique technique of disciplines such as history or anthropology, it can also be very useful for Sociology, Political Science and Social Psychology, recovering the value of the human being *"as opposed to excessive abstractions [...] the positivist scientism"* (Pujadas, 2002, p. 7). Thus, oral history frames the life history and extends its horizons, recognizing them as heroes not only the leaders, but to most people anonymously. This contributes to experts and laymen become coworkers (Thompson, 2000).

Thus, it requires the social scientist to recover your forgotten humanist roots and get off of the illusory position that places it beyond good and evil. According to an Italian sociologist:

"The observer is fundamentally involved in their research, that is, in the field of your object investigated, [therefore] the knowledge is the 'otro' as its object [...] This would be a mutually shared knowledge, based on intersubjectivity of interaction [...]" (Ferrarotti, 1981, p. 20).

The contributions of the focus on the biographical narratives are invaluable for in-depth knowledge of local social phenomena. Furthermore, the investigation of these narratives is essential to represent and speak of the action of individuals in specific situations of everyday life. Different contexts and / or particular sociocultural environments that life form the basis through which those subject to the micro and macro-social processes in which they are embedded are linked.

3. Biographical narratives and social representations

Social representations are ways of thinking and believing whereby meanings are attributed social reality. Consequently, a social representation contains:

"Set of concepts, statements and explanations originating in daily life in the course of inter-communications. Equivalent, in our society, myths and belief systems of traditional societies; It may even be said that are the contemporary version of common sense" (Moscovici, 1981, p. 181).

Biographical narratives and social representations are understood interdependently while the former are constructed by social actors as representations that incorporate them throughout their lives. Consequently, a major goal in Sociology when life histories and / or biographical accounts are collected to analyze certain social representations of groups and / or individuals studied. Thus, the life stories have become a fruitful complement to other techniques and are a means of communication between different social sciences.

Specifically, biographical studies were powered with the emergence of various schools of sociological thought interested in the subjective construction of social reality (Berger and Kellner, 1985; Bertaux, 1997; Bourdieu and Wacquant, 2008; Cicourel, 1982; Corcuff, 1998; Goffman, 1974; Schütz, 1974). Such schools are sociological phenomenology, symbolic interactionism, the structuralist constructivism and ethnomethodology. All of them emphasize the dialectical relationship between the individual and social structures and how the latter are internalized, constructed, recreated and changed by people in their everyday worlds. If the "objectivity"-what outside individuals-has been crucial in the process of knowledge of social structures, it is no less "subjectivity"-which is understandable since the social representations humanas- to study practices agents.

However, it is difficult to explain the dialectical relationship between social structures and representations. C. W. Mills insisted that social science is true that combines biography and history. If both aspects are analyzed you get to acquire a better understanding of social reality. No biography is impossible to understand human life and its processes. Biographical memory is not merely an example of social life, but a key element to analyze it.

"The sociological imagination enables us to grasp history and biography and the relationship between the two within society. That is its task and its promise [...]" (Mills, 1993, pp. 25-26).

Unfortunately, for a large part of contemporary sociology, the biographical approach is still considered a marginal secondary aspect, which serves only as an example, illustration, or annex to the analysis of more structural imprint; that is,

focused mainly on external factors shaping objectives society. However, such analyzes are not necessarily more profound and systematic than they can be biographical analysis. It is therefore important to emphasize the value of biographical analysis by itself, not as an exceptional example or curiosity.

Surely biographies represent a dialectical process of social construction: first, the human-agent personal subjective identity; secondly, the socio-historical reality that surrounds the agent. Therefore, the biographies are not understood as mere narratives isolated lives, they represent a set of crossroads between personal daily lives and situations of human groups. Only by analyzing such intersections can be known the sense that social actors give performances and practices in their everyday worlds.

However, biographical narratives are not innocent and can respond to spurious interests for social research (Bourdieu, 2002), but this must not take your delegitimization and denial. Those who study social reality are to help assess the consistency of the stories of distorted lives, through variables such as ethnicity, gender and social class. The classification of life histories for generations (or cohorts of age), gender, social class, political values, profession and rural-urban context, is necessary for a proper analysis of social representations.

There are three ways to develop the biographical sketch which, in turn, allow us to study the practices and social representations. First, the autobiography, which is like a travel book, which is concerned mainly of oneself, but also of individuals, groups and institutions with which it had a link for life. Second, life history, in which diverse people whose lives appear partially described, but the narrative focuses on the life of an important person or few of them. Third, the biographical story in which the main characteristics and trajectories of life narrated a small sample of a socio-professional group to know it deeply.

Obviously, biographical research and personal documents is crucial to appreciate the changing meanings and / or frameworks through which actors construct narratives. It should be recognized that the passage of time and the accumulation of new life, collective and personal experiences cause changes in the habitus or "*system of dispositions to be and do*" (Capdevielle, 2011 p. 35).

As important as the biographical information are omissions and silences; unsaid and censored without being aware of it. What is concealed is vital for analysis. The information can be silenced most important to understand the social

construction of reality and / or personal identity (Miguel, 1996). Such omission only emerge when the life history or biographical narrative are sufficiently developed.

A complicated issue in the analysis of biographical documents is to discern between the imagined and really experienced life. The increased tension between the two extremes, the actual experience and the imagined, can the effect of legitimacy; ie that the subjects have what they want to be heard themselves and not the actual lived experiences. Therefore, he has to get special attention in the development and publication of biographical narratives.

4. Conclusions

The sociological perspective and biographical approach are two complementary approaches to the study of human social life. Thus, from the "*comprehensive sociology*" (Giddens, 2012; Berger, 1988; Schütz, 1974; Weber, 1982, etc.), has recognized the confluence of biography and Sociology in the analysis of human social world. When researching the biographical approach from a fundamental dialectic process is revealed: individuals produce society, but it also produces the former. Certainly, such an approach allows to know "*the process followed by the subjects, the meaning of lived experience, the significance of collective life within the consciousness of individuals*" (Camas-Baena, 2001 Pp. 215-216). In this connection mention various sociological studies that show this process: Thomas and Znaniecki (2004), Marsal (1972), Carmona (1995) and Bourdieu (1999). These studies show that the social world is shaped by a texture of shared meanings and these can only be interpreted and understood sociologically oriented if listen and examine the biographical narratives of social actors perspective develops.

Therefore, it is necessary to grasp the complex narratives that social phenomena and usefulness of approaching critically for the first rigorous analysis of these phenomena are embedded. An adequate knowledge of these narratives reveals two fundamental assumptions of the biographical approach: the biographical as a total social fact and flexibility of social actors in the reconstruction of their experiences. Also, there are two dangers in applying such an approach: biographical illusion and mystification of events and people. Therefore, if the investigator becomes aware of such assumptions and risks, analyzing biographical narratives can, on one hand, to account for the development of a specific form of social existence and, secondly, to discover the mechanisms that

intertwine the individual and social as well as verify the micro-macro dialectic. Although the sociological analysis of biographical narratives not allow generalizations, this analysis contributes to the deep knowledge of the social.

Finally, the biographical narratives consist of various social representations that subjects internalize during their lives. Thus, in developing the biographical sketch, either by autobiography, life history or biographical account, it is noted three key issues. First, assess the changing ways by which actors construct their biographical narratives. Second, to analyze what is hidden in such a comprehensive narrative for sociological analysis. Third, discern between the imagined and really experienced life. This means that those who use personal-biographical materials pay close attention both in their research work and publication of such material.

In short, this paper has tried to clarify the relationship between sociological perspective and biographical approach, as both looks are complementary, interdependent and mutually enriching social studies. This requires conceiving sociology as a partial and rational look, ready to hear and examine the human stories in social knowledge.

5. Bibliography

Books:

- ALONSO, Luis Enrique (1998): *La mirada cualitativa en sociología*. Fundamentos. Madrid.
- BERGER, Peter L. (1988): *Introducción a la sociología*. Limusa. México.
- BERGER, Peter L. y KELLNER, Hansfried (1985): *La reinterpretación de la sociología*. Espasa-Calpe. Madrid.
- BERTAUX, Daniel (1997): *Les récits de vie: perspective ethnosociologique*. Nathan Université. París.
- BOURDIEU, Pierre (1999): *La miseria del mundo*. Fondo de Cultura Económica. México.
- BOURDIEU, Pierre y WACQUANT, Loic (2008): *Una invitación a la sociología reflexiva*. Siglo XXI. Buenos Aires.
- CARMONA, Francisco José (1995): *Cambios en la identidad católica: la juventud de Alfonso Carlos Comín*. Ediciones Libertarias. Madrid.
- CICOUREL, Aaron (1982): *El método y la medida en sociología*. Editora Nacional. Madrid.
- CORCUFF, Philiphe (1998): *Las nuevas sociologías*. Alianza. Madrid.

- FERRAROTTI, Franco (1981): *Storia e storie di vita*. Laterza. Roma-Bari.
- GIDDENS, Anthony (1993): *Sociología*. Alianza. Madrid.
- GIDDENS, Anthony (2012): Las nuevas reglas del método sociológico. Crítica positiva de las sociologías comprensivas. Amorrortu. Buenos Aires.
- GOFFMAN, Erving (1974): *Frame Analysis: An Essay on the Organization of Experience*. Harper Colophon Books. Nueva York.
- HABERMAS, Jürgen (1987): *Teoría de la acción comunicativa*. Taurus. Madrid. Vol.1.
- MARSAL, Juan Francisco (1972): *Hacer la América: Biografía de un inmigrante*. Ariel. Barcelona.
- MIGUEL, Jesús Manuel de (1996): *Auto/biografías*. Centro de Investigaciones Sociológicas. Madrid.
- MILLS, Charles Wright (1993): *La imaginación sociológica*. Fondo de Cultura Económica. México.
- PUJADAS, Juan José (2002): *El método biográfico: el uso de las historias de vida en las ciencias sociales*. Centro de Investigaciones Sociológicas. Madrid.
- SIMMEL, George (1986): *El individuo y la libertad. Ensayos de crítica de la cultura*. Península. Barcelona.
- SCHÜTZ, Alfred (1974): *El problema de la realidad social*. Amorrortu. Buenos Aires.
- THOMAS, William I. y ZNANIECKI, Florian (2004): *El campesino polaco en Europa y América*. Centro de Investigaciones Sociológicas y BOE. Madrid.
- THOMPSON, Paul (2000): *The voice of the past*. Oxford University Press. Oxford.
- WEBER, Max (1982): *Ensayos de metodología sociológica. Sobre algunas categorías de la sociología comprensiva*. Amorrortu. Buenos Aires.

Chapters in books and journal articles:

- ARON, Raymond (1993): Introducción, en WEBER, Max: *El político y el científico*. Alianza. Madrid.
- BOURDIEU, Pierre (2002): La ilusión biográfica, en BOURDIEU, Pierre: *Razones prácticas. Sobre la teoría de la acción*. Anagrama. Barcelona.
- CAMAS-BAENA, Victoriano (2001): Olvido y vigencia de ‘El campesino polaco en Europa y América’, en *Empiria*, nº 4.
- CAPDEVIELLE, Julieta (2011): El concepto de habitus: con Bourdieu y contra Bourdieu, en *Anduli*, nº 10.

- ENTRENA, Francisco (2012): La Sociología como Ciencia Social, en TRINIDAD, Antonio y GÓMEZ, Javier (Coords.): *Sociedad, Familia y Educación. Una introducción a la Sociología de la Educación*. Tecnos. Madrid.
- ESTRUCH, Joan (2003): La perspectiva sociológica, en CARDÚS, Salvador (coord.): *La mirada del sociólogo. Qué es, qué hace, qué dice la sociología*. Editorial UOC. Barcelona.
- LAHIRE, Bernard (2009): Sociología y autobiografía, en *Trabajo y Sociedad*, nº 12.
- LINDÓN, Alicia (1999): Narrativas autobiográficas, memoria y mitos: una aproximación a la acción social, en *Economía, Sociedad y Territorio*, nº 6.
- MOSCOVICI, Serge (1981): On social representation, en FORGAS, Joseph Paul (Ed.): *Social cognition. Perspectives in everyday understanding*. Academic Press. Londres.

XIII. AN AUTO-BIOGRAPHY IN COLLABORATION: BE MASTER IN COLOMBIA

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"The Autobiography is a new spiritual revolution: the artist and the model fit perfectly, the historian takes itself as an object"
(Gusdorf, 1956, 1991: 11)

1. Introduction

The idea of Human Occupation as a dynamic and balanced interaction between Being The Making and Becoming, and as an expression and freedom of man draft (Rubio & Sanabria, 2011), writes the deep knowledge of the meaning and meanings that people attach to their making and understanding meaning making and meaning of his own existence which is driven occupation. Clark in 1991, presented the Human Occupation as a creator of meanings and meaning (Clark, Carlson, & Wood, 2008). So the occupation not only has meaning for the subject, but that creates and (de) constructed in it, a particular way of seeing and interpreting the world.

Aware of the importance of occupation in human existence developed a biographical-narrative to navigate the phenomenon occupational study. We opted for the life narratives, autobiography promptly as they have proven to be a bridge to travel past experiences and future expectations (Jonsson, Josephsson, & Kielhofner, 2001). In turn, this genre allows adopt a comprehensive process of occupational position (Larson & Fanchiang, 1996) and claims the subjective and intersubjective knowledge in storytelling and narrative. We understand that autobiography:

"Is not an objective biography, not a historical genre; autobiography is a work of art and at the same time, a work of ontology construction: presents the character of their privacy, not as it was or is, but as he believes and wants to be or have been" (Gusdorf, 1956, 1991 Camarero, 2010: 41)

Based on this concept we move into the experiences and life chances of a Colombian teacher in order to explore, from the Sociopoética, the meaning and the meanings she gives your teacher do. However, search within scenarios subjectivity and fiction developed in autobiographical writing represents a universe of possibilities of interpretation for qualitative studies. The narrative of one's life and entail subsequent public space, in science, the intrinsic necessity of intersubjectivity and contextualization of the past and present.

2. The teaching occupation through autobiography

The intrinsic relationship between the subject and occupation (Rojas, 2011) develops in temporal and spatial dimensions, and personal, physical, social and cultural contexts (American Occupational Therapy Association, 1995). It is a relationship in a loop representing a continuous back and forth dialog shown in action as a process of expression and compression of the interior and surrounding world (López Díaz, 2012). For this relationship we enter the study of the meaning and significance of the occupation that is part of *"issues such as the relationship of meaning with self-expression and identity, personal and cultural importance of the occupations, the way in which the meaning influences occupational choices and perceived experiences of the occupation ..."* (Larson, wood, & Clark, 2008: 18). At the same time, trying to understand *"how and how people appropriated the daily business sense ..."* (Trujillo Rojas, Sanabria, Carrizosa, & Parra, 2011). These guidelines and emerging methodology of our study led us to investigate in Education with a multitude of findings focused on teaching practice, the choice and professional identity of teachers (Monereo & Pozo, 2011; Bolívar, 2006). Most of these studies are connected with the importance of doing in life and existence of the teacher as developed by Martinez and Jarecki, who state that:

"Teachers are a group of people defined by a specific sociocultural discourse that has its practical translation of what teachers do, what they say they do, what they should do and say what they want to keep doing" (1999 , 2000: 217).

Together, in the Colombian context, Nieto studies highlight the close relationship between autobiography and teaching in stating that: *"teachers carry with them throughout his autobiography: their experiences, identities, values, beliefs, attitudes, obsessions, preferences, wishes, dreams and hopes"* (2006: 53) and confess that: *has "come to believe that being aware of his own autobiography and value should be at the heart of teaching because [...] teaching is an encounter with the I"* (Nieto, 2006: 52).

3. Method

Autobiographical writing explore how occupation merges into the life of the person and thus the significance and meaning that gives your doing, is a journey through the experiences encapsulated in the memories through memory. At the same time, the auto-biographical act is a creative process in which fictional participant and researcher (a) shape memory and oblivion tear in order to make sense and give meaning to their occupation.

Methodologically, focus and biographical-narrative approach allowed us to see the occupational phenomenon in the life of a Colombian teacher from an integrative and multireferential posture (Bolívar, Domingo, & Fernández, 2001; Bolívar, 2006; Correa, 2012). We developed a unique biographical narrative, where *"a single individual [...] prepares his autobiography that, as such, is under investigation"* (Bolívar, Domingo, & Fernández, 2001: 259) and the researcher will counterpoint the story of the subject. This allowed claim shared knowledge through interaction subjectivity (Ibid). So researcher (a) and participant were affected (a) was influenced (a) s from each other, which led directly to the construction of the story (Cornejo, 2006).

In this sense, it could be seen as a collaborative writing since the autobiographical text is born of voice and listening to the two participants. A literary example of collaboration is writing the work of Jacques Derrida entitled in turn, *Jacques Derrida* (1994). It is the publication of the autobiography written by two people, the subject's own autobiographical writing, Jacques Derrida and his biographer. Both write and share the same page as an experience of confession.

"In this polyphonic theoretical exercise is the text of Jacques Derrida, the subject of the statement appears as a focus of confession. Subject circonfeso requiring the caller listens well, a parallel response that duplicates his testimony is corroborated. However, the confessor, defends and hides under

the guise of autobiographical writing marked with the sign of the unveiling of the privacy of the subject. Derrida provides a playful bet with G. Bennington. The challenge is to deconstruct a truth that seeks not to reproduce, but constitute an identity. But an identity that conceals multiple mirrored senses, reflexes of a confession as dialogic sham" (Luengo, 2007: 225)

Foucault (1982) has studied the ways of creating individuality noting that power relations are exercised on the subject. In the autobiography, the individual is *"subject to someone through control and dependence; and subject to his own identity by a conscience or self-knowledge"* (Foucault, 1982: 781). Also points out the ways in which the human being becomes himself a subject. In the domain of sexuality linked to power relations and the structuring of discourse for creating individuality, confession plays a fundamental role:

"The confession is a ritual of discourse in which the speaking subject matches the subject of the statement; it is also a ritual that unfolds in a power relationship, for he does not confess without at least virtual presence of another, which is not simply the interlocutor but the authority that requires confession, imposes, appreciates it and intervenes to judge punish, forgive, console, reconcile" (Foucault, 1978: 78).

As noted, this curious text is written by two authors on the same page, Bennington and Derrida above the foot of the page. It is, therefore, a collaboration between the two authors. *"L'écriture in collaboration"* is addressed by Philippe Lejeune in the chapter called *"Qui est l'auteur?"* In his famous study *Je est un autre*. Faced with this question is answered that *"life has no more than a single author."* The author is the one who has lived an exemplary life or that painful and presented to the public; the rest is technical work fairly well done (Lejeune, 1980: 232).

3.1. Participant

Mary is our participant and co-researcher, woman, mother, wife and teacher Colombian born in 1954 who since childhood has been linked to their occupation. Most of his schooling took place in a Normal School (teacher trainer Colombian institution). He has spent his whole working life to education in Colombia at all levels of education (preschool, elementary, middle and high school). He is currently retired and as she herself puts it, "taking care of herself" (Mary, 2013).

3.2. Techniques and instruments for data collection

In researching the auto / biographical writings and diaries of processes such as data collection instruments were used. Which were enriched with occupational conversations that are subjective and intersubjective narrative devices (Figure 1).

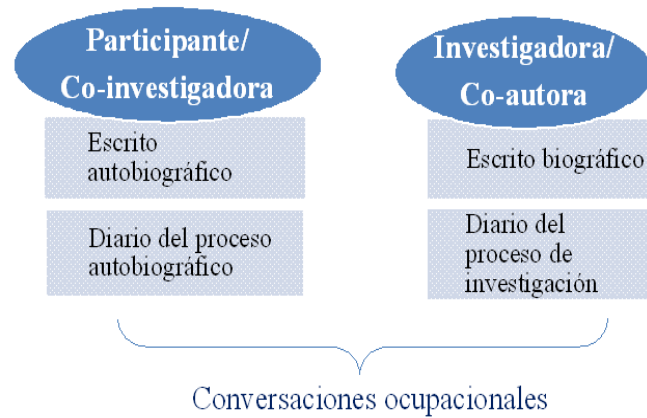


Figure 1: Techniques and instruments for data collection

3.3. Procedure

The method of data collection was developed in four phases that were equipped with subjective and intersubjective spaces (Figure 2).

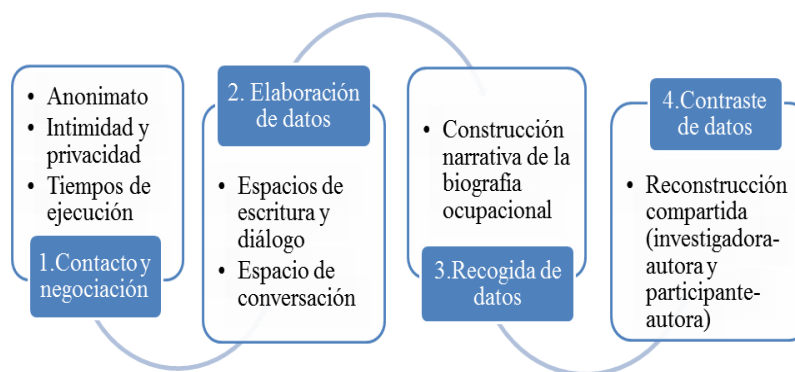
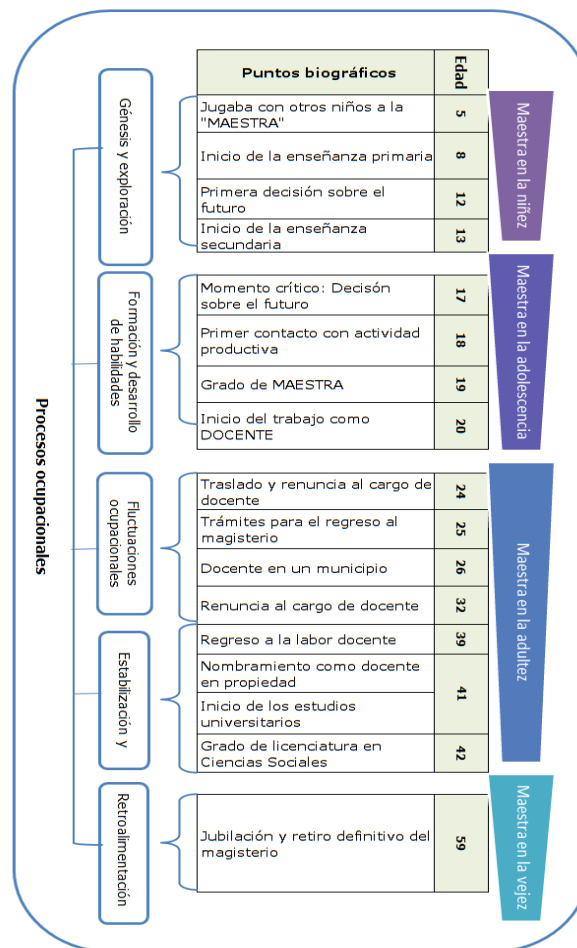


Figure 2: Data Collection Procedure

4. Results

Analysis of auto-biographical reconstruction of our teacher participant was based occupational biogram yielded information critical incidents or determinants biographical points in its history and teaching career. These qualitative data were rich and nuanced with the subjective experience of Mary, pointing the way to the holistic analysis of the meaning and significance of their teaching to do in each of their life stages.

4.1. Biograma



Master in childhood

For Mary, the occupation is closely related to the innate conception of being and starts with his birth: "When I became a teacher? I was born with this gift. I am so lucky. I love this task and I have given with devotion, passion and total lack of interest" (Mary, 2013). His story shows a childhood provided with educational experiences that were showing a way forward and that generated the desire to continue learning (Díaz López, 2013). Proof of this is their playground, know in advance that childhood games prepare us for future performance. In Mary's case, these games opened the door to a world of post-occupational experiences. She tells us:

"Back in my childhood, when just counting on six years old, start to taste the sweetness of teaching. I am very happy doing the role of teacher to my friends on the block where I live, not knowing that this is my fate; I formed in rows and then place them indicated seated facing a wall that serves as my board, where I pretend I repeating words write and write in the air; I lead games and rounds and I forget everything else, until the call from my mother or my father brings me back to reality" (Mary, 2013).

Master in adolescence

During puberty and adolescence Mary stands with her "the indomitable spirit of wanting to teach" (Mary), which is manifested against decisions and occupational choices facing it at 12 years as his change of school. During this life stage begins the process of occupational training that molds in it the idea of their occupational role to society and determines the instrumental aspects to be resolved for its development as a social agent. In his narrative we extended this interpretation as follows:

"When I began to prepare to be a teacher? A Normal School I owe my training as a teacher; there teach me to practice my profession in suitable. Fate really leads me to study at that institution which had previously rejected when, difficult economic situation in my family, I am overwhelmed at the prospect of leaving my studies and my head teacher group asks: Would you like to be a teacher? Why? He asked. And his response to me opens the possibility of submitting exam to achieve a national scholarship and study at the Normal" (Mary, 2013) School.

Master in adulthood

Mary adulthood brings major changes and fluctuations in its process and career mobility. She tells us that:

"After many internal and external struggles, I managed to obtain a teaching certificate. I feel happy because that means I can work to keep [...] I begin to perform teaching with enthusiasm, to see the reality that surrounds and gradually be polishing my personality to develop in the best way that work" (Mary, 2013).

During this stage consolidates her desire to be a teacher as well as a sense of their doing. In his story you can see how the absence of their work generates crisis and instability, leading him to fight to return to teaching. After almost ten years of not working as a teacher, Maria rejoins at an educational institution that has followed him throughout his life, where it is fully realized as a teacher. In this stage of life and occupation, Mary sees flourish the lives of their students and feel satisfaction for what has occupied and shaped his life.

Master in old age

Aging is accompanied by labor retirement and final reflections open new doors and pathways within our research:

"Great satisfaction had throughout my teaching work: seeing physically, spiritually, psychologically and mentally children grow, feeling the energy and vitality that convey youth, knowing with certainty that he had the ability to adapt easily to any group from kindergarten to eleventh and having gone through all grades, and enjoy the feeling of sincere affection of many students, outside the classroom to guide many young people who need an objective view of life and their avatars in ... finally, always fully enjoyed my teaching job and was established for me an incentive and an encouragement for my continuous personal improvement and a way to forget about my personal problems. When I got to college, leaving his door in the pouch of my personal life and took the box of Pandora of my students" (Mary, 2013).

Master always

Faced with the question: *"Am I still a teacher?"*

Mary responds:

"Keep running through my veins huge desire to contribute, according to my ability, so that people can qualify in the search for a more humane world. In the best case, that also qualifies me and I will continue to give meaning to my life ... Today, away from teachers' work schedules, the noise of students, assessments, classes, meetings, to present the work of its formations, tests, presentations to the community, I wonder ... What I want to do in life I have left? For now, I want to take care of myself ..." (Mary, 2013).

This prospective occupation enunciated by Mary opens new frontiers in our study. Each of the experiences reported by our participants shows that teacher being is part of all life stages and do has been endowed with meanings of realization and life satisfaction.

At the end of this teaching occupation recollected by Mary as pleasant as a vital need and the big question facing the threat of an empty future emerges. What do I do now? In response overlooks the suspicion that some deficiency was in that past life. Delivery to other filled his previous life and perhaps occupied while there was not enough space to deal with the self. Reason, the need and desire to serve the present circumstance arises imperiously vital. It is the Self, in the now, who pushed for attention.

"I take care of myself." It is the "other" who raises his voice, silent for the past tense, deferred to the background and always silenced to make way to the needs of others, the rest of the world around me. Is the teaching vocation, occupation, has failed to meet the needs of others and thus, I have covered mine, but maybe have you annihilated, annulled, mute, off, reset? I shut my waiting time, an opportunity, a place for me. Any own room? as Virginia Woolf claimed for women.

As stated in the Hegelian tradition, the desire is always a desire for recognition and any of us as social beings is feasible only through the experience of recognition, however, the terms that allow us to be recognized as human are variables. The human being is conceived differently depending on their race and

visibility of the race; morphology and the extent that such morphology is recognized; sex and the perceptual verification of such sex; ethnicity and categorization of that ethnicity. Therefore, recognition becomes a seat of power (Butler, 2006).

Moreover, Judith Butler considers that poststructuralism does not entail the disappearance of autobiographical writing and draws attention to the difficulty of "I" to express themselves through language. *"I'm not outside language structure I, but I'm not determined by language which makes it possible that 'I'."* This is the bond of self-expression as understood by Judith Butler (2006: 17). In the collective imagination based inhabit a male and female stereotypes beliefs, depending on ethnicity and historical moment, determine the binary representation of this marking that, in turn, shows different images of women (Luengo, 2014). Gender roles, social and cultural, taxes normatively (de) construct the visibility / concealment of vital setting expectations and different models of occupancy and transcript not only the particular and individual sociopoetics but as the product of a social poetics gender.

5. Bibliography

Paper or electronic books, reports and theses:

- BUTLER, J. (2006). *Deshacer el género*. Barcelona: Ediciones Paidós Ibérica, S.A.
- DERRIDA, J. (1994). *Jacques Derrida* Madrid, Cátedra.
- LEJEUNE, P. (1980): *Je est un autre*. Paris, Seuil.
- BOLÍVAR, A. (2006). *La identidad profesional del profesorado de secundaria: crisis y reconstrucción*. Málaga. España: Aljibe.
- BOLÍVAR, A., DOMINGO, J., & FERNÁNDEZ, M. (2001). *La investigación biográfico-narrativa en educación. Enfoque y metodología*. Madrid, España: Editorial La Muralla, S.A.
- CAMARERO ARRIBAS, J. (2011). *Autobiografía. Escritura y existencia*. Barcelona: Anthropos Editorial.
- CORNEJO, M. (2006). *El enfoque biográfico: Trayectorias, desarrollos teóricos y perspectivas*. *PSYKHIE*, 95-106, Vol. 15, nº1.
- GUSDORF, G. (1990). *Les écritures du moi. Lignes de vie 1*. Paris: O.Jacob.
- MONEREO, C., & POZO, J. (2011). *La Identidad en Psicología de la Educación*. Madrid: Narcea, S.A.

- NIETO, S. (2006). *Razones del profesorado para seguir con entusiasmo*. Colección: *Repensar la educación*, nº. 21. Título original; *What keeps teachers going?*, 2003. Barcelona, España: Ediciones Octaedro, S. L.
- ROJAS, C. (2011). *Ocupación: sentido, realización y libertad*. *Diálogos ocupacionales en torno al sujeto, la sociedad y el medio ambiente*. Bogotá, Colombia: Editorial Universidad Nacional de Colombia.

Chapters in books, reports and articles in newspapers or magazines on paper:

- AMERICAN OCCUPATIONAL THERAPY ASSOCIATION. (1995). Position Paper: Occupation. *American Journal of Occupational Therapy*, Vol 49, nº 10 1015-1018.
- CLARK, F., CARLSON, M., & WOOD, W. (2008). Ciencia ocupacional: Desarrollo de la ciencia y la práctica de la ocupación a través de una disciplina académica. In E. Crepeau, E. Cohn, & B. Schell, *Terapia Ocupacional*, 10th Ed. (pp. 15-26). Buenos Aires: Médica Panamericana S.A.
- GUSDORF, G. (1991). Condiciones y límites de la autobiografía. *La autobiografía y sus problemas teóricos. Estudios e investigación documental. Suplementos Anthropos*, vol 29, 9-17.
- HELFRICH, C., KIELHOFNER, G., & MATTINGLY, C. (1993). Volition as Narrative: Understanding Motivation in Chronic Illness. *The American Journal of Occupational Therapy*, vol 48,4.
- FOUCAULT, M. (1982): "The Subject and Power". *Critical Inquiry* 8, 777-795.
- JONSSON, H., JOSEPHSSON, S., & KIELHOFNER, G. (2001). Narratives and Experience in a Occupational Transition: A Longitudinal Study of the Retirement Process. *The American Journal of Occupational Therapy*, vol 55,4.
- LARSON, E., & FANCHIANG, S.-P. (1996). Life History and Narrative Research: Generating a Humanistic Knowledge Base for Occupational Therapy. *The American Journal of Occupational Therapy*, vol 50, 4.
- LARSON, E., WOOD, W., & CLARK, F. (2008). Ciencia ocupacional: Desarrollo de la ciencia y la práctica de la ocupación a través de una disciplina académica. In E. Crepeau, E. Cohn, & B. Schell, *Terapia Ocupacional* (pp. 15-26). Buenos Aires: Médica Panamericana S.A. 10th Ed.
- LUENGO GASCÓN, E. (2013): "Identidad y género en Ana María Machado: reconocimiento, etnicidad y visibilidad". In F. L. Viana, R. Ramos, E. Coquet & M. Martins (Coords.), *Atas*

do 9º Encontro Nacional (7º Internacional) de Investigação em Leitura, *Literatura Infantil e Ilustração* (pp. 241-276) Braga: CEIC- Centro de Investigação em Estudos da Criança da Universidade do Minho.

- LUENGO, E. (2007). “Los límites de la escritura: en torno a la auto-bio-grafía (im)posible de Jacques Derrida” *Flumen* 10 noviembre, 225-238.
- MARTÍNEZ SÁNCHEZ, A., & JAREÑO GONZÁLEZ, A. (1999-2000). el discurso cultural de los profesores: Pensamientos y vivencias; esperanzas y desesperanzas. Estudio etnográfico a través de biografías profesionales. *Enseñanza*, vol. 17-18, 217-249.
- RUBIO, S., & SANABRIA, L. (2011). Ocupación como proceso subjetivante. In R. Claudia, & G. d. Humana, *Ocupación: sentido, realización y libertad. Diálogos ocupacionales en torno al sujeto, la sociedad y el medio ambiente* (pp. 72-100). Bogotá, Colombia: Editorial Universidad Nacional de Colombia.
- TRUJILLO ROJAS, A., SANABRIA, L., CARRIZOSA, L., & PARRA, E. (2011). Comprensión de la ocupación humana. In R. Claudia, & G. d. Humana, *Ocupación: sentido, realización y libertad. Diálogos ocupacionales en torno al sujeto, la sociedad y el medio ambiente* (pp. 27-69). Bogotá, Colombia: editorial Universidad Nacional de Colombia.

Articles, blogs or web publications records:

- CORREA, R. (2012). La aproximación biográfica como opción epistemológica, ética y metodológica. En *Proposiciones*, vol.29,35-44. 1999. Santiago de Chile. Ediciones SUR, 2001. Retrieved from: La aproximación biográfica como opción epistemológica, ética y metodológica. Corporación de Estudios Sociales y Educación:
- <http://www.sitiosur.cl/publicacionescatalogodetalle.php?PID=3260&doc=N&lib=N&rev=N&art=Y&doc1=N&vid=N&autor=&coleccion=&tipo=ALL&nunico=1500003>
- LÓPEZ DÍAZ, Y. (2012). ¡La educación que me (de)construyó! Relatos autobiográficos de maestros. Universidad de Zaragoza.
- <http://zaguan.unizar.es/record/9163?ln=es>
- LÓPEZ DÍAZ, Y. (2013). Auto-biografía de una maestra. Ocupación y vida. Universidad de Zaragoza, <http://zaguan.unizar.es/record/10849?ln=es>

XIV. GEOLOGICAL SETTING VALUE OF ASSETS AS A TOOL FOR DISSEMINATION IN NATURAL AREAS THROUGH NEW TECHNOLOGIES (DIGITAL PATHWAYS, VIRTUAL BALLOONS, FLIGHT 3D PANELS AND EDUCATIONAL VIDEOS)

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José Luis Goy (Universidad de Salamanca -Spain-)

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1. Importance of geological heritage

Natural Areas of SW Castilla y León: Natural Protected Natural Batuecas-Sierra de Francia Park Arribes del Duero, protected landscape Rebollar Space. LIC and LIC Quilamas Candelario and Gredos Regional Park west--zona; have great educational value as they present many points of geological interest (LIGS) of special scientific importance, aesthetic and cultural, associated with its natural and geological heritage, to facilitate understanding of the different processes and natural phenomena, developed over geological history (Flawn, 1970, Unesco, 2004, Martínez-Grana et al, 2011). The teaching of the XXI century requires incorporating different types of education in the classroom, on the field, in interpretive centers ...; and technical resources such as applications, virtual simulators,... to facilitate a comprehensive and meaningful learning, which facilitates the development of skills.

The work presented, enhances educational innovation as about the natural context to academic programs. We took advantage of the educational dimension of natural areas to facilitate the contents of the environmental geology, and promote the development of generic skills, related procedures and investigative techniques, such as applying their knowledge to their professional work. To achieve the competencies, we proceed to the development and creation of arguments to solve problems.

The construction and performance of databases, to convey information, ideas, problems and solutions facilitate the new technologies in relation to the specific skills related to environmental geology in general and other specific cases of geological heritage, performing external and internal geological processes, mechanisms and causes, and the results of its action on the geological environment, territory and human activity (Elizaga et al, 1980; Gonggrijp, 1992; Palace, 1999,. Barretino et al, 2000, Dingwall, 2000; Panizza, 2003; Piacente, 2003; Carcavilla, 2006). This work can enhance the dissemination of geological heritage, placing value geodiversity which in turn facilitates the geotourism (Fishman, 1998; Theodossiou, 2000; ITGE, 2000; Nieto, 2001; Pemberton, 2001, Gray, 2003; Kozlowski, 2004; IGME, 2005; Bruschi, 2007).

The need for conservation of geological heritage is based on their fragility, their intrinsic value and its potential for outreach, teaching and local development (Gallego, 1998). Therefore, the conservation of geological heritage is a responsibility and an obligation on the part of government and society in general (Panizza, 1994; Gonggrijp, 1999), after all consists of the most representative examples and exclusive of the geological record. It is a legacy that we receive and that we pass on to future generations for social and scientific progress (Jonanson, 1999; Eriskstad, 1999).

2. Applications of geological heritage in the new technologies

The work has been developed in a first step by identifying the existing geological heritage in each natural area. Natural areas analyzed are located in the southwest of Castile and León. The geological heritage consists of the set of areas (AIGs), places (ligs) and points of geological interest (PIGs), now grouped in a single term: Places of Geological Interest -LIGs- and ordered in inventories and catalogs. The geological heritage, according to law 42/2007, biodiversity is the set of geological natural resources scientific, cultural and / or didactic education, whether geological formations, forms, geological structures, soils and other geological events that allow know, study and interpret the origin and evolution of Earth and the processes that have been modeled. Collections of fossils and minerals that constitute the so-called geological heritage furniture are also included.

To manage a resource we need to know and identify, therefore, the first step in the study, management and conservation of geological heritage is the inventory of component parts. The inventory involves identifying, locating and classifying sites.

This study of geological heritage, must incorporate an analysis of the information on the geological characteristics and geodiversity. The importance of these places of geological interest, is due to its scientific interest and / or training, as well as the cultural, recreational and / or scenic interest. The criteria to establish the importance of a place are the chronostratigraphic exclusivity, fact lead to significant forms of relief, mineralogy, petrology and sedimentary singularity, the paleontological content and the presence of structural elements highlighted for its uniqueness (Martinez Grana et al, 2013a).

In a second step we proceeded to assess the importance through the development of chips (Figure 1) of each location -LIG- geological interest. The information contained in each record, comprising a full sheet, one side presents descriptive data of LIG (Side A) and other data assessment and weighting (Side B), the latter being susceptible to changes in time. Side A presents some informative and descriptive data such as number and names of the LIG Location, description, location map (map and orthophoto), photographs and sketches of geological and geomorphological context.

The parameters evaluated in each LIG are three: the intrinsic value, the potential use and the need for protection (Cendrero, 1996). The intrinsic value is defined by the quality of scientific use constitutes geological value from a scientific point of view has an item. The assessment is qualitative and quantitative. Qualitative refers to the theme that highlights the element: geomorphology, stratigraphy, tectonics (structural), petrology, paleontology, mining, soil and landscape. For the quantitative assessment of the element we considered a minimum value of 1 and a maximum of 3, taking the following four criteria: abundance, rarity and diversity, the importance as a leader in regional geology, useful in interpreting processes and scientific interest and research (Goy et al., 2013).

The potential use is established considering two possible uses of the LIG, as a teaching resource and as a tourist resort, considered independently. The quality of teaching use sets whether the element can be used as a teaching resource. The criteria considered are: ease of understanding; viewing conditions; makes possible activities and association with other geological features. For all these valued 1-3 criteria to calculate the total value and the average of all criteria for this block is performed. The quality of tourist use, indicates whether the LIG can be used as a tourist resource, the criteria considered are: proximity to infrastructure and

equipment; landscape quality; accessibility and association with other elements of natural, historical and cultural environment.

Nº De identificación LIG 2. A-B		Peña de Francia. Pliegues y Canchales.	
Localización 		Tipos de Patrimonio Geológico Geomorfológico ☐ Estratigráfico ☐ Estructural ☐ Petroológico ☐ Paleontológico ☐ Hidrogeológico ☐ Mineralógico ☐ Otros Edafológico ☐ Paisajístico ☐ Minería ☐	
		Tipos de Usos Didáctico ☐ Turístico ☐ Científico ☐	
Descripción y Fotos Los pliegues existentes en los alrededores de la Peña de Francia, se corresponden con episodios de compresión que durante la Orogenia Hercínica se suceden en tres etapas, los que se aprecian en este punto de interés estructural son de tercera fase. Se observa como los diferentes estratos se comprimen y pliegan en un arco (antiforma), en el cual se aprecian materiales pizarrosos que guardan la lineación de pizarrosidad; se ve solamente en las capas pizarrosas ya que en los estratos más cuarcíticos no se manifiesta. En estas estructuras se puede interpretar de forma didáctica, las diferentes partes de un pliegue anticlinal, con la zona de charnela (superficie donde la curvatura de las capas es máxima) inclinación y buzamiento de ambos flancos, el eje axial, etc. Se pueden observar en algunos puntos estructuras plegadas, originadas por procesos de esfuerzos compresivos paralelos a la estratificación, que actúan sobre las capas de diferentes competencias alternantes: capas duras (cuarcitas) entre capas blandas (limolitas), que hacen que la competente o dura adquiere cierta ductilidad y se deforme. Las formas resultantes son sinuosas (bucles) debidas a la torsión que experimenta la roca. A nivel estructural, la zona Centro Ibérica, diferencia un sector norte de alto grado de metamorfismo coincidentes con estructuras de antiformas y grandes pliegues tumbados (Dominio de Pliegues Acostados), del sector sur con un metamorfismo menos intenso y pliegues subverticales (Dominio de Pliegues Verticales), dentro del cual se encuentra el Sinclinal de Tamames, el sinclinal de la Peña de Francia y el Sinclinal de Salamanca.			
    Plegamiento Hercínico, Peña de Francia. Esquistosidad en las pizarras del Anticlinal. Diaciasa plumosa.			

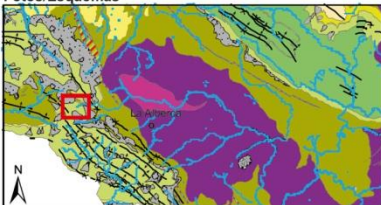
Nº De identificación LIG 2. A-B		Peña de Francia. Pliegues y Canchales.																																																			
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Figure 1: Side A (left) and Side B (right) of the tab for the LIG Paso wolves in the Natural Area Batuecas-Sierra de Francia.

To assess the need for protection has been considered fragile and degraded state that neither removes nor adds value to the landmark, it is only used as an additional information to possible actions. The state fragility and degradation sample susceptibility LIG be impaired, degraded or destroyed. The intention measure this parameter, is the possibility that an item is destroyed or damaged by external or anthropogenic causes. The criteria considered are: intrinsic fragility, human activity and need for protection.

In a third step, all the Ligs developed for the sector studied (110 in total), are grouped by natural areas and geo-referenced techniques Geographical Information Systems-GIS (ArcGIS 10.1) either by direct projection digital globes (Terra Explorer and Google Earth). From different LIG, we proceed to develop geoenvironmental itineraries for each and all of the natural areas. GIS provides capabilities and solutions that enable the collection, management, analysis, modeling, and graphical output representation of georeferenced data application in multiple workspaces. The generation, correction and adaptation based mapping involves the element around these new applications are developed.

These places of geological interest and georeferenced digital format, applications are implemented in large social use, such as visors and Geoportal that allow us query spatial mapping of activating or deactivating thematic information layers territory. Therefore, a significant number of LAGs develop cartographic displays, generating a GIS platform territory management and innovation, developing comprehensively layered different resources in your area of operation (geological heritage, gastronomy, cultural elements, protected...) areas. These lights are usually installed in geo-portals, web pages or in different ministries or on websites or associations of municipalities where entering the viewfinder allows us to view and even extract cartographic and alphanumeric information specific elements of each thematic layer, or create and print custom maps and get information about the natural, cultural, tourist and heritage services of the countryside. Also allow you to add different vector information, dynamically, from (WMS) servers or local servers of the platform itself, which is important because you can feed the display with updated information and different themes ups (routes geological, of cycling, hiking...). An example of creating new annual routes are the activities organized by the Geological Society of Spain, where a specific date geological in each of the provinces of Spain are excursions, from georutas that promote geotourism in each region giving known their geological values and generating free and easy to apply and use in interpretation centers educational

resources, field trips, etc. The authors of this paper have organized in the past three years Geolodía of the province of Salamanca (Martínez-Grana et al, 2012) (Figure 2).

These data are then implemented in virtual globes to generate interactive teaching flights, which allow direct spatial analysis to superimpose different layers of thematic information on the informative reference virtual globes. We used two virtual platforms: one private and one free. The first platform is Terra Explorer, the company Skyline viewer that allows users to edit digital globe from the 3D base map generated by other software from the same company called Terra Builder. Provides the ability to create a scenario as including georeferenced content so that the user can hover the territories created and get the information added. This viewer has added algorithms and calculate the terrain profile, allowing the profile indicate the maximum and minimum altitudes, maximum and minimum slopes, floodplain computation...

The second display is free, downloadable network and is best known Google Earth, which like Terra Explorer has a digital map base as Balloon, allowing 3D visualization. This viewer is fewer applications than the previous, but also allows to implement geo-referenced data, take virtual flights and view thematic information, enabling or disabling each layer (González-Delgado et al, 2013).



Figure 2: Top: Guides to Geolodías georutas of the year 2012 by the Natural Area Batuecas-Sierra de Francia, and 2013 by the Natural Quilamas space. Bottom: overlay theme maps (geological) on the virtual globe 3

Each LIG geo-referenced in the virtual globe, enclosing a brief description in the placemark of each point (Martínez-Grana et al., 2013b). In addition you can add photos and field interpretive schemes and record valuation, so that in any of the listed items can be enabled or disabled on the virtual globe that information and even take virtual flights, flying preset with Ligs itineraries of area and store in the flight video format, playable on the virtual browser from google earth itself, or on any computer or video player (Figure 3).

Finally we use the new technologies, such as augmented reality, to access the digital georeferenced information of interest, so that through applications for smartphones, tablets, ipod ... digital data and information, along with graphics or images, are displayed in real, or can be found using the GPS receiver and compass of mobile digital devices, to locate the user's position, and his journey to the LIG possible time. The mobile screen shows the superposition of different thematic layers on a geo-referenced information and dynamic digital globe including orthophotography, roads, different localities, Ligs ... Museums can change quickly display scale by touch using "zoom + "or zoom" - ". Educational and interpretive panels that bring the participants, elements and geological phenomena observed using easily understood terms are developed. These panels are very illustrative to incorporate pictures, graphs, diagrams and pictures. (Figure 4).

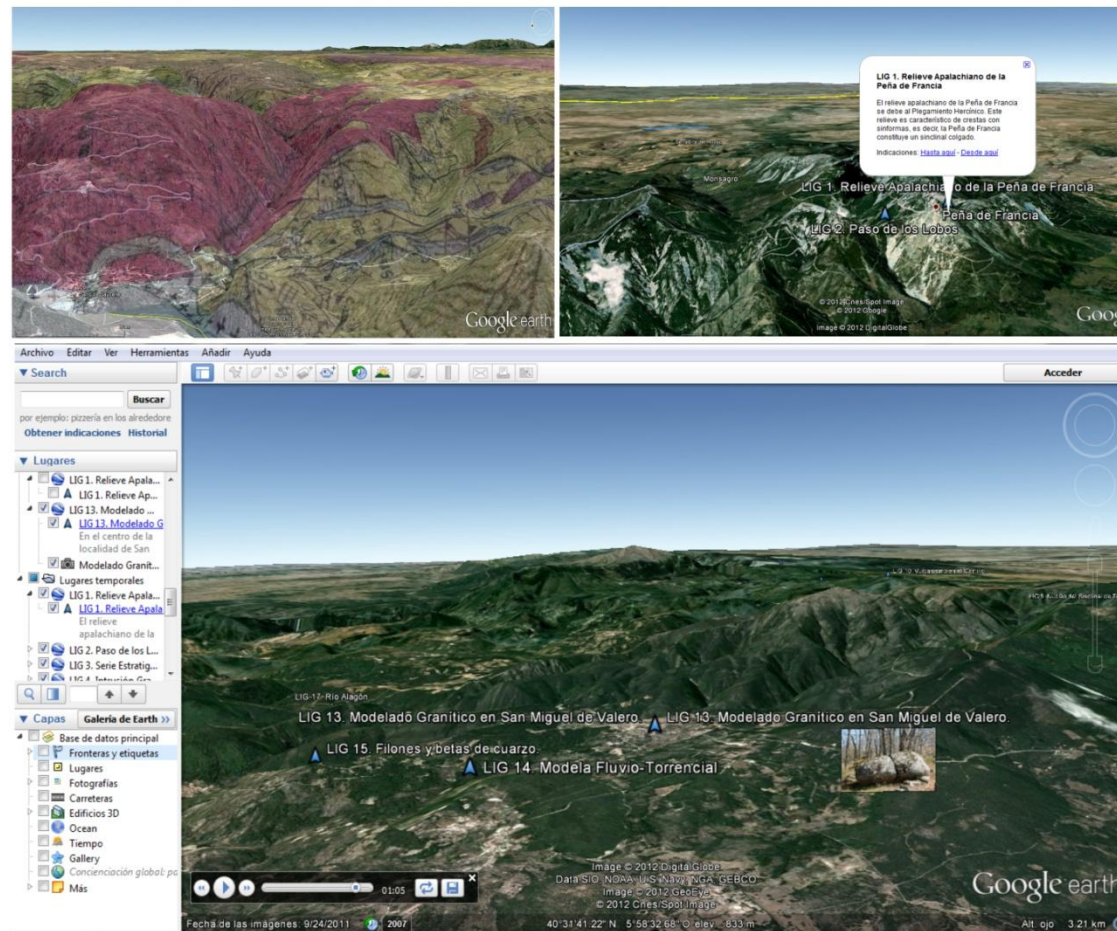


Figure 3: Top: on the left a "zoom +" is observed when a river engagement and lithological distribution and the different structures (faults, dykes orientation ...) The Arrive of the Duero in industry, and right n observed LIG distribution around the Sierra de France display description of LIG 1 Below: virtual flight reproducible in the virtual globe with activation of images, some approaching flight LIG.



Figure 4: Educational and interpretive panels with several LIG QR code to download the panel or play the video on your smartphone with android system in LIC Quilamas

The use of new technologies (tablets, smartphone, ipod ...) can be used both in the classroom and in the field in real time. With the aim of using augmented reality to combine all the teaching resources more active student participation in the teaching-learning process, so that they acquire better learning and meaningful development of their skills is encouraged.

The purpose of these routes is to appreciate the main geological and geographical structures while the enhancement of geodiversity features. Geological resources should enhance the conservation and preservation of geological heritage, using for the implementation of educational, cultural and tourism activities, promoting a better understanding and enjoyment of geological society. To do this we help explanatory panels on the points of geological interest. In some countries these points have become geological monuments, museums real outdoors, with the placement of panels on its geological evolution.

3. Conclusions

The geological heritage is a resource little known and is currently gaining a great development in many natural areas in Spain, complementing resources. This methodology facilitates virtual disclose geological heritage in an easy and entertaining way.

Virtual globes allow developing dynamic methods where participants can develop these natural geological itineraries spaces that give value to geological heritage as well as educational resources and virtual 3D flight, made in the educational institution itself, are developed by integrating the geological context in the relief itself, through augmented reality and virtual globes.

The use of free browsers and new technologies awaken creativity and knowledge set more rapidly acquiring a higher degree of skill, collaborative, autonomous and interactive skills, bringing the teaching-learning process to the development of a simulation game.

The use of these pathways for geotourism, interactively, using mobile devices, currently in daily use, allowing greater availability of educational and interpretive resources that promote understanding by society of geological heritage. Its use by

visitors, hikers, naturalists and anyone interested in these tourist issues will promote sustainable rural development, seating people and facilitating socio-economic improvement of the inhabitants of these areas, integrating the geological part of the natural heritage, and enhancing the knowledge of the geological peculiarities and its future management and protection by creating new shapes as you can be to Geoparks and even as a consideration in Biosphere Reserves, etc.

4. Bibliography

- BARRETINO, D., WIMBLEDON, W.A.P., GALLEGU, E. (2000): Patrimonio geológico: conservación y gestión. IGME. Madrid.
- BRUSCHI, V.M. (2007): Desarrollo de una metodología para la caracterización, evaluación y gestión de los recursos de la geodiversidad. Santander.
- CARCAVILLA URQUÍ L. (2006): Patrimonio geológico y geodiversidad: investigación, conservación, gestión y relación con los espacios naturales protegidos. Madrid.
- CENDRERO A.; DÍAZ DE TERAN, J.R.; SAIZ, J. (1976): A technique for the definition of environmental geological units and for estimating their environmental value. *Landscape Planning* 3.
- CENDRERO, A. (1996): El Patrimonio Geológico. Ideas para su protección, conservación y utilización, en MOPTMA.: *El Patrimonio geológico. Bases para su valoración, protección, conservación y utilización*. Madrid.
- DINGWALL P.R. (2000): Legislación y convenios internacionales: la integración del patrimonio geológico en las políticas de conservación del medio natural, en: BARRETTINO FRAILE D. *Patrimonio Geológico: conservación y gestión*. Madrid.
- ELIZAGA E., ABRIL HURTADO J., DUQUE L.C., GARCÍA SALINAS F. Y SORIANA V. (1980): Los puntos geológico-mineros de interés singular como patrimonio natural, su inventario y metodología de estudio. Santander.
- ERIKSTAD L. (1999): A holistic approach to secure geoconservation in local physical planning, en: BARRETTINO D., VALLEJO M., GALLEGU E. *Towards the Balanced Management and Conservation of Geological Heritage in the new millennium*. Madrid.
- FISHMAN I.L., KAZAKOVA Y., NUSIPOV E. (1998): Ways of activization of geodiversity protection in Kazakhstan. Kazakhstan.

- FLAWN P.T. (1970): Environmental Geology. Conservation, land use planning and resource management. New York.
- GALLEGO VALCARCE E. (1998): Protección y conservación de espacios naturales y del patrimonio geológico. Zubia 16.
- GONGGRIJP G.P. (1992): Earth Science Conservation in Europe. Present Activities and Recommended Procedures, in: *planning the use of the earth's surface*. Berlin.
- GONGGRIJP G.P. (1999): La necessità di una politica di conservazione per le scienze della Terra., in: G. POLI *Geositi: testimoni del tempo. Fondamenti per la conservazione del patrimonio geologico*. Rome.
- GONZÁLEZ-DELGADO, J.A., MARTÍNEZ-GRAÑA, A.M., CIVIS, J., GOY, J.L., DABRIO, C.J., RUIZ, F., GONZÁLEZ-REGALADO, M.L. y ABAD, M. (2013): Itinerario paleontológico virtual 3D en el Neógeno de Huelva (Oeste de la Cuenca del Guadalquivir, España), en M. ABAD, T. IZQUIERDO, F. RUIZ: *V Regional Committee on Neogene Atlantic Stratigraphy-RCANS*. Huelva.
- GOY, J.L., MARTÍNEZ-GRAÑA, A.M., SANZ, J., CRUZ, R., ANDRÉS, C., DE BUSTAMANTE, I.; ZAZO, C.; GONZÁLEZ-DELGADO, J.A. y MARTÍNEZ-JARAIZ, C. (2013): Inventario y Catalogación del patrimonio geológico de los Espacios naturales del Sur de Castilla y León (Salamanca-Ávila, España), en VEGAS, J.; SALAZAR, A.; DÍAZ MARTÍNEZ, E. Y MARCHÁN C.: *Patrimonio Geológico, un recurso para el desarrollo*. Madrid.
- GRAY, M. (2003): Geodiversity. Valuing and conserving a biotic nature. Wiley. England.
- IGME (2005): Geociencias, Recursos y Patrimonio Geológicos. Geología y Geofísica 3.
- ITGE (2000). El Patrimonio Geológico. Madrid.
- JOHANSSON, C.E. (1999): Forme di conservazione e modalità di fruizione dei Geositi in Svezia., en: G. POLI *Geositi: testimoni del tempo. Fondamenti per la conservazione del patrimonio geologico*. Rome
- KOZLOWSKI, S. (2004): Geodiversity. The concept and scope of geodiversity . *Przegląd Geologiczny*, 52.
- MARTÍNEZ- GRAÑA, A.M., GOY GOY, J.L. and ZAZO CARDEÑA, C. (2011): Natural Heritage mapping of the Las Batuecas-Sierra de Francia and Quilamas Nature Parks (SW Salamanca, Spain). *Journal of Maps* 2011.

- MARTÍNEZ-GRAÑA, A.M.; ANDRÉS CIMARRA, C.; MARTÍNEZ-JARÁIZ, C.; CIVIS LLOVERA, J.; FRANCISCO DE PAZ, J.; YENES M. (2012): Geolodia 2005-2012. Un paseo por el pasado y presente de la Sierra de Francia. Libro-CD. Madrid.
- MARTÍNEZ-GRAÑA, A.M., GOY, J.L. and ZAZO, C. (2013a): Cartographic-environmental analysis of the landscape in natural protected parks for his management using GIS. Application to the natural parks of the “Las Batuecas-Sierra de Francia” and “Quilamas” (Central System, Spain). *Journal of Geographic Information*, Vol 5.
- MARTÍNEZ-GRAÑA, A.M., GOY, J. L. and CIMARRA, C. (2013b): A virtual tour of geological heritage: Valourising geodiversity using Google Earth and QR code. *Computers and Geosciences* 61.
- NIETO, L.M. (2001): Geodiversidad: propuesta de una definición integradora, *Boletín Geológico y Minero*. Vol 112.
- PALACIO SUAREZ J. (1999): Patrimonio geológico. Aspectos metodológicos. Jornadas sobre Patrimonio Geológico y Desarrollo Sostenible. Madrid.
- PANIZZA M. Y PIACENTE S. (2003): Geomorfologia Culturale. Bologne.
- PANIZZA V. Y CANNILLO C. (1994): Rilevamente e valutazione di beni geigrafico-fisici di tipo geologico e geomorfologico in un’area della Sardegna nord-occidentale. *Riv. Geogr. Ital.* 101.
- PANIZZA, M.; BERTOLANI M.; CARTON, A.; SOLMI, M. (1983): Principali evidenze geomorphologiche della provincial de Midena. Relazioni sullo statu dell’ambiente nella provincia di Modena. Italy.
- PEMBERTON, M. (2001): Conserving Geo-diversity: the case of geoparks. Division of Earth Sciences, UNESCO. Paris.
- PIACENTE S. (2003): La memoria della Terra, la Terra della memoria, en: PIACENTE S. Y POLI G., *La memoria della Terra, la Terra della memoria*. Rome.
- THEODOSSIOU DRANDAKI I. (2000): Sin educación no es posible la conservación, en: BARETTINO FRAILE D. *Patrimonio Geológico: conservación y gestión*. Madrid.
- UNESCO. (2004): Operational Guideline for National Geoparks seeking UNESCO’s assistance. Global UNESCO Network of Geoparks. Paris.

XV. NETWORKS IN COMMUNICATION JOURNALS: A DECADE OF ACADEMIC ARTICLES

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In February 2014, a decade after the onset Facebook, the social network quintessential fulfilled. The computer program, which began as a *site* for the Harvard University community has transcended linguistic, territorial and sociocultural boundaries to connect users worldwide. Today the number of profiles of the platform is around 1,230 million, of which more than a billion are active accounts⁷.

While Facebook was not the first social media manager 2.0, improved and refined aspects of previous social platforms. This evolution, which continues today, has favored the exponential expansion of the service that has led him to achieve penetration globally unprecedented, even with the impact of the digital divide.

Throughout this decade have also been modified usage trends and consumer Internet, and social networking platforms have come to occupy an important place in the daily lives of millions of people, both in regard to personal and professional. The impact of social networks on the interaction between people, or between institutions and the public, has led to the consolidation of an expanding digital arena as both private and public sphere.

⁷ March 2014 data collected from Facebook <http://newsroom.fb.com/company-info/>

The rapid penetration of these technologies and their appropriation by users and entities, it meant a radical change in the way of relating and communicating, which goes beyond simply opening a new channel of communication on the Web. This is a transcendent change that has attracted the interest of researchers from various disciplines, with particular relevance to the community of communications specialists.

In this sense, the present study has been to make an approach to research on social networks (2.0) published in leading journals in Spanish communication. Such an approach, descriptive, aims to determine the impact of this new line of research in the scientific literature on communication in Spain, its evolution in the last decade, as well as major authors and centers of research on social networks.

1. Social networks in communication research

The study of research on social networks is indebted studies Martínez (2006, 2009), Fernández-Quijada (2011) and Nicholas and Saperas Martínez (2012) have been conducted in recent years on the scientific production in Communication . Few studies have addressed aspects of communication research in general from a critical perspective, overcoming some of the shortcomings pointed out by authors such as Nicolás Martínez (2009).

In the case of social networking 2.0, the novelty of this line of study implies that there is still no work in communication research that specifically addresses these social platforms. One issue that makes precise approach to this aspect of communication research.

If the stages of development of communication research, reported by Nicolas Martinez, it meets the study of social networks as a communication phenomenon would fit entirely within the stage of "development or maturation" (1996-present). Precisely in the decade under study, research communication in the Spanish context mobilizes a large volume of material and human resources that consolidate as one of the most dynamic disciplinary fields (Nicolás Martínez, 2009). The high number of professionals specialized in the study of communication contrasts, however, with a little internationalization of studies, theoretical and methodological approaches (Jones, 1998).

With respect to the orientation of communication research, in addition to the increased number of communications specialists, it is necessary to consider two issues: the interests of the scientific community (Kuhn, 1971) that affect the production of knowledge, and contextual factors that directly affect the selection (space-time characteristics, theoretical and methodological approaches, institutional backups, etc.).

In the case of social networks, the strong penetration achieved at present by some social platforms like Facebook (with over one billion users worldwide in 2014), Twitter (more than 240 million active profiles in 2014), Tuenti (with about 13 million users in 2013, almost entirely in Spain); appropriation by users and entities, or weight gain in the process of mediamorphosis (Fidler, 1997), among others, have attracted the interest of researchers in communication.

Also, besides the context of social networks as a communicative phenomenon, it is worth mentioning another factor structurally research marked the period analyzed: assessment of scientific and academic career in Spain. "The culture of research evaluation in Spain" and scales to give prominence to scientific production published in quality magazines and posed a significant constraint on the research developed (Masip, 2011).

The "ANECA effect" (Soriano, 2008) leads researchers to publish the most relevant to their research in journals, some headers that are carefully selected from the major journals. The peculiarities of research in communication in Spain, like other disciplines within the social sciences or humanities, have revealed the inadequacy of the impact factor index as *the Journal Citation Reports* or *Social Sciences Citation Index* for evaluating communicologists path. This deficiency has been remedied with the use of bibliometric based IN-RECS (Impact Index of Spanish social science journals prepared by the E3 Group, Evaluation of the Science and Scientific Communication at the University of Granada) with parameters chords the context of communication research in Spain.

2. Methodology

The weight reached by this index ANECA era to enhance the publication in Spanish communication journals (Castillo and Dolly, 2010), has led to its use to define the universe of analysis in this study. The IN-RECS evaluates, among

others, the scientific impact of a journal, its evolution and position relative to the other specialty journals.

Of the ten areas of social science that studies the IN-RECS is selected Communication, specific guidance for this work. Of the 23 headers evaluated by the IN-RECS (last evaluation are given, 2011) have been revised those journals with the highest impact. Thus, starting from the publications division into quartiles, with reference to their impact, we selected the top five journals (first quartile)⁸.

Posición	Titulo de la revista	Índice Impacto 2011
1	Comunicar: Revista científica iberoamericana de comunicación y educación	0.386
2	Revista Latina de comunicación social	0.343
3	Comunicación y sociedad: Revista de la Facultad de Comunicación (Universidad de Navarra)	0.268
4	Estudios sobre el mensaje periodístico	0.244
5	Trípodos: Revista digital de comunicació	0.159

Table 1 Journals of the first quartile of the IN-RECS 2011

Beyond the headwaters of publication, has been limited selection of items under study temporarily. Specifically, we have analyzed the academic texts published in the headers under study between 2004, the year of creation of Facebook and 2014 (only Trípodos published a number in the first quarter of 2014). Choosing this period of study is determined by the status it has acquired Facebook as a platform for social networking and management in the field of Web

⁸ Three of these magazines Communicate, Communication and Society Studies and the journalistic message are the only Spanish communication journals included in JCR-2012 with an impact factor of 0'350, 0'102 and 0.063 respectively.

2.0 tools in general. However, we have analyzed all those items that address aspects of Web 2.0 social networks, especially Facebook and Twitter as mainstream platforms, in addition to other social media provided that would focus on issues relating to the creation of community through digital tools.

The selection of articles in the final sample, was carried out on relevance title, keywords, abstract and, in those items and deal with any questions-a simple search terms in the text itself.

To address the analysis of articles in the sample held a record of analysis of bibliometric variables (year of publication, issue number, pages), thematic articles, authorship (sex and number of signatories), and affiliation. Some variables whose study has yielded the following results.

3. Main Results

Based on the Job results of this study are organized around four main points: research on social platforms, development of scientific literature on this topic, authorship of these articles and membership data.

3.1. Research on social platforms

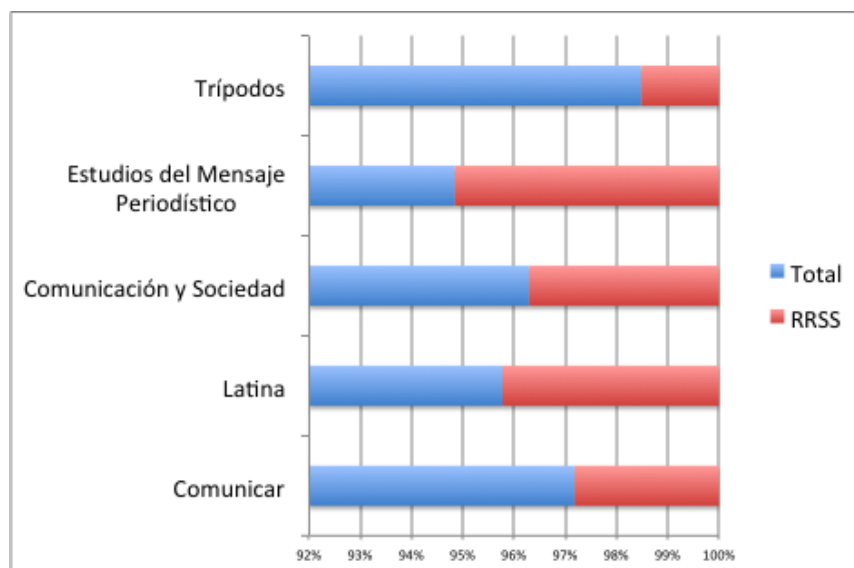
During the study period the journals of higher impact communication (*Communicate*, *Revista Latina media*, *Communication and Society*, *Studies on the journalistic message and Trípodos*) have posted a total of 2,171 academic papers distributed in a total of 92 numbers.

Of the 92 journals, 36% (total of 33 numbers) contained at least one article related to the study of social media or social networking 2.0 in one of its many aspects. Specifically 81 articles published in magazines or the period analyzed, the total of 2,171 works address this issue for analysis.

Revistas	Números publicados desde 2004	Total artículos desde 2004	Números con artículos sobre RRSS	Total artículos de revistas con artículos en RRSS	Total artículos sobre RRSS
Comunicar: Revista científica iberoamericana de comunicación y educación	21	793	7	350	23
Revista Latina de comunicación social	12	340	5	161	15
Comunicación y sociedad	23	208	8	58	8
Estudios sobre el mensaje periodístico	17	570	10	372	31
Trípodos	19	260	3	44	4

Table 2 Magazines, numbers and articles dedicated to social networking. Source: prepared

During the period analyzed, Communicate and journalism studies message is configured as the journals that have published more articles and, therefore, those who have had greater presence of texts on social networks.



Graph 1% RRSS articles concerning related publications (values from 92% to 100%). Source: prepared

If attending the volume of articles on social networking 2.0 for total academic texts published during a decade reemphasizes Studies journalistic message. The weight of the articles on this subject in this magazine is around 5.43% (31 articles

a total of 570), followed by American Journal of Mass Communication and Communication and society with 4.4% and 3.8% respectively. Finally, research on social media Communicate and Trípodos are below 3% of the total articles published by these journals over a decade (2.9% and 1.5% respectively).

3.2. Evolution

The analysis of the evolution of the articles on social networking or social media, as well as issues arising from this, over the last decade reflects a sharp increase in this type of articles since 2010.

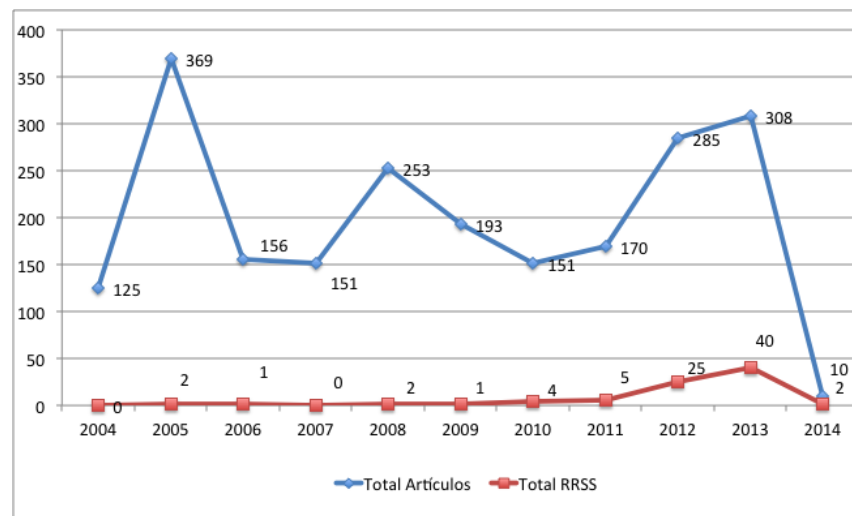


Figure 2: Number of articles on social media published in the last ten years. Source: own.

As shown in Figure 2, the analyzed period is a time of significant fluctuations in the field of communication research published in academic journals analyzed. The trend of maintenance and reduction in the number of closely-related quality criteria of bibliometric indices Annual items is broken at three points of the period: in 2008, the year in which they are published additional case of Trípodos and Communicate, and by special issues of journalistic message Studies 2012 and 2013.

From fluctuations in the number of articles published per year in top academic journals communication on social networking production increases during the period studied. Especially from 2010 year when the articles on social media issues

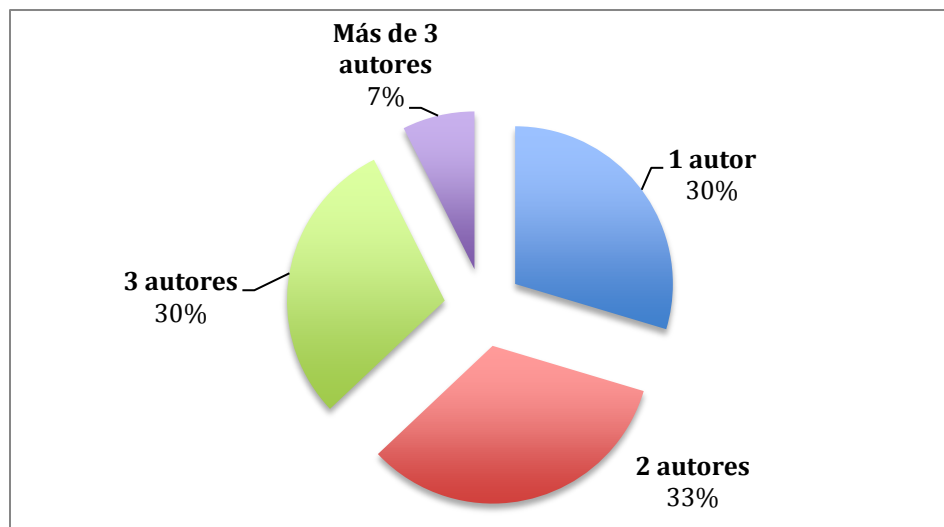
arising from or are living an exponential growth tenfold in just three years (of 4 articles published in 2010 is passing 40 in 2013).

3.3. Authorship

As regards the authorship of the articles, the study conducted has come to emphasize that, given what is happening in other areas of communication, there is a tendency to co-authorship in research on social rede 2.0.

The first approach to the 81 items of the sample, reflecting the existence of a total of 179 communication specialists who have posted on social networks in Spanish major journals. Further analysis revealed that 4% of the researchers (a total of 7 authors) appear as signatories of two articles in recent years, so the final number of firms drops to 171.

As shown in Figure 3, of the 81 articles dealing with social media or related aspects of these, only 30% (24 articles) have a single author.



Graph 3% RRSS items depending on the number of signatory. Source: prepared

90% of the work of the specimen are signed by two or more authors, these formulas being co-authored by two or three researchers. The novelty of this line attached to the context in which it takes place, in full culture of research evaluation

study in Spain, can be related to an increased presence of coauthorship. This signature system increases the chances of impact, both the article and its authors, in line with the criteria for research evaluation. Criteria that will also reduce the impact of items with multiple authorship, beyond three signatories.

Regarding gender signatures can highlight a greater presence of authors to the authors. Indeed, of the 172 communication specialists who signed the 81 items of the sample, 58% of them (99 signatories) are researchers compared to 42% of researchers (72 signatories).

The feminization of the degrees in communication sciences and their impact on the number of women who have accessed the teaching and research career in this field is reflected in the authorship of the articles analyzed. Although most of the authors in numerical analyzed articles, if you look at the order of signature as an indicator of the prominence of the authors, it reveals a greater importance of male researchers.

AUTORAS	NÚMERO	NÚMERO	AUTORES
total autoras	102	77	Total autores
1ª autora	43	38	1º autor
2ª autora	34	23	2º autor
3ª autora	17	13	3º aulor
4ª autora	4	2	4º autor
5ª autora	1	1	5º autor
6ª autora	1	0	6º autor
7ª autora	1	0	7º autor
8ª autora	1	0	8ª autor

Table 3 Total number of signatures according to their order of signature. Source: prepared

While the number of signatories women is higher than men in all positions of signature, if one looks at relative terms can be observed a higher concentration of males than females in the top of signature. Almost half of the authors of the sample has signed on as lead author, compared to 42% of authors in the same position.

Also, in regard to individual authorship there is a greater tendency for men to publish articles as sole signatory regarding women researchers (62.5% and 37.5% respectively).

3.4. Affiliation of authors

Another variable analyzed in this work has been to membership, ie, college or institution affiliation of the authors of the articles analyzed. Analysis of the membership has provided much interesting information regarding the origin of the authors and in pointing the main centers of research on social networks and other Web 2.0 tools.

With regard to the origin of the authors, the fact that the five magazines are Spanish (an indispensable feature to be evaluated by the IN-RECS) will lead to a greater prominence of national specialists regarding foreign authors. However, the fact that three of the five journals which are indexed by JCR, makes these more attractive to, especially non-English-speaking foreign comunicólogos headers.

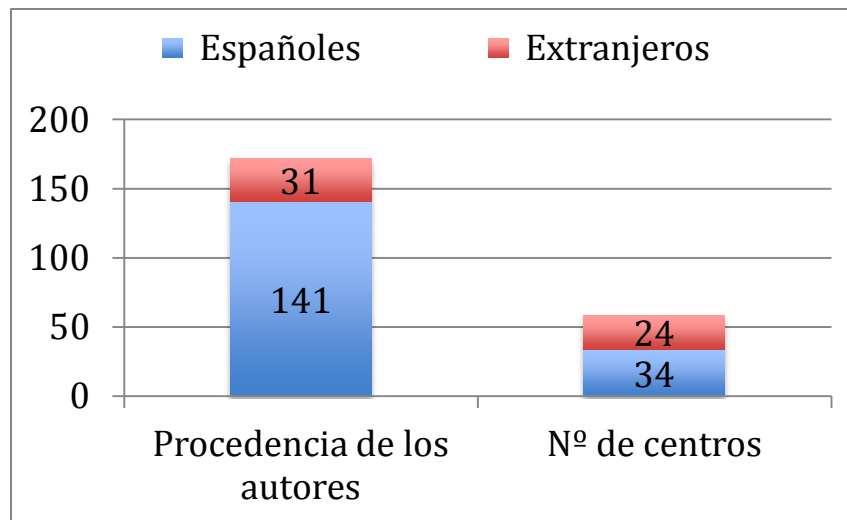


Figure 4: Source of authorship and affiliate centers, according to their nationality. Source: prepared

82% of the authors of articles analyzed (141 of 172 authors) are from universities or other types of centers nationwide, compared with 18% coming from (a total of 31 authors) foreign institutions. 58% of these authors come from Latin American centers it is necessary to add 10% of authors from Portugal.

Regarding the establishment of provenance can be noted that, given the diversity of origin of foreign authors, there is a certain concentration in the case of the Spanish specialists affiliations.

The 141 researchers who published articles on social networks during the period analyzed belong to 34 workplaces⁹ (21 public universities, 8 private universities and non-university centers 5). These institutions do not have the same impact on the study sample, can be noted in several universities weighing the specimen consolidated as the main centers of research in social media.

This is the case of the Complutense University of Madrid (UCM), belonging to the 24 authors of the articles in the sample, the University of Malaga (UMA) with 22 authors and the University of the Basque Country (UPV / EHU) with 14. the following affiliation with major presence in the sample is the University of Granada, with 7 authors (one of her signature two articles), is situated at a distance from its predecessors.

UCM, UMA and UPV / EHU consolidate as major centers of research in social networks. The preeminence of the UCM is common to previous work on communication research. The size of the Faculty of Information Sciences and character of the pioneering institution in the lead in terms of authors and media articles. The high volume of research personnel who signs with this affiliation (academics and researchers in training), make this university one of the hegemonic institutions for research in communication. A circumstance which, to a lesser extent, in the case of the University of the Basque Country.

In this regard it is noteworthy the presence of the UMA among major research centers social networks. This university incorporating communication training offer in early social networking has become a core research in new media and

⁹ For those authors with multiple work centers (three in total) have been assigned the first consisting in his signature on each item.

communication trends in recent decades. Of the 22 authors who have signed affiliation items showing at the University of Malaga, there is none that has produced two articles, which confirms the nature of social networks as a common line that university researchers.

Faced with the two poles of standard reference Madrid Catalonia, identified by Jones (1993) in the field of research on social networks and outlines a new axis: -Andalucía Madrid with 43 authors and 36 respectively.

4. Conclusions

The study is a descriptive approach developed to a decade of research on social networks by leading academic headers.

This first approach stresses the evolution experienced by research on social media and the exponential growth experienced in the last stage (2010-2013). The proliferation of articles on social networks from various communication perspectives, reflects the growing interest of the Spanish scientific community for this communicative phenomenon. However despite it attracting the scientific community on this field from an academic perspective and research is a line of research which still has a long way to go (theoretical approaches, methodological, larger samples, etc.).

Regarding authorship is remarkable the bulk of authors in signing these items. This increased presence of women researchers is consistent with the feminization races who have lived communication (teachers and students) from the early 90s, however, though representing a majority of authors, should be done reference to pseudofeminización signatures of items as they are men who are more often in the position of principal investigator and the unique authors.

With regard to membership is remarkable the emergence of a core of research on social networks that breaks the hegemony of the pioneers in communication research universities. This core, Malaga University, has established itself as a leader in social media research. This question is endorsed to meet the authors who sign with their membership, none of the 22 investigators and researchers are repeated throughout the sample but only appear once as signatories.

Faced with the consolidation of research centers in relation to authorship can not be distinguished authors emphasize in their production in the sample (seven authors sign two items, none else). This diversity reflects the authorship is a bit hierarchical and not colonized by investigators of greater weight and size in the Spanish University, an issue that should be related to the recency of this research field.

In any case, the entity making the University of Málaga in the sample coupled with other academic institutions in your area has become Andalusia, near Madrid, a center of national reference.

It is therefore an area of study young maturing, that can become a reference line in communication research and to reverse established trends and flows in other lines of classic work.

However, this descriptive study becomes necessary a more concrete approach, critical nature, in which more information about contexts, or lines of research methodologies, among others contribution.

5. Bibliography

Paper or electronic books and reports:

- FACEBOOK INC (2014): company info. Disponible en: <http://newsroom.fb.com/company-info/> Consultado el 05 de abril de 2014.
- FIDLER, Roger. (1997): Mediamorphosis: Understanding new media. Pine Forge Press.
- KUHN, Thomas (1971): La estructura de las revoluciones científicas. Fondo de la Cultura Económica México

Chapters in books, reports and journal articles on paper:

- CASTILLO, Antonio y CARRETÓN, M^a Carmen (2010): Investigación en Comunicación. Estudio bibliométrico de las Revistas de Comunicación en España, en *Comunicación y Sociedad*, vol. XXIII, n^o 2.
- SORIANO, Jaume (2008): El efecto ANECA, en Congreso internacional fundacional AE-IC I+C Investigar la Comunicación. AEIC. Santiago de Compostela.

Pages in web publications:

- FERNÁNDEZ QUIJADA, David (2010): El perfil de las revistas españolas de comunicación (2007-2008), en *Revista española de Documentación Científica*, vol. 33, nº 4. Disponible en
- <http://redc.revistas.csic.es/index.php/redc/article/viewArticle/671> Consultado el 22 de marzo de 2014.
- MARTINEZ NICOLÁS, Manuel (2006): Masa (en situación) crítica. La investigación sobre periodismo en España: comunidad científica e intereses de conocimiento, en *Anàlisi*, nº 33. Disponible en
- <http://ddd.uab.cat/pub/analisi/02112175n33p135.pdf> Consultado el 21 de marzo de 2014.
- (2009): La investigación sobre comunicación en España. Evolución histórica y retos actuales, en *Revista Latina de Comunicación Social*, nº 64. Disponible en
- http://www.ull.es/publicaciones/latina/09/art/01_800_01_investigacion/Manuel_Martinez_Nicolas.html Consultado el 21 de marzo de 2014.
- MARTÍNEZ NICOLÁS, Manuel y SAPERAS, Enric (2011): La investigación sobre Comunicación en España (1998-2007). Análisis de los artículos publicados en revistas científicas, en *Revista Latina de Comunicación Social*, nº 66. Disponible en
- http://www.revistalatinacs.org/11/art/926_Vicalvaro/05_Nicolas.html Consultado el 21 de marzo de 2014.
- MASIP, Pere (2011): Efecto Aneca: producción española en comunicación en el Social science citation index, en *Anuario ThinkEPI*, vol. 1. Disponible en
- <http://dialnet.unirioja.es/servlet/articulo?codigo=3647635> Consultado el 12 de marzo de 2014.

XVI. COMMUNICATION IN PRACTICE THE NEW HIGHER EDUCATION

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The past is a glass curtain. Happy are those observing the pasado to be able to walk in the future.

(Augusto Cury)

Introduction

The new higher education is no longer just sympathizes with classical techniques by which today have to resort to the most modern technologies of communication and information both within the practice or assessment. The fields of Information and Communication, and mainstream education, is confined to this reality. Are aspects in which Portugal, although not in the range of pioneers deserve an approach in the context of a field that is intended for discussion of the issue of innovation in the teaching of Higher Education.

Latin American countries are to have studied particularly on the problem proposed. Later, however, Portugal, under the Ibero-American countries, also not oblivious of the same concerns.

Checking its position regarding the issues under discussion, in 2012, the University of Porto plays host to several countries in this same space, the VII ° Congress of the Ibero-American Association of University Teaching (Aidu), entitled "Higher Education: Innovation and quality in teaching. "

The paradigm shift from teaching to learning paradigm is a concept particularly checked with the introduction of the Bologna Agreement in European countries, in practice since 2000, but that was already implicit philosophies of change in existing university policies particularly in Brazil for many years.

The attitude of the teachers and the new pedagogical training required for them is a fundamental aspect that is revealed in the new role and function that come to observe the changes of the Bologna model, and which will have to adapt and respond.

In consequence of all this, their role, especially towards students, requires an overhaul, along with their academic and teaching skills, as well as assume primary importance to interaction and communication now deployed, according to the new relationship between teachers and students, derived from the paradigm shift.

1. From the teaching paradigm to the paradigm of learning

Learning and teaching are two unified by a relationship established between teacher and student activities. However, two separate activities with each other that can be objectified prisms distinguished according to the type of relationship between the elements.

In the traditional paradigm, already commonly defined as "teaching", the teacher has a commitment to the past, with things that can not be forgotten. In the paradigm can be stated as current, that of "learning", the teacher assumes a commitment to the future.

1.1. For an epistemology of learning

From some authors and some empirical findings, we found that the current environment requires that teaching is carried from the "epistemology of learning." In this perspective, higher education today is concerned to deal with the knowledge from a process of teaching that puts student learning at the center. Put another way, we start from the assumption that the more important than teaching, teaching job is to create conditions for the student to learn. The important thing is to prepare you for learning.

Masetto, 2005 (in FÁVERO and MARQUES, 2012: 6/7) clarifies what it means to "paradigm shift from teaching to learning" which translates to replace "the emphasis on teaching the emphasis on learning." According to the author is the whole "another design in the way they conduct the educational process."

The teacher, in view of the paradigm of learning ceases thus to be the central element in the transmission of what should be taught and becomes a mediator and advisor of the teaching learning process. Thus:

1) Curricular organization becomes something open, flexible, updated, interdisciplinary, integrating theory and practice, basic and professional disciplines, training and professional practice;

2) Faculty shall be composed of agents that in addition to being teachers are also researchers not only of their specific area of expertise, but also teaching skills they understand that learning takes place in a process of collaboration and participation of the various subjects involved;

3) The methodology is guided by constant redefinition of the goals of the class and its space due to a constant process of evaluation and use of participatory procedures.

The student thus becomes the protagonist agent of learning, which implies its *"acquisition and mastery of a body of knowledge, methods and scientific techniques critically"* (Masetto, in FÁVERO and MARQUES, 2012: 7). During the process of training the student has acquired a 'progressive autonomy in acquiring further knowledge "and awareness that a" continuing education "that extends throughout life is necessary. No longer just acquire during university training a body of knowledge that are sufficient for professional practice.

2. A new learning for teachers also

2.1. Training and research

One of the situations that prompted us, in the context of an exploratory study that we conducted for the work that we now present, was found in Brazil that currently the level of concern with the preparation of academics and research training.

Clear need for a new educational situation that emphasizes the construction performed by the individual through active, creative, dynamic pedagogy, encouraging, based on the discovery, research and dialogue.

When analyzing the variables inherent to the problem in question met the need for universities to invest in continuous training in teaching, research and dissemination of science, in line with the interests and objectives of its educational projects.

Within the teaching profession are required to Professor few skills and, specifically in higher education, we observe the enhancement of academic, research and bonds at the expense of teaching and interpersonal skills.

At the same time it is triggered debate the importance of interpersonal relationships between student / teacher in the teaching-learning process, making emphasize the affective and emotional context in the process carried out in the classroom. As a consequence there that cater to the role and function of the teaching profession to meet the challenges that it presents today. Therefore, is very important in a reflective level of your exercise personal dimension as well as its social dimension, because the truth is that occupations working directly with people are more permeable to dissatisfaction in relationship with others and thus a higher failure. Clarifying the concepts of academic competence and pedagogical competence, Demo (1998) presents the following definition of competence: *"We understand the condition of competence not only do, but knowing how and especially to permanently remake our relationship with society and the nature, using innovative instrumentation as crucial knowledge. Opportunity to do more, this is an opportunity to make up"* (in Amorim and Vasconcelos, 2008: 6).

2.2. The demands of the new role of teachers

In general teachers entering the academia and are dedicated to higher education come from the most varied backgrounds in terms of expertise and areas. Scientists, specialists of merit, it is understood, but in most cases without having had any prior contact with areas of knowledge in the humanities and social sciences in order to understand, interpret and apply the practice, and even less with pedagogical training that can provide them theoretical and practical knowledge relating to issues of teaching and learning to assist them in working relationships with students, with a view to a perfect interaction between the two.

The training for teaching in higher education can not contradict the unity of theory and practice, ie, you need a qualification for teaching exercise that exceeds

the domain specific knowledge in the area, and is linked to the pedagogical preparation to overcome challenging situations in the classroom.

Teacher education has focused more on scientific and technological knowledge by giving short shrift to issues of interpersonal relationships.

The teacher especially needs to become more aware and feel that their position has become a facilitator of learning.

In this context, one can observe the reflection of Mauco already in 1967: *"What is most important is not the speech or the method of the teacher, but what he is and feels, because any teaching method is related to the intensity of personal value who uses it"* (in Amorim and Vasconcelos, 2008: 9).

2.3. A new approach for teachers

One of the hardest things in life is to make changes. The resistance is often too strong to the point of blocking the planned changes. It takes determination and persistence to unlearn habits and attitudes that undermine professional career and learn new postures which, by the way, bring new perspectives.

Learn to act and think from a new theoretical framework is not an easy task, especially if we take into account the strict standards which were the basis of our training and how issues relating to the issue of skills are addressed in several training courses for teachers.

Regardless of the indisputable qualification of specific knowledge in the area level, become chargeable training for teaching in higher education that addresses pedagogical preparation. Issues of interpersonal relationships become target object of priority attention too, since any instability in teacher / student relationship can harm the learning process of the student: *"... in our time thinking university classroom requires much more than coming to class and teach content; is necessary to create situations that encourage students in activities of discovery, research problems, in order to enable them to formulate questions in the face of life's complexity and multiplicity of information"* (FÁVERO, 2012: 1403).

3. The Bologna Process and the creation of the EHEA (Matthew, 2011: 7/8)

The so-called Bologna Process began with an informal meeting of Ministers of Education from four European countries (Germany, France, Italy and the UK), in May 1998, and resulted in the Sorbonne Declaration is recorded where the intention to *"create a European area of higher education where national identities and common interests can interact and reinforce each other to the benefit of Europe, of its students and the majority of its citizens."* (SORBONNE 1998, not paginated)

It concluded with *"the establishment by 2010 of a European Higher Education Area, coherent, consistent, competitive and attractive to European students and third countries, the European Space which promotes cohesion through knowledge, mobility and employability of graduates as way to ensure a better performance so in Europe in the World "*.

In parallel, the various levels have been compressed, reducing the training time. In the new format, students can achieve the title of Doctor in eight years - in the format called 3 +2 +3 (bachelor + masters + PhD).

After a long debate, it was decided to create a unique space where students could move freely, validating their claims in the various member countries.

4. Information technology and communication in school

4.1. The introduction of ICT and teacher training

The construction of knowledge is gained through new methodological learning processes that enable a new dialogue with individuals and with the world. New technologies will provide teachers and students with an overhaul of its relations, as well as the inclusion of the school in the social environment.

The reconstruction of knowledge, in turn, is acquired through social interaction in educational institutions, learning experiences, which allows the student an active participation and critical reconstruction of his thought. For Freire & Shor (1986), the educator *"does with his students and does for students"* (in ALMEIDA, 2008: 16).

With the development of ICT change the behavior of individuals in today's society emerges, resulting in physical distance between people caused by the effects of globalization, now allowed a virtual approach through technological means.

Following the path that we made up, the computer began to spread in the Brazilian educational system since the 1980s and early 1990s *"With the use of virtual learning environments redefines the role of the teacher who can finally understand importance of being partner of his students and writer of his ideas and proposals, one that sails along with the students, pointing out the possibilities of new ways without the worry of having experienced past them someday"* (ALMEIDA, 2008: 14).

According conveys the same author, reflection, change of attitude in the performance of teachers and the articulation between research centers and schools proved to be common to projects of innovative information technology (Menezes, 1993; Valente, 1993; Freire & Prado, 1995 , Almeida, 1996), as well as pioneering experiments, although it was attributed to the teacher full responsibility for the introduction of the computer at school for the student's learning through this constructive and innovative medium. (ALMEIDA, 2008: 7).

5. The Communication of Science

5.1. ICT in higher education and the new communication

The fact is that the teacher's role has changed a lot. The information became more accessible thanks to ICT and teachers no longer have the total undisputed and unchallenged knowledge.

According Libâneo (1998 in Ribas: 7), the pedagogically Communication and information technologies can be translated in three ways:

- *As an integral part of school curriculum several subjects of the curriculum, therefore, carriers of information, ideas, emotions, values;*
- *As professional skills and attitudes;*
- *As directed to teach thinking technological means of human communication (visual, scenic, verbal, sound, audiovisual), teach learning to learn, thus implying didactic purposes as: developing*

autonomous thinking, cognitive strategies, autonomy to organize and direct their own learning process, facilitate analysis and resolution of problems etc.

The paradigm of learning requires the student engagement with the learning process encouraging them not only to search for information, but the interaction with their peers and teachers, from a perspective of communication, with a view to enriching shared more results than investigations isolated. Today, the focus of attention is focused on a global network of communication that promises to revolutionize people's lives: the Internet that is part of the globalization process is undoubtedly a form of communication easy, cheap and widespread, whose farm extends to different domains, social, economic, political or educational. In this case, the use of new technologies raises the need to tailor teaching to a scientific paradigm in which a key aspect is the distributed network knowledge. The teacher, through new technologies, will generate an innovative process in the classroom where navigation telematics networks generate new possibilities for teaching and learning.

5.2. The corresponding research

We highlight some jobs that we understand directly related to the issue in question, originating in scientific circles we refer.

A magazine published by the Educational Dialogue PUCCR (Pontifical Catholic University of Paraná) features articles by teachers and researchers who research and act in university teaching. It has been an important vehicle for communication of knowledge produced in the field of education, among other fields in Teacher Education.

The number that is the target of our analysis in the moment¹⁰ brings us several items of greatest importance to the work that we perform here and hence our choice. In general, it is work done in research groups on projects, which leads to consider the greater reliability of results for ultimate control and ability to discuss these issues, but more, the greater relevance of the topics studied by option not to individual interest.

The results of the subject studied in the research group PEDFOP - Educational Paradigms and teacher training, by researchers Jacques de Lima Ferreira, Lucymara Carpin and Marilda Ali Behrens, *"The professor inovado-res building expertise for a complex, collaborative and dialogical practice"*, are awakening to the need for a new paradigm, namely the complexity. According to which process, pedagogical practices should use the technological resources and be part of a continuous process in which the teacher must have a mediator and teacher action collaboradora, consolidating its role as a transformer, builder and teacher change agent, that requires you a proactive posture, to invest in your professional development.

The work performed by Doris Vargas Pires Bolzan, Silvia Maria de Aguiar Isaia and Adriana Moreira da Rocha Maciel, titled *"Teacher education: the construction of teaching and pedagogical activity in Higher Education"*, translates into research on teacher education, particularly in regard to university teaching. In this study, the authors seek to present alternatives to rethink formative processes promoted by Higher Education Institutions - HEI and its impact on the organization of educational activities. They consider that the purpose of teacher education can not be restricted to think about and discuss the organization of teaching and its consequences, but should be extended to mobilize professionals to learn in different contexts of activity. Why defend the constant exercise of reflective, collaborative and collective practice, looking through broader processes of reflection in and on educational practice, in particular to be able to understand

¹⁰ Rev. Diálogo Educ., Curitiba, v. 13, n. 38, Jan. / Abr. 2013

the problems of teaching, analyzing curricula, recognizing the influence of instructional materials in teaching choices, socializing buildings and the exchange of experiences in order to move toward new learning.

Turn Lupion Patricia Torres, Lilia Maria Marques Siqueira and Elizete Lucia Matos are the authors of the article entitled "Social networks as a form of open educational resources sharing in Higher Education." Then work the theme of social networks and open educational resources as a means of exchange and collaboration in Higher Education. Highlight the issue of students as participants in the construction of new knowledge from the contents in the classroom through discussions mediated by the teacher, and the integration of each participant with their own experiences and the characteristics of reality and historicity that moment. The authors point out that the learning processes mediated by the teacher, with the use of technology, help in achieving the capabilities of interdependence and exchange ideas, and engage in discussions about a topic, as in development of collaborative strategies .

And we can not end this little tour by the type of work found without another word reinforcement to digital communication and digital technology, so the agenda of teaching practices.

The file "*pedagogical practices from the perspective of digital technological hybridity*," by Luciana Backes and Eliane Schlemmer, presents us with an investigation into the Digital Technology (DT). In it, the authors explain that the relevance of the study is that such recourses involve numerous possibilities for interaction, communication and knowledge representation, favoring configuring virtual digital living spaces that enhance the processes of teaching and learning from the perspective of digital technological hybridity.

These are works that we believe can be considered well representative of thematic reflections corresponding to the point that we made and that I will be part of the current concerns of researchers and teachers who will adapt to the new trends of the paradigm of learning.

But Portugal did not depose the discussion of the present problem. Already in 2012, the University of Porto was host to various countries where they analyzed and discussed the issues involved in the VII ° Iberoamerican Congress of the

Association of University Teaching (Aidu), entitled: Higher Education: *Innovation and quality in teaching*¹¹.

The Congress, held 24-27 June aimed to think the "Challenge of pedagogical innovation as a factor in the quality and credibility of universities"

During the meeting also reflections on the current situation of the universities were performed. This congress, which is in its seventh edition, is held every two years and involves the Ibero-American countries. The event, which first occurred in Portugal, had the partnership of the Ibero-American Association of University Teaching.

In this context we mean find discussions pertinent to mention:

Manuela Esteves, Institute of Education, University of Lisbon, in terms of quality of education, comes to equate the relationship between research and teaching skills, in his work *"From scientific knowledge about the higher development of teaching skills of their faculty teaching"*

For its part, Elisa Lucarelli, Universidad de Buenos Aires, Argentina, contributed to the debate with research in the field of pedagogy and didactics that have investigated how the processes within the classroom, both as regards the training of students and the identity of the teacher as to the practices of teaching and learning.

Through a thematic analysis that held paper abstracts, we can see that, in general, the results of research work from Portugal, presented and discussed in this Congress, have confirmed an existing disconnection between the expectations of skills relation to the work of teachers and what is actually found in the spaces of

¹¹ VII Iberoamerican Congress of University Teaching: Higher Education - Innovation and Quality in Teaching - VII Iberoamerican Congress of University teaching: Enseñanza Superior - Innovación y calidad en la teaching 2012 University of Porto.

knowledge built by them, and they are mainly translated in fields far removed from the practice that has become required after the entry into force of the Treaty of Bologna in Portuguese Higher Education.

The work of Maria do Céu Roland is one that comes to analyze the perception of mentors on a training program, implemented in Portugal in the years 2009-2010.

Some attempts, however, are beginning to be made in accordance with the new guidelines of the Bologna agreement underlying concept.

The project *"one pair at a"* here presented by Ana Mouraz, Amelia Lopes, José Martins Ferreira, João Pedro Pêgo and Elsa Gatti, all of the University of Porto was held at the university in 2010, and followed a similar multidisciplinary initiative previously developed between the College of Engineering and the Faculty of Psychology and Educational Sciences on an experimental basis. The experience is based on trust of the teaching observed before their peers for an observation of their practice and enhance their pedagogical sensitivity, both in position as seen in the observer; the size of the multidisciplinary serves to emphasize the essential focus of observation - the practice of teaching as a specific and common activity observed and the observers, and the subject of research. The proposal presents offers to discuss the two key issues that emerge from this experience, namely:

What is the potential formation of a multidisciplinary peer observation?

What is the impact of research on teaching practices?

In essence, the important thing is that it demonstrates an openness in order to classic teaching model totally closed in itself.

Maria Ilídia Meireles Cabral Vieira da Rocha, Maria Luisa Ribeiro Teixeira da Mota Wheat and José Joaquim Matias Ferreira Alves, all of the School of Education and Psychology at the Catholic University present with a paper entitled *"Pedagogical Training of Teachers of Higher Education - path of a model in (re) construction "*, where they come to refer to the Bologna Process as a challenge to the pedagogical training of teachers in higher education, while a trend and the existence of studies that point to a positive impact of training programs in teaching practices of teachers in higher education.

Identically to Portugal, also Brazil, in addition to performing in numerous works in partnership with other countries, is represented by researchers with projects from a single institution.

This is the case of Jacques Herrien, Maria Isabel Sabino de Farias and Silvia Maria Nobrega-Therrien, all investigators UECE-CNPq (State University of Ceará) to research "*The integration teaching and research in university teaching: pedagogical practice in everyday work*". The study discusses the results of an investigation that focused on knowledge management in teaching practice of university researchers with the goal of understanding how higher education teachers integrate the binomial teaching and research in their daily work.

And to complete the examples, while references to papers presented at the VII Iberoamerican Congress of University Teaching: Higher Education - Quality and Innovation in Teaching at the University of Porto in 2012, we can not fail to mention a contribution involving a much discussed issue has already in this work: the sensitivity for teaching particular courses of technological nature. Is this problem affecting Odila Maria Ferreira de Carvalho Carvalho Mansur' Mansur and Laura, both of the Faculty of Medicine of Campos - Campos dos Goytacazes, Rj- Brazil, translated in his work entitled "*Medical Teaching: assumptions and challenges*" within the thematic Teacher Training; Higher Education; Technology courses.

The complexity of teacher performance in medical education, focused on the paradigm of completeness, has been discussed by several authors. Currently, not just the teacher's qualification in relation to the specific content of their discipline, which was enough until the middle of last century. We have already referred to parallel situations that encompass the majority of the professions of technological areas, so we reinforced the concern of these authors argue that it is necessary to combine the technical knowledge to teaching, so that teachers are prepared to design and implement appropriate pedagogical solutions to student learning since the teacher of these areas was not prepared to teach and, as a result, his experience stems mainly from their knowledge in the field in which it operates.

6. Bibliography

Paper to electronic books, reports and theses:

- BENINCÁ, Elli; CAIMI, Flavia Eloisa. (Org.). Formação de Professores: diálogo entre a teoria e a prática. 2. ed. Passo Fundo: UPF, 2004
- DEMO, Pedro. “Educar pela pesquisa”. 3 ed. Campinas, SP: Autores associados, 1998
- FÁVERO, Altair Alberto - Inovação na docência universitária: em defesa da Epistemologia da aprendizagem - XVI ENDIPE - Encontro Nacional de Didática e Práticas de Ensino - UNICAMP - Campinas –Junqueira&Marin Editores . Livro 1. 2012
- MATEUS, Anabela Félix - Estudo comparado sobre o “estado da arte” da Comunicação Organizacional e das Relações Públicas entre Portugal e o Brasil - Uma primeira abordagem: Relatório de Pesquisa de Pós-doutorado em Ciências da Comunicação - Comunicação Organizacional e Relações Públicas. São Paulo. ECA USP. 2012
- MAUCO, Georges. *Psicanálise e educação*. Lisboa: Moraes, 1967 in VASCONCELOS e **AMORIM, 2008**
- VASCONCELOS, Marilúcia Correia; AMORIM, Delza Cristina Guedes. A docência no ensino superior: uma reflexão sobre a relação pedagógica. 2008

Books chapters, reports or articles to magazines on paper in Daily:

- BEHRENS, Marilda Aparecida; OLIARI, Anadir Luiza Thomé - A evolução dos paradigmas na educação: do pensamento científico tradicional à complexidade, in Diálogo Educ., Curitiba, v. 7, n. 22, p. 53-66, set./dez. 2007
- FÁVERO, Altair Alberto; MARQUES, Marta - “Aprender e ensinar na universidade: a docência na perspectiva da epistemologia da aprendizagem” in IX ANPED SUL 2012 - Seminário de Pesquisa em Educação da Região Sul
- Revista Diálogo Educacional, Curitiba, Vol. 13, nº 38, jan./abr. 2013
- VII Congresso Iberoamericano de Docência Universitária: Ensino Superior – Inovação e Qualidade na Docência. Actas -ISBN 978–989–8471–06–2

Translations, Web Logs minutes the publications

- ALMEIDA, Maria Elizabeth Bianconcini de – “Tecnologia de informação e comunicação na escola - novos horizontes na produção escrita”
www.iar.unicamp.br/disciplinas
- FREIRE, P. & SHOR, I. *Medo e ousadia. O cotidiano do professor*. Rio de Janeiro: Paz e Terra, 1986, in ALMEIDA, www.iar.unicamp.br/disciplinas
- LIBÂNEO, J. C.- As mudanças na sociedade, a reconfiguração da profissão de professor e a emergência de novos temas na Didática. Anais II do IX ENDIPE, v. 1/1. Águas de Lindóia. São Paulo, 1998., in RIBAS, Daniel. 2008
- MASETTO; Marcos T.; Docência Universitária - Repensando a Aula, s/d
- <http://www11.unopar.br/unopar/vm/ava/20092/docencia-universitaria-repensando-a-aula-i-1.doc>
- MATEUS, Anabela - *Comunicação Organizacional e Relações Públicas: o Estado da Arte. Ensino VS aprendizagem – única língua, distintas abordagens*. CONFIBERCOM (1º Congresso Mundial de Comunicação IberoAmericana). USP, Brasil, Agosto 2011.ISBN:978-85-02-08313-4
confibercom.org/anais2011/pdf/st3-anamat.pdf
- MORAES, M. C. – “O paradigma educacional emergente”. Campinas, SP: Papirus, 1997, in RIBAS, Daniel. 2008.
- MORAN, J. M. – “Ensino e aprendizagem inovadores com tecnologias audiovisuais e telemáticas”. In: Moran, J. M, Masetto, M. T. & Behrens, M. A. Novas tecnologias e mediação pedagógica. Campinas: Papirus Editora. 2000, in RIBAS, Daniel. 2008
- PERRENOUD, P. - *Pedagogia diferenciada: das intenções à ação*. Porto Alegre: Artmed, 2000, in RIBAS, Daniel. 2008.
- RIBAS; Daniel - “A docência no ensino superior e as novas tecnologias” - Revista Eletrônica Lato Sensu – Ano 3, nº1, Ciências Humanas. Março de 2008.
- ISSN 1980-6116 <http://www.unicentro.br>
- WIELEWICKI, Hamilton de Godoy; OLIVEIRA, Marlize Rubin - Internacionalização da Educação Superior: Processo de Bolonha. Doc. online. Vol.18, n.67, pp. 215-234. 2010. ISSN 0104-4036.
- CONSELHO NACIONAL DE EDUCAÇÃO - A Declaração de Bolonha e o Sistema de Graus no Ensino Superior in MATEUS, Anabela Félix. 2012. paco.ua.pt/common/bin/Bolonha/Bolonha_Parecer do CNE .

XVII. NEW MODELS OF SCIENTIFIC AND TECHNICAL COMMUNICATION IN RESPONSE TO NEW SOCIAL PARADIGM

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1. Introduction

Researchers from the disciplines of Communication Sciences spent years discussing new information formats, new media and communication needs. We must be aware that journalism and communication is done today and demand radically different from the one we knew until today, the result of political, economic and cultural evolution of European society over recent decades.

Currently, there is an unexplored aspect, both in teaching and in the professional field. It is the participation of journalists and media professionals in attached to the work packages of communication and impact of research projects at the national and European level, in order to increase the social impact of the results of tasks this work and its subsequent transfer to the market.

Many researchers in our area think, wrongly, that the different programs of research excellence, both national and EU are outside the scope of practitioners and researchers in communication. However, ***Horizon 2020***, the new Research Programme of the EU for the period 2014-2020, has introduced important new features, including the importance of forming multidisciplinary consortia include, horizontality of issues related to the social sciences and humanities with other scientific and technical, and perhaps most important areas, increasing the value of the impact of the results of the investigation.

It is in this space where we propose a new teaching methodology that aims to provide students of journalism and communication of new skills and tools, with a high added value and open a professional niche for researchers and students.

When we speak of Communication Science and Technology not only speak of the communication is done through the general media or specialized, prepared by journalists and accessible to citizens through different access points, such as the traditional medium on paper at the local kiosk format, or the digital version of the traditional media.

This paper also will refer to the communication of science to journalists on the staff of the research teams to carry out information, disclosure or dissemination of research results in the various scientific and technical fields, generated by knowledge agents, and have an undoubted impact on society.

This task is one that researchers and journalists have played in different ways, and it may be time, as will be discussing throughout this work, connect profiles, interests, tools and channels for communication.

2. Communication Science and Technology

2.1 General Considerations.

Manuel Calvo Hernando (1992)¹² defines scientific journalism as an informational specialization is to disseminate science and technology through the mass media. From here, we find the statement of the research that Castro Carolina Moreno (1999, p, 99.)

¹² BALD HERNANDO. MANUEL (1992): Scientific Journalism. IVIC.Caracas.

*"Science journalism should aim to make citizens understand technoscientific issues affecting them with the least ambiguity and therefore inform the public about the risks of technological dependence"*¹³

The scientific content of the media will largely determine the scientific knowledge of society in general. This is the third aspect to highlight the definition of science journalism. As Fernández Muerza (., 2004, p 9) states:

*"The mass media can help to raise the scientific literacy of the population developing good information about science and technology, and thus banish the apparent contradiction of a society increasingly needed in the progress of science and technology yet little or misinformed."*¹⁴

As for the functions to be fulfilled science journalism there are many classifications. Hernando Calvo in his book Science Journalism (1992, pp 29-32.) Compiles rankings theoretical functions recognized as José Reis, Wilson da Costa Bueno and Unger and others. After the tour of the functions defined by others, the Spanish researcher solves its own proposal which includes the other. Provides three basic functions: to *"inform, interpret and control on behalf of the public."*

On the problems of implementation of science journalism, Muerza Fernandez (2004, p. 48). retrieves a classification made by the Brazilian science journalist Wilson da Costa Bueno The researcher cites the following problems:

- *"Dogmatic and romantic science and technology vision.*
- *Prevalence of sources, with primacy for bureaucrats to the detriment of scientists and researchers.*

¹³ CASTRO MORENO, Carolina (1999): The scientific and technical information and the formation of democratic citizens. Report, No. 13.

¹⁴ FERNANDEZ MUERZA, Alex (2004): Estudio del Journalism Scientific Información en la Prensa Reference: If El Español from un Comparative Análisis. UPV

- *No use of companies as sources of information on science and technology.*
- *Problems arising from lack of interest or coordination in areas such as dissemination policy, planning and funding and training of human resources."*

The so-called problems of scientific condition specializing in science and technology journalism come from the structure of the latter, and certain characteristics of the professionals engaged in these activities, which may hinder the popular dissemination of their work.

Hernando Calvo (. 1992 pp 54-69) and then Muerza Fernandez (2004, p.48) estimate that problems of this nature have several different origins: the extent and complexity of science, the information explosion, the historical acceleration, resistance to change and the problem of adaptation to new realities.

Communication problems can be found in science journalism arise from three different foci: those derived from the responsibility of the media, proper configuration of journalistic genres and their implementation, and the distortion of the transmitted information. This last point is a common cause of tension and misunderstandings between scientists and journalists, because as said Carolina Moreno (1999, p 98.)

"Journalists and scientists see the world through their own lenses, which are designed to achieve different objectives and acting on conflicting motivations."

We should note that this quote from Professor Moreno needs to be contextualized in a very specific moment in the history of journalism and science, and that both disciplines have come a long way in fifteen years that science, technology and communication have evolved. One way they have done away sometimes, but very close in most cases and with great feedbacks that make the presentation of the methodology of scientific communication is proposed and justified in this article (Section 4).

Among many other objectives, obligations and duties of the journalist, we would like to highlight one of the missions, our greatest trial, set for this

journalistic expertise. It is to do work that may lead to a better understanding of the results of the investigation, no mistakes or inferences. But the road to be traveled is long and complicated, but both journalists, as teachers, researchers and individual citizens must demand and defend.

To understand it, we can use the principles agreed at the *First Latin American Congress of Science Journalists held in Caracas in 1974*¹⁵ and today maintains a large and disturbing (not overcome) news, Of the seven principles include three believe, considering the object this work, of particular value:

- *"The science journalist defend the right of all human beings to participate in the development of knowledge.*
- *Promote community confidence towards science; promote the dissemination of findings that benefit the man and try by all means to value most clearly the positive aspects of scientific and technological advancement, and denounce the negative, in relation to the individual and society.*
- *The science journalist should promote and encourage the development of research, both basic and applied, tending to the welfare of the local or national community, and internationally; and will work for the creation of public awareness of the value of scientific research for development of peoples".*

2.2. EHEA and ERA. New Challenge: The 2020.

As teachers and researchers must remember how we met regulatory framework in proposing a new method of communication of science and technology. Not only is actually a regulatory framework, but a whole philosophy, with its successes and mistakes like all others, on which he has designed a national

¹⁵ DÁVILA PEREZ DE CAMINO, Carlos (1979): Scientific journalism ethics del La. Prensa Española. Madrid.

and European bet that aims to guide higher education to a growing connection with innovation and economic and productive environment.

The European Higher Education Area (EHEA) and the European Research Area (ERA), since the premise of internationalization and mobility of students and human resources devoted to research, establishes as a fundamental premise ensure efficient training oriented the needs of the professional market and production environment, without neglecting those areas of knowledge related to the social sciences and humanities.

Since the implementation of these programs the identity of Europe has changed and the idea of Europe 2010 had the idea of what should be the 2020, or at least the objectives that Member States consider to be achieved, today, within 6 years.

Europe 2020¹⁶ must be built on a priority growth based on three principles: smart, sustainable and inclusive. Accompanying it, the flagship initiative Innovation Union which aims to refocus the policy of R & D + i in the challenges facing our society, such as climate change, energy management and efficient use of resources , health in an increasingly aging society, demographic trends, etc. Of course innovation should be strengthened, not from research to commercialization.

If anything we are focused on this initiative is, among other targets in the field of R + D + i, for one of its objectives (COM (2010) Final Page 16..)

"To reform national (and regional) systems R & D to foster excellence and smart specialization; strengthen cooperation between universities, research and business; implement joint programming and enhance cross-border co-operation in areas with EU value added and adjust their national

¹⁶ EUROPEAN COMMISSION (2010): The Europe 2020 strategy for smart, sustainable and inclusive growth. Communication from the Commission. COM (2010) Final. EU Commission

funding procedures to ensure dissemination of technology throughout the EU territory "

This objective encourages us, and ethically requires us to adapt teaching methods of scientific and technical communication to the new space and environment around us, we are part of and that as journalists and communication professionals we must adapt in order to monitor, analyze, and provide citizens with the keys of the world in which they live and to which it belongs.

3. The Impact of Science on Society

Undoubtedly, the impact of science on society is becoming increasingly important and is high on the agendas and concerns of governments place. Therefore, we are not referring exclusively to the *Impact Factor*, also known as impact index, or Impact Factor and recognized in academia as a measure of the importance of a scientific publication, but the return on investment that society makes research in a country.

So we'll see two ways of communicating science, not to be aimed at different audiences can look away from the interests and tasks of the communicator or journalist; independent and conflicting interests; and finally, incompatible to launch the methodology presented in this paper.

3.1. The Science Communication Science.

Researchers, when performing their work, they encounter a series of challenges that are not necessarily related to the subject of your research. Today teachers and university staff should be in the best case, an excellent teacher, and along with this, researcher, manager and communicator.

A researcher in Spain, whether teaching or not, have to do, sometimes against the expense of the reforms of the laws of science, a research, management and planning which will be evaluated his career

Along with this, you are required to plan a task impact with high anticipation of success, without which it will be evaluated positively by both funders and by scientific publishers that echoed his work must be done, and publish results of their research. By the number of articles and the quality of the journals will be valued as

scientists and researchers of excellence or not, a rating that will determine the scope for additional financings and other works in college.

This creates a state of, shall we say, tension, frustration or competition among researchers that has little to do with your business that might compromise the quality and the normal course of their work, especially when funding sources are not insured.

Moreover, we can not deny, and we must demand that all research projects, especially those funded by public funds, have a clear focus on improving the quality of life of citizens, attending and meeting their needs, anticipating even the needs thereof. Finally, it provides citizens with their taxes these public funds for R + D + i, is entitled to know how and for what purpose the money is used.

One of the traditional ways of assessing the impact of science is primarily through appointments and the number of publications in scientific journals in the format of peer review. There are many methods of social impact assessment of the results of research, and many have questioned whether the system is the most successful publications.

Lutz Bornmann¹⁷ makes a very interesting review of different evaluation methodologies of science, such as econometric studies, analyzes or case studies, and sheds enlightening statements when valuing traditional methods based on citations and publications.

One of the conclusions we reached when we review article Bornmann (op.cit. P. 2018) is that while the publication of research results is very important and can have an impact on the scientific community, you can that these results do not

¹⁷ Bornmann, Lutz (2013): *What Is Societal Impact of Research and How Can It Be Assessed? A Literature Survey*, en *Journal of the American Society for Information Science and Technology*.

transcend to society, because it does not understand them, because they do not solve problems in the short term or definitely not interested.

For the purposes at hand, Bornmann (op. Cit. P. 217) suggests an essential idea is that as noted in their work, the company can reap the benefits of successful research studies only if the results are converted in commercial and consumer products, such as drugs, diagnostic tools, machines and devices or services, however it is also necessary to consider the study of the social impact of research related to social benefits, social quality, utility, government securities, transfer knowledge, social relevance, etc.

In the first case, the market itself regulates the acceptance or rejection of these results. In the second case, journalists and media professionals who can do quality work, increased the impact of such research, with appropriate training and expertise.

3.2. The Science Communication for society.

Perception and knowledge that society has of society is reflected very clearly in the last Eurobarometer survey published by the European Commission in November 2013¹⁸

Prepared on the EU-28, shows many differences from the published in 2010, which undoubtedly corresponds to the incorporation of the countries of Eastern Europe, and its characteristics when education and standard of living.

Similarly we find that the level of information that citizens have of science and technology is 58%, with only 38% in the case of Spain. Regarding the level of importance and interest in these issues generate society, 36% of Europeans say yes

¹⁸ EUROPEAN COMMISSION. (2013): Special Eurobarometer 401 Responsible Research and Innovation (RRI), Science and Technology.

interested and feel well informed, while 18% argued that despite their interest are not well informed. Worrying is as a result of the above that 44% of the European population does not feel or interested nor informed.

In the case of Spain, these numbers drop in the case of interested and informed, 29% informed and interested but not 23%. And therefore the rate of indifference about aspects of science and technology rises to 48%, a figure that can be considered alarming in a country like Spain where we can consider that we have a system of R + D + i moderately consolidated and scientific and technical leaders in Europe areas.

For sources of information on science and technology is the aspect which, together with the above, we can draw more attention as information professionals. The Europeans say that the most qualified professionals to explain the impact of science on society are researchers themselves, as stated by 66% of respondents; while only 15% and 20% of the population believe that journalists and television respectively, are prepared to convey this information.

It is paradoxical, however, that the information reaches the public through the mass media and social networks and the internet. In fact, television as information transmission channel represents 65%, 33% media and internet as a whole 35%.

Given these figures, we can only make a thorough and critical review of the role of information professionals in the field of science and technology. We must ask if they are doing not only the task for them, but if they do so within the parameters of quality. If we recover the premises of *I Iberoamerican Congress on Science Journalism* we realize that maybe we are not responding to the needs of information and control that society should sue about such a sensitive issue, and it definitely affects the lives of citizens.

In a country like Spain, where, as recognized by the Press Association of Madrid in its last report¹⁹, in 2008-2012 they left the Spanish powers 13,800 new graduates in Journalism, with 10,951 graduates in Communication Studies; and which in the same period, the registered unemployment increased by 132% journalists. These data mean nothing more than 11,151 lost jobs and closed 284/2 since 2008.

Given this, the alarms that have been activated certainly should lead us to new professional settings, not solely based on entrepreneurship, as it seems that is where the latest institutional recommendations are addressed. Our proposal in this context, is to abandon old approaches and musings about the differences between scientists and journalists, and the difficulties of communication of science and technology.

It is our duty as teachers to prepare future journalists in sectors and areas that represent new areas of work completion, and research and innovation is definitely one of them.

4. New Model of Communication of Science and Technology: Proposal

As we have seen, the social impact of science depends on a range of factors, some related to the way in which it is distributed to actors outside the system of production of knowledge, and others with the way it is received, applied, exploited and consumed. All involve social relationships and information flows between actors (individuals, groups, institutions) working in different contexts and settings.

The company has, or should have, interest in the results of research and innovation, and the latter need to be known, but especially valued by society.

Moreover, increased rates of impact of research projects and understand the impact of policies and measures of support and funding for R + D + i are

¹⁹ Asociación de la Prensa de Madrid (2013): Informe de la profesión Periodística 2013.Madrid

increasingly widespread concern among researchers and public administrations, respectively.

Knowledge-creating institutions (universities and research centers), are currently immersed in a very difficult environment due to the current global economic and financial crisis, and should promote the potential and impact of the work of their human resources.

These entities are becoming increasingly essential to turn to different sources of funding to traditional, regional and national levels, making their way in the international environment, mainly through the Framework Programmes of the European Union. It is, therefore, to participate in a highly competitive environment in which the impact assessment becomes one of the handicaps of the proponents, as fundamental as the formation of a consortium or good presentation of an innovative idea.

The evaluation of the proposals, particularly the proper impact assessment section has become the greatest challenge faced by researchers in obtaining success in the European and international calls for funding R & D, accounting a third of the evaluation of their proposal.

A researcher involved in a scenario like the posed ***Horizon 2020***, has no doubt with an idea and research excellence, and thanks to its prestige and past experience in these types of programs, contacts necessary to create a good consortium. However, does not have to dominate dissemination strategies or raise adequately the impacts of the proposal.

That is why, all the above, it is necessary to create teams of multidisciplinary research involving the figure of a communications professional, specializing in scientific communication, capable of internationalization and the mastery of all

communication tools available to ensure maximum exposure and impact of research results.

The author of this work has been carried out this type of work for over 12 years, through different projects with European funding have tried various problems, both scientific and technical, and social. Examples are the POWESOL²⁰ through desalination project on renewable energy; ERA-STAR²¹ project in which he worked to promote research in the space sector in Europe; Creamed²² project pursuing the promotion of creativity in business in the Mediterranean Basin; SiSOB project²³, in order to assess the impact of science on society (the closest to the specialization of the author of this work and which has achieved greater results) and now BRESAT²⁴, in which different European institutions, national, regional and local, with companies, seek to bring broadband via satellite to remote areas.

In all these projects have tried to communicate to the scientific community but also to society as a whole, achieving the results that can be viewed on the websites of each of them.

Participation in such projects and the results show that this area of expertise is a very interesting workspace for communications professionals both nationally and internationally. A professional output generated interest both researchers and society, as it helps to increase and enhance the results of his research beyond what the market can give them.

It is therefore of great interest and have thought and done in the field of the University of Seville, a new graduate teaching methodology, and could be ready to

²⁰ FP6-INCO2004-MPC3, 032344

²¹ ERAC-CT-2004-515793

²² REF. 2G – MED09 – 062

²³ SIS-CT-2010-266588

²⁴ CIP-ICT-PSP.2012.5.3

start in the course 2014/2015, and to enable graduates in Journalism or audiovisual communication professional specializing in this new line.

This specialization obviously not close the door to the multidisciplinary, in the case of recipient students, and the content, and will seek to work with university researchers and professionals in improving communication and developing strategies and tools serve to increase the impact and implications of the results of their work on society.

These tools will be used for all stages of research, from the drafting of proposals in order to obtain the highest score in the assessment of their strategies of dissemination and impact, as well as in the implementation, management and evaluation plan posterior communication and dissemination of the project.

With this, and with the collaboration of institutions, we hope to open a new career path of great value for future journalists and media in order to achieve a network of more critical citizens society, aware of the world in which they live and consequences of the decisions of their leaders and scientists on the problems that beset us, and sometimes we are not we are not even aware.

5. Bibliography

Paper or electronic books, reports and theses:

- ASOCIACIÓN DE LA PRENSA DE MADRID (2013) *Informe de la Profesión Periodística* 2013.
- CALVO HERNANDO. Manuel (1992): *Periodismo científico*. Caracas: Instituto Venezolano de Investigaciones Científicas. IVIC.
- EUROPEAN COMMISSION (2010): *Europe 2020. A strategy for smart, sustainable and inclusive growth*. Communication from the Commission. COM (2010) final. EU Commission.
- DÁVILA PÉREZ DE CAMINO, Carlos (1979): "La ética del periodismo científico", en Memoria 2º Congreso iberoamericano de periodismo científico , Madrid, Prensa Española
- EUROPEAN COMMISSION (2013): *Special Eurobarometer 401. Responsible Research and Innovation (RRI), Science and Technology*. Directorate-General for Research & Innovation y Directorate-General for Communication (DG COMM "Research and Speechwriting" Unit). 2013.

- FERNANDEZ MUERZA, Alex (2004): *Estudio del Periodismo de Información Científica en la Prensa de Referencia: El Caso Español a partir de un Análisis Comparativo*. Tesis Doctoral. Universidad del País Vasco. Texto accesible a través de <http://e-ciencia.com/afm/tesis-alex.pdf>.

Chapters or Articles in Books or Magazines Paper.

- BORNMANN, Lutz. (2013): *What Is Societal Impact of Research and How Can It Be Assessed? A Literature Survey*, en Journal of the American Society for Information Science and Technology. Volume 64, Issue 2, pages 217–233, February 2013.
- MORENO CASTRO, Carolina (1999): *La información científico técnica y la formación democrática de los ciudadanos*, en Comunicar, nº 13, 1999. Accesible texto: <http://dialnet.unirioja.es/servlet/articulo?codigo=229974>.
- DÁVILA PÉREZ DE CAMINO, Carlos (1979): *La ética del periodismo científico*, en Memoria 2º Congreso iberoamericano de periodismo científico. Prensa Española. Madrid

XVIII. THE CROSS-CULTURAL COMMUNITY MANAGEMENT OF NATURAL RESOURCES IN THE SIERRA DE SANTA MARTA IN VERACRUZ (MEXICO)

Jesús Moreno Arriba (U. Nacional de Educación a Distancia -Spain-)

Research work done as a Scholarship recipient 2011-2013 MAEC-AECID for Spanish for graduate, doctoral and research in Universities and prestige in foreign countries ODA granted by the Spanish Agency for International Cooperation and higher centers development (AECID).

1. Research Methodology

1.1. Topic, objectives and research methodology

1.1.1. Field of study

This research seeks to demonstrate the need to analyze and claim the opportunity that the strategic articulation of indigenous-peasant endogenous local knowledge and scientific-technical (expert) knowledge within the Universidad Veracruzana Intercultural (UVI) and their contribution to knowledge *dialogue* **processes in natural resource management and popolucas Nahua indigenous and peasant communities in the Sierra de Santa Marta** in Veracruz (Mexico).

1.1.2. Research Objectives

In the above manner, the main objective of this research is summarized here focused on demonstrating the need to **consider, analyze and claim the opportunity that the strategic articulation of indigenous-peasant endogenous local knowledge and scientific expertise (experts)** that are being generated in the

last decade within the scope of the Bachelor of Integrated Management Development (hereinafter LGID) in its Guidance on Sustainability, the Universidad Veracruzana Intercultural (UVI onwards) the headquarters of Forests and its contribution to a "dialogue of knowledge" (Leff, 2003, Toledo, 2011; Argueta, 2011) and an "ecology of knowledge" (Santos, 2009) in the processes of management and management of natural resources in indigenous Nahua communities popolucas and the Sierra de Santa Marta in Veracruz (Mexico).

To this end, this research is aimed specifically targeted to **identify, analyze and identify ethnographic different projects of comprehensive, sustainable and intercultural community management of natural resources, agroforestry, fisheries and ecotourism** in the regional area of the Sierra de Santa Marta (images 2 and 3) as **potential ecological**, economic, social, cultural and **alternative** educational models to help improve the current precarious situation, ecological and demographic and socioeconomic of the peasant-indigenous communities of southeastern Veracruz as regards aspects of inescapable interest conservation of the **environment on human development, social justice and sustainability**²⁵.

1.1.3. Research Methodology

For the above objectives, from a **qualitative** methodology based on **ethnographic** research methods and the application of research techniques such as **open** or **unstructured** interviews to different social actors study subjects (Figure 1), this research has identified, analyzed and various projects regarding

²⁵ In this work sustainability means: "*An effective commitment to contribute to the formation of a new civilization stage, based on knowledge, harmonizing the life of him human beings themselves and each other, which promotes economic development with equity and practice a respectful attitude to preserve the environment in the long term vitality and diversity of our planet [...] as a set of relations (natural and social) systems, dynamic processes (energy, matter and information) and scales values (ideas, ethics, etc.)*" (Jimenez, 2000; p. 109).

ethnographic intercultural community natural resource management, agroforestry, fisheries and ecotourism in the Sierra de Santa Marta in-directly involving indigenous peasants, teachers, alumni and students of the LGID actors in its guidance on Sustainability Universidad Veracruzana Intercultural (UVI) the headquarters of forests, actors from various NGOs and civil associations and / or institutional actors.

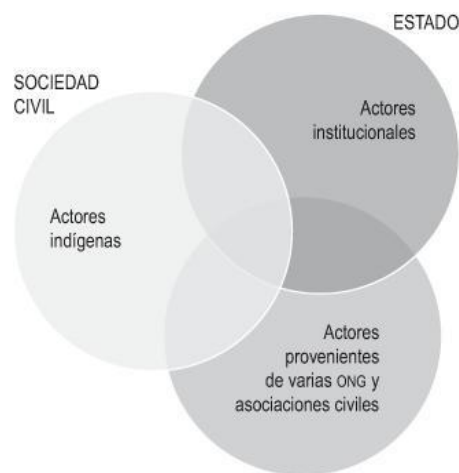


Image 1: Identification and grouping of social actors subjects. Source: Avila, Adriana and Mateos, Laura S. (2008): Setting actors and hybrid discourses in the creation of the Intercultural University of Veracruz, in Trace, 53, Available <http://trace.revues.org/393>. Retrieved October 24, 2013].

The methodological basis of this paper try to combine the principles of activist anthropology developed by Hale (2008) and Speed (2006); however, during the investigation have emerged new methodologies that *"may provide feedback, rejuvenate and decolonize the classic anthropological ethnography"* (Dietz and Mateos, 2010 p. 9). In turn,

"They are creating innovative avenues to diversify the academic and universal knowledge, to relate to local knowledge, ethno and alternative subaltern knowledges, which at its confluence hybridize mutually diversified building new canons, tangled and glocalized knowledge. As illustrated, this emerging knowledge dialogue, involving, inter-lingual and inter-acting, in turn, requires academic anthropology to rethink their basic theoretical

concepts as well as their methodological practices still too monological intercultural dimensions and monolingual" (Dietz and Mateos, 2010 Page 9.)

2. The study area: the Sierra de Santa Marta in Veracruz (Mexico)

2.1. The Sierra de Santa Marta

The Sierra de Santa Marta is one of the two volcanic massifs (Figure 3) that make up the region of Los Tuxtlas in the southeastern state of Veracruz in Mexico (Figure 2).

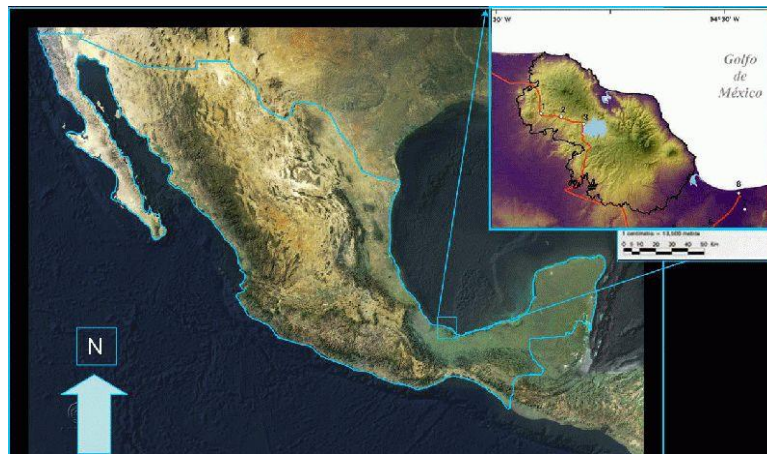


Figure 2: Location of the Sierra de Santa Marta. Source: Guevara, Sergio (2004): Los Tuxtlas: The landscape of the mountains. INECOL Mexico.

In the six municipalities (Table 3) that make up the Sierra de Santa Marta predominantly **indigenous population (86.54%)** of the **Nahua ethnicity** and **popoluca**. In this region, as attested by various archaeological sites, groups Zoque-popolucas and Nahuatl, direct descendants of the Olmec culture, *"able to adapt to the conditions of the rain forest to practice agriculture and use the resources offered them settled the jungles and forests of the mountain"* (Blom and Lafarge, 1926 p. 33).

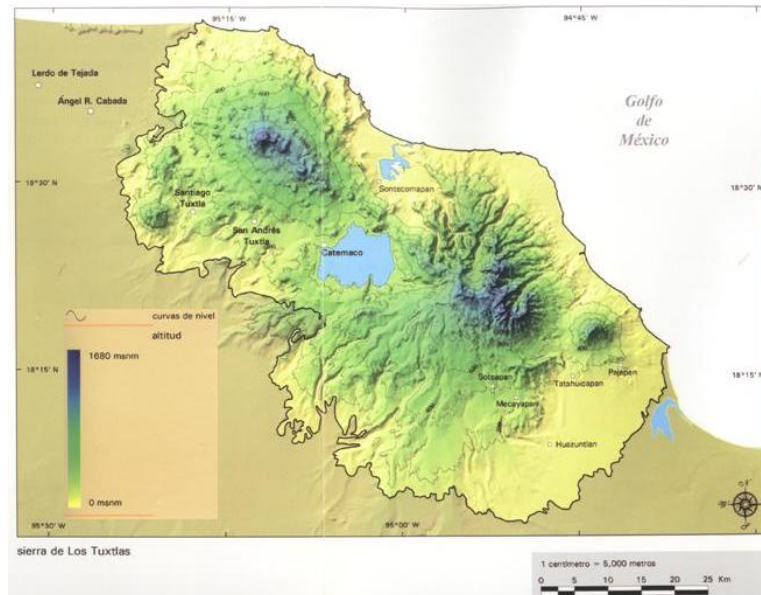


Figure 3: Layout of orographic Sierra de Santa Marta in the Special Biosphere Reserve of Los Tuxtlas. Source: Guevara, Sergio (2004): Los Tuxtlas: The landscape of the mountains. INECOL. Mexico.

A great diversity of ecosystems and vegetation types, and an altitudinal range from sea level to 1,750 meters. (picture 3), gives the region an important range from the point of view of biodiversity. However, they have not taken all the official steps required to stop the continued destruction of the forest areas of the region, land degradation and unsustainable use of natural resources. Moreover, during the last decades has prevailed a process known as "sustained underdevelopment" (Buckles and Chevalier, 1995, p. 126). This notion has been the result of government economic policies for the region that have accelerated this process, basically by supporting livestock development programs and welfare programs that depend on external inputs; addition to the gradual loss of local knowledge and customs, and the displacement of indigenous communities, predominant in all municipalities (Table 3) with respect to the absolute population, the choice of their rulers and decisions about their future.

Municipality	Total Population (thousands)	Indigenous Population (thousands)	Indigenous Population in Total Population (%)
Catemaco	45.383	39.868	87.84
Hueyapan de Ocampo	39.795	34.902	87.70
Mecayapan	15.210	13.046	85.77
Pajapan	14.071	12.239	86.98
Soteapan	27.486	23.143	84.19
Tatahuicapan Juarez	12.488	10.518	84.22
TOTAL	154.433	133.716	86.58

Table 3: Indigenous Population of the Sierra de Santa Marta (2000). Source: data taken from INEGI, 2001 Development.

As the most remarkable demographic processes in the region include the sustained growth and densification of the population (**overpopulation**). Therefore, migration-ejection phenomenon intensifies and tends to be very important. Thus, by 1995, as a product of *"the cancellation of more than 60,000 jobs in the cities of southern state of Veracruz"* (CONANP-SEMARNAT, 2006 p. 52), resulting from the crisis that hit the **Mexican petrochemical industry**, a process of **return** of several thousand people to the Sierra de Santa Marta was recorded.

Thus, the three major exhaust valves, allowing cover deficits for food and land have been closed. These were: the migration to the cities of the petrochemical-industrial corridor Jáltilpan Coatzacoalcos, cultivation and marketing of coffee, and the use of communal ejido lands. Currently, unemployment in the industries of southern Veracruz is causing a return to the field where the situation is not favorable (tiny coffee prices in the international market, low productivity of maize, lack of support for developing crops or other economic activities). Livestock is not at its best because it has had to sell at prices lower than they bought cattle. Accordingly, a recent phenomenon which there is no detailed quantitative knowledge, is the migration and / or expulsion-migration of young people and

adults to the north (fields Sinaloa and Baja California) or the United States for better employment opportunities.

All this to suggest that the Sierra de Santa Marta requires urgent enhancement of the multiple and diverse natural resources the area offers. All of this will again increased pressure on **natural resources**, which, again, makes urgent the search for **alternative models of development**.

3. Theoretical Framework

On a planetary scale movements are emerging, among other things, create an atmosphere of support for alternative models

3.1. *Some possible alternative development models*

Based on the observation that one of the main causes of the failure of so many development projects in the Third World was its inadequacy cultural context of the target populations, the alternative proposal emerges **ethnodevelopment**, meaning the

"Exercise of social ability of a people to build their future, building on the lessons of its historical potential of their culture and experience, and resources, according to a project that is defined according to its own values and aspirations" (Bonfil, 1982 p. 133).

From the perspective of participatory development, and Bawtree Rahnema (1996) perceive **participation** as a tool for greater efficiency, and a new source of investment: participatory processes to deliver development projects they need more to avoid the pitfalls and failures the past, namely: a) a close understanding of the realities on the ground in that do not have foreign technicians and government bureaucrats; b) relaciones networks that are essential to both the success of ongoing projects and for long-term investments in rural areas, and c) cooperation at the local level, organizations capable of carrying out activities development.

Moreover, the **empowerment** approach,

"It is related to the access and control of three types of power: a) the social, understood as access to the base of productive wealth; b) political, or

access of individuals to the process of decision making, especially those that affect their own future; c) the psychological, understood in the sense of individual ability and potential" (Friedman, 1992, p. 33).

3.2. Knowledge, tradition and modernity: Towards an intercultural dialogue of knowledge?

As Haraway (1995) describes **postmodernism** is marked by the end of universalism and essentialism; by the emergence of hybrid entities made of body, symbols, and technology; by the overlapping of the traditional and the modern. Therefore, the problem to solve emerging approaches and models with critical views, and global processing, which permanently link the ecological and social aspects, not only to leave behind the essentialism of Western ontology, but the principle of universality of science modern.

This is unavoidable, a questioning of science, the **coloniality of scientific knowledge** and, in general, throughout Western episteme. Such an attitude leads these authors to advocate a kind of **dialogue of knowledge**:

"It is, after all, and thus to interrelate various lay decolonize knowledge, popular, traditional, urban, rural, provincial, non-Western cultures (indigenous, African, oriental etc.) circulating in society" (Santos, 2005 p. 69).

It is in this context asymmetrical, in recent years it has developed a conceptual and metodo-lógica proposal, frequently resorting to the notion of **dialogue of knowledge** and / or **intercultural dialogue**. It is part of the **coloniality of knowledge** and the challenge of creating innovative avenues to diversify such knowledge, to relate to indigenous and local knowledge, ethno and al-ternativos subaltern knowledges, which may at its confluence and should hybridize and fertilize each other, and building new diversified canons, tangled and glocalized knowledge (Mignolo, 2005, Walsh, 2003; Escobar, 2007). Therefore, alternative theoretical and methodological proposal aims to achieve "intercultural construction of knowledge" (García-Canclini, 2004) based on the long Latin American tradition of close collaboration between social movimien-tos and grassroots groups on the one hand, academics and intellectuals and activists on the other.

Meanwhile, Boaventura de Sousa Santos calls for the need to extend the so-called intercultural dialogues, often limited to epistemic essentializing way exchanges between "*representatives*" of particular cultures, religions and civilizations, into an "*ecology of knowledge*" (Santos, 2006). This more holistic and ecological perspective would include all "*set of practices that promote a new active coexistence of knowledge with the assumption that all of them, including scientific knowledge, can be enriched in this dialogue*" (Santos, 2005 p. 70).

From above all the educational model decolonial Walsh (2003) proposes to develop understanding among different actors and intermediaries, an epistemic construction of multiculturalism, based on emerging knowledge dialogue, essential and beneficial for all.

Thus, in several Latin American countries in the last decade there have been universities governed by ideas multiculturalism, if the Universidad Veracruzana Intercultural (UVI) (Figure 4). These intercultural higher education institutions (IIES), devoted to serving the needs of tertiary education of indigenous peoples and communities of African descent, and put in relation included in the curriculum content itself both the knowledge of the respective indigenous traditions and / or black, and Western science and knowledge.

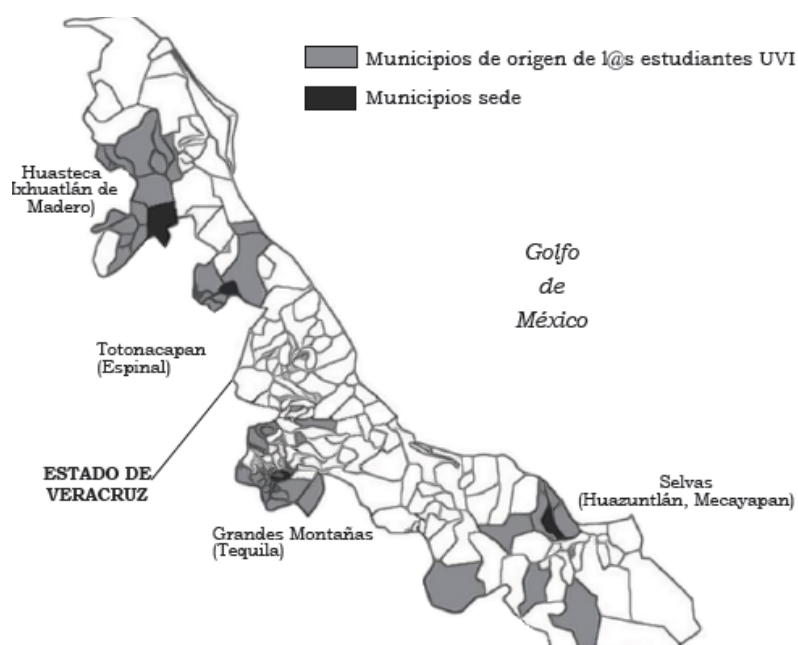


Figure 4: Location of the UVI "The Jungles-Huazuntlán" in the Sierra de Santa Marta.
Source: Alatorre, Gerardo (2009): *An educational model for diversity: the experience of the Intercultural University of Veracruz. Universidad Veracruzana. Xalapa.*

4. Discussion of the empirical data

Considering all the above so far, data, evidence and / or empirical material, very brief, are presented below reflect a convergence characteristics with the approaches of alternative models of development as the ethno-participation or empowerment and emerging approaches such as political ecology, multiculturalism, dialogue of knowledge, knowledge ecology and sustainability adopted in this research. This makes them different from those from the public policy of the Mexican state, markedly paternalistic and paternalistic, had existed for the Sierra de Santa Marta until the late twentieth century.

New experiences of Community, comprehensive, sustainable and intercultural management of endogenous resources developed in direct interaction between the indigenous-peasant scientific experts both local and foreign population, technical / developers and farmers in the region intend to decisively stem the upward curve of

destruction natural resources and improve the quality of life of the communities of the Sierra de Santa Marta. Thereby attempting to lay the groundwork for moving towards a model of more human development and sustainable justification:

"There are trees and cornfield to pasture, even for coffee. The people here spent many years on illegal logging and destroyed everything. Land before me get into engineering projects and there was virtually no trees. Right now, we are doing the reforestation, this year the land is never under water and will grow further with more trees" (Nahua indigenous peasant, August 2012).

To make this possible integral and sustainable alternative model can be carried out ecological restoration should be a source of occupation and income of the indigenous-peasant communities with a triple impact: environmental, economic and social:

"The Engineer is planting many plants and we dealt to us. For example, we have planted many plants right now Allspice is ten pesos per kilogram. I sold right now as half a ton of pepper right here. Here right now there are many buyers who come from Puebla, Orizaba, Xalapa. Pepper the fight a lot. I can sell 10, 20 or 30 kilos of pepper seed and thus already have a resource I can buy my corn and food for my family for the season" (Nahua indigenous peasant, March 2013).

Moreover, in most of these new and innovative experiences, decisive and interculturally engaged in direct collaboration with indigenous and peasant technical / local promoters of the Sierra de Santa Marta, (as) graduates (as) and students LGID, Guidance on Sustainability, the UVI-the Forests. Thus, the concept of intercultural management refers to the skills that these young people develop processes to promote their regions, mobilizing resources and knowledge of indigenous and local communities, as well as various technical and **scientific knowledge** (experts):

"Yes, we have exchanged many knowledge and expertise between the Lord and me. Well, I have taught you to use the GPS, photographing, etc. Well, a little of all the knowledge and technical tools to teach us here at the University. He, for example, taught me to use organic fertilizers. He has also talked to me and taught about medicinal plants and why traditional

polyculture handled within the coffee plantation and that is totally different to scientific" (Nahua LGID student at UVI-The Forests, September 2012).

Therefore, if "we know that our present way of life has no future and that the economy is beyond the sphere of reciprocity and voluntary cooperation" (Bosquet, 1979, p. 12), it is precisely change of lifestyle and the economy is centered in the field of reciprocity and voluntary cooperation in a context in which the fundamental problem is not an isolated resource management but the management of an ecosystem whose sustainability can only accomplished by achieving global agreements to implement intercultural about certain principles, such as ethno, participation and empowerment of local populations, based on the scrupulous respect of agro-ecological peculiarities and, of course, cultural, each region:

"On this side of the Sierra de Santa Marta, the truth is that the planting and production of pepper is the emerging issue and what we do is to recovering species that are useful for the area, useful for the company, with selection criteria consensus; because suddenly we can not impose, that is, can not bring things from outside and impose here because there are things in the region that are very valuable and we should respect, value and promote" (young peasant popoluca promoter (engineer) ENDESU of PSSM and projects, a graduate of the UVI-LGID the Jungles, October 2012).

Moreover, these emerging alternative experiences in the Sierra de Santa Marta transcend developmental disability actually occurred during the post-war expansion to incorporate women into great emancipatory and empowering it, and to advance greater gender equity:

"I count on some land 9 hectares. So I have 7 acres of plaster where 11 animals walk on 2 acres and have planted coffee. First I replant. I have a spring. I planted plants and everything and now I got coffee and other highly productive timber plants that gave me the Engineer. Now in my plot no water, timber, fuelwood, protein and my animals (cattle savings). Then, I'm alone with my two children because my husband has passed away, and only work with my Dad 92 years, I can say that the project engineer my land and my life has improved a lot. Too!. I told the Engineer: my plot has to be number one, not because I'm a woman, but I am going to beat those men who went with me

to the project and the engineer told me, yes, my plot is the number one that is already beat them" (indigenous peasant popoluca, October 2012).

Together, as discussed above, these experiences of the Sierra de Santa Marta prove to be an example of how some of the forest resources have enabled various local indigenous peasant communities in rather adverse conditions for agricultural production, avoid some extent have to abandon their villages temporarily or permanently to work as laborers on nearby ranches or agricultural emigrate en masse to the northern states of the country as Sinaloa and Baja California or even the United States:

"In the community of Venustiano Carranza spent two years working with agroforestry models and, fortunately, we've come a long way and even employment was generated. For example, a guy who was working as a migrant in the fields of plastic Sinaloa, on the border with the United States, now he's over here in the Sierra milking. Before milking as 30 liters of milk and now with the new agroforestry management on their farms milking 80 liters daily as and sustenance for your family earns" (young peasant promoter (engineer) popoluca of PSSM and ENDESU projects, graduated from the LGID in UVI-the Forests, October 2012).

5. Conclusions

The capacity of these alternative projects intercultural community, integrated and sustainable management of natural resources, agrosilvopastoiles, fishing and ecotourism in the Sierra de Santa Marta in involved directly and decisively graduates (as) and / or students LGID observed guidance on Sustainability UVI-the Jungles of job retention and improve the lives of people who are in a position of rest or redundant to the needs of the hegemonic capitalist economic system, *"avoiding largely resorting to migration"* (Moreno-Up, 2013 p. 210) to the northern states of Mexico and Baja California, Chihuahua and Sinaloa or cross the border into the United States with severe and complex problems that entails for both migrants places of departure and destination.

The objective would be to avoid as far as possible what Castells (2002) has defined as the "Society 20:80," under which a fifth of the global population, 20%, live in opulence, while the fifth quarters remaining parts will be sentenced to a

fierce struggle for survival. In short, it is shown how, from a knowledge dialogue and intercultural management resources have allowed rainforests mean survival for different indigenous and / or peasant global unfavorable structural conditions.

Thus, these empirical findings of the desirability ecological, demographic, socioeconomic, cultural and educational means that to some extent these diverse experiences of intercultural community management of natural resources, agroforestry, fisheries and ecotourism in the region of the Sierra de Santa Marta presented as possible alternative models to help improve the grim reality of these indigenous and peasant communities of Veracruz and could represent a pivotal role in helping to improve the sustainability of the tropical areas of Southeast Veracruz, and by extension, the zonal field of Mesoamerica.

6. Bibliography

Paper or electronic books, reports and theses:

- BLOM, Franz y LAFARGE, Oliver (1926): *Tribus y templos*. INI. México.
- BONFIL, Guillermo (1982): *América Latina: etnodesarrollo y etnocidio*. FLACSO. Costa Rica.
- BOSQUET, Michel (1979): *Ecología y libertad: Técnica, técnicos y lucha de clases*. Gustavo Gili. Barcelona.
- BUCKLES, Daniel y CHEVALIER, Jacques (1995): *Land without Gods: Porcess Theory. Maldevelopment, and the Mexican Nahuas*. Zed Books. Londres.
- CASTELLS, Manuel (2002): *La Era de la Información. Siglo XXI*. México.
- CONANP-SEMARNAT, (2006): *Programa de Conservación y Manejo Reserva de la Biosfera Los Tuxtlas (México)*. CONANP-SEMARNAT. México.
- FRIEDMAN, John (1992): *Empowerment. The Politics of Alternative Development*. Blackwell. Massachusetts.
- HARAWAY, Dona J. (1995): *Ciencia, cyborgs y mujeres. La reinención de la naturaleza*. Cátedra. Madrid.
- JIMÉNEZ, Luis M. (2000): *Desarrollo sostenible. Transición hacia la coevolución global*. Pirámide. Madrid.
- RAHNEMA, Majid y BAWTREE, Victoria (1996): *The post-development reader*. Zed Books. Londres.

- SANTOS, Boaventura de Sousa (2005): La universidad en el siglo XXI para una reforma democrática y emancipadora de la universidad. CEIICH. México.
- WALSH, Catherine (2003): Interculturalidad, descolonización del estado y del conocimiento. Signo. Buenos Aires.

Chapters in books, reports and articles in newspapers or magazines on paper:

- ARGUETA, Arturo (2011): El diálogo de saberes, una utopía realista, en ARGUETA, Arturo, CORONA-M., Eduardo & HERSCH, Paul: *Saberes colectivos y diálogo de saberes en México*. UNAM. México.
- GARCÍA-CANCLINI, Néstor (2004): Sociedades del conocimiento: la construcción intercultural del saber, en GARCÍA-CANCLINI, Néstor: *Diferentes, desiguales y desconectados: mapas de la interculturalidad*. Gedisa. Barcelona.
- HALE, Charles R. (2008): Introduction, en HALE, Charles R.: *Engaging Contradictions: Theory, Politics Sand Methods of Activist Scholarship*. University of California Press. Berkely.
- MIGNOLO, Walter (2005): La colonialidad a lo largo y ancho: el hemisferio horizontal en el horizonte colonial de la modernidad, en LANDER, Edgardo: *La colonialidad del saber: eurocentrismo y ciencia sociales: perspectivas latinoamericanas*. CLACSO. Buenos Aires.
- SANTOS, Boaventura de Sousa (2006): La Sociología de las Ausencias y la Sociología de las Emergencias: para una ecología de saberes, en SANTOS, Boaventura de Sousa: *Renovar la teoría crítica y reinventar la emancipación social (encuentros en Buenos Aires)*. CLACSO. Buenos Aires.
- TOLEDO, Víctor M. (2011): Del ´diálogo de fantasmas` al `diálogo de saberes`: conocimiento y sustentabilidad comunitaria, en ARGUETA, Arturo, CORONA-M., Eduardo & HERSCH, Paul: *Saberes colectivos y diálogo de saberes en México*. UNAM. México.

Articles, blogs or web publications records:

- DIETZ, Gunther y MATEOS Laura S. (2010): La etnografía reflexiva en el acompañamiento de procesos de interculturalidad educativa. Un ejemplo veracruzano, en *Cuicuilco*, nº. 48. Disponible en:

- www.redalyc.org/articulo.oa?id=35117051007. Consultado el 10 de febrero de 2014.
- ESCOBAR, Arturo (2007): Worlds and Knowledges Otherwise: the Latin American modernity/Coloniality Research Program, en *Cultural Studies*, n°. 21. Disponible en: apse.or.cr/webapse/pedago/enint/escobar03.pdf. Consultado el 25 de enero de 2014.
 - LEFF, Enrique, (2003): Racionalidad ambiental y diálogo de saberes: sentidos y senderos de un futuro sustentable, en *Desenvolvimento e Meio Ambiente*, n°. 7. Disponible en: <http://ojs.c3sl.ufpr.br/ojs/index.php/made/article/download/3042/2433%E2%80%8E>. Consultado el 19 de febrero de 2014.
 - MORENO-ARRIBA, Jesús (2013): La gestión comunitaria de recursos naturales, agrosilvopastoriles y pesqueros en la Sierra de Santa Marta en Veracruz (México): ¿una alternativa posible al discurso desarrollista y a la globalización capitalista?, en *Universitas Humanística*, n°. 75. Disponible en: <http://revistas.javeriana.edu.co/index.php/univhumanistica/article/view/3846>. Consultado el 9 de marzo de 2014.
 - SPEED, Shannon (2006): Entre la antropología y los derechos humanos: hacia una investigación activista y críticamente comprometida, en *Alteridades*, n°. 31. Disponible en: www.redalyc.org/articulo.oa?id=74703107. Consultado el 22 de febrero de 2014.

XIX. SCIENCE AND SOCIETY IN THE UNIVERSE 2.0: THE ROLE OF PUBLIC UNIVERSITIES AND DISCLOSURE IN SCIENTIFIC CSIC SPANISH

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In full knowledge society now takes the claim that Albert Einstein did half a century ago: *"Something I've learned in my long life: that all our science, measured against reality, is primitive and childlike; and yet it is the most valuable thing we have."* The development of science and technology is unstoppable and its impact extends to all areas of society, from economic to cultural. Transform the environment, how we relate to it and even the way we understand it. Science of the 21st century is, by and for society (European Commission, 2014).

The scientific literacy of citizens is one of the drivers of this process is consolidating in Europe. However, Spain has become one of the countries with less scientific literacy of the continent (BBVA Foundation, 2012), a situation that affects mainly young people who are at the tail in the knowledge of science subjects (National Institute of Evaluation education, 2013). To this is added a drop of science enrollments in recent ten years (National Statistics, 2010).

In parallel, Internet is revealed as the main communication channel for young people, to the point of introducing a new sociological profile, that of 'digital natives' (Prensky, 2001). Web 2.0, social networking with the head, is the main channel for young people to learn science and technology (Spanish Foundation for Science and Technology, 2012).

The sources of information more credibility to perform this mission are research centers and universities (Spanish Foundation for Science and Technology, 2013; Treise et al, 2013).

The future of intelligent societies rests its foundation on a formed and informed citizens with an active role in the process of research and innovation. In this context, new technologies have a power that no broadcast media has had so far. The network has been installed in the cotidianidad of millions of citizens (Castell, 2011) and stands as one of the most important to society in decision-making in the R + D + i (European Commission, 2014) channels.

The media has replaced other means as popular as television, especially among younger (Spanish Foundation for Science and Technology, 2012). For digital native actual Internet is a virtual integrated hybrid increasingly life (Castell, 2011).

This study analyzes the use of the Spanish public research centers (public universities and the Higher Council for Scientific Research) make 2.0 tools offered by the internet to disseminate research results to society. The methodology developed for this ad hoc checklist is designed to assess the presence in the 2.0 environment and the effectiveness of communication in terms of intensity and connectivity. Data were extracted by testing daily for two months, from 1 to 31 December 2012 and 1 to December 31, 2013.

1. Web 2.0: a revolution in mass communication

A brainstorming session between O'Reilly and MediaLive on International in 2004 (O'Reilly, 2007) was the setting-off for Web 2.0 concept, a new system of managing information on the Internet has helped to democratize the use of this means of communication between citizens.

O'Reilly (2007) gave definition to the Web 2.0 with the establishment of its founding principles. On one hand, the Web becomes a platform for information constantly being improved by a community that continues to incorporate content and collective intelligence which is used to produce a large amount of valuable data. In addition, the software free of charge, and not limited to a single device, the search for simplicity in conveying information and creating a conversational space that provides rich experiences users make Web 2.0 for unparalleled agora ensure access to scientific knowledge and a solid foundation on which to build the science, technology and society system. Meanwhile, Cobo Romani and Pardo Kuklinski (2007) summarized these notions in four principles, namely, a new

architecture of participation, intercreatividad, collective intelligence and the existence of smart mobs.

All these features strengthen the Internet as a mass phenomenon (Flores, 2009) and new technologies become indispensable infrastructure for daily life, because since the birth of World Wide Web users connect to the network to communicate with others buy and sell resources, learn and teach, play and entertain (Notley, 2009).

Thus, the network of networks, not only technological but also social changes, as noted by Christakis and Fowler (2010), changed the very foundation of society, and this is occurring, the interaction with the other in several key aspects with abstract concepts -referida enormity of the high number of people who can llegar-, commonality -share information and contribute to collective-efforts-there is a specific increase in the particularity of the links that can be formar- and virtuality in the sense that you can have two identities, one online and one offline-.

It is a transformation such that new sociological profiles are created based on their degree of involvement with digital culture and thus talk about digital natives, digital immigrants and digital illiterates (Prensky, 2006). Thus, the existence of an interactive generation (Sala and Sádaba Chalezquer Brig, 2010) consisting of children born at full term of the information society, and from an early age have had access to technology. It is a highly equipped generation multitodo, mobilized, emancipated, independent, interactive, having fun in digital, it needs to engage through social media.

In the Spanish case, 70% of Internet users between 10 and 18 have a profile on social networks-an age range that descends when you consider that access to a personal computer is about to 6 years. In the case of Andalusia, 71.7% of young people joined these networks between 12 and 14 years (Colas et al., 2013). Although these figures are striking, they are still far from cases like Singapore where the age of initiation of use of social networking is set to 6 years and where 99% of young people between 6 and 24 use this tool communication (Cheock & Zheng, 2011).

Personal interests and social relational needs are the main motivations that drive the use of social networks in Spain (Colas et al, 2013; Flores, 2009) and internationally (Cheock and Zheng, 2011; Notley, 2009).

For university students, these are added other causes as be aware of what is happening in their environment (Gomez et al, 2012). And is that social networks are essential in the daily life of this audience segment that connect confesses several times a day and says the use of networks is integrated into their daily lives everyday activity.

In the specific case of scientific communication, blogs are the primary means that young people use to find information on the progress of research and technology (Spanish Foundation for Science and Technology, 2012).

Lapointe (2007) refers to the science blogs as tools that offer scientists the opportunity to speak directly with the public and allows the company to know what they have to say about certain topics. At the same time offering experts in different fields of knowledge exchange information and opinions. Baron (2010) also appreciates the blogs as one of the most effective means for researchers to connect with citizens. The ability to generate conversations in real time, its role in increasing participation, diversity of opinions and offering open content that can be consumed according to the preferences of the user are some of the issues highlighted in this tool.

2. Science to the public, without intermediaries

Public space has generated Internet breaks the monopoly of mass communication, which until now rested with traditional media (newspapers, radio and television). Areas such as science and technology, which have not taken a leading role in news agendas, are in the Web 2.0 channels of communication without intermediaries and where conversation is possible with the citizen.

Web 2.0 makes scientists regain contact with the public they lost during the eighteenth, nineteenth and twentieth centuries (Weingart, 2011). Sponsorship of research by the aristocracy since the mid eighteenth century science away from the citizens, who until then had had the opportunity to attend large public science experiments like the Otto von Guericke performed to demonstrate the gap in 1661 the German city of Magdeburg.

From the mid-eighteenth century developed specialized scientific language, were born scientific journals, peer review and science, which aims to improve the quality of life of citizens, evolved back to society.

Internet and the social web to provide a channel where scientists present their scientific results and to work in, by and for society (Könneker and Lugger 2013).

New Web 2.0 tools offer great opportunities to connect scientists with the public (Brossard and Scheufele, 2013) through three main areas, the development of digital media freely available, specialized search by keyword interest and the proliferation of social networks.

Internet stands as the best channel of communication to ensure the role of science in the information society comes to the current crisis in science journalism. But to do this, scientists have to assume its role as main actors in the process of popularization of science because, as published in the journal *Nature* in its editorial: *"As science journalism declines, scientist must rise up and reach out. An average citizen is unlikely to search the web for the Higgs Boson or the proteasome if I have or she does not hear about it first on, say, a wire news channel. And as mass media sheds STI scientific expertise, mass-market science's Presence Will Become harder to maintain"* (Nature, 2009: 260).

Authors like Bucchi (2013) and relate to the disclosure and the third mission of the scientists, after research and teaching.

3. Study shows

Most of the Spanish scientific production is developed in public research centers embedded in public universities and the Higher Council for Scientific Research (CSIC). To remove results of all the nation we have selected the 132 centers, institutes and research units that make up the CSIC and the 47 public universities that educate people on the different Spanish regions.

The choice of public universities in the interest homogenize the object of study and avoid biases that may cause overt differences in terms of resources and objectives, including public and private universities. At the same time, we understand that you are on your own public ownership which have greater social responsibility when it comes to science communication relates. Choosing responds

to public universities established by the Group Scimago in Spanish Universities Ranking based on Scopus data (2006-2010) and published in March 2012. This ranking integrates a total of 93 universities, of which 47 are public and 46 private.

The analysis was conducted in two periods from 1 to 31 December 2012 and from 1 to 31 December 2013. The same period in two different years was chosen to determine the evolution experienced centers in twelve months and analyze future trends in the use of Web 2.0 tools to disseminate scientific results to citizens.

4. Methodology

The data analysis we have done through the design of an ad hoc checklist. The built-in checklist items meet the three stated areas of interest in the study: use, intensity of use and connectivity.

The tools have been selected: blogs and news channels, for its effectiveness in communicating science (Baron, 2010; Cobo and Pardo, 2007; Lapointe, 2007); social networks Facebook, Twitter and YouTube to be the channels in which young Spaniards looking for information about science (Spanish Foundation for Science and Technology, 2012); channel content syndication and other apps where video players, audio included, among others.

The intensity was measured taking into account the number of publications on scientific findings made under each tool during the period under review and evaluation of the connectivity is determined by the number of followers that each center has at various social profiles.

5. Results

5.1. Using Tools

The blog, considered one of the most effective means for scientists to connect with the public (Baron, 2010), is the tool you use less public universities and research centers of the Higher Council for Scientific Research to disseminate the results of their scientific work. This trend is repeated in the two analyzed periods (December 2012 and December 2013). While in the case of universities the number down in 2012, in which a 14'6% of universities used this channel to 2013 when the number of universities with scientific content of blogs is 10.63%. The

percentage of CSIC research centers that use this tool to disseminate their results remains around 6% for both 2012 and 2013.

However, it should be noted that CSIC has since the beginning of 2014 with an institutional blog, published in the online edition of the newspaper 20 Minutes, and collects on its Web page www.csic.es since late 2013, blogs personnel assigned to the council researchers, a total of 25 Something that shows the growing interest of the Council by this tool.

Instead, science news channels are established as the most widely used by universities and the CSIC centers. In the case of universities, it is noteworthy that the high number dedicated to a specific dissemination of research space, although it is notable decline in the use of this tool in 2012, with 72.9% of the universities, to 2013 to 63.8%.

CSIC centers experienced a slight increase in the use of scientific news channels and spend a 58.08% in 2012, to 65% in 2013.

Social networks, defined by Colas et al (2013) as the main channel for the youth to communication and interaction with their environment, are progressively integrated communication strategies for public universities and the CSIC. As in the above tools, in the case of the presence of universities in social networks descends from 2012 to 2013. In 2012, 35.41% of public universities is present in Facebook and in 2013 31.9 %. On Twitter you go from 31.2% in 2012 to 23.4% in 2013 and 14.6% in Youtube 2012 to 10.6% in 2013.

For the centers of the Higher Council for Scientific Research, the situation is reversed and there is a remarkable improvement from one year to another, especially in the use of Twitter, a network used by 19.9% of the centers in 2012 and by 31.06% centers in 2013 have a Facebook presence of the centers 21.32% in 2012 and 26.5% in 2013 YouTube upload of 11.02% 2012 12.2% 2013.

The RSS and syndication channels, are a resource used by 37.5% of universities in 2012 and 14.8% in 2013. This tool is used by 19.58% of the CSIC in 2012 and 16.66% in 2013 (Figures 1 and 2).

Uso de las herramientas de la Web 2.0 en las universidades públicas españolas

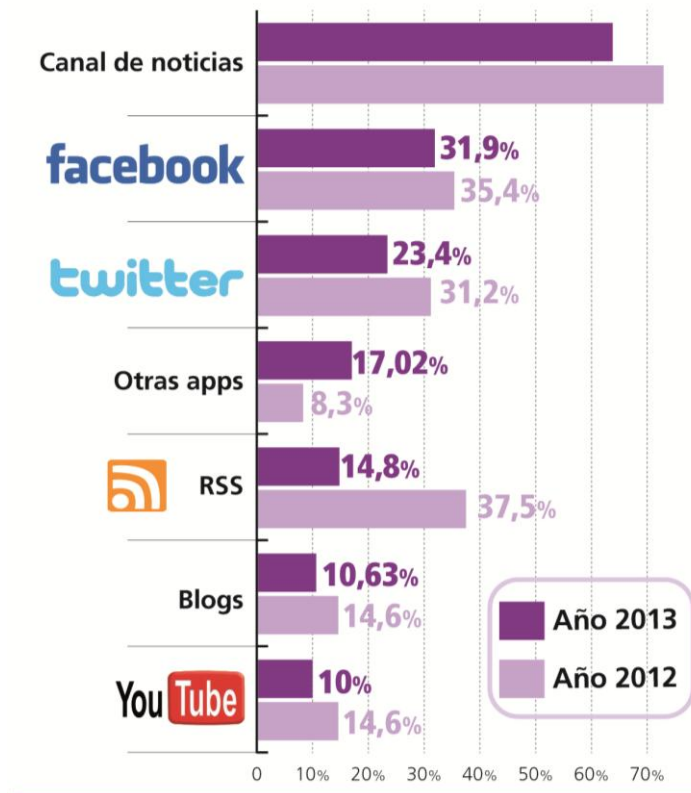


Figure 1: Using Web 2.0 tools in Spanish public universities.

Uso de las herramientas de la Web 2.0 en los centros del CSIC

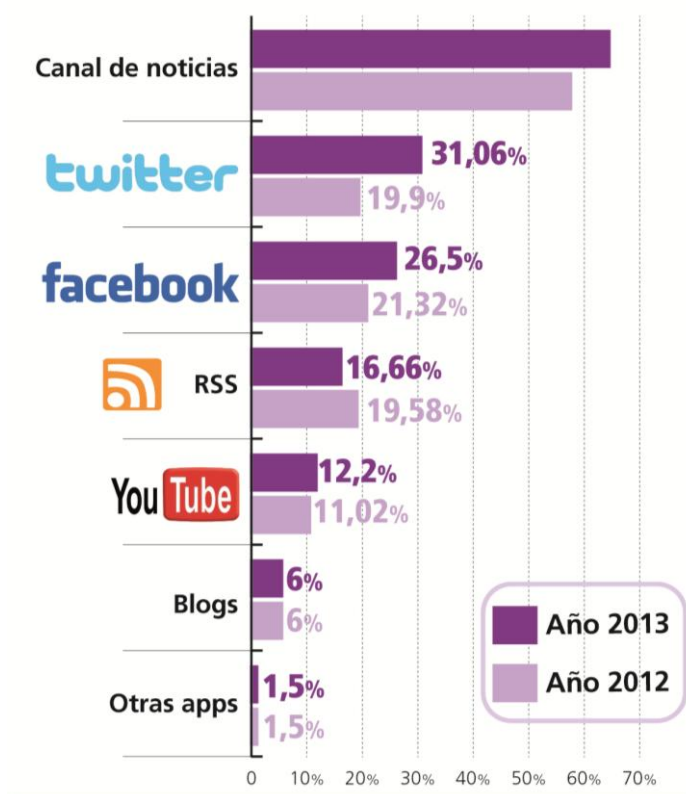


Figure 2: Using Web 2.0 tools in the CSIC.

Only one university, Malaga, use all the tools tested. A situation that is repeated for the CSIC centers, of which only the Centre for Ecological Research and Forestry Applications makes use of all tools except other applications.

A presence data must be added the institutional profiles Research Council as a body. It has two Facebook profiles, one general and one specific for disclosure, and two Twitter profiles. In addition to a Youtube Channel and News Channel. To these must be added the existence of both networks profile of the CSIC in Andalusia and Museum Science Museum of Seville, also using YouTube and Myspace, and the News Channel.

5.2. Connectivity

Connectivity values were measured in the three analyzed social networks, Facebook, Twitter and Youtube, corresponding this value with the number of followers of each channel. In both cases the data connectivity is low, no or university exceeds 10,000 users. Although we must highlight the fact that both universities and research centers have improved their value from 2012 to 2013. So, in 2012 73.33% of universities have less than 1000 followers on Twitter and in 2013 this figure decreases to 45.45% (Figure 3). In Facebook's value below 1000 'fans' remains 52.2% 2012 53.3% 2013 (Figure 4).

In 2013 the University of Granada is that it has a greater number of fans on Facebook, with 2410, and the Open University in Twitter, with 6733.

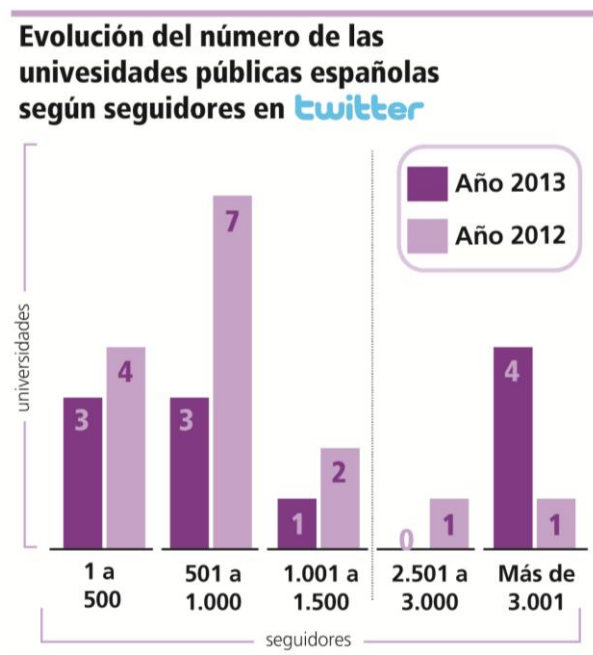


Figure 3: Evolution of the number of Spanish public universities according followers on Twitter



Figure 4: Evolution of the number of Spanish public universities according followers on Facebook

For the CSIC, Facebook is winning in the connectivity settings, from 93.10% in centers with less than 1000 followers in 2012 to 71.4% in 2013 Twitter keeps the percentage of hospitals with less than 1000 followers and 52.2% in 2012, 53.3% goes to 2013 (Figures 5 and 6).

The center with the most followers on Twitter is the National Biotechnology Centre, with 4206, and the Royal Botanic Gardens on Facebook with 8369.

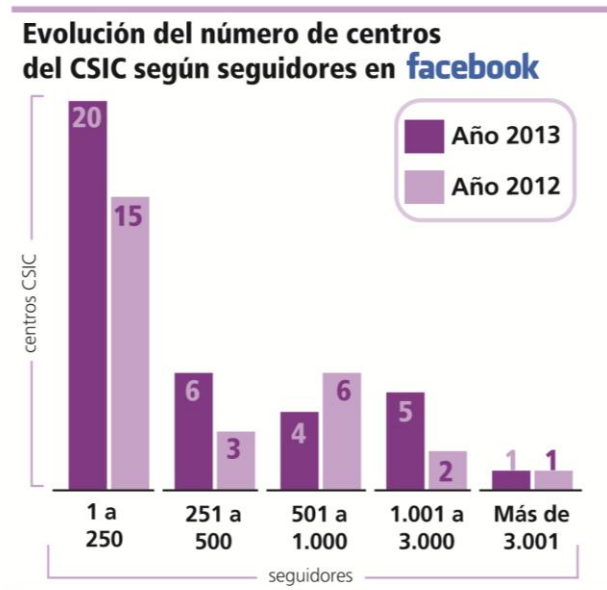


Figure 5: Evolution of the number of centers of CSIC as fans on Facebook



Figure 6: Evolution of the number of centers of CSIC as followers on Twitter

5.3. Intensity

In terms of intensity, the figures are again low in both cases. Thus, about 80% of universities published less than 50 comments on Twitter and about 95% in Facebook, in both 2012 and 2013 for the CSIC centers this figure is slightly negative: in 2012 56.52 % of centers published less than 50 comments, a fact made worse in 2013, reached 80.48% on Twitter. In Facebook almost 100% of the centers less than 50 published opinions in both 2012 and 2013.

6. Conclusions

The Spanish public universities and research centers of the Superior Council of Scientific becoming aware of the social importance of Web 2.0 tools and, although still timidly, they are using the communication potential of these to bring science closer to society.

The greatest effort is directed in both cases to the creation of specific channels of dissemination of science. Although the values are positive, the striking decline of almost 10% in the use of this tool that universities have experienced the year 2012 to 2013 A trend is reversed for the CSIC, since from 2012 to 2013 almost 10% more centers have been set on this channel to bring their research to society.

However, they are not taking advantage of the potential of blogs to disseminate science to both society and to the media themselves (Drezner and Farrell, 2004, Hans, 2008; Lapointe, 2007). In any case exceed 15% of institutions using this tool.

Presence on social networks is becoming greater, but still low in both cases. Third of the centers and universities with profiles on Facebook, Twitter and YouTube is not exceeded. A trend that is repeated in terms of connectivity, the majority does not gain a thousand followers, and intensity, a high percentage does not publish more than 50 comments a month.

Although in the present case, we must highlight two aspects, first increasing presence in both networks CSIC centers from 2012 to 2013 and on the other, declining presence therein of public universities from year to year. This decrease could be associated with the economic crisis and declining investment in research suffers Spain in the last ten years. Although this cause loses value when you

consider that the CSIC in 2013 has had the biggest budget cuts in recent years, however, has experienced a dramatic improvement in the use of Web 2.0 tools.

One possible reason for this increase may be linked to certain scientifically proven (Shuai, 2011) that social networks like Twitter can increase up to 11 times the chances that an article is cited. To consolidate both hypotheses should be observed in future research if you follow the growth trend of activity is maintained or lowered, and the causes of all possible situations.

7. Bibliography

Paper or electronic books, reports and theses:

- BARON, N. (2010): *Escape from the ivory tower*. Washington: Island Press.
- CASTELL, M. (2009): *Comunicación y poder*. Madrid: Alianza Editorial.
- CHRISTAKIS, N. and FOWLER, J. (2010): *Conectados. El sorprendente poder de las redes sociales y cómo nos afectan*. Madrid : Taurus.
- COBO, C. and PARDO, H (2007). *Planeta web 2.0: Inteligencia colectiva o medios fast food*. Barcelona/México DF: Grup de Recerca d'Interaccions Digitals de la Universitat de Vic y FLACSO México.
- FUNDACIÓN ESPAÑOLA PARA LA CIENCIA Y LA TECNOLOGÍA (2012): *Percepción Social de la Ciencia y la Tecnología 2012*. Fundación Española para la Ciencia y la Tecnología.
- LAPOINTE, P. and DROUIN, J. (2007): *Science on Blogue*. Quebec: Multimundes.

Chapters in books, reports and articles in newspapers or magazines on paper:

- BRIGUÉ, X. and SÁDABA, C. (2010): Niños y adolescentes españoles ante las pantallas: rasgos configuradores de una generación interactiva. *CEE Participación Educativa*, (15): 86-104.
- BUCCHI, M. (2013): Style in science communication. *Public Understanding Science* 22 (8): 904-915
- CHEOCK, A. and ZHENG, R (2011) Singaporean Adolescent's Perceptions of On-line Social Communication: An Exploratory Factor Analysis. *Journal Educational Computing Research*, 45 (2): 203-221.

- COLÁS, P. et al (2013): Juventud y redes sociales: Motivaciones y usos preferentes. *Comunicar*, 40 (25): 15-23.
- FLORES, J. (2009): Nuevos modelos de comunicación, perfiles y tendencias en las redes sociales. *Comunicar*, 35 (17): 73-81.
- GÓMEZ, M. et al (2012): El uso académico de las redes sociales en universitarios. *Comunicar*, 38 (24): 131-138.
- KÖNEKER, C. and LUGGER, B. (2013) Public Science 2.0-Back to the future. *Science* (342): 49.
- NATURE (2009): Filling the void. *Nature* 458 (19): 260.
- NOTLEY, T. (2009): Young people, Online Networks and Social Inclusion. *Journal of Computer-Mediated Communication*, (44): 1208-1227.
- O'REILLY T. (2007): What Is Web 2.0: Design Patterns and Business Models for the Next Generation of Software. *International Journal of Digital Economics* (65): 17-37 .
- PRENSKY, M. (2001): Digital Natives, Digital Immigrants. *MC University Press* (9): 5.
- SHUAI, X.; PEPE, A. & BOLEN, J. (2012): How the scientific community reacts to newly submitted preprints: Article downloads, Twitter mentions, and citation. *PLoS ONE* 7 (11): e47523.
- TREISE, D.; WALSH-CHILDERS, K.; WEILGOLD, M. & FRIEDMAN, M. (2003): Cultivating the Science Internet Audience: Impact of Brand and Domain on Source Credibility for Science Information. *Science Communication* 24(3): 309-332.
- WEINGART, P. (2011): Science , the public and the Media. Views from Everywhere. *Boston Studies in the Philosophy of Science* (274): 337-348.

Articles, blogs or web publications records:

- COMISIÓN EUROPEA (2014): *Horizon 2020. The EU Framework Programme for Research and Innovation*. Disponible en : <http://ec.europa.eu/programmes/horizon2020/>. Consultado el 10 de enero de 2014.
- FUNDACIÓN BBVA (2012): *Estudio Internacional de Cultura Científica. Fundación BBVA. Comprensión de la Ciencia*. Disponible en: <http://www.fbbva.es/TLFU/dat/comprension.pdf>. Consultado en octubre de 2013.

- Instituto Nacional de Evaluación Educativa (2013): *Programa para la Evaluación Internacional de los Alumnos 2012*. Disponible en: <http://www.mecd.gob.es>. Consultado el 1 de diciembre de 2013.
- INSTITUTO NACIONAL DE ESTADÍSTICA (2010): *Estadística de Enseñanzas Universitarias*. Disponible en: www.ine.es. Consultado en diciembre de 2013.
- SCIMAGO GROUP (2012): *Science Indicators of Spanish HEIs 2006-2010*. Disponible en: www.sciamgolab.com/blog/. Consultado en diciembre de 2013.

XX. THE DECOLONIZATION OF KNOWLEDGE IN THE UNIVERSITY OF CHIAPAS, MEXICO

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1. Presentation

This paper analyzes the current situation of decolonization of Science in Higher Education Institutions (HEIs) that have recently emerged in Latin America. The aim is to understand how they are generating processes should lead to intercultural education, in which the various actors in each institution are real architects of a science based on knowledge, conceptions and practices of indigenous peoples. Are discussed in the text some of the objectives achieved and the obstacles encountered over the years of operation, taking Mexico and Intercultural Universities system (UI) as a model and the Intercultural University of Chiapas (UNICH) as appropriate

2. Background of the decolonization the science

Speaking of decolonizing thinking involves traced to the work of Frantz Fanon (1952; 1961). This afrocaribeño was the inspiration of the intellectual currents that according to its precepts, they considered that colonization once finished its political effects, continued exercised from culture, control of language as a dominant factor. In the same vein and from various locations noted authors as Cesaire A. (Martinique), E. Dussel and J. Rabassa (Mexico), J. Sanjinés (Bolivia), A. Memmi (Tunisia), Edward Said (Palestine) or Ranahid Guha and Gayatri Spivak (India).

In the last third of the twentieth century Latin America begins to project his revolutionary thinking through certain intellectuals discussing the veracity of the hegemony of the only science. R. Stavenhagen (1971), Mexican, raises the need to decolonize the social sciences, considering the contradiction that involves the search for objectivity and neutrality in the applied sciences. The Colombian O. Fals

Borda (1973) begins to develop its methodology Participatory Action Research (PAR) and the Brazilian P. Freire (1970) methodology for popular education. These thinkers incite social involvement and policy researchers, opposing the dominant academia, visibly Eurocentric.

It will be late twentieth century, when the research group called 'modernity / coloniality', consisting of American academics as Quijano, Wallerstein, Grosfoguel Coronil, Escobar, Maldonado-Torres, or Dussel own, concerned about the (un) world economic order, they insist on the need to find an epistemic diversity (Castro-Gómez and Grosfoguel, 2007).

Other theorists 'spin-colonial'²⁶ is the Argentine semiólogo W. Mignolo, who believes that we must "*change the terms, not just the content of the conversation*" (2006b, p.21). The group of intellectuals 'modernity / coloniality' introduced, among other items, the 'coloniality of knowledge' as one of the three levels at which the coloniality operates. Another level would be the 'power' that controls the economy and politics, and the third the 'coloniality of being' subjectivity handling, control of sexuality and gender roles. The "coloniality of knowledge" refers to knowledge epistemic, philosophical and scientific.

An important study of this group element is the analysis of power relations between dominant languages and knowledge. The western one thought sits on Latin and Greek and six imperial descendants: Italian, Castilian and Portuguese, dominant during the Renaissance, and French, English and German for illustration. Any attempt to think in other categories-such as Aymara, Bengali, or Arabic, is not considered sustainable in the Western episteme and is silenced (Mignolo, 2006a).

²⁶ The authors used herein the term-colonial and its derivatives, although Decolonial words (Maldonado-Torres, 2008) and decolonial (Castro-Gómez and Grosfoguel, 2007) are interchangeably in the literature referring to the same concept.

It would then need to understand that if knowledge is an imperial instrument of colonization, one of the urgent tasks is to decolonize knowledge, so it should start with three questions: *"What kind of knowledge / understanding need? Who does / produce? Why?"* (Mignolo, 2006b, p.23), that is, how should scientific research to prevent the continuation of colonial rule?

3. Consolidation of the Intercultural Universities in Latin America

In many distant parts of the world like Australia, New Zealand, USA and Africa are emerging voices from indigenous peoples who claim seeking a decolonizing research through new methods that put the knowledge, indigenous views, their experiences and interests in the center of the investigation. In Latin America, however, indigenous researchers are still outnumbered (Leyva and Speed, 2008), which hinders the development of decolonizing research. Keep in mind also manifestly Eurocentric university tradition, where the criteria of neutrality, objectivity and scientific nature have been imposed on any alternative form of science (Ortiz and Guzman, 2008), delaying the generation of an indigenous Latin American academic knowledge and decolonization. However, there are exceptions that are worth mentioning, such as innovative experiences of revitalization of indigenous knowledge in contemporary contexts center of excellence for Agroecology University of Cochabamba (AGRUCO) in Bolivia.

There are few Latin American Higher Education Institutions (HEIs) incorporating languages, knowledge, ways of learning and research needs of indigenous peoples (Haverkort, 2012). In addition to the curricular gaps to incorporate endogenous knowledge, access indigenous to this level of education remains very limited. The fact that no reliable statistics on the native populations limits the study of their participation, but we know that there are multiple reasons that make access difficult, as racial discrimination, economically disadvantaged, marginalization associated with language differences, location geographically dispersed sites asylees, or that confers invisibility urban poverty (Mato, 2008).

However, the implementation of certain political elements conciliatory throughout Latin America, and indigenous movements appeared in the last two decades, are creating major changes at the institutional level in the integration of indigenous peoples to higher education. Have the new constitutions, with a tendency to recognize and respect the multiethnic and multicultural nature of the

populations of each country, which have opened the door to the recognition of rights, identity, culture and specifically linguistic diversity. This has led to the inclusion in the IES of indigenous students and their ancestral knowledge.

In 2007, the International Institute for Higher Education in Latin America and the Caribbean (IESALC), an organization of UNESCO that takes care of the promotion of higher education in the region, established a project oriented to the study of ' Cultural Diversity and Interculturality in Higher Education in Latin America and the Caribbean '. The coordinator of this project, Daniel Mato, in collaboration with 67 researchers from 11 Latin American countries and occasional contributions from other experts, has published four volumes compilations (2008; 2009a; 2009b; 2012) on the history and status of the issue of topic. The results of these research on education indicate that HEIs are really contributing to providing access and education both indigenous peoples and Afro-descendants, bringing innovative responses to community needs answers through the integration of various modes of knowledge production, prioritizing traditional.

Mato (2011) argues that the inclusion of members of indigenous communities in higher education is being achieved in many different ways: 1) through partnerships and co-runs of indigenous organizations institutions 'conventional' higher education, 2) traditional institutions programs for indigenous communities, 3) with universities or higher education directly created by organizations and / or indigenous intellectuals, and 4) by institutions created by state agencies to respond to needs of indigenous communities and organizations. Opening Intercultural universities would be included in the fourth category indicated by this author. These institutions not to the exclusion of non-indigenous, as they are open to all those interested in the various forms of intercultural spaces.

4. The role of Mexican HEIs in the decolonization of science

The General Coordination of Intercultural Bilingual Education (CGEIB) of the Public Ministry, created by federal agreement in 2001, is the body under the government of Mexico, which began to develop intercultural structures oriented level. Today, the National Association of Colleges Intercultural Mexico represents 12 institutions: the Intercultural University of the State of Mexico, Guerrero, Hidalgo, Nayarit, Puebla, San Luis Potosí, Tabasco, Chiapas, Intercultural Indigenous State of Michoacan, Intercultural Maya of Quintana Roo, Universidad

Veracruzana Intercultural and the first to get going, Indigenous Autonomous University of Mexico.

According to CGEIB own, these institutions would be to contribute to the rescue and dissemination of cultural expressions, helping, among other things, that indigenous peoples partieran peer relationships when establishing partnerships and contribution to scientific knowledge.²⁷

The intention with the creation of the Intercultural Universities in Mexico is clear, both political and ideological arguments go in the direction of decolonization; however, we can not speak of a practice consistent with the postulates. A reality where marginalization and inequality remain common among most of the indigenous population, it is difficult to implement institutions where knowledge and traditional knowledge should take center stage field. At this Schmelkes states that *"relations between the dominant culture and minority, native, are based on a large bias, clearly discriminatory, of historical origin: which leads to believe that cultural difference and poverty are the same phenomenon"* (2004, p. 11-12).

5. Intercultural Universities in Mexico: Implementation of decolonization

In Mexico the causes that lead to the implementation of the UI can be summarized as: the scarcity of indigenous universities, the demands raised by the Indians themselves nationally and imbalance in opportunities between aboriginal peoples and the rest of the population. The operation of these institutions, immersed in processes of democratization since its inception, made evident some problems difficult to solve: 1) funding difficulties due to budget inferiority relative to conventional institutions; 2) political interference both the federal government and, especially, state, interfering with decisions of academic nature as the choice of governing; 3) difficult incorporation of teachers due to low salaries, remote and

²⁷ Official Website of the General Coordination of Intercultural Bilingual Education (CGEIB)

rural location of most of the universities, and need for teachers with advanced degrees who know the area and discuss some of the native languages; 4) students with special features: pre-university training precarious and in many cases from families with little school tradition and very low incomes leading to high dropout rates; 5) low participation of indigenous organizations, despite the important links have been established between IU and communities (Schmelkes, 2008). As can be seen, these factors hinder the quality of the studies and lead to a lack of consolidation of systems, to which is added the lack of specific gauges adapted to the context.

As for the students intercultural approach, this has been addressed both from their own point of view as the teachers. We could summarize, following the sociological analysis by MA Casillas (2012, p. 103), originating young people *"who manage to enter university are already successful"*; but, although the cultural richness and diversity are a democratic and inclusive education, it is necessary to *"generate contexts and policies that promote, in terms of respect, equality and equity."*

It should be noted the preponderance of women students, as indicated by both the authors consulted as enrollment rates of the UI; however, Levario C. (2012) reveals an androcentric and misogynist vision for teaching staff in general, both in theoretical materials and practices and attitudes among students.

As for the production of the UI is to highlight the method used in the Intercultural University of Veracruz, through its project of intercultural anthropology InterSaberes²⁸ examines the three dimensions of the "cross-cultural" dialogue of knowledge, 1); 2) the "inter-lingual"; and 3) the "inter-acting", which shows a way of working in which participation and involvement of participants is given also under study the relationships that exist between the various stakeholders

²⁸ Project "Dialogue of knowledge, tasks and powers between schools and community actors: a reflexive ethnography of intercultural higher education in Veracruz".

(researchers, social organizations and local communities) their cultures and worldviews (Dietz, 2012).

Most of the work on the UI, insist on the need to train professionals to return to communities and practice in their own field tasks necessary to achieve the much desired endogenous development (Dietz and Mateos Cortés, 2010; Silva Carrillo , 2009); however, this priority to train professionals, leading the authors that relate to focus primarily on issues related to teaching, leaving barely covered aspects of research and methodologies.

In Mexico the UI and taught in 28 languages besides Spanish (Casillas Muñoz, 2012), and are gradually incorporating traditional knowledge, including in their undergraduate studies such as medicine or law Intercultural high in local knowledge; however, Bertely believes that institutions of higher education, *"the articulation between indigenous, school and universal knowledge is still pending"* (2011, p. 73).

5.1. Intercultural University of Chiapas: Recovery of knowledge

The UNICH, with its headquarters in San Cristobal de las Casas, has been discussed several times by anthropologist A. Fabregas, who was rector from the founding of the same until 2011, and has emphasized the value the legacy of indigenous peoples and the fundamental role of the UI to achieve the objectives of 'good living' (2011). The institution is *"aimed at the training of professionals with a solid interdisciplinary training, knowledge of the original languages and capacity for intercultural knowledge and ethically responsible for their social commitment and representatives of Mexican multicultural society dialogue."*²⁹

At present studies have increased going from the initial four Degrees (Intercultural Communication, Language and Culture, Alternative Tourism and

²⁹ Mentioned on the website of the UNICH: <http://www.unich.edu.mx/mision-y-vision/>

Sustainable Development); a new offering two Bachelor (Traditional Medicine and Intercultural Law), trying to catch students with diverse professional interests, but always committed to respecting and valuing cultural diversity and knowledge of indigenous peoples. Classes are held in four rural Academic Units that have been attaching to the initial (San Cristobal): Oxchu, Las Margaritas, Yajalón and Tulijá Valley.

As for the incorporation of students, there are serious reflections from the same faculty, and Moguel Bastiani (2011) indicate that the model of intercultural education, while promoting inclusion spaces, is generating processes of social exclusion. However, it should be clear that in order to compensate for both social and gender inequalities, has placed special emphasis on the incorporation of women into the student world. In UNICH, we can speak of a 47% female students enrolled in 2013 (UNICH, 2013), which *"indicates very significant changes in the traditional structures of communities"* (Fábregas Puig, 2008, p.344)

Gradually the work to be published since the UNICH clearly show the decolonization positioning of this intercultural institution and its academic (A. Avila and Vázquez Romero, 2012). This can be seen in the papers presented at the First International Forum on "biocultural heritage, environmental knowledge and rights of indigenous peoples" held at the same university in collaboration with the Mexican headquarters of the Latin American Faculty of Social Sciences (FLACSO). According to Sánchez Álvarez (2012) is necessary to achieve the ability to produce, reproduce and innovate knowledge of biocultural heritage.

It is noteworthy that different scholars from the university addressed theoretically in his writings, the need to clear the coloniality of knowledge; working in the recovery of local knowledge in areas such as ethnoecology (Sánchez Álvarez, 2012), agroecology (L. Avila Romero, 2007; 2010; 2012), oral traditions (Nájera Castellanos, 2012), the relationship of food heritage and tourism (L. Avila Romero, Trujillo Girls, Bernardino, and Sandoval Escobar, s / f), endogenous development of communities and their political struggle (Hernandez Giron, 2012; Pliny Escobar, 2012), even the aesthetic concept indigenous peoples (Bolom, 2012).

However, although there are studies that show a dialogue of knowledge through examples of good local practices (Giron Hernández, 2012; Pliny Escobar,

2012), we found that academic work from the UNICH not show clearly a methodology scientific or original to be used for obtaining this knowledge, as well as a balance of power in research projects, or strong evidence of delivery in communities of results. The simple analysis of the literature does not allow to conclude whether there is a genuine dialogue of knowledge and science *of decolonizing facto*.

6. Conclusions

The path is definitely UNICH decolonizing from its own founding principles, values and mission of the institution, to the theoretical basis showing most of his scholarship. However, the road to the decolonization of knowledge is arduous and sometimes difficult to assess.

The literature review shows that UI are playing a key role in the incorporation of the indigenous population to higher education, to recover the prestige and knowledge of indigenous peoples in the use of local languages and the return to communities qualified professionals. However, there is a clear presence of studies that address the processes that Mexican UI are pursuing to achieve decolonization of knowledge in their research. Some publications tangentially touch these aspects, but without evaluating the steps that universities are taking to achieve the objectives of decolonization. It is necessary to propose a model that incorporates parameters and indicators useful for assessing institutions and research projects in order to understand how they are progressing decolonizing practices of science in this region.

7. Bibliography

Paper to electronic books, reports and theses:

- ÁVILA ROMERO, Agustín y VÁZQUEZ, Daniel (2012): *Patrimonio biocultural saberes y derechos de los pueblos originarios*. México. Consejo Latinoamericano de Ciencias Sociales (CLACSO); Universidad Intercultural de Chiapas; PromeP; INALI. Disponible en [http://biblioteca.clacso.edu.ar/clacso/coediciones/20121127111932/Patrimonio Biocultural.pdf](http://biblioteca.clacso.edu.ar/clacso/coediciones/20121127111932/Patrimonio_Biocultural.pdf). Consultado el 6 de abril de 2014.

- CASTRO-GÓMEZ, Santiago, y GROSGOUEL, Ramón (2007): El giro decolonial: Reflexiones para una diversidad epistémica más allá del capitalismo global. Bogotá. Siglo del Hombre Editores.
- FANON, Frantz (1952): *Peau noire, masques blancs*. Paris. Éditions du Seuil.
- FANON, Frantz (1961): *Les damnés de la terre*. Paris. François Maspero.
- FREIRE, Paulo (1970): *Pedagogía del oprimido*. México. Siglo XXI Editores, SA.
- MATO, Daniel (2008): *Diversidad cultural e interculturalidad en educación superior. Experiencias en América Latina*. Caracas. Instituto para la Educación Superior en América Latina y Caribe (IESALC), UNESCO.
- MATO, Daniel (2009a): *Educación superior, colaboración intercultural y desarrollo sostenible/buen vivir. Experiencias en América Latina*. Caracas. Instituto para la Educación Superior en América Latina y Caribe (IESALC), UNESCO.
- MATO, Daniel (2009b): *Instituciones interculturales de educación superior en América Latina. Procesos de construcción, logros, innovaciones y desafíos*. Caracas. Instituto para la Educación Superior en América Latina y Caribe (IESALC), UNESCO.
- MATO, Daniel (2012): *Educación superior y pueblos indígenas y afrodescendientes en América Latina*. Caracas. Instituto para la Educación Superior en América Latina y Caribe (IESALC), UNESCO.
- UNICH. (2013): Informe institucional 2013. San Cristóbal de las Casas. Universidad Intercultural de Chiapas (UNICH). Disponible en www.unich.edu.mx/wp-content/uploads/2014/02/Informe-institucional-2013.pdf. Consultado el 6 de abril de 2014.

Books chapters, reports or articles to magazines on paper in Daily:

- ÁVILA ROMERO, León (2012): La agroecología: Una estrategia para la defensa del territorio, en ÁVILA ROMERO, Agustín y VÁZQUEZ, Daniel: *Patrimonio biocultural saberes y derechos de los pueblos originarios* (pp. 187-204). México. Consejo Latinoamericano de Ciencias Sociales (CLACSO); Universidad Intercultural de Chiapas; PromeP; INALI.
- BOLOM, Manuel (2012): Belleza indígena, en ÁVILA ROMERO, Agustín y VÁZQUEZ, Daniel: *Patrimonio biocultural saberes y derechos de los pueblos originarios* (pp. 111-120). México. Consejo Latinoamericano de Ciencias Sociales (CLACSO); Universidad Intercultural de Chiapas; PromeP; INALI.

- CASILLAS ALVARADO, Miguel Ángel (2012): La diversidad cultural en la universidad. Los estudiantes indígenas y afrodescendientes en la educación superior, necesidad de visibilización y reconocimiento, en CASILLAS ALVARADO, Miguel Ángel et al.: *Educación superior para indígenas y afrodescendientes en América Latina* (pp. 90-105). Xalapa, México. Universidad Veracruzana. Dirección General del Área Académica de Humanidades.
- CASILLAS MUÑOZ, María Lourdes (2012): Políticas públicas de atención a la diversidad cultural y lingüística, en la educación superior en México, en CASILLAS ALVARADO, Miguel Ángel et al.: *Educación superior para indígenas y afrodescendientes en América Latina* (pp. 21-42). Xalapa, México. Universidad Veracruzana. Dirección General del Área Académica de Humanidades.
- FÁBREGAS PUIG, Andrés (2008): La experiencia de la universidad intercultural de Chiapas, en MATO, Daniel: *Diversidad cultural e interculturalidad en educación superior. Experiencias en América Latina* (pp. 339-348). Caracas. Instituto para la Educación Superior en América Latina y Caribe (IESALC), UNESCO.
- FÁBREGAS PUIG, Andrés (2011): De la teoría de la aculturación a la teoría de la interculturalidad. Educación y asimilación: El caso mexicano, en PASTOR ALFONSO, María José y ALMARCHA MARTÍNEZ, Francisco: *Interculturalidad: Comunicación y educación en la diversidad* (pp. 13-23). Barcelona. Icaria Editorial.
- GIRON HERNÁNDEZ, Marcos (2012): Reapropiación de la cultura del pueblo mam y ejido la hacienda del municipio de bellavista, Chiapas, en ÁVILA ROMERO, Agustín y VÁZQUEZ, Daniel: *Patrimonio biocultural saberes y derechos de los pueblos originarios* (pp. 225-258). México. Consejo Latinoamericano de Ciencias Sociales (CLACSO); Universidad Intercultural de Chiapas; PromeP; INALI.
- HAVERKORT, Bertus (2012): El aprendizaje en distintas ciencias. desarrollo endógeno y transdisciplinariedad en la educación superior. Los desafíos para la coevolución de la ciencia dominante y las tradiciones de conocimiento indígena, en DELGADO BURGOA, Freddy y RICALDI, Dennis: *Desarrollo endógeno y transdisciplinariedad en la educación superior: Cambios para el diálogo intercientífico entre el conocimiento eurocéntrico y el conocimiento endógeno* (pp. 151-190). Cochabamba, Bolivia. AGRUCO.

- LEVARIO, Carmen (2012): Feminismo, género y educación superior intercultural, en ÁVILA ROMERO, Agustín y VÁZQUEZ, Daniel: *Patrimonio biocultural saberes y derechos de los pueblos originarios* (pp. 53-62). San Cristóbal de las Casas, México. Consejo Latinoamericano de Ciencias Sociales (CLACSO); Universidad Intercultural de Chiapas; PromeP; INALI.
- LEYVA, Xochitl, y SPEED, Shannon (2008): Hacia la investigación descolonizada: Nuestra experiencia de co-labor, en LEYVA, Xochitl, BURGETE, Araceli y SPEED, Shannon: *Gobernar (en) la diversidad: Experiencias indígenas desde América Latina. Hacia la investigación de co-labor* (pp. 33-56). México, D.F.; Quito; Guatemala, ciudad. CIESAS; FLACSO Ecuador; FLACSO Guatemala.
- MIGNOLO, Walter (2006a): La descolonización del ser y del saber, en SCHIWY, Freya y MALDONADO-TORRES, Nelson: *(Des)colonialidad del ser y del saber: (Videos indígenas y los límites coloniales de la izquierda) en Bolivia* (pp. 25-30). Buenos Aires. Ediciones del signo.
- MIGNOLO, Walter (2006b): El desprendimiento: Pensamiento crítico y giro descolonial, en SCHIWY, Freya y MALDONADO-TORRES, Nelson: *(Des)colonialidad del ser y del saber: (Videos indígenas y los límites coloniales de la izquierda) en Bolivia* (pp. 11-24). Buenos Aires. Ediciones del signo.
- NÁJERA CASTELLANOS, Antonio (2012): De boca a oído: La oralidad de los pueblos originarios, un saber en decadencia, en ÁVILA ROMERO, Agustín y VÁZQUEZ, Daniel: *Patrimonio biocultural saberes y derechos de los pueblos originarios* (pp. 99-109). México. Consejo Latinoamericano de Ciencias Sociales (CLACSO); Universidad Intercultural de Chiapas; PromeP; INALI.
- PLINIO ESCOBAR, Rodolfo (2012): Las nuevas orientaciones del desarrollo regional, en ÁVILA ROMERO, Agustín y VÁZQUEZ, Daniel: *Patrimonio biocultural saberes y derechos de los pueblos originarios* (pp. 155-183). México. Consejo Latinoamericano de Ciencias Sociales (CLACSO); Universidad Intercultural de Chiapas; PromeP; INALI.
- SÁNCHEZ ÁLVAREZ, Miguel (2012): Patrimonio biocultural de los pueblos originarios de Chiapas: Retos y perspectivas, en ÁVILA ROMERO, Agustín y VÁZQUEZ, Daniel: *Patrimonio biocultural saberes y derechos de los pueblos*

- originarios* (pp. 83-98). México. Consejo Latinoamericano de Ciencias Sociales (CLACSO); Universidad Intercultural de Chiapas; Promep; INALI.
- SCHMELKES, Sylvia (2008): Creación y desarrollo inicial de las universidades interculturales en México: Problemas, oportunidades, retos, en MATO, Daniel: *Diversidad cultural e interculturalidad en educación superior. Experiencias en América Latina* (pp. 329-338). Caracas. Instituto para la Educación Superior en América Latina y Caribe (IESALC), UNESCO.
 - SILVA CARRILLO, Salvador (2009): Universidad Comunitaria de San Luís Potosí (México). en MATO, Daniel: *Instituciones interculturales de educación superior en América Latina. Procesos de construcción, logros, innovaciones y desafíos* (pp. 163-182). Caracas. Instituto para la Educación Superior en América Latina y Caribe (IESALC), UNESCO.

Translations, the minutes Logs Web publications:

- ÁVILA ROMERO, León (2007): Logros y límites de las estrategias sustentables de desarrollo autónomo en el norte de Chiapas, México, en *Ra Ximhai*, 3(2), 509-549. Disponible en www.revistas.unam.mx/index.php/rxm/article/view/6935. Consultado el 6 de abril de 2014.
- ÁVILA ROMERO, León (2010): La generación de saberes ambientales en procesos educativos interculturales en Chiapas, en *Cuadernos Interculturales*, 8(15), 43-62.
- ÁVILA ROMERO, León, et al. (s/f): Cultura alimentaria, símbolos tradicionales y potencial turístico en comunidades indígenas de la Sierra Madre de Chiapas. Disponible en http://200.23.34.54/cuenca_grijalva/files/informe_Final/sp01_archivos/01_05_03_Ponencia_Cultura_Alimentaria.pdf. Consultado el 6 de abril de 2014.
- BASTIANI GÓMEZ, José, y MOGUEL VIVEROS, Reyna (2011): Exclusión e inclusión en el modelo de educación superior intercultural. El caso de la UNICH, en *Signos Lingüísticos*, 12/13, 23-56. Disponible en <http://148.206.53.230/revistasuam/signoslinguisticos/viewarticle.php?id=153>. Consultado el 6 de abril de 2014.
- BERTELY BUSQUETS, María (2011): Educación superior intercultural en México, en *Perfiles Educativos*, 33(SPE), 66-77.

- CAICEDO ORTIZ, José Antonio y CASTILLO GUZMÁN, Elizabeth (2008): Indígenas y afrodescendientes en la universidad colombiana: Nuevos sujetos, viejas estructuras, en *Cuadernos Interculturales*, 6(10), 62-90.
- DIETZ, Gunther (2012): Reflexividad y diálogo en etnografía colaborativa: El acompañamiento etnográfico de una institución educativa “intercultural” mexicana, en *Revista de Antropología Social*, 21, 63-91.
- DIETZ, Gunther y MATEOS CORTÉS, Laura Selene (2010): Saberes, haceres y poderes en la UVI: Hacia una investigación intercultural e interactoral, en *La palabra y el hombre. Revista de la Universidad Veracruzana*, 12, 34-41. Disponible en www.uv.mx/lapalabrayelhombre/12/contenido/estado_sociedad/EyS3/articulo1.html. Consultado el 6 de abril de 2014.
- FALS-BORDA, Orlando (1973): Reflexiones sobre la aplicación del método de estudio-acción en Colombia, en *Revista Mexicana de Sociología*, 49-62.
- MALDONADO-TORRES, Nelson (2008): La descolonización y el giro descolonial, en *Tabula Rasa*, 61-72.
- MATO, Daniel (2011): Universidades Indígenas de América Latina: Logros, problemas y desafíos, en *Revista Andaluza de Antropología*, (1), 63-85.
- SCHMELKES, Sylvia (2004): La educación intercultural: Un campo en proceso de consolidación, en *Revista Mexicana de Investigación Educativa*, 9(20), 9-13.
- STAVENHAGEN, Rodolfo (1971): Decolonializing applied social sciences, en *Human Organization, Journal of the society for Applied Anthropology*, 30(4), 333-357.

XXI. TOWARDS AN ELECTION REFORM AND SELECTION OF MEMBERS OF CONGRESS IN SPAIN

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1. Introduction

This chapter proposes an electoral system of the House of Representatives from the constitutional and legislative framework of the Spanish general electoral system. First, briefly convenient clarifications are made and a series of policy and legislative reforms prior to the proposed electoral system is established; and then discussed the proposal, changes to the existing law would lead to the implementation thereof are described, and an electoral simulation made from the results of the General Election of 2011 is included.

2. Legitimacy of a new parliament

The Spanish will become unicameral parliament, for which the Senate is deleted. This constitutional and legislative reform, very deep and far-reaching, so not only affect the electoral legislation and institutional Regulatory a part of the political system, but also, and very substantially the representation system and the rest of the way political system.

The Congress of Deputies (CD) is composed of seven hundred fifty -750- deputies, which will require the amendment of Article 68.1 of the Spanish Constitution (CE), which sets a minimum of three hundred and a maximum of four (art.) and Art. 162.1 of the Organic Law 5/1985, of 19 June, the General Electoral Regime (LOREG), which specifies the amount of three hundred and fifty.

It will be a mixed chamber from the point of view of democratic legitimacy, as it simultaneously rest on representative democracy and direct democracy, as it will partially elected and partially circumvented. Of its 750 members:

- 700- Seven hundred deputies elected by universal suffrage, single (and non-delegable), free, equal rights, direct and secret, under the terms established by law (representative democracy).
- 50- Fifty additional deputies will be selected by drawing pure (direct democracy).

3. Assignments of seats

As a result of this, two distinct seats assignments in each of which a different number of seats distributed take place.

In one of these two assignments to 700 deputies will be elected through two simultaneous but separate procedures, as follows:

<u>Procedure</u>	<u>Procedure B</u>
✓ Electoral system converter voter preferences into votes -input- and these, in turn, majorities and minorities in government political parties who have attended -output- election candidates: Proportional ✓ Total number of deputies to be elected: three hundred and fifty -350- ✓ Subdivisions: multiple (fifty-two articles that establish the EC and 161.1 68.2 LOREG.) ✓ Delimitation of constituency: provincial (except the autonomous cities of Ceuta and Melilla) ✓ Type constituency: plurinominal (except mentioned constituencies of Ceuta and Melilla, which will continue facto single-member) ✓ Each constituency variable: variable (the total sum will be 350 seats), pursuant to arts. 68.2 EC and 162 LOREG ✓ Structure vote: ✓ Form and submitting applications: closed list of candidates and alternates unlocked (open list) fully flexible mode	✓ Electoral system conversion voter preferences into votes -input- and these, in turn, majority-minority government of political parties who have attended -output- election candidates: Proportional ✓ Total number of deputies to be elected: three hundred and fifty -350- ✓ Subdivisions: a single (amending Articles 68 EC, and 161-163, 169 and 172-173 LOREG.) ✓ Delimitation of constituency: state ✓ Type constituency: plurinominal (Amendment Articles 68 EC, and 161-163, 169 and 172-173 LOREG.) ✓ Extent of constituency: invariable → 350 seats (amending article 68 EC and 162 LOREG.) ✓ Structure vote: ✓ Form and submitting applications: closed list of candidates and alternates

(172.2 LOREG art modification.). Removal of the requirement for submission of guarantees for voter turnout (Amendment Art. 169.3 LOREG) ✓ Mode of voting by the voter: categorical and multiple preferential → each voter chooses only list one of the applications; then you can partially or completely alter your preference order placement candidates and alternates made by the party in question appear; and finally deposited in the ballot box (Amendment Art. 172 LOREG) ✓ Legal minimum thresholds votes to participate in the allocation of seats: none (163.1.a art modification.) LOREG) ✓ Formula for scrutiny: proportionate or distributive (more votes for one candidate, more deputies, unless votes, fewer deputies) of the highest average in its variant Sainte-Lague pure ✓ Conversion process results in assigned seats: except in the districts of Ceuta and Melilla, which will be declared elected the candidate who had the most votes won in each constituency the valid votes cast for each candidate (V) is were divided between progressive on the odd natural numbers series (divisors 1, 3, 5, 7, ...) to carry out a number of divisions equal to seats for each constituency (N). After making all divisions (V / N) the distribution is made decreasingly ordering the resulting ratios and then assigning each identical-in order-ratio (bid) a seat, until all the seats in the constituency (Amendment Art. LOREG 163.1). 's Seats each candidate and alternate candidates included therein shall be awarded, in order of placement in which they were positioned by a larger number of voters of that candidate in the constituency * **	unlocked (open list) fully flexible mode (172.2 LOREG art modification.). No requirement for submission of guarantees for voter turnout ▪Mode of voting by the voter: categorical and multiple preferential → each voter chooses only list one of the applications; then you can partially or completely alter your preference order placement candidates and alternates made by the party in question appear; and finally deposited in the ballot box (Amendment Art. 172 LOREG) ▪Legal minimum thresholds votes to participate in the allocation of seats: none (163.1.a art modification.) LOREG) ▪Formula for scrutiny: proportionate or distributive (more votes for one candidate, more deputies, unless votes, fewer deputies) of the highest average in its variant Sainte-Lague pure Conversion process results in assigned seats: This single constituency valid votes cast for each candidate (V) will be split between the progressive succession of odd natural numbers series (divisors 1, 3, 5, 7, ...) to carry out a number of divisions (350) equal to the seats for the constituency (N). After making all divisions (V / N) the distribution is made decreasingly ordering the resulting ratios and then assigning each identical-in order-ratio (bid) a seat until all 350 seats in the constituency (Amendment Art. LOREG 163.1). 's Seats each candidate and alternate candidates included therein shall be awarded, in order of placement in which they were positioned by a larger number of voters of that candidate in the constituency * **
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* When the relationship of two or more matching ratios corresponding to different applications, the seat to which most number of votes obtained would be allocated; if two or more candidates with the same total number of votes, the tie will be broken first by lot and successive alternately.

** If there are two or more candidates in the same list placed by a majority of voters in his candidacy in one position, the seat is allocated to the best has been positioned by all the voters of the candidate; if two or more candidates positioned equally by all the voters of the bid, the tie shall be decided by lot

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4. PROCEDURE B simulation results using the set of Spain in the General Election of 2011

N (350)	PP (159)	PSOE (103)	IU-LV (25)	UPyD (17)	CiU (15)	AMAIUR (5)	EAJ-PNV (5)	ESQUERRA (4)	EQUO (3)	BNG (3)	CC-NC-PNC (2)	COMPROMÍS-Q (2)	PACMA (1)	FAC (1)	Eb (1)	PA (1)	PxC (1)	P.R.C. (1)	GBAI (1)
÷1 (1°)	10,830. 693	6,973.8 80	1,680.8 10	1,140.2 42	1,014.2 63	333.6 28	323.5 17	256.3 93	215.7 76	183.2 79	143.5 50	125.1 50	101.5 57	99.1 73	97.70 6	76.8 52	59.78 1	43.9 03	42.4 11
÷3 (2°)	3,610.2 31	2,324.6 26	560.27 0	380.08 0	338.08 7	111.2 09	107.8 39	85.46 4	71.92 5	61.09 3	47.85 0	41.71 6	33.85 2	33.0 57	32.56 8	25.6 17	19.92 7	14.6 34	14.1 37
÷5 (3°)	2,166.1 38	1,394.7 76	336.16 2	228.04 8	202.85 2	66.72 5	64.70 3	51.27 8	43.15 5	36.65 5	28.71 0	25.03 0	20.31 1	19.8 34	19.54 1	15.3 70	11.956	8.78 0	8.48 2
÷7 (4°)	1,547.2 41	996.26 8	240.11 5	162.89 1	144.89 4	47.66 1	46.21 6	36.62 7	30.82 5	26.18 2	20.50 7	17.87 8	14.50 8	14.1 67	13.95 8	10.9 78	8.540	6.27 1	6.05 8
÷9 (5°)	1,203.4 10	774.87 5	186.75 6	126.69 3	112.69 5	37.06 9	35.94 6	28.48 8	23.97 5	20.36 4	15.95 0	13.90 5	11.28 4	11.0 19	10.85 6	8.53 9	6.642	4.87 8	4.71 2
÷11 (6°)	984.608	633.98 9	152.80 0	103.65 8	92.205	30.32 9	29.41 0	23.30 8	19.61 6	16.66 1	13.05 0	11.37 7	9.232	9.01 5	8.882	6.98 6	5.434	3.99 1	3.85 5
÷13 (7°)	833.130	536.45 2	129.29 3	87.710	78.020	25.66 3	24.88 5	19.72 2	16.59 8	14.09 8	11.04 2	9.626	7.812	7.62 8	7.515	5.91 1	4.598	3.37 7	3.26 2
÷15 (8°)	722.046	464.92 5	112.05 4	76.016	67.617	22.24 1	21.56 7	17.09 2	14.38 5	12.21 8	9.570	8.343	6.770	6.61 1	6.513	5.12 3	3.985	2.92 6	2.82 7

÷17 (9°)	637.099	410.22 8	98.871	67.073	59.662	19.62 5	19.03 0	15.08 1	12.69 2	10.78 1	8.444	7.361	5.973	5.83 3	5.747	4.52 0	3.516	2.58 2	2.49 4
÷19 (10°)	570.036	367.04 6	88.463	60.012	53.382	17.55 9	17.02 7	13.49 4	11.35 6	9.646	7.555	6.586	5.345	5.21 9	5.142	4.04 4	3.146	2.31 0	2.23 2
÷21 (11°)	515.747	332.08 9	80.038	54.297	48.298	15.88 7	15.40 5	12.20 9	10.27 5	8.727	6.835	5.959	4.836	4.72 2	4.652	3.65 9	2.846	2.09 0	2.01 9
÷23 (12°)	470.899	303.21 2	73.078	49.575	44.098	14.50 5	14.06 5	11.14 7	9.381	7.968	6.241	5.441	4.415	4.31 1	4.248	3.34 1	2.599	1.90 8	1.84 3
÷25 (13°)	433.227	278.95 5	67.232	45.609	40.570	13.34 5	12.94 0	10.25 5	8.631	7.331	5.742	5.006	4.062	3.96 6	3.908	3.07 4	2.391	1.75 6	1.69 6
÷27 (14°)	401.136	258.29 1	62.252	42.231	37.565	12.35 6	11.98 2	9.496	7.991	6.788	5.316	4.635	3.761	3.67 3	3.618	2.84 6	2.214	1.62 6	1.57 0
÷29 (15°)	373.472	240.47 8	57.958	39.318	34.974	11.50 4	11.15 5	8.841	7.440	6.319	4.950	4.315	3.501	3.41 9	3.369	2.65 0	2.061	1.51 3	1.46 2
÷31 (16°)	349.377	224.96 3	54.219	36.782	32.718	10.76 2	10.43 6	8.270	6.960	5.912	4.630	4.037	3.276	3.19 9	3.151	2.47 9	1.928	1.41 6	1.36 8
÷33 (17°)	328.202	211.32 9	50.933	34.552	30.735	10.10 9	9.803	7.769	6.538	5.553	4.350	3.792	3.077	3.00 5	2.960	2.32 8	1.811	1.33 0	1.28 5
÷35 (18°)	309.448	199.25 3	48.023	32.578	28.978	9.532	9.243	7.325	6.165	5.236	4.101	3.575	2.901	2.83 3	2.791	2.19 5	1.708	1.25 4	1.21 1
÷37 (19°)	292.721	188.48 3	45.427	30.817	27.412	9.016	8.743	6.929	5.831	4.953	3.879	3.382	2.744	2.68 0	2.640	2.07 7	1.615	1.18 6	1.14 6
÷39 (20°)	277.710	178.81 7	43.097	29.236	26.006	8.554	8.295	6.574	5.532	4.699	3.680	3.208	2.604	2.54 2	2.505	1.97 0	1.532	1.12 5	1.08 7
÷41 (21°)	264.163	170.09 4	40.995	27.810	24.738	8.137	7.890	6.253	5.262	4.470	3.501	3.052	2.477	2.41 8	2.383	1.87 4	1.458	1.07 0	1.03 4
÷43 (22°)	251.876	162.18 3	39.088	26.517	23.587	7.758	7.523	5.962	5.018	4.262	3.338	2.910	2.361	2.30 6	2.272	1.78 7	1.390	1.02 1	986
÷45 (23°)	240.682	154.97 5	37.351	25.338	22.539	7.413	7.189	5.697	4.795	4.072	3.190	2.781	2.256	2.20 3	2.171	1.70 7	1.328	975	942
÷47 (24°)	230.440	148.38 0	35.761	24.260	21.580	7.098	6.883	5.455	4.590	3.899	3.054	2.662	2.160	2.11 0	2.078	1.63 5	1.271	934	902
÷49 (25°)	221.034	142.32 4	34.302	23.270	20.699	6.808	6.602	5.232	4.403	3.740	2.929	2.554	2.072	2.02 3	1.994	1.56 8	1.220	895	865
÷51 (26°)	212.366	136.74 2	32.957	22.357	19.887	6.541	6.343	5.027	4.230	3.593	2.814	2.453	1.991	1.94 4	1.915	1.50 6	1.172	860	831
÷53 (27°)	204.352	131.58 2	31.713	21.514	19.137	6.294	6.104	4.837	4.071	3.458	2.708	2.361	1.916	1.87 1	1.843	1.45 0	1.127	828	800

÷55 (28°)	196.921	126.79 7	30.560	20.731	18.441	6.065	5.882	4.661	3.923	3.332	2.610	2.275	1.846	1.80 3	1.776	1.39 7	1.086	798	771
÷57 (29°)	190.012	122.34 8	29.487	20.004	17.794	5.853	5.675	4.498	3.785	3.215	2.518	2.195	1.781	1.73 9	1.714	1.34 8	1.048	770	744
÷59 (30°)	183.571	118.20 1	28.488	19.326	17.190	5.654	5.483	4.345	3.657	3.106	2.433	2.121	1.721	1.68 0	1.656	1.30 2	1.013	744	718
÷61 (31°)	177.552	114.32 5	27.554	18.692	16.627	5.469	5.303	4.203	3.537	3.004	2.353	2.051	1.664	1.62 5	1.601	1.25 9	980	719	695
÷63 (32°)	171.915	110.69 6	26.679	18.099	16.099	5.295	5.135	4.069	3.425	2.909	2.278	1.986	1.612	1.57 4	1.550	1.21 9	948	696	673
÷65 (33°)	166.626	107.29 0	25.858	17.542	15.604	5.132	4.977	3.944	3.319	2.819	2.208	1.925	1.562	1.52 5	1.503	1.18 2	919	675	652
÷67 (34°)	161.652	104.08 7	25.086	17.018	15.138	4.979	4.828	3.826	3.220	2.735	2.142	1.867	1.515	1.48 0	1.458	1.14 7	892	655	633
÷69 (35°)	156.966	101.07 0	24.359	16.525	14.699	4.835	4.688	3.715	3.127	2.656	2.080	1.813	1.471	1.43 7	1.416	1.11 3	866	636	614
÷71 (36°)	152.544	98.223	23.673	16.059	14.285	4.698	4.556	3.611	3.039	2.581	2.021	1.762	1.430	1.39 6	1.376	1.08 2	841	618	597
÷73 (37°)	148.365	95.532	23.024	15.619	13.894	4.570	4.431	3.512	2.955	2.510	1.966	1.714	1.391	1.35 8	1.338	1.05 2	818	601	580
÷75 (38°)	144.409	92.985	22.410	15.203	13.523	4.448	4.313	3.418	2.877	2.443	1.914	1.668	1.354	1.32 2	1.302	1.02 4	797	585	565
÷77 (39°)	140.658	90.569	21.828	14.808	13.172	4.332	4.201	3.329	2.802	2.380	1.864	1.625	1.318	1.28 7	1.268	998	776	570	550
÷79 (40°)	137.097	88.276	21.276	14.433	12.838	4.223	4.095	3.245	2.731	2.319	1.817	1.584	1.285	1.25 5	1.236	972	756	555	536
÷81 (41°)	133.712	86.097	20.750	14.077	12.521	4.118	3.994	3.165	2.663	2.262	1.772	1.545	1.253	1.22 4	1.206	948	738	542	523
÷83 (42°)	130.490	84.022	20.250	13.737	12.220	4.019	3.897	3.089	2.599	2.208	1.729	1.507	1.223	1.19 4	1.177	925	720	528	510
÷85 (43°)	127.419	82.045	19.774	13.414	11.932	3.925	3.806	3.016	2.538	2.156	1.688	1.472	1.194	1.16 6	1.149	904	703	516	498
÷87 (44°)	124.490	80.159	19.319	13.106	11.658	3.834	3.718	2.947	2.480	2.106	1.650	1.438	1.167	1.13 9	1.123	883	687	504	487
÷89 (45°)	121.693	78.358	18.885	12.811	11.396	3.748	3.635	2.880	2.424	2.059	1.612	1.406	1.141	1.11 4	1.097	863	671	493	476
÷91 (46°)	119.018	76.636	18.470	12.530	11.145	3.666	3.555	2.817	2.371	2.014	1.577	1.375	1.116	1.08 9	1.073	844	656	482	466

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÷93 (47°)	116.459	74.987	18.073	12.260	10.906	3.587	3.478	2.756	2.320	1.970	1.543	1.345	1.092	$\frac{1.06}{6}$	1.050	826	642	472	456
÷95 (48°)	114.007	73.409	17.692	12.002	10.676	3.511	3.405	2.698	2.271	1.929	1.511	1.317	1.069	$\frac{1.04}{3}$	1.028	808	629	462	446
÷97 (49°)	111.656	71.895	17.327	11.755	10.456	3.439	3.335	2.643	2.224	1.889	1.479	1.290	1.046	$\frac{1.02}{2}$	1.007	792	616	452	437
÷99 (50°)	109.400	70.443	16.977	11.517	10.245	3.369	3.267	2.589	2.179	1.851	1.450	1.264	1.025	$\frac{1.00}{1}$	986	776	603	443	428
÷10 $\frac{1}{51^\circ}$)	107.234	69.048	16.641	11.289	10.042	3.303	3.203	2.538	2.136	1.814	1.421	1.239	1.005	981	967	760	591	434	419
÷10 $\frac{3}{52^\circ}$)	105.152	67.707	16.318	11.070	9.847	3.239	3.140	2.489	2.094	1.779	1.393	1.215	985	962	948	746	580	426	411
÷10 $\frac{5}{53^\circ}$)	103.149	66.417	16.007	10.859	9.659	3.177	3.081	2.441	2.055	1.745	1.367	1.191	967	944	930	731	569	418	403
÷10 $\frac{7}{54^\circ}$)	101.221	65.176	15.708	10.656	9.479	3.118	3.023	2.396	2.016	1.712	1.341	1.169	949	926	913	718	558	410	396
÷10 $\frac{9}{55^\circ}$)	99.364	63.980	15.420	10.460	9.305	3.060	2.968	2.352	1.979	1.681	1.316	1.148	931	909	896	705	548	402	389
÷11 $\frac{1}{56^\circ}$)	97.573	62.827	15.142	10.272	9.137	3.005	2.914	2.309	1.943	1.651	1.293	1.127	914	893	880	692	538	395	382
÷11 $\frac{3}{57^\circ}$)	95.846	61.715	14.874	10.090	8.975	2.952	2.862	2.268	1.909	1.621	1.270	1.107	898	877	864	680	529	388	375
÷11 $\frac{5}{58^\circ}$)	94.179	60.642	14.615	9.915	8.819	2.901	2.813	2.229	1.876	1.593	1.248	1.088	883	862	849	668	519	381	368
÷11 $\frac{7}{59^\circ}$)	92.570	59.605	14.365	9.745	8.668	2.851	2.765	2.191	1.844	1.566	1.226	1.069	868	847	835	656	510	375	362
÷11 $\frac{9}{60^\circ}$)	91.014	58.604	14.124	9.581	8.523	2.803	2.718	2.154	1.813	1.540	1.206	1.051	853	833	821	645	502	368	356
÷12 $\frac{1}{61^\circ}$)	89.509	57.635	13.890	9.423	8.382	2.757	2.673	2.118	1.783	1.514	1.186	1.034	839	819	807	635	494	362	350

$\div 12$ 3 (62°)	88.054	56.698	13.665	9.270	8.246	2.712	2.630	2.084	1.754	1.490	1.167	1.017	825	806	794	624	486	356	344
$\div 12$ 5 (63°)	86.645	55.791	13.446	9.121	8.114	2.669	2.588	2.051	1.726	1.466	1.148	1.001	812	793	781	614	478	351	339
$\div 12$ 7 (64°)	85.281	54.912	13.234	8.978	7.986	2.626	2.547	2.018	1.699	1.443	1.130	985	799	780	769	605	470	345	333
$\div 12$ 9 (65°)	83.958	54.061	13.029	8.839	7.862	2.586	2.507	1.987	1.672	1.420	1.112	970	787	768	757	595	463	340	328
$\div 13$ 1 (66°)	82.677	53.235	12.830	8.704	7.742	2.546	2.469	1.957	1.647	1.399	1.095	955	775	757	745	586	456	335	323
$\div 13$ 3 (67°)	81.433	52.435	12.637	8.573	7.626	2.508	2.432	1.927	1.622	1.378	1.079	940	763	745	734	577	449	330	318
$\div 13$ 5 (68°)	80.227	51.658	12.450	8.446	7.513	2.471	2.396	1.899	1.598	1.357	1.063	927	752	734	723	569	442	325	314
$\div 13$ 7 (69°)	79.056	50.904	12.268	8.322	7.403	2.435	2.361	1.871	1.575	1.337	1.047	913	741	723	713	560	436	320	309
$\div 13$ 9 (70°)	77.918	50.171	12.092	8.203	7.296	2.400	2.327	1.844	1.552	1.318	1.032	900	730	713	702	552	430	315	305
$\div 14$ 1 (71°)	76.813	49.460	11.920	8.086	7.193	2.366	2.294	1.818	1.530	1.299	1.018	887	720	703	692	545	423	311	300
$\div 14$ 3 (72°)	75.739	48.768	11.753	7.973	7.092	2.333	2.262	1.792	1.508	1.281	1.003	875	710	693	683	537	418	307	296
$\div 14$ 5 (73°)	74.694	48.095	11.591	7.863	6.994	2.300	2.231	1.768	1.488	1.263	990	863	700	683	673	530	412	302	292
$\div 14$ 7 (74°)	73.678	47.441	11.434	7.756	6.899	2.269	2.200	1.744	1.467	1.246	976	851	690	674	664	522	406	298	288
$\div 14$ 9 (75°)	72.689	46.804	11.280	7.652	6.807	2.239	2.171	1.720	1.448	1.230	963	839	681	665	655	515	401	294	284
$\div 15$ 1	71.726	46.184	11.131	7.551	6.716	2.209	2.142	1.697	1.428	1.213	950	828	672	656	647	508	395	290	280

(76°)																			
÷15 3 (77°)	70.788	45.580	10.985	7.452	6.629	2.180	2.114	1.675	1.410	1.197	938	817	663	648	638	502	390	286	277
÷15 5 (78°)	69.875	44.992	10.843	7.356	6.543	2.152	2.087	1.654	1.392	1.182	926	807	655	639	630	495	385	283	273
÷15 7 (79°)	68.985	44.419	10.705	7.262	6.460	2.125	2.060	1.633	1.374	1.167	914	797	646	631	622	489	380	279	270
÷15 9 (80°)	68.117	43.860	10.571	7.171	6.379	2.098	2.034	1.612	1.357	1.152	902	787	638	623	614	483	375	276	266
÷16 1 (81°)	67.271	43.316	10.439	7.082	6.299	2.072	2.009	1.592	1.340	1.138	891	777	630	615	606	477	371	272	263
÷16 3 (82°)	66.445	42.784	10.311	6.995	6.222	2.046	1.984	1.572	1.323	1.124	880	767	623	608	599	471	366	269	260
÷16 5 (83°)	65.640	42.265	10.186	6.910	6.147	2.021	1.960	1.553	1.307	1.110	870	758	615	601	592	465	362	266	257
÷16 7 (84°)	64.854	41.759	10.064	6.827	6.073	1.997	1.937	1.535	1.292	1.097	859	749	608	593	585	460	357	262	253
÷16 9 (85°)	64.086	41.265	9.945	6.746	6.001	1.974	1.914	1.517	1.276	1.084	849	740	600	586	578	454	353	259	250
÷17 1 (86°)	63.337	40.782	9.829	6.668	5.931	1.951	1.891	1.499	1.261	1.071	839	731	593	579	571	449	349	256	248
÷17 3 (87°)	62.605	40.311	9.715	6.590	5.862	1.928	1.870	1.482	1.247	1.059	829	723	587	573	564	444	345	253	245
÷17 5 (88°)	61.889	39.850	9.604	6.515	5.795	1.906	1.848	1.465	1.233	1.047	820	715	580	566	558	439	341	250	242
÷17 7 (89°)	61.190	39.400	9.496	6.442	5.730	1.884	1.827	1.448	1.219	1.035	811	707	573	560	552	434	337	248	239
÷17 9 (90°)	60.506	38.960	9.390	6.370	5.666	1.863	1.807	1.432	1.205	1.023	801	699	567	554	545	429	333	245	236

$\div 18$ 1 (91°)	59.838	38.529	9.286	6.299	5.603	1.843	1.787	1.416	1.192	1.012	793	691	561	547	539	424	330	242	234
$\div 18$ 3 (92°)	59.184	38.108	9.184	6.230	5.542	1.823	1.767	1.401	1.179	1.001	784	683	554	541	533	419	326	239	231
$\div 18$ 5 (93°)	58.544	37.696	9.085	6.163	5.482	1.803	1.748	1.385	1.166	990	775	676	548	536	528	415	323	237	229
$\div 18$ 7 (94°)	57.918	37.293	8.988	6.097	5.423	1.784	1.730	1.371	1.153	980	767	669	543	530	522	410	319	234	226
$\div 18$ 9 (95°)	57.305	36.898	8.893	6.033	5.366	1.765	1.711	1.356	1.141	969	759	662	537	524	516	406	316	232	224
$\div 19$ 1 (96°)	56.705	36.512	8.800	5.969	5.310	1.746	1.693	1.342	1.129	959	751	655	531	519	511	402	312	229	222
$\div 19$ 3 (97°)	56.117	36.134	8.708	5.907	5.255	1.728	1.676	1.328	1.118	949	743	648	526	513	506	398	309	227	219
$\div 19$ 5 (98°)	55.542	35.763	8.619	5.847	5.201	1.710	1.659	1.314	1.106	939	736	641	520	508	501	394	306	225	217
$\div 19$ 7 (99°)	54.978	35.400	8.532	5.788	5.148	1.693	1.642	1.301	1.095	930	728	635	515	503	495	390	303	222	215
$\div 19$ 9 (100°)	54.425	35.044	8.446	5.729	5.096	1.676	1.625	1.288	1.084	921	721	628	510	498	490	386	300	220	213
$\div 20$ 1 (101°)	53.884	34.695	8.362	5.672	5.046	1.659	1.609	1.275	1.073	911	714	622	505	493	486	382	297	218	211
$\div 20$ 3 (102°)	53.353	34.354	8.279	5.616	4.996	1.643	1.593	1.263	1.062	902	707	616	500	488	481	378	294	216	208
$\div 20$ 5 (103°)	52.832	34.018	8.199	5.562	4.947	1.627	1.578	1.250	1.052	894	700	610	495	483	476	374	291	214	206
$\div 20$ 7 (104°)	52.322	33.690	8.119	5.508	4.899	1.611	1.562	1.238	1.042	885	693	604	490	479	472	371	288	212	204
$\div 20$ 9	51.821	33.367	8.042	5.455	4.852	1.596	1.547	1.226	1.032	876	686	598	485	474	467	367	286	210	202

(105 °)																			
÷21 1 (106 °)	51.330	33.051	7.965	5.403	4.806	1.581	1.533	1.215	1.022	868	680	593	481	470	463	364	283	208	201
÷21 3 (107 °)	50.848	32.741	7.891	5.353	4.761	1.566	1.518	1.203	1.013	860	673	587	476	465	458	360	280	206	199
÷21 5 (108 °)	50.375	32.436	7.817	5.303	4.717	1.551	1.504	1.192	1.003	852	667	582	472	461	454	357	278	204	197
÷21 7 (109 °)	49.911	32.137	7.745	5.254	4.674	1.537	1.490	1.181	994	844	661	576	468	457	450	354	275	202	195
÷21 9 (110 °)	49.455	31.844	7.674	5.206	4.631	1.523	1.477	1.170	985	836	655	571	463	452	446	350	272	200	193
÷22 1 (111 °)	49.007	31.556	7.605	5.159	4.589	1.509	1.463	1.160	976	829	649	566	459	448	442	347	270	198	191
÷22 3 (112 °)	48.568	31.273	7.537	5.113	4.548	1.496	1.450	1.149	967	821	643	561	455	444	438	344	268	196	190
÷22 5 (113 °)	48.136	30.995	7.470	5.067	4.507	1.482	1.437	1.139	959	814	638	556	451	440	434	341	265	195	188
÷22 7 (114 °)	47.712	30.721	7.404	5.023	4.468	1.469	1.425	1.129	950	807	632	551	447	436	430	338	263	193	186
÷22 9 (115 °)	47.295	30.453	7.339	4.979	4.429	1.456	1.412	1.119	942	800	626	546	443	433	426	335	261	191	185
÷23 1 (116 °)	46.886	30.189	7.276	4.936	4.390	1.444	1.400	1.109	934	793	621	541	439	429	422	332	258	190	183
÷23 3 (117 °)	46.483	29.930	7.213	4.893	4.353	1.431	1.388	1.100	926	786	616	537	435	425	419	329	256	188	182
÷23 5 (118 °)	46.088	29.676	7.152	4.852	4.316	1.419	1.376	1.091	918	779	610	532	432	422	415	327	254	186	180
÷23 7 (119 °)	45.699	29.425	7.092	4.811	4.279	1.407	1.365	1.081	910	773	605	528	428	418	412	324	252	185	178

$\div 23$ 9 (120°)	45.316	29.179	7.032	4.770	4.243	1.395	1.353	1.072	902	766	600	523	424	414	408	321	250	183	177
$\div 24$ 1 (121°)	44.940	28.937	6.974	4.731	4.208	1.384	1.342	1.063	895	760	595	519	421	411	405	318	248	182	175
$\div 24$ 3 (122°)	44.570	28.699	6.916	4.692	4.173	1.372	1.331	1.055	887	754	590	515	417	408	402	316	246	180	174
$\div 24$ 5 (123°)	44.206	28.464	6.860	4.654	4.139	1.361	1.320	1.046	880	748	585	510	414	404	398	313	244	179	173
$\div 24$ 7 (124°)	43.848	28.234	6.804	4.616	4.106	1.350	1.309	1.038	873	742	581	506	411	401	395	311	242	177	171
$\div 24$ 9 (125°)	43.496	28.007	6.750	4.579	4.073	1.339	1.299	1.029	866	736	576	502	407	398	392	308	240	176	170
$\div 25$ 1 (126°)	43.150	27.784	6.696	4.542	4.040	1.329	1.288	1.021	859	730	571	498	404	395	389	306	238	174	168
$\div 25$ 3 (127°)	42.809	27.564	6.643	4.506	4.008	1.318	1.278	1.013	852	724	567	494	401	391	386	303	236	173	167
$\div 25$ 5 (128°)	42.473	27.348	6.591	4.471	3.977	1.308	1.268	1.005	846	718	562	490	398	388	383	301	234	172	166
$\div 25$ 7 (129°)	42.142	27.135	6.540	4.436	3.946	1.298	1.258	997	839	713	558	486	395	385	380	299	232	170	165
$\div 25$ 9 (130°)	41.817	26.926	6.489	4.402	3.916	1.288	1.249	989	833	707	554	483	392	382	377	296	230	169	163
$\div 26$ 1 (131°)	41.496	26.719	6.439	4.368	3.886	1.278	1.239	982	826	702	550	479	389	379	374	294	229	168	162
$\div 26$ 3 (132°)	41.181	26.516	6.390	4.335	3.856	1.268	1.230	974	820	696	545	475	386	377	371	292	227	166	161
$\div 26$ 5 (133°)	40.870	26.316	6.342	4.302	3.827	1.258	1.220	967	814	691	541	472	383	374	368	290	225	165	160
$\div 26$ 7	40.564	26.119	6.295	4.270	3.798	1.249	1.211	960	808	686	537	468	380	371	365	287	223	164	158

(134 °)																			
÷26 9 (135 °)	40.262	25.925	6.248	4.238	3.770	1.240	1.202	953	802	681	533	465	377	368	363	285	222	163	157
÷27 1 (136 °)	39.965	25.733	6.202	4.207	3.742	1.231	1.193	946	796	676	529	461	374	365	360	283	220	162	156
÷27 3 (137 °)	39.672	25.545	6.156	4.176	3.715	1.222	1.185	939	790	671	525	458	372	363	357	281	218	160	155
÷27 5 (138 °)	39.384	25.359	6.112	4.146	3.688	1.213	1.176	932	784	666	522	455	369	360	355	279	217	159	154
÷27 7 (139 °)	39.099	25.176	6.067	4.116	3.661	1.204	1.167	925	778	661	518	451	366	358	352	277	215	158	153
÷27 9 (140 °)	38.819	24.995	6.024	4.086	3.635	1.195	1.159	918	773	656	514	448	364	355	350	275	214	157	152
÷28 1 (141 °)	38.543	24.818	5.981	4.057	3.609	1.187	1.151	912	767	652	510	445	361	352	347	273	212	156	150
÷28 3 (142 °)	38.271	24.642	5.939	4.029	3.583	1.178	1.143	905	762	647	507	442	358	350	345	271	211	155	149
÷28 5 (143 °)	38.002	24.469	5.897	4.000	3.558	1.170	1.135	899	757	643	503	439	356	347	342	269	209	154	148
÷28 7 (144 °)	37.737	24.299	5.856	3.972	3.534	1.162	1.127	893	751	638	500	436	353	345	340	267	208	152	147
÷28 9 (145 °)	37.476	24.131	5.815	3.945	3.509	1.154	1.119	887	746	634	496	433	351	343	338	265	206	151	146
÷29 1 (146 °)	37.218	23.965	5.775	3.918	3.485	1.146	1.111	881	741	629	493	430	348	340	335	264	205	150	145
÷29 3 (147 °)	36.964	23.801	5.736	3.891	3.461	1.138	1.104	875	736	625	489	427	346	338	333	262	204	149	144
÷29 5 (148 °)	36.714	23.640	5.697	3.865	3.438	1.130	1.096	869	731	621	486	424	344	336	331	260	202	148	143

÷29 7 (149 °)	36.466	23.481	5.659	3.839	3.415	1.123	1.089	863	726	617	483	421	341	333	328	258	201	147	142
÷29 9 (150 °)	36.223	23.324	5.621	3.813	3.392	1.115	1.082	857	721	612	480	418	339	331	326	257	199	146	141
÷30 1 (151 °)	35.982	23.169	5.584	3.788	3.369	1.108	1.074	851	716	608	476	415	337	329	324	255	198	145	140
÷30 3 (152 °)	35.744	23.016	5.547	3.763	3.347	1.101	1.067	846	712	604	473	413	335	327	322	253	197	144	139
÷30 5 (153 °)	35.510	22.865	5.510	3.738	3.325	1.093	1.060	840	707	600	470	410	332	325	320	251	196	143	139
÷30 7 (154 °)	35.279	22.716	5.474	3.714	3.303	1.086	1.053	835	702	597	467	407	330	323	318	250	194	143	138
÷30 9 (155 °)	35.050	22.569	5.439	3.690	3.282	1.079	1.046	829	698	593	464	405	328	320	316	248	193	142	137
÷31 1 (156 °)	34.825	22.424	5.404	3.666	3.261	1.072	1.040	824	693	589	461	402	326	318	314	247	192	141	136
÷31 3 (157 °)	34.602	22.280	5.370	3.642	3.240	1.065	1.033	819	689	585	458	399	324	316	312	245	190	140	135
÷31 5 (158 °)	34.383	22.139	5.335	3.619	3.219	1.059	1.027	813	685	581	455	397	322	314	310	243	189	139	134
÷31 7 (159 °)	34.166	21.999	5.302	3.596	3.199	1.052	1.020	808	680	578	452	394	320	312	308	242	188	138	133

*The blue *** 350 higher ratios shown, each of which is assigned a seat*

Source: prepared

For other allocation of seats to 50 members, taking account will be selected at a predetermined set of statistical criteria aimed at those that together constitute a representative sample as possible of the population Spanish- follows:

- ✓ **Case:** pure drawing (only determine the statistical random selection), based on the above criteria
- ✓ **Eligible citizens:** anyone of legal age who, while directly legitimized by their condition as citizens, meets the objective requirements under the new General Electoral Regime and is enrolled in the corresponding census: be of sound political rights, have accordingly expressed their willingness to be selectable, and have not been previously selected as deputy under this procedure
- ✓ **Exercise of the mandate:** remuneration and incompatibilities, abstention and similar to those of the Members elected, together with the relevant labor legal guarantees and legal safeguards against undue pressure exerted on them by third challenge. In this regard could serve as inspiration the arts. 7.2 and 12.8 of the Organic Law 5/1995, of 22 May, the Court Jury.

5. Bibliography

- Constitución Española de 1978.
- Ley Orgánica 5/1985, de 19 de junio, del Régimen Electoral General.
- Ley Orgánica 5/1995, de 22 de mayo, del Tribunal del Jurado.

XXII. THREE DECADES OF STUDIES ON THE RADIO IN SPAIN

Teresa Piñeiro-Otero (Universidad de Coruña -Spain-)

The study of communication has a complex construction of the scientific object. The multifaceted nature of the object, and its approach has affected consideration of Communication as a discipline or social science.

Throughout the twentieth century have been various multidisciplinary approaches to communicative phenomenon, especially dese the field of Social Sciences and Humanities (Jones, 1993). The absence of a tradition of Communication as an independent scientific field has been reflected in the limited epistemological reflection that, according to Lopes (2002), suffers the communication studies. However, interest in the phenomenon in communication research has provided Communication of a larger entity as an independent scientific field, with varying levels of social and cultural impact.

In the Spanish context, the particularities of the communication as a scientific discipline is necessary to add a delay in the formation of the academic field (Moragas, Nicolás Martínez, 2006).

The existence of a dictatorial regime for a significant period of the twentieth century (1939-1975) dogged the development of communication studies. State control exercised over the content Francoism undermined the quantity and quality of communication research.

Also, the early 70s saw the transformation of the former Official Schools of journalism, television, film and advertising college degree. Transformation provided the institutional support necessary for the emergence of research in these areas and to the appearance of the first academic journals (Nicolás Martínez, 2006; Saperas Martínez and Nicolas, 2011; Jones, 1993).

The delay that characterized the beginning of communication research in Spain was offset by the proliferation of Schools of Information Sciences or Communication lived from the early 90s of the four pioneering universities (-UCM- Complutense de Madrid, -UAB- Autónoma de Barcelona, Navarra and Basque Country -UNAV- -UPV / EHU) has spent more than fifty, between public and private, offer graduate degrees or Communication. The latest, the European Atlantic University.³⁰

This development of the academy has been reflected in the exponential increase in the number of people, resources, research groups, projects, magazines and editorials communication.

At the present time, which corresponds to the developmental stage indicated by Nicolás Martínez (2009), the volume of material and human resources mobilized communication research makes it one of the most dynamic disciplinary fields of social sciences and Humanities in Spain (Nicolás Martínez, 2006). This growth has not been uniform but has enhanced the study of certain lines of inquiry as well as the consolidation of two points of reference: Madrid and Catalonia (Jones, 1993).

As pointed Martínez (2006), the scientific production has been growing at "breakneck" pace with specialized faculties and consequent job opportunities in the field of teaching and research. In this Jones noted the high level reached by Spain in the international arena with regard to the number of specialists in communication studies. A wide research community, however, has little projection beyond the borders (Jones, 1998; Nicolás Martínez, 2009).

The evolution of communication research, therefore, is closely linked to the scientific community while, following kunh, are individuals who work for the

³⁰ By Law 5/2013, of July 5, that recognizes as the European private university Atlantic University. BOE 177 of July 5.

development of a discipline whose interests directly affect the production of knowledge that science.

While the selection of some aspects of study over others depends largely on the scientific community, it is also necessary to address contextual factors influencing it. That is why the research that is performed for or given time is focused on some issues, is based on a specific theoretical and methodological approaches, features and / or given financial support institutional channels of dissemination are established, etc.

1. Research communicative Spain

Interest in the state of research in any field of scientific knowledge assumed, following Saperas Martínez and Nicolas (2011) an indicator of the maturity of the discipline, especially if it involves a critical assessment.

In the case of communication research in Spain can speak to some extent, a premature development of this type of studies. The first approach was carried out by De Moragas in 1981, his book *Communication Theories* which devoted a chapter to the communication research in Spain between 1940 and 1980 subsequently De Moragas would try the state of communication research in various publications (Moragas, 1988, 1989, 1990).

Further studies on the issue are those of Caffarel et altres (1989), Alvarez (1993), and Caffarel Cáceres (1993), Urabayen (1994), Jones (1994, 1997, 1998, 1999, 2000) or De Aguilera Moyano (1999). More recent are the works of Martínez (2006, 2009), and Dolly Castillo (2010) Fernández-Quijada (2011), Nicholas and Saperas Martínez (2012) and Fernández-Quijada Bergillos (2012) studies or doctoral thesis repiso Caballero, Torres-Salinas and Cózar López-Delgado (2011), among others.

Most of these studies are approximations to the state of affairs even without delving into aspects such as context, the theoretical level, the approaches, etc. As highlighted Martínez (2006, 2009), communication research in Spain has not been lavish critical assessments, essential to determine strengths and weaknesses of the Spanish communication research over the past four decades.

In any case, in recent years one can note an increased interest in communication research in Spain as a whole, and response to specific plots of Communication or certain aspects of the scientific production and its contexts. Proof of this is the recent publication of a monograph in *Communicate* magazine, edited by Gimenez and Jimenez, who compiled the work of Fernandez and Masip; De Filippo, and Cortiñas Escribá; Casanueva and Caro; Delgado and Repiso or Llaguno Navarro and Martin, among others.

This increased interest in research in communication as an object of study has resulted in a greater number of critical works as well as the specialization of the same. Despite this push can still point to a mismatch between the "publisher joy" living communication research and reflections on their own practices (Nicolás Martínez, 2006).

In the case of research on the radio medium may highlight a lack of jobs.

Repiso, Torres and Delgado (2011) have stressed that, in the Spanish context, no descriptive research work on radio, although somehow has been implicit in larger studies on communication research (Aguilera Moyano, 1998; Martinez Nicholas, 2006, 2009, or Jones, 1994, 1997, 1998).

The only work done to date on the status of radio research is to Repiso Spain, Torres and Delgado (2011) who conducted a bibliometric and social network for analysis PhD thesis defended in Spanish universities between 1976 -2008. These authors justify the study of the thesis constitute the reflex dynamics, trends and potential research in Spanish universities (Repiso, Torres and Delgado, 2011a and b).

Although the thesis is considered the first scientific work, access to academic and research career in Spain requires besides the degree of doctor accreditation of a path having the scientific production and broadcast one of its main pillars.

If De Aguilera in 1998 highlighted the scarcity of scientific journals oriented communication today can refer to a number of academic publications.

The magazines occupy a prominent position in the system of dissemination of scientific results while (1) periodicity allows access to the latest research, providing a snapshot of the front lines; (2) have a selection process and filter

proposals that guarantee a certain rigor and quality of published articles; (3) its value in the criteria for accreditation of university quality agencies and other institutions that evaluate the scientific career of a particular researcher or research group (Saperas Martínez and Nicolas, 2011).

In the line of work such as Castillo and Wagon (2010), Fernández-Quijada (2010), Nicholas and Saperas Martínez (2011), De Filippo (2013) and Fernández Masip (2013) and Delgado and Repiso (2013), this study has been to analyze the state of radio in Spain from research articles published in leading journals Spanish Communication.

2. Methodology

The virtual absence of research work on radio media in Spain made an accurate first approximation to the "*studies radio*." Drawing on work Repiso, Torres and Delgado (2011) a descriptive analysis of radio research from articles published in leading academic journals communication addressed.

In seeking to achieve the objectives it was established an analysis of all scientific articles published in journals of communication assessed by IN-RECS (Impact Index of Spanish social science journals). The selection of this literature base lies in the state has reached to complement the JCR impact factor and ISI, to have bibliometric indicators to "enhance" the publication in Spanish journals in Communication (Castillo and Dolly, 2010).

Specifically, this study is a retrospective, longitudinal study of articles on various aspects of the wireless medium, have published 23 scientific journals indexed in the IN-RECS 2011 (last available assessment).

Revistas	Año creación
Comunicar	1993
Revista Latina de Comunicación Social	1998
Comunicación y Sociedad	1988
Estudios sobre el mensaje periodístico	1994
Trípodos	1996
Zer	1996
Doxa Comunicación	2003
Anàlisi	1980
Questiones publicitarias	1993
Telos	1985
Icono 14	2003
Ámbitos	1999
Área abierta	2001
Historia y Comunicación Social	1996
Comunicación y hombre	2005
CIC	1995
Sphera pública	2000
Pensar la publicidad	2007
Vivat Academia	1998
I/C Revista científica de información y comunicación	2003
Mediaciones sociales	2007
Comunicación	1998
Revista de la SEECI	1997

Table 1 Communication Magazines evaluated by IN-RECS 2011.

In the period between 1980 (date of creation of the magazine *Anàlisi*) and 2010, the main scientific journals on communication have posted a total of 217 articles on the radio medium or aspects of it (26 of them are signed by researchers from universities foreign, mostly Hispanic).

In relative terms, the volume of articles on this medium only account for 2.8% of all content published on the IN-RECS journals in the period. While the small percentage of items that have taken the radius aspects of state-or as an object of study show the relevance limited interest it arouses among Spanish comunicólogos, fluctuations can be highlighted in the evolution of scientific production during the period and differences between the various academic journals.

3. Temporal evolution

Since the publication-in 1980 the first issue of *Anàlisi: Quaderns of Communication and Culture* at UAB (currently in collaboration with the Open

University of Catalunya), the number of journals has increased while the community did comunicólogos in Spain. It is significant that 52% of the analyzed journals (12 of 23 publications) were created in the 90s, expanding the degrees of Communication in the Spanish University. 87% of these publications (20 of the 23 journals) were created in the period Nicolás Martínez (2009) has established itself as development or maturation of research in communication in Spain.

In addition to the increase in the number of teachers and researchers specializing in communication, academic growth headers and the number of articles have also been affected by the consolidation of the "culture of research evaluation in Spain" (Masip, 2011). The criteria defined by rating agencies that prioritize and privilege publications in quality, condition more or less consciously the research conducted (Masip, 2011). The call (Soriano, 2008) "ANECA effect" may explain, in part, changes in the number of articles published in 23 journals evaluated by IN-RECS.

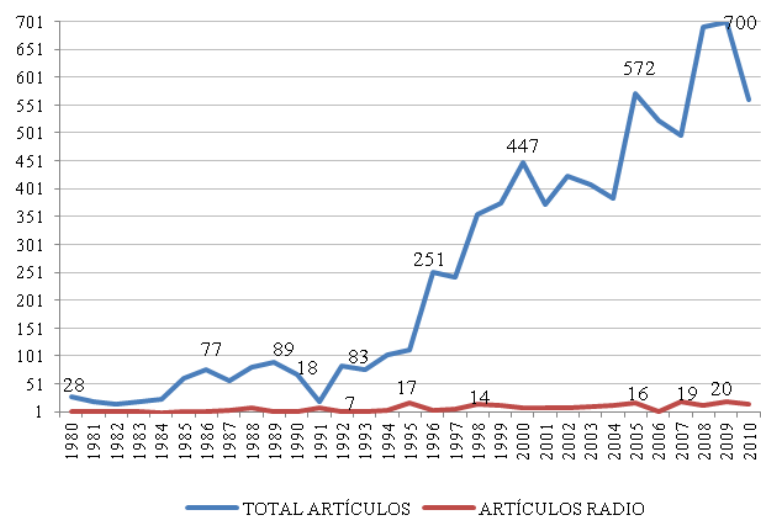


Figure 1: Evolution of radio items. Source: Authors.

As shown in Figure 1 during the period analyzed the number of articles published in scientific journals Communication has experienced an exponential increase, especially since the early 90s of the 28 articles collected in 1980 in the journal Anàlisi , has spent a total of 700 articles published in 2009 in the journals studied.

This increase in scientific production has not had a regular development but shows slight fluctuations, with some moments of fall in the number of items. Also can point to two evolution periods matching the stages of research in communication in Spain set by Nicolas Martinez (2009).

In the first stage (1980-1995), the author calls for consolidation, it can be stated organic growth in the number of articles and the publications (from 1980 to 1995 were analyzed seven magazines).

Also, in this stage it is worth mentioning the sharp decline in the number of items during the year 1991 by not publishing *Anàlisi* and lower volume of articles published by *Telos* (going from 44 items in 1990 to 9 in 1991).

In the second phase (1996-2010), Nicolas Martinez classified as "*development or maturity*", the increase in the number of articles becomes exponential can be emphasized though times when this trend was not maintained and -inclusive- is reversed.

This is the case for the period between 2000 and 2004, at which time the development of the number of items stops, reaching values between 447 (year 2000) and 384 (2004). Another important issue is the drop in vivid scientific production at the end of the period. After reaching the 700 items in 2009, in 2010 a decrease of 20% in the number of published scientific texts (it goes from 700 in 2009 to 560 in 2010) is observed.

The increase in articles published during this period is marked, first, by the emergence of new scientific headers (in this period were analyzed 16 journals). and strengthening the current system of assessment and accreditation bodies of university teachers on the other.

In fact, the period in which a stop is observed in the geometric evolution of the number of items matches the time of creation of the National Agency for

Quality Assessment and Accreditation and regulation of the procedure for quality assessment and accreditation³¹ and ends in 2005, when they were fixed assessment criteria which give prominence to the publication in scientific journals and governing this procedure at present³².

If you go to the particular field of research published in magazines radio media, it should be noted a somewhat different trend compared to the overall production on Communication. In fact, even though the number of articles on radio is also higher at the end of the period, their growth is presented as moderate reaching their peak in years as disparate as 1995, 2007 and 2009 (with 17, 19 and 20 items respectively).

In any case, if we look to the volume of articles published in the Spanish Radio magazines can distinguish two periods marked by Nicolás Martínez (2009). In the consolidation phase (1980-1995) the volume of articles on radio is very limited, moving in annual values of between 1 and 3 texts (with the exception of 1984 in which there was no production on the subject). This period is drawn to three years in the radio studios seem to acquire larger entity: 1988, 1991 and 1995 (with 8, 7 and 17 items respectively). This increase is linked to the three special issues of Telos on the radio medium.

In the development stage, you can highlight a slight increase which puts the average around 11 items per year. As was the case with communication research, you can see a time of change between 2000 and 2005 than in the case of radio studios coincides with a period of organic growth. A period ending in 2006 with the sharp decline in the number of published articles (only 2 texts).

³¹ With the publication of RD 1052/2002 October 11. BOE, 245 of October 12, 2002.

³² Contained in the Resolution of 18 February 2005, the Directorate General of Universities. BOE, 54 on Friday, March 4, 2005.

Relative values of caring for the radio studios are a small percentage of articles published in leading communication journals Spanish. Over three decades, academic texts on this subject are located mostly below 5% of annual publications.

As shown in Figure 2, the articles on the radio have only exceeded the threshold of 5% five times, all in the consolidation stage: in 1980, when there was only magazine *Anàlisi* the three years in which *Telos* published case radio and in 1991, when a fall in the number of articles published by the journals *Communication* was recorded.

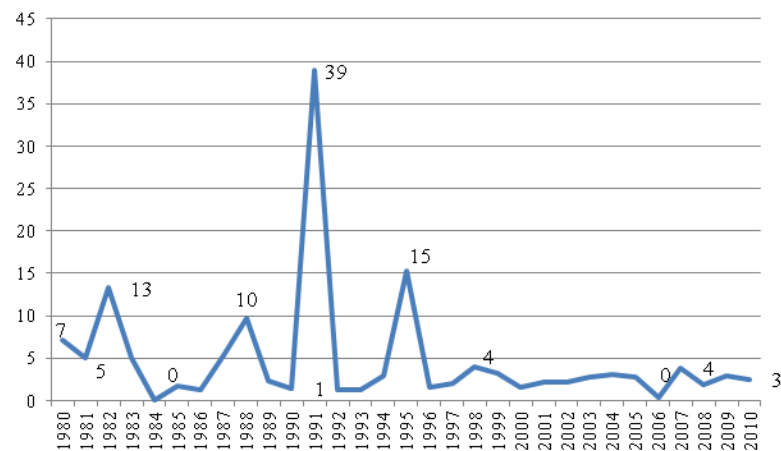


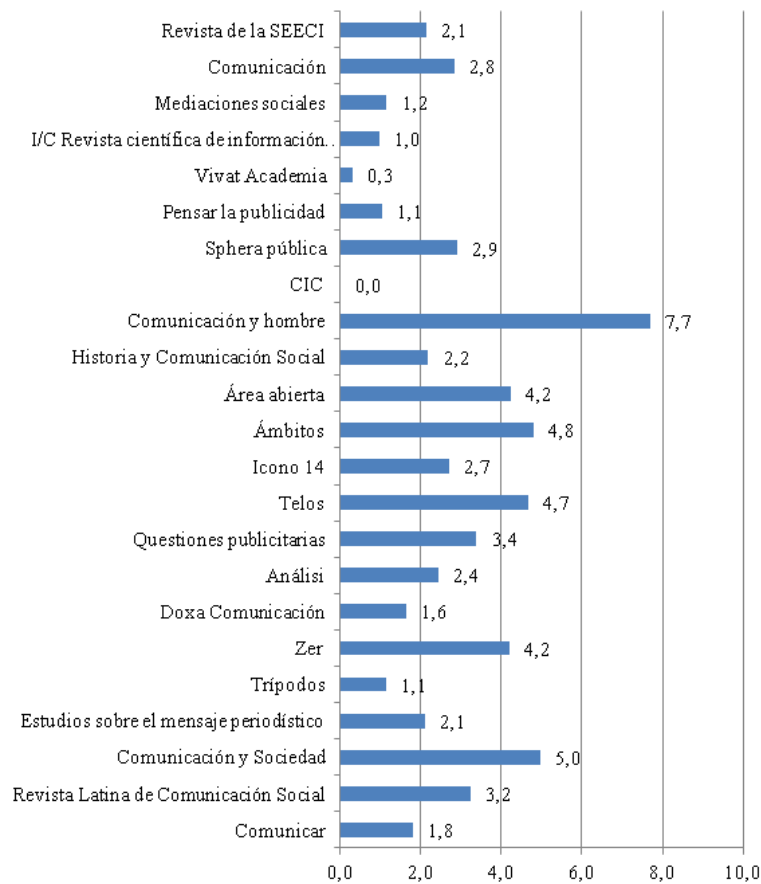
Figure 2: Percentage of articles in total radio. Source: Authors.

The low percentage of articles devoted to radio research underscores the limited interest in this subject for the community of communications specialists. Even at a time like this, more scientific, the new scenarios of radio lose the game over other aspects of communication.

4. Radio academic publications

The selection of the publishing platform is one of the most important when disseminating the results of research now. It will depend on the impact that the article in question, though not all journals are open to the admission of the same type of content.

With respect to the publication of articles on the radio medium, or certain aspects of it, can be noted discrepancies between the sources analyzed.



*Figure 3: Percentage of items of radio magazines.
Source: Authors.*

In the above graph the weight acquired by the radio in the journal *Communication Research and men* (7.7% of articles) is highlighted. Other notable scientific publications are *Communication and Society*, *Fields*, *Telos*, *open area* and *Zer*, while the incidence of radio studios exceeds 4% of the total products.

Journal of Information and Communication, 15 numbers that have not published any articles on the environment: At the other end stands *CIC*. Other journals with a limited percentage of publications on the radio media are *Vivat Academia*, *I / C scientific Journal of Information and Communication* and *Thinking advertising* (radio studios are below 1% of the articles).

The reason for a particular journal is more likely to publish articles on the radio makes a detailed analysis of the precise context of the publication: object and assignment of the same composition of the editorial and scientific committees, board of reviewers, etc. aspects that go beyond the subject of this study. Regardless of these other aspects can be noted that among the journals with the highest presence of research results on the radio, publications are three of the four pioneering universities offer communication studies. This is the case of Communication and Society, the UNAV; Open area that is one of the publications of the Zer and of the UPV / EHU.

The fact that these universities should pay particular attention to the radio as media classic, both in the content of their curricula and in the lines of work and specialization of teaching and research has led to increased interest in this area.

5. Affiliation

Retrospective analysis of research articles published in the last decades has highlighted the evolution of content and formal aspects. Data on affiliation of authors, for example, are ignored by a total of 72 items mostly from the first stage, an issue that complicates the analysis of the main centers of radio research.

In any case, from the institutional membership referenced in publications it has been noted the hegemony of the four pioneer universities in regard to radio studios.

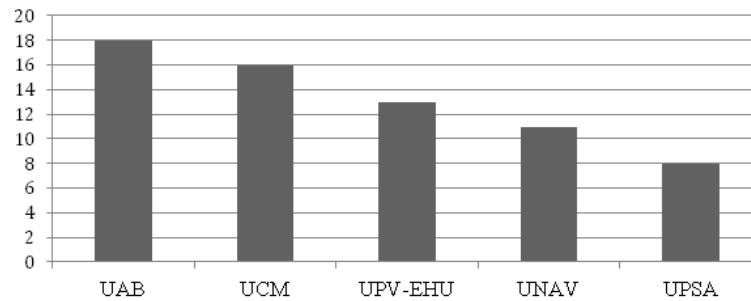


Figure 4: Institutions with the highest number of articles on Radio³³. Source: Authors.

As reflected in Figure 4, the first universities to incorporate Communication degrees are confirmed as major centers of radio research, especially in regard to the UAB and the UCM. The prominence of these academic institutions confirms the persistence of the two poles of concentration of communication research identified by Jones (1993).

Besides the four pioneering faculties, also relevant volume radius articles published by researchers at the Pontifical University of Salamanca. This university, which added to its range of Journalism degree in 1988, has paid special attention to the broadcast medium as reflecting the high presence of items and specialists of this institution in the magazines analyzed.

However, a first approximation to the autoríad and articles reveals that, compared to the hegemony of the first universities in imparting Communication degree, there is a predominance of researchers from other academic institutions.

³³ The computation includes only items with specific reference to membership of the car or authors.

6. Conclusions

The study carried out has highlighted the limited radio arouses interest among researchers Communication in Spain. The volume of articles on the radio medium, or aspects of it, is small and seemingly impervious to transformation experienced by the Spanish research in recent years.

In fact even in the last stage, marked by the exponential growth in academic articles and headers, publications on the environment have changed little. In relative terms, we can even talk in the last stage, a decrease in the volume of articles around the radio to total publications in communication.

If you go to the affiliation of researchers specialized radio is remarkable eminence of the classic academic centers. The first universities to incorporate their training offer degrees in Communication with the UCM and UAB head to continue it the industry leader in scientific production on the environment. However, the existence of a relevant core radius researchers in studies has led to the specialization of new researchers who have subsequently become part of the academic staff of other universities, even-creating their own units of radio research.

The migration of doctors from these benchmark universities, and the need for professional consolidation which takes research one of its main pillars allow advance a turnaround in the coming years, with the emergence of new centers of radio research.

7. Bibliography

Electronic or paper books

- ALVAREZ, Macu (1993): Communication studies in Spain. An individual perspective, en FRENCH, David y RICHARDS, Michael (eds.): *Media education across Europe*. Routledge. Londres.
- KUHN, Thomas (1971): La estructura de las revoluciones científicas. Fondo de la Cultura Económica México.
- DE MORAGAS, Miquel (1981): *Teorías de la comunicación*. Gustavo Gili. Barcelona.

- URABAYEN, Miquel (1994): La investigación sobre comunicación social en España: panorama general, en *Cultura y comunicación social: América Latina y Europa ibérica*. CEDIC. Barcelona.

Chapters in books, reports and journal articles on paper:

- CÁCERES, María Dolores y CAFFAREL, Carmen (1993): La comunicación en España: planteamientos temáticos y metodológicos entre 1987 y 1990, en *La investigación en la comunicación. III Simposio de la Asociación de Investigadores en Comunicación del Estado Español*. Madrid. AICE.
- CAFFAREL, Carmen, DOMÍNGUEZ, Milagros y ROMANO, Vicente (1989): El estado de la investigación en comunicación en España (1978-1987)”. En: *C.i.n.c.o.*, nº 3.
- CASTILLO, Antonio y CARRETÓN, M^a Carmen (2010): Investigación en Comunicación. Estudio bibliométrico de las Revistas de Comunicación en España, en *Comunicación y Sociedad*, vol. XXIII, nº 2.
- DE AGUILERA, Miguel (1998): La investigación sobre comunicación en España: una visión panorámica, en *Comunicación y Cultura*, vol. 2, nº2.
- DE MORAGAS, Miquel (1988): Los estudios sobre comunicación y nuevas tecnologías en España: indicaciones sobre sus antecedentes y estado actual, en *C.IN.CO. Cuadernos de Investigación en Comunicación*, nº 1.
- (1989): La comunicación ausente, en *Comunicación social 1989/Tendencias*. Madrid. Fundesco.
- (1990): Delante de los negocios, detrás de los acontecimientos: nuevos problemas de la sociología de la comunicación de masas en España, 1986-1990, en *Telos*, nº 22.
- SORIANO, Jaume (2008): El efecto ANECA, en Congreso internacional fundacional AE-IC I+C Investigar la Comunicación. AEIC. Santiago de Compostela.

Pages in web publications:

- BERGILLOS. Ignacio y FERNANDEZ QUIJADA, David (2012): Producción científica en comunicación en las universidades de la Comunidad de Madrid: la fuerza de la tradición, en *Documentación de las Ciencias de la Información*, vol. 35. Disponible <http://revistas.ucm.es/index.php/DCIN/article/view/40450> . Consultado el 6 de marzo de 2014.

- CASANUEVA, Cristóbal y CARO, Francisco Javier (2013): La Academia Española de Comunicación: productividad científica frente a actividad social, en *Comunicar*, vol. XXI, nº41. Disponible en
- <http://www.revistacomunicar.com/index.php?contenido=detalles&numero=41&articulo=41-2013-06> Consultado el 6 de marzo de 2014.
- DELGADO, Emilio y REPISO, Rafael (2013): El impacto de las revistas de comunicación: comparando Google Scholar Metrics, Web of Science y Scopus, en *Comunicar*, vol. XXI, nº41. Disponible en
- <http://www.revistacomunicar.com/index.php?contenido=detalles&numero=41&articulo=41-2013-06> Consultado el 6 de marzo de 2014.
- ESCRIBÁ, Eudald y CORTIÑAS, Sergi (2013): La internacionalización y las coautorías en las principales revistas científicas de Comunicación en España, en *Comunicar*, vol. XXI, nº41. Disponible en
- <http://www.revistacomunicar.com/index.php?contenido=detalles&numero=41&articulo=41-2013-06> Consultado el 6 de marzo de 2014.
- FERNANDEZ QUIJADA, David (2010): El perfil de las revistas españolas de comunicación (2007-2008), en *Revista española de Documentación Científica*, vol. 33, nº 4. Disponible en
- <http://redc.revistas.csic.es/index.php/redc/article/viewArticle/671> Consultado el 6 de marzo de 2014.
- (2011): Appraising internationality in Spanish communication journals, en *Journal of Scholarly Publishing*, vol. 43, nº 1. Disponible en
- <http://utpjournals.metapress.com/content/2r2516473l028545/>. Consultado el 6 de marzo de 2014.
- JONES, Daniel E. (1993): Jones, Daniel E. (1993): Las revistas teóricas sobre comunicación en los países latinos, en *Análisi*, nº 15. Disponible en
- <http://ddd.uab.cat/pub/analisi/02112175n15p149.pdf> Consultado el 6 de marzo de 2014.
- (1997): Investigació sobre comunicació social a l'Espanya de les autonomies, en *Anàlisi*, nº 21. Disponible en
- <http://ddd.uab.cat/pub/analisi/02112175n21p101.pdf> Consultado el 6 de marzo de 2014.
- (1998): Investigación sobre comunicación en España. Evolución y perspectivas, en *Zer*, nº 5. Disponible en
- <http://ddd.uab.cat/pub/analisi/02112175n21p101.pdf> Consultado el 6 de marzo de 2014.

- (2000): Investigació sobre comunicació a Catalunya als anys noranta, en *Treballs de comunicació*, nº 13-14.
- LOPES, M^a Immacolata (2002): La investigación de la comunicación: cuestiones epistemológicas, teóricas y metodológicas, en *Diálogos de la Comunicación*, nº 56. Disponible en <http://www.dialogosfelafacs.net/wp-content/uploads/2012/01/56-revista-dialogos-la-investigacion-de-la-comunicacion.pdf>. Consultado el 6 de marzo de 2014.
- MARTINEZ NICOLÁS, Manuel (2006): Masa (en situación) crítica. La investigación sobre periodismo en España: comunidad científica e intereses de conocimiento, en *Anàlisi*, nº 33. Disponible en <http://ddd.uab.cat/pub/analisi/02112175n33p135.pdf> Consultado el 6 de marzo de 2014.
- (2009): La investigación sobre comunicación en España. Evolución histórica y retos actuales, en *Revista Latina de Comunicación Social*, nº 64. Disponible en http://www.ull.es/publicaciones/latina/09/art/01_800_01_investigacion/Manuel_Martinez_Nicolas.html Consultado el 6 de marzo de 2014.
- MARTÍNEZ NICOLÁS, Manuel y SAPERAS, Enric (2011): La investigación sobre Comunicación en España (1998-2007). Análisis de los artículos publicados en revistas científicas, en *Revista Latina de Comunicación Social*, nº 66. Disponible en http://www.revistalatinacs.org/11/art/926_Vicalvaro/05_Nicolas.html Consultado el 6 de marzo de 2014.
- MASIP, Pere (2011): Efecto Aneca: producción española en comunicación en el Social science citation index, en *Anuario ThinkEPI*, vol. 1. Disponible en <http://dialnet.unirioja.es/servlet/articulo?codigo=3647635> Consultado el 6 de marzo de 2014.
- NAVARRO, Marián y MARTIN LLAGUNO, Marta (2013): Análisis bibliométrico de la investigación sobre mujer y publicidad: diferencias en medios impresos y audiovisuales, en *Comunicar*, vol. XXI, nº 41. Disponible en <http://www.revistacomunicar.com/index.php?contenido=detalles&numero=41&articulo=41-2013-06> Consultado el 6 de marzo de 2014.
- REPISO, Rafael, TORRES SALINAS, Daniel, DELGADO, Emilio (2011): Análisis de la investigación sobre Radio en España: una aproximación a través

del Análisis Bibliométrico y de Redes Sociales de las tesis doctorales defendidas en España entre 1976-2008, en *Estudios sobre el mensaje periodístico*, vol. 17, nº2. Disponible en

- <http://digibug.ugr.es/bitstream/10481/19936/1/ESPERIDO.pdf> Consultado el 6 de marzo de 2014.
- (2011): Análisis bibliométrico y de redes sociales en tesis doctorales españolas sobre televisión (1976/2007), en *Comunicar*, nº37. Disponible en
- <http://www.revistacomunicar.com/index.php?contenido=detalles&numero=37&articulo=37-2011-18> Consultado el 6 de marzo de 2014.

XXIII. A REVIEW OF EXISTING LITERATURE AROUND THE FILM CRITIC

Diana Ramahí García (Universidad de Vigo, Spain)

1. Criticism as an object

Considered complex and multifaceted (Talens and Zunzunegui, 1998: 34), it has been traditionally assumed that the cinema, as an object of study, has more than one path³⁴. Historiography³⁵, theory and criticism of the film have been well considered the three main branches of the studios.

The film historiography has had as main scope the temporal dimension of the discipline; has tried to explain the changes that have taken filmmaking from its origins as well as to account for the issues that have resisted change (Allen and Gomery, 1998: 22). The theoretical approaches have tackled the abstract theater, worrying about the general and not the particular and trying to formulate and verify statements on the subject or any of its aspects; film theory was then in charge of the common features between films, designing all of the films as a system capable of being analyzed (Andrew, 1992: 27). Film criticism, meanwhile, has not been

³⁴ According to Metz (2002: 32 and 40) there was a time in which the film made for its importance and novelty, justified dedicate works to him without further details. Books "on film" is written and not required to be chose a perspective over another. Determining an itinerary was not a requirement in film, because discipline constituted already a problem. This situation changed, however, for many years.

³⁵ While the film industry has traditionally used the term "history" to refer to the subject area, in this case we use the extended academically and precise term 'historiography', meaning the first as the set of events that happened and the second as the science that study.

addressed both the systematic understanding of a general phenomenon as the assessment of their particular examples; has been well taken care of the particular qualities of individual films or groups of films, each devising a system of meanings is critical clearing (Frodo, 2009: 85).

The same but if the other existing meta-filmic discourses at least the historiographical and theoretical here referidos- oriented have had to account for the remarkable contributions about contributions, resembles not have occurred in relation to the critical dimension³⁶. No references exist and seem aimed at the synthesis of the approximations made in the field of film criticism.

In this situation any approach to the matter must necessarily start in the examination of the situation in which the discipline is.

2. A proposed approach

Trying to alleviate as far as possible this gap, this contribution to undertake a comprehensive review of existing literature on film criticism as an area of research emphasis; because although critical discourse can from a theoretical or enroll in a historical dimension concepts, no less, as we have mentioned, a company defined contours (Monterde, 2010: 85).

The impossibility of a totalizing company has determined the choice of a paradigmatic sample in this regard. With the aim to obtain representative results

³⁶ To approach the conceptualization, characterization and problems of film historiography as an area of research emphasis monographs can be found here referred as: Allen and Gomery (1995); Chapter approximations or also referred as: Talens and Zunzunegui (1998). For an overview of the basic concepts and the historical transformations of film theory can resort to titles like Andrew (1992), Aumont (2004), Stam, Burgoyne and Flitterman-Lewis (1999), if conceptual approaches are sought to the various manifestations and theoretical trends. Or Stam (1994) and Casetti (1994), if the interest lies in a historically contextualized characterization.

within Europe³⁷, has chosen to focus research in film archives circumscribed geographical scope appointed state character. So, first, we considered amenable to analysis the Parisian film library catalogs, Cinémathèque Française-bound to French- union catalog of film libraries and the Institute of British film, British Film Institute; for being two of the institutions, worldwide, hosting more filmmaking related resources.

The *Cinémathèque Française* was created in 1936 by filmmaker Georges Franju and Henri Langlois cinematic collector. Privately but funded primarily by the French state ownership has been directed from its origins to the collection, preservation, restoration and dissemination of film heritage. Also, due to acquired social relevance, the institution has been linked to decisive moments of French cultural history³⁸.

The *British Film Institute*, meanwhile, emerged as a private company in 1933. Although the school remained a marginal educational organization during its early years, in the most favorable postwar cultural context the body was rescued by the government, initiating a period defined by the successive expansion and diversification initiatives to increase the consideration and facilitate access to film culture in the UK.

³⁷ Not so much in terms of published sources as regards the sources used by academia in the environment indicated.

³⁸ Including the emergence of what has been called "classical cinephilia" cultural praxis developed in Paris, between the end of World War II and the events of May 1968 is located; the birth of the Nouvelle Vague, the critical designation gave the group of French filmmakers whose first films were shown in 1959 and 1960, and beyond the diversity of styles, were characterized by their rejection of the structures of the cinema of the time; or Journée des Matraques mobilization that brought together three thousand figures of French intellectual world for the return of Henri Langlois as head of the institution. Cf De Baecque (2003); Heir and Monterde (2002); and De Baecque (1991), respectively. To further explore the characteristics and evolution of the Parisian film library cfr. Mannoni (2006).

They have been added, taking into account the context of the study the researcher funds Spanish Film Library, Spanish official institution established in 1953 and currently framed within the Institute of Cinematography and Audiovisual Arts, essentially dedicated to the recovery, research conservation and promotion of Spanish film heritage; and the union catalog of Spanish universities.

Documentary on these bases, has done a bibliographic study and hemerographic compile oriented work made so far on the issue. Thus collected were data relating to works that consisted references descriptors related to the subject³⁹.

Finally, and defined the corpus, has conducted a quantitative and qualitative analysis (Hernández, 2010) aimed at determining the number of existing references, appearance articulated as the basis for its construction, as well as his vocation, investigative nature and amplitude.

And start from the assumption, which is articulated as the main hypotheses to be verified along research and guideline for the development of the study of the publication of volumes related to film criticism, has been derived over the retransmission of the original samples for the year of the publication of the results of the study of the discipline.

Now as regards the realization of the results in this paper, the volume of sources handled makes us consider citation as extensive as sparsely illustrative representative works and source selection for reproduction acquire dye bias and imprecision; therefore omit reference to specific works in this case. Similarly, with the aim of developing a text eminently consistent with the humanistic character of subject area addressed were excluded accurate quantitative data about it.

³⁹ Well those references whose descriptor referred to the film criticism in any terminological variants, either those which, within a broader framework of the key "cinema" or "cinema" addressed the research area under study in one of its aspects.

3. Focus on the critical landscape

The review of existing literature on film criticism as an area of emphasis on research has shown that it has conducted a prolific publication of volumes related to the subject.

It has thus been an intense work reissue of the original writings based on diverse criteria, being unusual for an author, publication, or topic considered important for critical institution does not have one or more works for the anthology or compilation of the results of its use. They have been told, however, the reissues that have acquired sufficient importance to be published in languages other than the original.

The input-oriented study of criticism seem to have spread, meanwhile, in the auxiliary reflections made in works of other topics, or self-reflective exercise that has been regularly subjected the institution through their organs of speech, especially and specialized publications hemerográficas monothematic, being limited bibliographic monographic contributions provided with some length and analytical rigor.

Thus, numbered volumes that have adopted film criticism as an object of study have chosen to adopt a totalizing will and the deployment of a panoramic perspective on the discipline, by modeling the proper performance of critical practice or exercise as thorough examination by a precisely defined look.

The panoramic study of criticism as a discipline, in line with the most common publications that have adopted the name "film history" or "film theory" has been undertaken on limited occasions. The resulting works are characterized by the absence of a standard, opting for unequal research scope and inclusion of diverse content.

The publications have observed the critical exercise as an activity, have been more substantial. With a more general and pragmatic, have been designed to offer indications concerning the critical exercise, in practice and outcome, articulated as guidelines for its proper performance.

Finally, the references limited treatment oriented discipline based on various criteria have been articulated as the most numerous works related to the review as a research core. These geographic targeting has prevailed, temporarily or media.

Now as regards the authorship study, so common in other subject areas, in the case of a film critic in his status figure on the margins of a discipline, as we see, modestly positioned academically, has been defined by its residual character. While it is true that there are many case studies on certain personalities relevant to the institution, tend to focus on some other aspect of his career, usually related in that as complementary as usual filmmaking. They are, however, counted the works-oriented approach the already scarce professionals who have restricted its work to the first part of the critic-filmmaker combined.

So therefore as we presumed, the prolific publication of volumes related to film criticism has been derived over the anthology reprint and facsimile reproduction of the signs of its exercise, the dissemination of the results of their study. Referrals these results remains now guess their motives.

4. Rebuilding the causes

As we indicated, the disclosure of the results of I study of criticism as an academic subject has been limited. Thus, if the film has traditionally been considered a field of embryonic learning in relation to other areas of knowledge-because the youth of its subject matter and reserves in the legitimization of their cultural status⁴⁰ - the criticism seems to have played these limitations and subject area.

⁴⁰ Although intellectual interest fell on unusually early cinematography, the film unit will not appear until the middle of the last decade of the nineteenth century and was several years before the movie would start to commercially projected; as a result there was a generational lag twenty years between innovation and technology of film study. Furthermore, recognition of the value of film as an area of serious academic research had to wait for the concept of "culture" that

Thus, although their practice-in the form of supporting material to a premiere, merely informative articles or critical review in rotativos- goes back to the beginnings of cinema as a mass spectacle, it was not until the advent of the talkies and the rise in magazines throughout 1920, when the work of those who were neither writers nor filmmakers, began to acquire respect for filmmakers⁴¹. It was necessary, in any case, more than a decade of questioning; war and the culture shock that followed; the formation of the film clubs; the emergence of the concept of cinephilia; and the emergence of notable figures in its exercise, that criticism would make a place in the field of filmmaking during the forties of the last century (Armoghate, 1995: 5).

At this late settlement and subject area have joined the reserves in its legitimacy as a valid approach to the filmic text. Institutionalization of Film Studies at the University during the second half of the twentieth century led to the emergence of a scientific discourse on cinema (Weinrichter, 2008: 82).

The adoption of film analysis as a method of study⁴² assumed a radically different approach to the study of a film is articulated around a relativistic approach; showed a high sensitivity to the specific kinematic formal elements; required a degree of attention urging reduce the analytical substrate film in its entirety to an isolated segment or fragment; and construction, traditional terms and evaluative voices were replaced by a new vocabulary borrowed from structural linguistics, narratology, psychoanalysis and literary semiotics (Stam, Burgoyne and Flitterman-Lewis, 1999: 75). The analysis of the film thus became to a nearby film

excluded the cinema and other arts and popular recreational activities changed to accommodate them.

⁴¹ According to Ciment and Zimmer (1998: 7) does not exactly match the history of cinema while reflecting on the films had to wait more than two decades to come to light.

⁴² For an overview of the textual analysis of the film may be resorted to: Aumont and Marie (1999) Casetti and Di Chio (2007)

criticism, which dealt with the same subject-the movie-but with another protocol for speech.

So-called "impressionistic criticism of movies 'then began to be seen as the' poor relation analysis and historiography" (Quintana, 2009: 85) as being "dispatched" of "pejorative" (Casas, 2006: 13), especially the "ephemeral criticism" (Alonso Echenique, 1996: 182) whose support is the usual periodicals, newspapers, magazines or cut academic or cultural.

The existence of these conditions seems to have originated, then some suspicion at the reception and treatment of academic discipline, and epidermal have been derived in an exam.

This limited attention has not prevented, however, that broadcasted numerous related works of film criticism aimed essentially according to the above, the retransmission of the original samples of the critical exercise.

The success of the reissues facsimiles and seems to lie both in its limitation to editing work and the fact that despite the fragmentary nature of the writings, let show the style of criticism and writing, which sometimes has been considered the most valuable teaching discipline. Against them, the studies to analysis or systematic sample of critical exercise are characterized by complexity, by using methodological procedures related to the processing of data; and failure to achieve these levels of textual fidelity.

5. Bibliography

Paper or electronic books, reports and theses:

- ALLEN, Robert. C. y GOMERY, Douglas (1995): *Teoría y práctica de la historia del cine*. Barcelona. Paidós.
- ANDREW, Dudley (1992): *Las principales teorías cinematográficas*. Madrid. Rialp.
- AUMONT, Jacques y MARIE, Michel (1999) :*Análisis del film*. Barcelona. Paidós.
- AUMONT, Jacques (2004): *Las Teorías de los cineastas. La concepción del cine de los grandes directores*. Barcelona. Paidós.

- ARMOGHATE, Daniel. (et al.) (1995) : Le cinéma sous presse. Portraits, chroniques, analyses, entretien inédit avec Henri Langlois. París. Autres Temps.
- DE BAECQUE, Antoine (1991) : *Les Cahiers du cinéma. Histoire d'une revue, tome 2. Cinéma, tours, détours (1959-1981)*. París. Cahiers du cinéma.
- DE BAECQUE, Antoine (2003) : *La cinéphilie. Invention d'un regard, histoire d'une culture (1944-1968)*. París. Fayard.
- CASAS, Quim (2006): *Análisis y crítica audiovisual*. Barcelona.UOC.
- CASSETTI, Francesco (1994): *Teorías del cine (1945-1990)*. Madrid. Cátedra.
- CASETTI, Francesco y DI CHIO, Federico (2007). *Cómo analizar un film*. Barcelona. Paidós.
- CIMENT, Michel y ZIMMER, Jacques (1997) : La critique de cinéma en France. Histoire, anthologie, dictionnaire. París, Ramsay-Cinéma.
- ECHENIQUE, María Teresa (et al.) (1997): El análisis textual. Comentario filológico, literario, lingüístico, sociolingüístico y crítico. Salamanca. Ediciones Colegio de España.
- HERNÁNDEZ, Roberto (2010): *Metodología de la investigación*. México, McGraw-Hill.
- METZ, Christian (2002): Ensayos sobre la significación en el cine, volumen 1 (1964-1968). Barcelona. Paidós.
- SANTAMARÍA, Alfredo (ed.) (2005): Filmoteca Española: cincuenta años de historia (1953-2003). Madrid. *Filmoteca Española*- Instituto de la Cinematografía y de las Artes Audiovisuales.
- STAM, Robert; BURGOYNE, Robert y FLITTERMAN-LEWIS, Sandy (1999): Nuevos conceptos de la teoría del cine. Estructuralismo, semiótica, narratología, psicoanálisis, intertextualidad. Barcelona. Paidós.
- TALENS, Jenaro y ZUNZUNEGUI, Santos (coords.) (1998): *Historia general del cine volumen 1. Orígenes del cine*. Madrid. Cátedra.

Chapters in books, reports and articles in newspapers or magazines on paper:

- FRODON, Jean-Michel (2009): «El amor al trabajo». *Cahiers du cinéma España*, nº 21, marzo, pp. 84-85.

- MONTERDE, José Enrique (2010): «Sobre la crítica de cine como arte». *Cahiers du cinéma España*, nº 30, enero, pp. 84-85.
- QUINTANA, Ángel (2009): «¿Cómo superar el extraño caso de la crítica/Jeckyll y el análisis/Hyde...?». *Cahiers du cinéma España* nº 25, julio-agosto, pp. 84-85.
- WEINRICHTER Antonio (2008). «Estado crítico». *Cahiers du cinéma España*, nº 18, diciembre, pp. 82-83.

XXIV. TEACHING FOR A SOUND IN THE CINEMA: STUDY AND ANALYSIS OF NOISE IN THE AUDIO- VISUAL REPRESENTATIONS TREATMENT

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1. Introduction

An effective teaching methodology for the study and understanding of sound treatment in audiovisual representations requires consideration of certain aspects of its circulation within such representations to its interaction with the image and its nature and materiality. The creation of a global magma requires developing certain sound teaching-learning activities that allow decomposing said magma and propose new discursive constructions useful for understanding: soundscape front soundstage, synchrony and synchresis, localization of audio elements, creating spatial and / or temporal distance, the confluence of visual and sound in an integrated speech and the principle of added value, among others. This work separately isolate and study should enable eventually rebuild the whole and understand the sounds not as autonomous entities, but as integral elements of a superior structure that interact with other sounds and, of course, with the images.

Starting from the naturalistic dimension of visual language, while pursuing articulating organize and disseminate messages and stimuli that the receiver knows its interaction with the environment, is required, therefore, a teaching method that seeks proper analytic distance. This would be a distance understood here in the sense of identifying, categorizing and decode the elements of audiovisual speech. We will have to also add our everyday experience as viewers, increasing familiarity with which we relate to audiovisual performances, and in this connection we make constant use of various mobile devices that manipulate and circulate images do. This includes the necessity to supply a precise knowledge of the matters involved here sound expression.

Their presence and intervention, the place or their circulation on the surface of the image: Consequently, the application of a teaching methodology that, starting from the analytic, seeks to create in students an active awareness of the sounds is imposed. This may be useful to draw a map of the film sounds contributing to recognize, understand and use. And it should be considered that the sound, unlike the image lacks a framework that contains it, hence the need to know the exact (or approximate) location at all times, as well as how to enter the field or leave it. The ultimate goal is, therefore, favor the adoption of a critical attitude to allow, in future professional development a self-conscious use of the resources and tools you must master an audiovisual communicator. A mapping that devote the main body of this work, with a significant presence of examples adapted to every type of use.

2. Space, landscape, sound globality

Considering, first, the aforementioned naturalistic dimension and if we understand, on the other hand, the audiovisual field as the interaction between a reference extracted from the real and discursive construction consists of images (visual and sound), we can conclude that soundscape knowledge is given to us by ordinary perception itself will bring us the keys to analyze the sound representation. We appeal, as well, the special role that we must accord to perception, which involved a decisive experience and memora. With their help we will be able to locate sounds in space, capture the effect of perspective or, in general, attend to their ability to suggest relevant spatial sensations. Identify volumes, distances, movements or simple presence will ultimately be one of the important functions that must meet sounds evoked mainly in visual absence of the sound source in question.

The audiovisual sound as part of various substances of expression (noise, voice, music), which is related to the image and the viewer magma, can be addressed, as well as sound or soundscape space (Rodriguez, 2001, p. 223). For the first understand the volumetric perception that arises in the mind of a receiver, as will all sound processing synchronously space-related forms. It would thus be a particular kind of soundscape, which refers to any type of sound set that perceives the listener or not it involves a spatial recomposition.

This same spatial dimension of sound enhancement has been by other specialists, such as Francesc Linares, who includes among sound narrative

functions those involved in the structure of the film story "contributing to the recognition of sound spaces allowing the reconstruction of these and the location of the viewer in the space of the narrative "(Linares, 2012, p. 138). Let us note also that this implies for the sounds the absence of a framework: you can easily move freely on the surface of the framed space, can push the boundaries of the field and off the field (as can also skip the temporary barriers) you can not hide from the perception of the listener-viewer, can break at any time from anywhere and can be added as many as you want simultaneously to infinity. So we are reminded by Michel Chion, who, referring to the sound a certain wholeness that permeates space proposed the term sound-territory that surrounds sound, which does not cause obsessive question of the location of the source and is used to mark a place with its continued widespread everywhere (Chion, 1993, p. 78) presence.

Without being a strictly an example of sound-territory as defined Chion, it should be noted the use made of a sound on the air and off-screen, in *Lisbon Story* (Wim Wenders, 1994), in which boot sequence the protagonist travels by car from Germany to Portugal and the car radio is changing as we change language country (Germany, France, Spain), marking a route in space. It is, however, the wording of the statement by this author what happens in almost all *Footage In the City of Sylvia* (José Luis Guerin, 2007), which falls ambient sound, wraps, impregnated street, cafes or buses that stands alone with little dialogue.

3. Location and movement

Certain films that stand out for some degree of self-consciousness and reflexivity are often the most suitable to study the location of the sound source and its movement between the field and off field. In the pit or extradiegética music that usually serves to mark a sequence expressively or to establish a spatio-temporal continuity, among other functions, we find a title like *Sauve qui peut (la vie)* (Jean-Luc Godard, 1980). Here, in the sequence of an orchestral melody abuse end up discovering that comes from a chamber group that plays there the same topic we were hearing sounds. Considered the art of cinema more modular plastic element, and music and demonstrates its ability to operate under their own laws. The same of course can be said of that other attribute that allows you to contact different moments of history, jumping over any temporal distance, however great it may be, as in the celebrated beginning of *2001: A Space Odyssey* (2001: A Space Odyssey, Stanley Kubrick, 1968). Moreover, *Warsaw Bridge* (Pere Portabella, 1989) speaks

out against the convention that determines the radical separation between music and music pit screen where to run a theme, orchestra musicians are placed in different locations on the street (balconies, terraces) and director climbed a scaffold.

What we are listening, where sounds exactly? This viewers another film of Godard, *Week-End* (1967), where the slow and endless view over the farm yard accompanied by piano music wonder. This movement eventually stopping on a pianist who interprets and explains the music of Mozart. It is played here with the viewer, who doubts the actual location of this music and sounds just discovering that in the space of the action itself, as highlighted by this example Mouellec (Gilles Mouellec, 2011, p.53) What say salsa theme we heard while walking in Nanni Moretti scooter through Rome in *Caro Diario* (1993)? What seemed an inner sound, a sound that the protagonist 'listens to himself', has just revealed as a musical group from acting in a garden party, where, incidentally, the protagonist fantasize again, seeing themselves same on stage.

Music as a free fluid can move through time and space found in examples of special expressive significance, as in the aforementioned *Lisbon Story*. Here the theme "Alfama" performed by Madredeus in Lisbon tavern continues to accompany some pictures of the neighborhood that gives its name to the song, and come from a film projection. Mayor emotive follows from the presence of the paso doble "In er world," father and daughter dancing in the sequence of the first communion in *Southern* (Victor Erice, 1981), and returns years later, when both characters are last in the sequence of the coffee. Two moments of intimacy, distant in time but equal in emotion and affection, is well connected but now the music is already hopelessly steeped in melancholy and sadness of parting suggested here.

Sound off or sound over? Common source of confusion in terminology and conceptual, it should be made clear that off, in its narrow sense, refers to the acousmatic, a sound viewable but not displayed, because it belongs to the realm of history. Meanwhile, in the sound over its source is absent in a permanent way the universe of action. The pit called music, the voices of certain fictional narrators or voices of documentaries and commentary fall under this category. Jost Geadreault and remember that these voices, both arising from a place outside the diegesis, provide a reflective and self-referential relevant dimension (Geadreault and Jost, 1995, p. 105).

When we say the lability or the free movement of sound in audiovisual, we also include possibilities such as a voice over not necessarily always stay in that other alien space diegetic universe. It may well appear in the field at any given time, embodied in a new character, a new subject actant that contribute to the evolution of the story, like the narrator of *According to Pereira* (Roberto Faenza, 1996), that we will finally discover that belongs to Dr. Cardoso, Daniel Auteuil intepretado, and will have a prominent role in the resolution of the plot.

Is attributable likewise to that lability certain presence of the sound, more in some cases than in others dovetail with difficulty to enter into the category of sound in, that is, displayed sounds whose source is displayed on the field and belonging to the reality that evokes the image or in the exposed and sound off here and / or over. Assign specific sounds to a particular category is subject to analysis, or at least invites an interpretive exercise in which, ultimately, the question of how nodal comes into play moves the real benchmark audiovisual discourses. In the so-called mentally subjective or internal internal sound, the ambiguous evidence of our knowledge can be limited just to the fact that they are heard, and generated by a specific character. In exceptional cases will be heard by another character, whose best example is *Wings of Desire* (*Der Himmel über Berlin*, Wim Wenders, 1987): in the famous sequence of the library, the characters of the angels (and with them the viewer) hear the thoughts of readers, their reading and even the tracks emanating from scores consulting.

Thoughts, evocations of a particular music, dialogs now recall on its face ... are just some of the possible manifestations of this inner sound. In *What Ever Happened to Baby Jane?* (*What Ever Happened to Baby Jane* Robert Aldrich ?, 1962), which popularized the song being a child star Jane sounds in his head like an inner sound that moves to a past success and happiness. In the sequence of the career of *The Loneliness of the Long Distance Runner* (*The Loneliness of the Long Distance Runner*, Tonny Richardson, 1962), memories of the protagonist while running, even acquire a visual dimension through a series of flashbacks, build a tour of the reasons that led him to prison, eventually serving to make a momentous decision. *Everything goes well* (*Tout va bien*, Jean-Luc Godard, 1972), suppression of ambient sounds gives way to the thought of the protagonist, creaando, as usually happens in these cases, an effect of unreality that joins this privileged access to the realm of the personal and subjective. In reporter (*Professione: reporter*, Michelangelo Antonioni, 1975), when the protagonist prepares hear his

recollection of an earlier time, accompanied by evocative images in a flashback that is given by a camera movement driven in turn by the direction of his gaze. The panorama which concludes the sequence raises the question if not proceed heard a recording, which would enter the category of the sound on the air.

About the sound on the air, that aired on some kind of electronic amplification, can mencionars the use made of it in a moment of *The Son's Room* (*La stanza figlio*, Nanni Moretti, 2001). Here the protagonist uses the remote to compulsively change the volume of a song on the stereo as an expression of anxiety and tension suffering.

Now back on Godard, provided an example of an innovative use of sound and suggestive. Two of his films serve to exemplify how to dispense with standardized ways of presenting the dialogues. First, the simplest: the call through voice we find in *My Life to Live* (*Vivre sa vie*, 1966), where, in one of the sequences of the coffee, the protagonist has a conversation with her boyfriend with her back to camera. In *male-female* (*Masculin-féminin*, 1966), in another conversation of coffee, the main characters dialogue unfolds not only through the exchange of their own words, but is supplemented by reading aloud a erotic by those at the next table, and finally with the lyrics of a song from a space alien action, so therefore only the viewer can listen publication.

4. Narration, distance, reflection

Before it became common in certain audiovisual fiction, the narrative voice as a voice over that is imposed over the image handling, custody or orient the viewer, bringing the action and discusses its development, was already an essential component of expository documentary of the thirties of last century. Consider also the close relationship established between radio and then movies, in how one gives various examples of filmmakers storytelling. Not forgetting, of course, the influence of the novel, not being casual that such voices are preferably used in literary adaptations.

Recall that, mostly, the films are presented simply and sometimes exclusively displayed, but occasionally are also partially told by a narrator or narrators (VV. AA., 1999, p. 139). Recall, finally, that all narratives, including of course the film, restates the facts according to one view, incorporates a temporal dimension and

introduces a distance, a new space, of what happened and the story of what happened. In conclusion, as Sarah Kosloff warns when the voice is given by a narrator, it is automatically marked by subjectivity (Sarah Kosloff, 1998, p.13)

Board a first type of narrative voices, those who identify with the character-narrator in the first person. Following the work of Geaudreault and Jost already mentioned, which are based in turn on the set at the time by theorists like Gérard Genette, these are voices that have a great impact on the viewer's experience, increasing individualization and subjectivity of viewer. To tell Kosloff, are voices that sometimes are so inscribed in the film that seem to be generated not only by what she sees (the person to whom that voice belongs), but even so the viewers are watching (Kosloff, p. 45). This effect is at least suggesting the voice over the start of *Rebecca* (Alfred Hitchcock, 1940), which simulates the film set this character, then, no longer appear as such narrator; but in any case, is instrumental to suggest an atmosphere of mystery linked to the memory of a past time over which an expectation is created on the development of the story begins.

At work on memory by another famous character-narrator, also analyzed by Kosloff is founded. In *How Green Was My Valley* (John Ford, 1941), the viewer identifies with this voice that summons memories and it brings some reflections on the passage of time, "my friends have died if his voice is even a song in my ears?"

Often this narrative voice that is embodied in the figure of the protagonist is an effective tool for reflection on the past and the passage of time. This happens exactly in a film like *Los que no fuimos a la guerra* (Julio Diamante, 1961). Javier's character recalls his youth in a provincial town dominated by debates between aliadófilos and germanófilos in the First World War, debate will affect you in a way that will make you lose the love of his life. From the bitterness and melancholy of this, the memory of that past involves adopting a distance in space, in time and also in thought and memory. This title is also given the unique circumstances, as discussed in connection with *Wings of Desire*, although not as eloquently, that a character hear, from inside the fiction, which should be reserved to extradiegetic subject-spectator space. This results in a suggestive metadiscursive turn reinforces the evocative reflection adding this self-awareness (Aurora: "You were talking about yourself" Javier: "No, remember, remember").

The distance from the facts that form the plot is expressed even where this distance is related to the fault, with repentance or confession of mistakes. Two films of Billy Wilder exemplify this use of narrative voice: *Doom* (*Double Indemnity*, Billy Wilder, 1941) and *The Sunset Boulevard* (*Sunset Boulevard*, 1959). Similarly, the reconstruction of a crime through the confession of who committed this same resource uses voice over narrator in *Mildred Pierce* (*Mildred Pierce*, Michael Curtiz, 1945). Again, by successive flashback that anchor the film story to the perspective of the protagonist, played by Joan Crawford, the voice displays his mastery over the plot developed here.

It is precisely this quality of control over the narrative, or at least this is the effect that can move, which is seen most clearly in some renowned titles in which the narrator has already been adequately addressed by specialists. Let us mention here just films like *Eve* (*At about Eve*, Joseph L. Mankiewicz, 1950), with the presence of character-narrator homodiegetic, part of both the diegetic universe, and here recounts the events from the position of witness. In a previous title Mankiewicz, *A Letter to Three Wives* (1949), the narrator, although the character who embodies never figure in the field, itself occupies a central place in the plot, as agent provocative to do the other characters act as a powerful voice that knows all of the others, you can listen to your conversations and maintaining a suggestive relationship of complicity with the subject-spectator while he shares information about the history and comments on the course of events. It would not be far away, in this sense, character-voice or be acousmatic to study Michel Chion in voice in the film, which examines the powers and qualities of these voices never displayed in films like *Psycho* (Alfred Hitchcock, 1960) or *2001: A Space Odyssey* (*2001: A Space Odyssey*, Stanley Kubrick, 1968). In both titles Mankiewicz, the voice has the attributes of a true "image maker" can act directly on the evolution of limited device, such as the ability to control the camera movement or freeze the action, exactly as I could make the narrator of another famous film *Welcome Mr. Marshall* (Luis García Berlanga, 1953), although here it would be an alien voice over the action space.

If there is a formal element which especially in the Spanish cinema of the postwar period, that is the use of a narrative voice that gives the speech a reflexive dimension, self-conscious, close, and, to a metafiction make inquiries on key representation film. Back in the first-person narrator, it is worth making a minimum analysis of *Shanti Andia Concerns* (Arturo Ruiz Castillo, 1946), another

example, also a literary adaptation that uses the narrative voice. Besides the final nod that leads us to discover that the whole story has been told to be the person who will write the same John Doe, the film raises suggestive reflections on the temporal plane in which it is situate this character-narrator. Although initially given to understand that everything will be told from a present in which the experience is recalled (see a Shanti aged looking at camera), then the expression of his thoughts seem to be coeval development of the plot, when see strolling thoughtfully and listen: "When I left it was a naive and full of hope now that I again feel disappointed (...)". Besides, a friend tell you that Shanti unable to go before the gathering that "has been gathering his thoughts."

Another unique title and little known Spanish film, *No one will know* (Ramón Torrado, 1953), presents a narrator extradiegetic which are not more than a voice, seeks the complicity of a subject-spectator, who challenges and to whom simulates wait for the answers, which is introduced into the world of fiction and that the nodal sequence of the film, prompts the protagonist to carry out the action that will change the course of his life.

For a comparative study that involves the use of a first-person narrative voice against the use of the third person, an exemplary title would be *the salt of the earth* (*Salt of the Earth*, Herbert Biberman, 1953), which uses both. The external narrator corresponds to action the objective, only the main factors used to locate the problems that will arise in this mining town. Meanwhile, the first-person voice over is for the protagonist, whose opinions drive the story and attributing the view of the village women, while personalizing the drama that lives there.

To conclude this tour of some narrative voices accredited limited intervention on the mechanism, we stop at a recent film, which also notes the demonstrated vitality of this formal appeal to continue proposing new and innovative uses. In *The Dead and be happy* (Javier Rebollo, 2012), an extradiegética voice and surprises from the beginning by his coldness, redundancy and distance from what is shown; a distance that is reinforced, in turn, by that vast overhead shot that opens the film and will focus down to the frame in the shape. This unique planning should not be separated from a voice like the voice over, simulates placed on "high" in a beyond what is shown, occupying a privileged position from which to narrate, comment, narrated protect and guide the viewer . Let us note, finally, that this voice was guilty of a couple of falsehoods about what shown. Because, we can

rely on all those who tell us? And indeed, there are writers who are not reliable, even though they would be expected to produce images that communicate in an automatic way a high degree of truth. The most cited example is the character-narrator of *Stage Fright* (*Stage Fright*, Alfred Hitchcock, 1950). More striking is the case of *Last Year at Marienbad* (*L'année dernière à Marienbad*, Alain Resnais, 1961), where the narrator extradiegetic should itself generate a seamless fictional world and yet it is not totally reliable.

5. Conclusion

Based on the idea of audiovisual as the ongoing dialogue between image and sound, in which one rich, complete or qualifies the other, we have tried to show that it is possible to proceed to map the map of the sound elements trying to establish in each case, where such sounds are located, or from where they act as moving between the field and off field. We consider a teaching methodology that is proposed to study and understand the speech sound performance, their specific contribution to the creation and communication of meaning within the audiovisual discourse, should undertake a minimum analysis of specific examples that have excelled in the use of such sounds. We refer specifically to what Michel Chion, and with it other experts have called "added value", ie, that which you contribute to the dramatic or generically significant in and manage to convey certain emotions or certain effects of sense.

6. Bibliography

Books

- CHION, Michel (1993): *La audiovisión. Introducción a un análisis conjunto de la imagen y el sonido*. Paidós. Barcelona.
- CHION, Michel (2003): *La voz en el cine*. Cátedra. Madrid.
- MOUËLLEC, Gilles (2011): *La música en el cine*. Paidós, Barcelona
- GEAUDREAULT, André & JOST, François (1995): *El relato cinematográfico: cine y narratología*. Paidós. Barcelona.
- KOSLOFF, Sarah (1998): *Invisible Storytellers*. Los Angeles, University of California. Los Angeles.
- VV. AA. (1999): *Nuevos conceptos de la teoría del cine*. Paidós. Barcelona.

Chapters in books

- LINARES, Francesc (2012): El sonido como recurso expresivo en los audiovisuales, en GUSTEMS, Josep et al.: *Música y sonido en los audiovisuales*. Universidad de Barcelona. Barcelona.

XXV. SOCIOHISTORICAL CONSTRUCTION OF THE RELATIONSHIP BETWEEN EMPLOYMENT AND EDUCATION IN EUROPE

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Employment and education are two of the five pillars on which the new Europe 2020 strategy is based, with which the EU seeks to promote smart, sustainable and inclusive growth over the next decade. This framework has been formulated, in turn, a new strategy in the field of education called Rethinking Education. From there the need to strengthen further the relationship between social subsystems and ensure that education and training systems give a more accurate response capacity needs that exist in the labor market is postulated; it states that: *"(...) the rate of youth unemployment is approaching 23% across the European Union, however, there are more than two million jobs that can not be met"* (European Commission, Press Release, November 20, 2012).

This approach further reinforces the professionalizing aspect of education in Europe, in a new attempt to further alignment of education of the continent to the demands of the new economy and the knowledge society. As it is, from the first decade of this century, the adoption of the concept of competition as a key element of educational policy and, both university and non-university curriculum. Concept takes 2020 as the key to achieving a higher education that offers opportunities in the labor market.

You understand professionalizing turn that has taken education as part of the European Union in the last two decades, requires an understanding of the socio-historical experienced construction on the relationship between education and employment since the mid-twentieth century, which is inserted their roots.

The aim of this chapter is to contribute to the development of this understanding, outlining a holistic view of how it has been building the

relationship between social subsystems of education and employment in the European context, since the end of World War II until today. During this period, three stages can be distinguished: the first, which runs until the seventies, corresponds to the consolidation of this relationship due to the economic and educational developmentalisms lived in this period; second, it is possible to place it in the decades of the seventies and eighties, it is characterized as a period of crisis as a result of the disparate developments experienced by education and employment over these two decades in developed countries; and the last stage corresponds to the education link employment set in terms of skills from the nineties, and in the context of the Knowledge Society.

In our discussion we adopt a strategy of contextual analysis, which leads us to relate the characteristics showing the relationship between employment and education at all times, with different historical events, political, socioeconomic and educational contributed to articulate this relationship; and to reference the set of theoretical and methodological contributions that have been made to explain it.

1. Consolidation of the relationship between employment and education

After World War II, in the countries of Western Europe who staged the fight and in the context of reconstruction experienced their political, economic productivity and education systems, the relationship between employment and education narrows and strengthens due to strong balance supply and demand for labor lived in this period.

Western Europe was rebuilt with support and funding from USA (Marshall Plan, 1948-1952) who helped develop in this region of a political model of parliamentary democracy and a capitalist economic model, but with a strong state intervention taking reference interventionist theories of Keynes. The new political-economic model for Europe was designed to combine economic growth and social equity, under the leadership of the State to act through a large public sector, with the dual objective of increasing national income and quality of life citizens and thus prevent the population root in the seed of communism introduced in the neighboring countries of Eastern Europe (Zamagni, 2002).

The economic growth was supported by the increased productivity achieved through mass production that enabled the Scientific Organization of Labor Fordist

model, and a steady development of mass consumption. On one hand, I was reflected in: 1) a large increase in GDP in the period between 1950 and 1973 was 4.78% specifically for the whole year in Western Europe, while in the period between 1913 and 1950 had no more than 2%; an increase in the level of per capita income; low unemployment rates (2.6% between 1950 and 1973); 2) an increase in real wages accompanied by controlled inflation; increased public expenditure; and 3) a significant increase in productivity (Arenas, 2003). It has also been considered a significant increase in the demand for labor that promoted and consolidated a full employment or high occupancy (unemployment rates that do not exceed 2-3 percent of the active population) that would remain until the early of the decade of the seventies.

However, sustaining this intensive economic model in the use of labor was possible because while a proportional increase of labor available to be contracted, both in quantitative and qualitative terms occurred. A quantitative dimension of this increase was helped by the natural growth of the population (baby boomers), joining the paid employment of women and of much of the population that had previously been self-employed and, in the case of countries like Germany, Britain and France receiving large inflows because of its higher level of prosperity and ability to pay higher wages. For its part, the qualitative dimension was linked to higher quality of labor, which had a higher educational level than previous generations lived result of expansion of education in Western Europe since the end of World War II.

Expansion would not be possible, on the one hand, no convincing governments moment in global social positive correlation between economic growth and educational level of the population, who were taken to understand education as an investment and economic returns and individual and, consequently, to continuously increase spending on education (Carreño, 2000); and, moreover, without the faith of the people in the capacity of the new education, based on the concept of meritocracy to act as a mechanism for upward mobility and greatly stimulated the demand for this service. Both budgets, helped the dissemination of the principles of the Theory of Human Capital (hereinafter TCH) that made international agencies such as UNESCO, the OECD, ECLAC, the World Bank and the International Monetary Fund (Sanz, 2002).

This theory, which comes from the hand of Schultz (1959, 1961, 1963), supports the existence of a direct causal relationship between education, productivity and wages, which is transferred to the macroeconomic level higher economic development (Guerrero, 2003), and points to the existence of an inverse relationship between skill levels and unemployment rates (Ruesga et al., 2000). However, the TCH has a number of methodological shortcomings and weak points through which he received from the decade of the seventies much criticism both from the field of economic and sociological (Selva, 2003); including noteworthy that ignores intervention exercised by the State on the demand for education, and has not yet been proven causation between education, productivity and income.

In the socio-historical context described, the relationship between employment and education consolidated hard and was characterized by a situation of full adjustment between social subsystems, reflected on what Casal (2003) defined as a "transition from school to work fast "and high private returns to investment in education by families. The economic role of education, why should education graduate skilled and professional workforce, in the quantity and with adequate preparation to meet the qualification requirements and job competition presents the production system and allow it to reproduce (Guerrero 2003; Taberner, 2003), becomes from this time publicizing key macroeconomic and educational policies of the countries of Western Europe.

2. Crisis in the relationship between employment and education

In the mid-seventies of the last century appeared the first mismatch in the relationship between employment and education; revealed by studies and research-based approaches adecuacionistas as Planas (2011) suggests, consider that: 1) there is limited job categories according to each level and training specialty spectrum; 2) the correspondence between the two is a result of the dynamics of the labor market; and 3) the correspondence is the optimum point in the relationship between employment and education.

These imbalances are related to the mismatch between the training specialties of the education system and the characteristics of the production system; the lack of correspondence between the content of the work of many employees and the training they had received; excess or shortage of graduates according occupations; and the fact that educational qualifications are no longer clear and unambiguous

indicators of knowledge, skills and attitudes that are intended to have an employee to ensure that they perform their work efficiently. The effects of such misalignments take the form of high rates of youth unemployment, high inflation of educational credentials, longer school schedules, in what may be called a "transition from school to work slowed" and penalties on income (De la Fuente, 1993; Carabana, 2000; Casal, 2003; Nordina, Persson and Rooth, 2010).

The origin of these imbalances lies in separating that from now experienced the paths followed by education and employment, and that so far had converged naturally thanks to the strong economic and social growth experienced by the Western capitalist democracies in the two decades after the Second World War.

In the economic field a crisis stage and break with the model of growth and well established after World war opens. The start of this crisis is dated 1973 and is considered a consequence of the great climbing inflation experienced as a result of consumer prices soared worldwide; partly due to the rapid rise in oil prices by OPEC and its influence on other prices whose production was dependent on oil, and partly because the price of fuel increased consumption capacity and household savings he was significantly impaired (Frieden, 2006).

A late sixties unemployment began to grow, especially in those countries that experienced strong industrial crisis as Britain, Belgium, Holland, France and Spain (Arenas, 2003). Whereupon, governments chose to increase its role in employment policies and increase hiring in the public sector. However, given the impossibility of these governments to raise taxes by the economic crisis that was living and having to resort to credit money, these measures led to an increase in public spending led to a crisis of confidence in the State Welfare and laid the foundation of a new economic paradigm in developed countries, which meant a return to those theories that extol the virtues of the free market and are known as neoliberal. Under this new paradigm, the capitalist governments of the eighties abandoned their commitment to full employment as a strategic objective. Instead, they concentrated all efforts in controlling inflation and reducing public spending through privatization and market liberalization.

However, in this context of economic contraction and destruction of society of full employment, the education system continued expansion process began in the second postwar era. At this time the expansion is justified by the contribution that

education can make to the promotion of social equity. However, despite its expansion was widely criticized, especially in the mid-seventies. Some of these criticisms originated in the field of Education and focused on sistematización reached. From this perspective the restructuring of formal educational institutions and the adoption of alternative institutions demanded, even in its most radical version, represented by Ivan Illich, Everett Reimer and Paul Goodman, was reached even require the removal of such institutions consider that fostered alienation of human beings [Carreño, 2000 and Sanz, 2002).

Also, many of the reviews were conducted from the field of economics of education and the field of sociology of education and questioned the fundamental pillars of TCH, which had sustained the expansion of education in the previous stage. The criticisms made by the Economics of Education showed that it is not always clear that education increases the productivity of individuals and there is no systematic relationship between educational level and income level (Forest, 2003). For its part, the criticism that developed from the Sociology of Education questioned the role functionalist sociology had attributed to education as a key to economic development and social equity instrument, while showed their reproductive function social inequality that holds the established social structure (Bonafant, 1998). In the whole of these theoretical approaches can be identified two different orientations, which can be classified into two groups: *credentialist*⁴³ *theories and theories of reproduction*⁴⁴.

⁴³ They believe that education is merely a mechanism for distribution of population in the occupational structure; within them is possible to locate the Theory of Selection or Filter [Arrow (1973), Spence (1973) and Stiglitz (1975)]; Theory of Competition for Jobs or Queue Theory (Thurow, 1972 and 1975); Theory of Internal Markets or Segmented Labor [Doeringer and Piore (1971), Gordon, Reich and Edwards (1973, 1982)]; conflictual and Stratification Theory (Collins, 1979).

⁴⁴ They tried to explain that the main function of the educational system is the very reproduction of society through the perpetuation of the structure of established social positions. Including the contributions of Althusser (1969) fall to his conception of the school system as Ideological State

However, both types of reviews and present a major limitation is that they focus on one element or function to analyze the educational system preventing a more complete picture of the complex relationship linking education to employment; vision if the work that contributes Carnoy and Levin (1985). For these authors, the evolution of the educational systems of democratic countries is the result of the tension between two opposing social forces, economic capitalism and liberal democratic state, whose aims are logical and self contradictory. Subsequent investigations, including notably that of Bédoué and Planas (2003) have highlighted the autonomy of the education system on the labor market demands, clarifying the behaviors of the agents involved in the supply and demand for education are not exclusively Economists; and consequently, the limitations of adecuacionistas approaches to explain the relationship between employment and education.

3. The competence approach as a solution to the crisis

The liberalization of the world market, the flow of money and capital of national banking systems, consolidated in the nineties, thanks to major development experienced by the Information Technology and Communications, a new economic reality that has been defined as globalization (Frieden, 2006). A new economic reality, as Castells (1997) suggests, is comprehensive and informational configured at this stage.

In this context, ICTs become the core of the production system ingentemente multiplying the flexibility of your organization and promoting the development of business networks, and the work becomes part of the employment and

Apparatus; Baudelot and Establet (1971) in his critique of the French school system and his theory of the two networks; Gintins and Bowles (1975) in his criticism of the American educational system and its correspondence theory; and Bourdie and Passeron (1972, 1988) with his Theory of Cultural Reproduction, according to which the educational system meets its reproductive role of social structure by reproducing the culture of the ruling class.

occupational structure is redefined; encouraging that mismatches between education and employment arising from escalating significantly in this period.

The transformation of labor implies the extinction of the traditional form of employment, based on a full-time, well-defined tasks and a model career in one company over a lifetime and rising wages (Castells, 1997 and Carnoy, 2001); while redefining the employment context refers to further deterioration of working conditions, which results in: increased underemployment; on a generalization of temporary and part-time jobs; an increase in the informal and underground economy and a decline in real wages (Castells, 1997 and Arenas, 2003).

In the global and informational economy is consolidating other employment model based on the segmentation of the labor force in a nuclear workforce, made up of professionals that are based on the information to produce value and a disposable labor or floating can be automated, contracted, outsourced or laid off (Castells, 1997). This segmentation of the hand is the result of the polarization of the occupational structure, characterized by a more dynamic growth in low-skilled jobs and more moderate high qualification; despite that, is also observed a general increase in the educational level of all occupations [Fine Sanglas, 1985; Collado, 1994; Sanglas Fina and others, 2000; Pérez Infante, 2000 and García Serrano, 2001).

However, to the extent that within the observed polarization are lower skilled posts the fastest growing, increased educational level of the labor force can not be explained by a general increase in the level of qualifications required by the functional content of jobs created, not by a large increase in the number of staff required in positions of higher qualifications, if not for credentialist behavior of firms, for which they would be "simply incorporating workers with higher skill levels who facilitates education system "(Fina Sanglas et al, 2000: 107). Béduwé and Planas (2002) explain that the increase in the educational level of the labor force is a result of "supply effect". According to this effect as many qualified graduates and the educational system available for hire has stimulated an increase in the educational level of all occupations fairly homogeneous, and not only in those professions most noteworthy for its technological content, certain independence of the evolution of the need for effective and professional qualifications different categories.

However, despite the polarization of employment and the general rise in educational level because of "supply effect" are contrasted labor market trends in the New Economy, the OECD, the International Monetary Fund (IMF) and government circles in the major developed countries argue, as stated Castells (1997), the worsening of working conditions in the Knowledge Society is the result of a mismatch of skills, worsened by the lack of flexibility of markets. Since this argument holds that while the occupational structure of employment improvement in the educational content of the qualification required for the posts of informational work, the labor supply is not up to the new tasks either due to low quality education system or it is inadequate to provide the necessary training in new emerging occupational structure; and the importance of increasing the stock of skilled people as a strategy to ensure the potential for economic growth and employment and avoid a "virtual" mismatch between supply and demand for labor is defended.

The defense of this argument has meant the return of education as a strategic political objective of the labor and employment policies to promote R & D (Lamo de Espinosa, 2000). Course, is part of a new paradigm, education throughout life which justifies the expansion of education does not stop. Within this paradigm the relationship between education and employment is articulated in terms of competencies that are presented as "quid" to address uncertainties and tensions presented by the economic production system in the Knowledge Society.

The concept of professional competence is configured as the link that connects the individual capacity and performance required by a job (Jaulín, 2007), with the difference that in the context of the knowledge society that presupposes a permanent link adaptation individual to permanent and changing demands of labor demand and unforeseen arising in regular production systems as a result of globalization and competitive markets (Brunet and Belzunegui, 2003) capacity.

Their incorporation into the framework of analysis of the relationship between employment and education takes place in the nineties, at the higher expectations of an offer of employment labor with increasingly large and converge with higher level widespread increase in capacity of the production system employing and working conditions. Competency Approach replaced, from this moment, to adecuacionistas traditional models during the second half of the century in the analysis of the relationship between employment and education, for the constraints

and the models showed that impoverished its analytical and predictive (Planas, 2011). According to the same author:

"A theoretical approach based on the notion of shared labor competence to interpret the relationship between training and employment without establishing a formal match between detentada busy training and employment. From the methodological point of view, this approach invites from observation of reality without assuming a priori correspondence between, on the one hand, fit individuals (in varying degrees) to serve different types of employment and, second, jobs held (with varying success) by individuals who have followed different training paths" (Planas, 2011: 1052).

At present, the proposed solutions to correct this misalignment, which not only maintained but has worsened, aim to strengthen the education profession-side, which takes the concept of competence to articulate curriculum planning; but paradoxically they do so from a framework that justifies and promotes the continued expansion of education, the paradigm of learning throughout life.

Both the paradigm of learning throughout life as the competence approach include as key elements of the current strategy Europe 2020 with which the EU seeks to promote smart, sustainable and inclusive growth.

4. Bibliography

Paper or electronic books, reports and theses:

- Arenas Posadas, Carlos. (2003). *Historia económica del trabajo* (siglos XIX y XX). Madrid: Tecnos.
- Bèduwé, Catherine. y Planas, Jordi. (2002). *Expansión educativa y mercado de trabajo. Estudio comparativo realizado en cinco países europeos: Alemania, España, Francia, Italia, Reino Unido, con referencia a los EEUU*. Madrid: INCUAL.
- Bonal, Xabier. (1998). *Sociología de la educación. Una aproximación crítica a las corrientes contemporáneas*. Barcelona: Paidós.
- Brunet, Ignasi. y Belzunegui, Ángel Gabriel. (2003). *Flexibilidad y formación. Una crítica sociológica al discurso de las competencias*. Barcelona: Icaria.

- Carnoy, Martin. and Levin, Henry. (1985). *Schooling and work in the democratic state*. Standford: Standford University Press.
- Carnoy, Martin. (2001). *El trabajo flexible en la era de la información*. Madrid: Alianza Editorial.
- Carreño, Myriam. (Ed.). (2000). *Teorías e instituciones contemporáneas de educación*. Madrid: Síntesis.
- Castells, Manuel. (1997). *La era de la información: economía, sociedad y cultura. Vol 1: La sociedad red*. Madrid: Alianza Editorial.
- Frieden, Jeffry. A. (2006). *Capitalismo global*. Barcelona: Crítica.
- Gil Villa, Fernando. (1994). *Teoría sociológica de la educación*. Salamanca: Ediciones Amaru.
- Guerrero, Antonio. (2003). *Enseñanza y sociedad*. El conocimiento sociológico e la educación. Madrid: Siglo XXI.
- Jaulín, Carmen. (2007). *La competencia profesional: perspectiva dialógica sobre el sistema nacional de formación profesional*. Madrid: Síntesis.
- Selva, Carmen. (2003). *El capital humano y su contribución al crecimiento económico*. Cuenca: Universidad de Castilla La-Mancha.
- Taberner, José. (2003). *Sociología y educación. El sistema educativo en sociedades modernas*. Funciones, cambios y conflictos.
- Zamagni, Vera. (2002). *Historia económica de la Europa contemporánea*. Barcelona: Crítica.

Chapters in books, reports and articles in newspapers or magazines on paper:

- Carabaña, Julio. (2000). Títulos contra el paro. ¿Protegen los estudios del desempleo? En Sáez, Felipe. (Coord.). *Formación y empleo*. Madrid: Fundación Argentaria.
- Casal, Joaquín. (2003). La transición de la escuela al trabajo. En Fernández Palomares, Francisco. (Coord.). *Sociología de la Educación*. Madrid: Pearson Prentice Hall.
- Collado, Juan Carlos. (1994). Cambio ocupacional y competitividad de la economía española. *Economistas 1994. Un balance*, 362-369.
- Comisión Europea. (2012). *La Comisión presenta la nueva estrategia Replantear la Educación*. (Comunicado de prensa, Bruselas/Estrasburgo, 20 de noviembre de 2012).

- Comisión Europea. (2011). Apoyar el crecimiento y el empleo, una agenda para la modernización de los sistemas de educación superior en Europa. (COM(2011) 567 final).
- Comisión Europea. (2010). EUROPA 2020. Una estrategia para un crecimiento inteligente, sostenible e integrador. (COM (2010) 2020).
- De la Fuente, Gloria. (1993). Educación y empleo. La relación entre el sistema de enseñanza y el mercado de trabajo. En García de León, María Antonia; De la Fuente, Gloria y Ortega, Félix. (Eds.). *Sociología de la educación*. Barcelona: Barcanova.
- Fina Sanglas, Lluís. y cols. (2000). Cambio ocupacional y necesidades educativas de la economía español. En Saéz, F. (Coord.). *Formación y empleo*. Madrid: Fundación Argentaria.
- García Serrano, Carlos. (2001). Cambio sectorial y cambio ocupacional en España y en Europa. En Fina, Lluís. y Toharia, Luis. *El empleo en España: situación y perspectivas*. Madrid: Ministerio de Trabajo y Asuntos Sociales.
- Lamo de Espinosa, Emilio. (2000). El retorno de la educación. En Saéz, Felipe. (Coord.). *Formación y empleo*. Madrid: Fundación Argentaria.
- Nordina, Martin., Persson, Inga. y Rooth, Dan-Olof. (2010). Education–occupation mismatch: Is there an income penalty?. *Economics of Education Review*, 29, 1047–1059.
- Pérez Infante, José Ignacio. (2000). El nivel formativo del empleo en España: un análisis de la estructura sectorial y ocupacional. En Sáez, Felipe. (Coord.). *Formación y empleo*. Madrid: Fundación Argentaria.
- Planas, Jordi. (2011). La relación entre educación y empleo en Europa. *Papers*, 96/4, 1047-1073.
- Ruesga, Santos M. y cols. (2000). Desequilibrios en los mercados regionales de trabajo y educación. En Saéz, F. (Coord.). *Formación y empleo*. Madrid: Fundación Argentaria.
- Sanz Fernández, Florentino. (2002). Desarrollismo mundial de la educación. En Tiana Ferrer, Alejandro. y cols. (Coord.). *Historia de la educación. Edad Contemporánea*. Madrid: UNED.

XXVI. CORPORATE DIPLOMACY AND A BUSINESS NEED OF NATIONAL BRAND

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1. Introduction

Nowadays, companies are becoming complex networks in which tasks are performed state. Business management requires increasingly strategies at all levels and therefore requires its directors to have skills and knowledge that were once almost exclusively exceptions, heritage of the great statesmen.

We live in times of adjustments at all levels: in the economy, in politics, in the media and even society. Also in regard to the concept of "diplomacy", a few decades this part, has suffered some qualifications and traditional diplomacy, in full force, they have come in the last century and this sisters of great importance that are booming.

We refer on one hand to public diplomacy in all its facets: cultural, sports, business, etc., and secondly to corporate diplomacy, known also as diplomacy company- with different characteristics in the concluding remarks of this chapter.

The birth of these diplomacy with different qualifiers has occurred for many reasons it would be long to enumerate, analyze how much; but the trigger factor variants diplomatic hatching was undoubtedly the evolution (revolution) and communication technology (castels, 2009). This is for two reasons mainly closely interrelated: the emergence of new actors on the international arena and changing communication paradigms.

Until relatively recently, the major role on the international stage, if we talk about an important part of corporate diplomacy was limited almost exclusively to the states and international organizations. However, the paradigm shift in communication and therefore thinning borders to almost zero with regard to communications, has created a much more global stage even than it was at the end

of last century and has given voice to those who had little or no in the external field (Rodríguez Gómez, 2013).

Moreover, the need for companies to go abroad in search of new markets, the internationalization processes, coupled with a new corporate vision that involves a more advanced model of corporate governance in the relationship with stakeholders, inside and outside our borders, it is essential, business practices brings a new tool that current circumstances are amplifying: corporate diplomacy.

The reason is in this complex world in which all companies and in which the relationship with stakeholders, as we advanced before, is vital today operate. This is a management, these groups, all simple and requires careful study to determine who they are, where they are, and to establish appropriate relationships that enable us to understand how they think, how they feel about our company and identify their concerns as regarding the area of business of the corporation.

2. Concept and characteristics

Social characteristics and the need for businesses today to transmit different values mere economic performance, but without forgetting the income statement has caused business entities arise and implement new management models in which the communication, the politicians, or political components, negotiation strategies and institutional relations, together with the positioning as a company in the company itself and in the respective sector, intermingling in a system we know today as corporate diplomacy.

Therefore, it is a concept that brings together institutional and public relations, communication, social responsibility and other activities of the company to manage the actions of contact with public authorities and interest groups in general, by applying principles traditionally linked to conventional diplomatic activity, to ensure that companies maintain dialogue with the relevant public authorities and stakeholders in the countries in which they operate.

"Corporate diplomacy seems to have made a hole in the landscape of concepts and services the company has to take into consideration ahead of achieving their goals in an increasingly globalized society whose origin can not be separated" (Camuñas, 2012 p. 111).

It was until recently an exclusive practice of large corporations today has gradually extended to the so-called SME companies.

The main features surrounding this activity, and that differentiate it from traditional diplomacy and public diplomacy-more related-brand territory and, therefore, as umbrella brand, are the actors who star in; in the case of the traditional, the main actors are states; in the case of the public, these are very different, in addition to states: business, cultural and sports agents, the media, donors, NGOs, and even the armed forces in their actions abroad, and many others, the list ends with the citizens themselves.

However, in diplomacy at hand, the corporate, the protagonists are each of the companies, the way they deem appropriate, and the purpose is none other than the brand building company, beyond the plane of the marketing and their relationship with the authorities and stakeholders. As a business, the main audience for this activity will be referred to the authorities and stakeholders, wherever they are; that is, not only externally but also internally.

3. Globalization as a trigger factor

"One of the most noticeable effects of globalization is the abolition of frontiers, this global MNDO where everything is matched (...).

The unstoppable rise of social responsibility have not escaped this equalizing effect of globalization (...). Companies are increasingly, citizens of the world" (Trujillo, 2011 p. 35).

If we take the trouble to look for the leading analysts on this matter, we find that they all have a special mention for a hackneyed but as important as the phenomenon of globalization topic.

According Camuñas (2012 p. 15), the image projected by a country and the way of perceiving is an unavoidable issue in internacionales relationships, in all its aspects, in a world increasingly closer thanks to the development of technology, media and globalization.

The effects of globalization have been many and varied; some we have already noted. Among others, it is noteworthy that it has made the business environments are very different and diversified; certainly opened doors to foreign

markets, but it has also a point of complication, forcing companies to find new possibilities for action and therefore new capabilities that optimize their internationalization process and its position abroad.

Today we can consume a Starbucks coffee tastes the same anywhere in the world, or grab a burger from McDonald's; all because of that border thinning which applies not only for communication but also for the most unlikely products.

But they are also obliged companies to strengthen their public presence within the country's borders. Because this lack of separation between states not only causes companies to leave but that may come out, which adds to the inner foreign competition.

In that space in which the game is played today, business organizations, large or not so much, must do more patent their competitive differences and create visibility for themselves and their products (Aced, 2009). The positioning is being revealed, however, complicated.

Furthermore, this positioning must be global presence. According to some authors:

"Today, businesses are a key player in international relations; as recognized states to create instruments of private public participation of international economic promotion. Everything has been described as being diplomacy or companies 'corporate diplomacy'" (Pérez-Sánchez Castejón, 2013 p. 249).

The presence in international markets is increasingly necessary to search for alternative markets; care of that presence is also the responsibility of the new corporate diplomacy. The same Castejón Pérez-Sánchez (. 351 p 2013) reflects this by stating that: *"The business internationalization not only guarantees more in times of crisis, their survival, but lets keep if not increase the production of employment"*

4. Supports: reputation and public authorities

Success in this international road or reinforced presence inside depends on many factors; among others, the ability to communicate in a different environment

than usual; also, of course, the product or service and, to some extent, especially in foreign markets, the umbrella brand that we talked about before: the mark territory. But also, and now increasingly, the ability to access those mentioned interest groups and can ensure our products or services based on our ability to communicate and relate to that target audience.

"We must nurture and cultivate the image of Spain having visitors and foreign companies in our country, as their favorable perception can have a multiplier effect indubitable" (Montes, 2012 p. 103).

That is, the image, the reputation of our country greatly influences economic, and vice versa.

According to José Ramón Pin, IESE professor, corporate diplomacy is the instrumental development strategy reputation of the company in relation to public authorities (Pin in Manfredi, 2012).

We, with this definition two fields of analysis; one hand, the reputation of the company and the products or services you offer. Furthermore, public powers. There are two parts that should keep proper balance.

The reputation is the responsibility of the company activities in all areas of quality, service, customer care, RSC, communication, etc.

The second support, public authorities, is alien to the organization and therefore requires a strategic approach in which communication and public or institutional relations play a crucial role.

However, missing a third element or field must be analyzed: the stakeholders.

Stakeholders are defined as those groups who are affected directly or indirectly by the development of business activity, and therefore also have the ability to directly or indirectly affect the development of these (Freeman and Red, 1983).

Therefore, in this aspect, each company must define their own groups and include them in the equation of its diplomacy.

5. Reasons for their existence and functions

In essence, these are the reasons why corporate diplomacy becomes increasingly booming and the professionals who are engaged in this work require substantial training and, if possible, some prior experience in institutional affairs or the government, since it must combine actions in the fields of economics, politics, communication, institutional relations and international relations.

For Trujillo (2011), the mission of this model of diplomacy is to build the public profile of a company based on real facts, the reality of the company.

The position before the public authorities and stakeholders is the reason why more and more companies have in their charts with a department with corporate diplomacy missions, named each considers but in many cases is known as "public affairs."

The functions of these departments are concerned with institutional relations, corporate communication, relationships with stakeholders and the reputation of the company.

The question that arises is essentially established communication strategies and an outsider, and institutional public relations in order to:

- Anticipate the positions or decisions of public authorities in matters relating to the company,
- conduct information programs to serve these administrations to properly interpret the actions and positioning of the company, and
- create policies related to government actions and alliances with third parties.

The role of corporate diplomacy in general is inherited from the traditional: represent the company before public bodies, building public profile, as would a diplomat with the State he represents; to this management relations, especially with interest groups and information management, with the value of the company, so that it reaches the target audiences adds.

These high profile professionals are required, as we noted. There are examples, in its day, the Government of presidents in large energy companies.

Also politicians from other countries have engaged in acting as intermediaries between companies and institutions in legitimate work.

Great job profiles to perform functions related to knowledge and analysis of competitive practices, with a focus on understanding and monitoring of trends; and to interact with public administrations at all levels and in all countries in which the corporation is situated; and to establish bonds with stakeholders of each company to establish an appropriate positioning your audience. And in some cases, to help or direct potential crisis situations.

6. Benefits provides

Corporate diplomacy brings competitive advantages; otherwise would not exist. Among other things, facilitating or build relationships with stakeholders on the basis of showing a good public image to convey trust and credibility to such groups.

In this context, the benefits gained from a correct application of such diplomacy strategies are, in our opinion, the following:

- Easier access to new markets.
- Reduction, through good communication, rejection or conflict, and resolve where appropriate, with interest groups that maintain a critical stance.
- Building trust in the markets.
- Generation of smooth relations with the public authorities.
- Identification of business opportunities faster.
- Customer acquisition and advancement over the competition.
- Access to public projects.

All this on an ethical and moral basis that results in a sense of corporate responsibility. And, of course, considering long-term time periods.

7. Where in the organizational

Question not trivial nor easy. A department of corporate diplomacy, with the name that is deemed public-issues, corporate diplomacy. Communication, etc., must be in the appropriate level of decision and responsibility and rather high in corporate structures because it is necessary to remain seized of daily activity, with enough position to be able to influence corporate matters of competence.

"To be effective, the DC can not be located anywhere in the organizational chart. Many companies practice diplomacy, including corporate microdiplomacia (to address a particular issue), without having formalized its structure. Usually, this is a feature that is usually covered from areas of social responsibility, external relations or even legal and regulatory areas" (Trujillo, 2011 p. 37).

The same author, in the work already referenced, indicates that there are companies that cover this function from CSR areas, external relations and the like.

If you look at their responsibilities already mentioned, or its scope, we must think of a realignment of various departments and institutional relations, public relations, communication or social responsibility to establish a performance space that encompasses these aspects in a different structure.

In any case, one suggestion would be to think about the place of the diplomacy of the State Government within the organization and establish a parallel with the company.

8. Conclusions

The corporate diplomacy is an activity that provides business strategies that build trust, credibility, reputation and empathy, so that companies secure their positions in national and international markets.

It is a booming business corporations which, incidentally, has diplomats in many cases. In the not too distant future, the management of relationships with stakeholders will be a necessity rather than an innovation.

Corporate diplomacy inherited characteristics of traditional diplomatic and corporate managers need to be multicultural, with great listening skills and negotiation, aware of their duties as representatives.

It is, in short, a way of managing a business and creating value for stakeholders, acting with transparency and becoming lever for value creation in businesses today.

Finally, his position in the company structure reveals the importance that she has such important aspects as the RSC, relations with government and stakeholders, and the public positioning of the company.

9. Bibliography

Paper or electronic books, reports and theses:

- ACED, Cristina. *et al* (2009): *Visibilidad: Cómo gestionar la reputación en Internet*. Barcelona: Ediciones Gestión 2000.
- CASTELS, Manuel (2009): *Comunicación y poder*. Madrid: Alianza Editorial.
- MANFREDI, Jorge, CACHINERO, Jorge y BERMEJO, Manuel (2013): *El Liderazgo en la sociedad del cambio: diplomacia corporativa, reputación y escuelas de negocios*. Madrid: Llorente & Cuenca.
- MELISSEN, Jan (Editor) (2005): *The New Public Diplomacy. Soft Power in International Relations*. Nueva York: Palgrave MacMillan. Disponible en http://kimo-mp3.at.ua/ld/0/87_en-09.pdf. Consultado el 5 de marzo de 2014.
- VILLAFAÑE, Justo (2004): *La buena reputación. Claves del valor intangible de las empresas*. Madrid: Pirámide.

Chapters in books, reports and articles in newspapers or magazines on paper:

- CAMUÑAS, Antonio (2012): Los nuevos conceptos de poder: la diplomacia corporativa en España, en *ESCUELA DIPLOMÁTICA: Retos de nuestra acción exterior: diplomacia pública y marca España* (págs. 107-117). Madrid: Escuela Diplomática. Disponible en
- http://www.exteriores.gob.es/Portal/es/Ministerio/EscuelaDiplomatica/Documents/COLECCION%20ESCUELA%20DIPLOMATICA_NUM%2018.pdf. Consultado el 10 de marzo de 2014.

- FREEMAN, Ed y REED, David (1983): Stockholders and Stakeholders: A New Perspective on Corporate Governance. *California Management Review*, Spring 25(3) (págs. 88- 106).
- MONTES, Vicente (2012): Competitividad empresarial, diplomacia comercial y reputación española en un mundo global. en ESCUELA DIPLOMÁTICA: *Retos de nuestra acción exterior: diplomacia pública y marca España* (págs. 95-104). Madrid: Escuela Diplomática. Disponible en
- http://www.exteriores.gob.es/Portal/es/Ministerio/EscuelaDiplomatica/Documentos/COLECCION%20ESCUELA%20DIPLOMATICA_NUM%2018.pdf. Consultado el 10 de marzo de 2014.
- RODRÍGUEZ GÓMEZ, Alfredo (2013): La comunicación como instrumento de la diplomacia pública, en *Estudios sobre el Mensaje Periodístico*, 19 (especial abril) (págs. 953-961). Disponible en
- <http://revistas.ucm.es/index.php/ESMP/article/view/42179/40158>. Consultado el 21 de marzo de 2014.
- SÁNCHEZ PÉREZ-CASTEJÓN, Pedro (2013). La diplomacia comercial en el centro de la diplomacia económica española, en *Anuario Jurídico y Económico Escurialense* (XLVI), 345-362. Disponible en
- <http://www.rcumariacristina.net:8080/ojs/index.php/AJEE/article/view/159/140>. Consultado el 22 de marzo de 2014.
- Trujillo, Esther (2011): La diplomacia corporativa, o el arte de las decisiones compartidas. *Harvard Deusto Business Review* (207), 34-40. Disponible en <http://www.jmrentabiliza.com/La%20diplomacia%20corporativa,%20o%20el%20arte%20de%20las%20decisiones%20compartidas.pdf>. Consultado el 24 de marzo de 2014. Consultado el 20 de marzo de 2014.

Articles, blogs or web publications records:

- Manfredi, J. L. (23 de julio de 2012). Diplomacia corporativa y alta dirección en *Las Escuelas de negocio y el futuro de la educación*. Blog de Juan Luis Manfredi.. Disponible en:
- <http://blogs.cincodias.com/escuelasdenegocio/2012/07/diplomacia-corporativa-y-alta-direcci%C3%B3n.html>. Consultado el 30 de marzo de 2014.

XXVII. QUALITY OF LIFE IN HEALTH DIALOGUE WITH ANTHROPOLOGY

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1. Quality of life in general

The term quality of life first appeared on the socio-economic literature in the late 60s due to the growing interest in human well-being linked to social welfare as a result of the industrialization of society. A common view is that it was coined by L. Johnson, president of the United States, saying in a speech in 1964 that he pursued the objectives could not be evaluated in banking terms but in terms of "quality of life". It is a construct of subjective connotations and value first enters the market and sociopolitical when 1974 is included in Social Indicators Research, USA first monographic magazine, is spreading rapidly. A considerable number of studies and publications in the last three decades have been occurring around this concept from the theoretical and practical philosophy, medicine, economics, sociology, psychology, education and the world of services in general .

Ask about the meaning of quality of life, and a complete answer would have to be related to many other meanings, such as the environment in which we live, lifestyle, life satisfaction, health, the physical, economic, social welfare, happiness, etc. these variables and turn them into account individual group, from one place or another. In its most restrictive sense means possession of material things. Semantically it is very difficult to establish its limits, there is no single universally accepted definition. Has been developed based on a multifactorial construct model. From the Social Sciences indicators that measure the correlation between a given

level of economic and social objective and its corresponding subjective assessment (Fernandez-Lopez, Fernandez-Fidalgo and Cieza, 2010) life are sought. Included research conducted on Quality of Life in Medicine that have been increasing steadily over the last 20 years in an attempt to analyze scientific and measurable consequences of the disease and treatment terms, taking into account the patient's perception, the ability to face them and accept their limits (Shipper, Clinh, Olweny, 1990).

This paper discusses the use of the concept of quality of life from an anthropological-ethical perspective in the field of health, while taking into account the valuable contributions made from the different perspectives and fields of study, the importance of empirical studies models or quality of life. Perspectives needed but, to our knowledge, require philosophical soil in which root and avoid the objectification of man produced by reductionist visions that lead to depersonalization. Ironically try to get the quality of life by all means, and get unsatisfactory results or contrary to what is intended.

The assessment of quality of life concerns other issues that can not be raised and developed solely from the point of view of results, stats, in healthcare or research protocols and vulnerable subjects. The biological dimension must be integrated into the biographical. Exposing the term or economic and social usefulness and listings of key basic functions, is clearly insufficient. Human life is more than integration of tasks and relationships, covering all aspects of the life of the person. The influx of data and theories often cause perverse effect of the intended: dissatisfaction, emotional overload and costs in public health, the family and ultimately the patient.

2. The use of the term quality of life in the field of health

Today, there is virtually no area of medicine that has no objective besides the quality of specific therapies to achieve the quality of life. The issues discussed are very varied from the problems related to treatment decisions regarding the terminally ill, the field of prenatal and neonatal life, promoting and assisting the elderly, palliative care, the field of hygiene and public health ... So for example after major surgery is not only the process described, the technique used but also the quality of life pursued or achieved after therapy. Any technological innovation or biomedical research program to be accepted and funded must demonstrate a

favorable effect on quality of life. But the conceptual vagueness and its subjective component, as mentioned, have been an obstacle to the investigation of the quality of life in medicine (Fernandez-Lopez, Fernandez-Fidalgo and Alarcos Cieza, 2010).

As for term limits quality of life offers a simple quantitative exercise on the trend of the Spanish population and its diseases (Gonzalvo, 2011). The Spanish population according to data from the National Statistics Institute (INE) has increased from 38,872,268 in 1991 to 47,190,493 in 2011, a significant growth after decades of stagnation. This mutation in the volume, dynamics and structure of the population has changed variables as aging, fertility, health status and lifestyle and quality of life. In this context, the demographic analysis of the current population with this great growth especially in adulthood (15-65 years), life expectancy is growing stands, in 1991 Spain has 73.40 years of life while in 2011 stood at 78.77 years. Moreover we should continue to improve the quality of people with these ages and also pass those diseases are gaining weight and have more importance in the future, such as mental and degenerative diseases of the nervous system. These causes affect the older population, with special attention to elderly women. Women act as pioneers in experimenting with new demographic patterns (high life expectancy) and epidemiological (new diseases). We also discovered (Gonzalvo, Girabent and Roqué, 2013) in our quantitative analysis other diseases that are gaining ground as infectious, respiratory ... especially in these most vulnerable populations (older ages).

If the term quality of life in the life and health is increasingly remote from the age with the most people of all diseases and well worth a review of the term.

3. Extrapolations of the concept of Quality of Life

3.1. The term life

Although the term quality of life is recent, if we look at its meaning and content is already present in Greek antiquity, V-IV century BC, both in philosophy and Hippocratic medicine. The quality of life is similar to the good life, good life different from that in current terms equivalent to the ideal of human excellence and still should be considered a third distinct element to the previous two, the amount of life. Currently the longevity of life is not associated with better quality of life.

They are distinct concepts but not the good life and the good life are mutually exclusive alternatives. Instead both hope to achieve is the approach which converges to the conditions to live a full, useful life and endowed with meaning. As Schwartzann asthmatic patients studied at different stages of their disease states, claimed that events such as giving and receiving love, or have a positive outlook on the aspects of daily life gave them a high degree of quality of life (Schwartzann, 2003).

Quality of life is a good but can not become the supreme good, the economist and sociopolitical origin have become an ambiguous concept, some of the models of quality of life situated in this equivocal justify measures and prognostic indicators apply regardless of personal identity and life experiences that are inseparable from human existence.

Consideration of the quality of life and good life is based on three ethical theories. Hedonistic characterized by the production of pleasure and enjoyment; related to preferences in the range of desires, some authors these two categories are included in the concept of welfare (*well-being*). The third theory refers to the specific normative ideals explicitly, such as autonomy or self-determination (Brock, 1998).

Quality of life related to health based on the notions of being and functioning extends equally to physical, emotional and social dimensions of human life. The novelty of the concept is the paramount consideration of the patient's perception in assessing health outcomes (Testa, M., 1996). No doubt the benefits they provide measures of quality of life related to health supported by empirical evidence from scientific base, classic addition to quantitative indicators (mortality, morbidity, life expectancy, costs, etc.) or economic measures that have been incorporated as additional results to the clinical trials that have managed to optimize the care of patients. However, the separation that occurs between the philosophical discourse of quality of life related to health and clinical approach, is one of the causes of the trivialization of the concept and its significance remain obscured for anthropology and ethics (Fernández-López, Fernández-Fidalgo and Cieza, 2010).

Human life is a scientific problem, one way to interpret and transform reality, but does not exhaust all the possibilities open to the world and why the person in all its dimensions. The scientist regards discover the mechanisms of life, know-

how is key to solving or preventing serious diseases and improve living conditions in general. But it is insufficient, it is easy to see that man holds absolute mastery, neither fundamentally nor the consequences of their interventions, the outcome is uncertain and more so their actions are deeper in human life. As noted by A. Kenny, humans always feel inclined to explain things only imperfectly understand the terms of the latest technology of the time in which we live (Kenny, 2000). And, the scientific know-técnicono is trained to resolve issues relating to the purpose, the meaning and value of human life. Medicine, or biological science generally described as occurring phenomena birth, the sick and dying, thanks to research explain with increasing depth, but can not answer why it is born and dies. The answer to the why of life and death, health and disease, is not in the biological-genetic, or that valid and reliable standardized development tools provide program information. These are questions that refer to a decidedly humanistic field.

Quality of life is not to human life. Life is the condition of possibility of existence and, in this sense, is not a good subject to variations, is an intrinsic good, he is alive or not is no middle ground, the only substantial change that occurs is the death. For men being is living. Life is not an added property. Simply accept the primacy of some of its properties, as is, for example, quality of life, health or well-above it, is to deny the dignity of every person (Roque, 2008).

3.2. In the concepts of health and wellness

Health, welfare, and quality of life have in common is that they are goods that human beings tend naturally constitute the core of their existence but all derived from the fundamental good is life. Aristotle considered bodily health as a subsidiary rather a necessary condition and a means for achieving the vital good and ultimate good, but not classified as the ultimate good in itself.

If health has traditionally been regarded as strictly medical category, from the twentieth century acquires a broader applied to the habits, social structures, labor, education, food new vision. This approach to health is assumed in 1946 by the World Health Organization and spread internationally as "a state of complete well-being of physical, psychological and social nature," it is not just the absence of disease, is an ambitious and indeterminate human perfection longing health assigning absolute good category. A global reality that extends to almost all areas of human life, the enlargement of the antinomy disease / health includes other

areas that are not unique to medicine and now consider any incomplete or partial welfare as a disease state. Health in a goal to pursue collectively, is an index of progress of a society, a test for those who have public responsibilities.

The WHO definition of the true meaning of health refers to the concept of normal physiology or functioning of nature is abandoned, what is "appropriate" to the natural condition of the human subject in its bodily dimension. This change in the way of understanding health involves, first, that the objective feature fades and health becomes a subjective issue. Second, health promotion involves promoting behaviors and living conditions that will achieve full physical, mental and social well-being.

Another definition of WHO, less known but no less interesting, states that "health is a state of physical and mental well-being need to live an enjoyable, productive and meaningful life rich. No one can ignore the role of health in the lives of people, you can not perform many tasks if it is disabled or constantly afflicted with the disease. Health is an essential commodity, and like the good life both goods are poor and need care and protection; life and health but not identified. Man has the ability to be more or less healthy but not be more or less alive. Health does not always have, or is given once and for all and not all in the same way, for long or short periods, there is little, a lot or regular, live sick or well, or feels sick. Everyone should be helped to find their own balance, health is an important asset is the natural condition of man, the aspiration of all. However, health promotion, does not mean trying to eliminate all limitations, illness or disease, but to help individuals live their lives consciously considering psychophysical particular state.

In 2001, the WHO proposes a new relational model of quality of life and health of the states that is the basis for the new International Classification of Functioning and Disability and Health (ICF). It consists of 1,424 categories that relate to different body functions, body structures, activities, participation and environmental factors (Fernández-López, Fernández-Fidalgo and Cieza, 2010)

Significant is the close relationship between the definitions of health and WHO ICF model with the concept of well-being and quality of life. The domains making up the well are the same that make the quality of life. In fact, as noted by Fernández López, the CIF is considered a welfare objective classification covering all aspects of the human condition and it is expected that in the future this model

evolves from a classification of functioning of health for people with particular health condition to a general classification of the health, function and purpose being for all people regardless of the presence or absence of disease (Fernández-López, Fernández-Fidalgo and Cieza, 2010).

Life presents ongoing challenges, the psychophysical condition of them is one of the factors in disabling individuals. Taking into account the significant progress in the assessment of quality of life related to health, should not be an obstacle to accepting the existence of elements or categories personal and cultural resist being scientifically. People find that as the disease progresses they take internally, but not resigned to accept the situation can not be changed, keeping other expectations, and despite the increasing limitations consider their quality of life is good (Lepège, A., Hunt, S., 1997). The need to make sense of life is a universal trait. Personal values, beliefs, moral convictions, ideological permeate the person guiding you on your way of life, they give you support and meaning to his life. The perception that if one of starring in their very existence helps to cope with illness, the will to live.

4. Bibliography

- BROCK Dan (1998): Medidas de calidad de vida en el cuidado de la salud y ética médica en Naussbam MC, Sen A. (ed) *La calidad de vida*, México, Fondo de Cultura Económica, pp. 135-181.
- FERNANDEZ-LOPEZ, Juan Antonio; FERNANDEZ-FIDALGO, María y ALARCOS CIEZA (2010): Los conceptos de calidad de vida, salud y bienestar analizados desde la perspectiva de la clasificación internacional del funcionamiento (CIF). *Rev. Esp salud Pública*; 84:169-184.
- GONZALVO-CIRAC, Margarita (2011): ¡Las mujeres vivimos más! Concepto de salud/mortalidad diferenciada, Saarbrücken (Alemania). Editorial Academia Española.
- GONZALVO-CIRAC, Margarita; GIRABENT FARRÉS, Montserrat, ROQUÉ M. Victoria (2013): Esperanza de vida entre 1991-2011: explicación epidemiológica a la desigualdad por género en Tarragona, una provincia de Cataluña, España. *Población y Salud en Mesoamérica*. Volumen 11, número 1, artículo 2.
- KENNY, Anthony (2000). *La metafísica de la mente*. Paidós. Barcelona.

- LEPLÈGE, Alain, HUNT, Sonia (1997): The problem of quality of life in Medicine. JAMA, Jul 2; 278(1):47-50.
- ROQUÉ M. Victoria (2008): Equívocos en torno a los conceptos de vida y calidad de vida. Cuadernos de Bioética XIX.
- SCHWARTZANN, Laura (2003): Calidad de vida relacionada con la salud: aspectos conceptuales. *Ciencia y Enfermería* IX, 2, 9-21.
- SHIPPER, Harvey; CLINH, Jennifer; OLWENY, Charles (1990): *Quality of life and Pharmacoeconomics in clinical trials*, 2 ed. Philsdelphia, Lippincott-RavenPublishers; 1-10.
- TESTA, Marcia (1996): Current Concepts: Assessment of Quality –of- LifeOutcomes en New EnglandJournal of Medicine 334, 13 (28) 835-840.

XXVIII. ANDALUCES EXILE IN LATIN AMERICAN FILM

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1. Introduction

This research exile has had a grant from the Andalusian Studies Centre Foundation and a grant from the Directorate General of Books, Archives and Libraries of the Ministry of Culture of the Junta de Andalucía.

The Civil War and Franco's victory forced to take the road of exile filmmakers related to the Republic. The rise in the forties of Mexican cinema and to a lesser extent Argentina, allows numerous directors, actors and technicians exiles can continue his professional activity in these countries. We provide a complete census which did not assume - Andalusian exiles filmmakers, noting their distribution by professional branches and proposing a biofilmográfico approach to each.

2. Stars

Florencio Castelló (Seville, 1905-Mexico City, 1986)

Born in Seville in the heart of a working family. The July 18, 1936, the company Amalio Alcoriza where Florencio works, has scheduled a performance in La Linea de la Concepcion. Given the disturbing news about the military uprising, members of the company across the border from Gibraltar. Given the escalation of the war, they decide not to return to Spain and advance Alcoriza had bespoken tour in America.

In 1939, after a long tour of theaters in Latin America, Florencio Castelló installed in Mexico City, where he soon will be housed in the burgeoning film industry. Poison Debuts giving life to a subordinate of Andalusian bullfighter Manolete gang - played by popular Mexican comedian Ni Cantinflas- *Ni sangre ni arena* (1941) by Alejandro Galindo. Castelló's filmography is rich in movies where he plays Andalusian stereotypes, as in *Dos mexicanos en Sevilla* (1941) by Carlos

Orellana, *Seda, sangre y sol* (1941) by Fernando A. Rivero, *El verdugo de Sevilla* (1942) by Fernando Soler, *Sierra Morena* (1944) by Francisco Elías, *La morena de mi copla* (1945) by Fernando A. Rivero, *Los siete niños de Écija* (1946) and *El secreto de Juan Palomo* (1946) Miguel Morayta or *Chachita la de Triana* (1947) Ismael Rodríguez, among others. In the fifties as a secondary part in a number of Spanish-Mexican co-production, sharing the stage with Sara Montiel in *Ahí viene Martín Corona* (1951) Miguel Zacarias, with Carmen Sevilla in *Gitana tenías que ser* (1953) and Rafael Baledón Lola Flores in *La faraona* (1956) René Cardona, among others.

Castelló also involved in Mexican movies where her acting away his Andalusian stereotype as *El ángel exterminador* (1962) and *Simón del desierto* (1964), both Luis Buñuel and *El santo Oficio* (1974) by Arturo Ripstein.

He combines his work as a film industry with television actor and voice actor voicing, among others, Jinks the cat, with an Andalusian accent was always chasing the "marditos rodents" Pixie and Dixie in the popular American cartoon series and *Pixie Dixie*.

Florencio Castelló died in 1986 in Mexico City, 81 years old.

Ana María Custodio (Écija, 1908- Madrid, 1976)

Ana María Muñoz Custodio, actress, began his film career in the Spanish spoken in multiple versions produced by Fox in Hollywood. His first film performance in Spain is *Don Quintín el amargao* (1935) by Luis Marquina, Filmófono production, a company that provides a number of artistic successes and filmgoers of the Second Republic. The film career of Ana María Custodio - one of the most beautiful women of her time as his many admirers - through a great moment that truncates the Civil War.

His commitment to the Republic led him to take into exile with her husband, composer Gustavo Pittaluga, and her brother Alvaro. They go to France and then to Cuba, Dominican Republic and New York and finally settled in Mexico. In exile stars in a single film: *Cuando escuches este vals*, directed in 1944 by Jose Luis Bueno, a melodrama of spies and soldiers who deserved a sound drubbing from critics, being the first and last feature film director.

In the fifties, Ana María Custodio returned to Spain and resumed his film career. Die in Madrid 68 years.

Francisco Ledesma

The Sevillian Francisco Ledesma player first appears in the credits of a Mexican film *Soltera y con gemelos* (1945) by Jaime Salvador and soon after in *Pepita Jiménez* (1945) by Emilio Fernández. In his next film, *La fuerza de la sangre* (1946) Mauricio Magdaleno, who is indirectly the subject of Spanish exile in Mexico, Francisco Ledesma plays the role of Baldomero. With director Miguel Morayta participates in *Los siete niños de Écija* y *El secreto de Juan Palomo*, both 1946, giving life to outlaw Jartizo. From twenty Mexican films in participating Francisco Ledesma highlights his performance in *Si usted no puede, yo sí* (1950) by Julian Soler.

Miguel de Molina (Málaga, 1908-Buenos Aires, 1993)

Miguel Frías de Molina was born in Malaga. Triumphs in the Spanish stages with your personal style to interpret famous songs such as *Ojos verdes*, *Triniá* or *La bien pagá* that excite the public and make him one of the most popular singers of the republican period.

In 1936 her film debut in *Alhambra* (first title *El suspiro del moro*) directed by Antonio Graziani. A job offer from actress Lola Membrives, theatrical entrepreneur in Argentina, encourages him to escape a postwar Spain in not finding accommodation. In October 1942 sail for Buenos Aires.

In Argentina artistic successes occur until, in July 1943, he was invited by the authorities to leave the country accused of promiscuity and sexual scandal. Back in Madrid, prefer not to work in the art world and makes his living as an art dealer. In late 1945 travels hired to perform at nightclubs and theaters Mexico, but the tour was cut short due to problems with Mexican unions. Under the circumstances, decides to return to Buenos Aires.

In Argentina two films *Ésta es mi vida* (1952) Ramon Viñoly Barreto, an autobiographical film, and *Luces de candilejas* (1956) by Enrique Carreras, with a staging service showcasing the folk singer.

Miguel Molina is retired from the stage in 1960 to his death in March 1993 living in Buenos Aires where he writes his autobiography *Botín de guerra*.

José Mora (Sevilla, 1896 – 1957)

Discrete qualifies the professional activity of Seville actor José Mora in exile in Mexico. In Spain he had participated in three films: *Maruxa* (1923) by Henry Vorins, *Una mujer española* and *Flor de Valencia* led by Mario Roncoroni in 1926.

In 1940 he made his first film work in Aztec: *Diablillos de arrabal* Sequeyro film, gang fighting in a poor neighborhood of Mexico City, where he plays *El Fideo*. The last film we have news of their participation is *Vivillo desde chiquillo*, Emilio Gómez Muriel, shot in 1950 in this decade of work in the Aztec film gets supporting roles, many of them in films Andalusian theme: *Dos mexicanos en Sevilla* (1941) by Carlos Orellana, *Los siete niños de Écija* (1946) and *El secreto de Juan Palomo* (1946) Miguel Morayta.

Luis Mussot (Sevilla, 1896 - Madrid, 1980),

During the Republic, to succeed as an actor joins a growing recognition as a playwright of short pieces with flamenco elements that succeed from a popular audience.

With the imminent fall of the Republic, Luis Mussot and his family crossed the Pyrenees and after many hardships *Ipanema* embark on the way to exile⁴⁵.

In Mexico participates as a supporting actor in numerous films, among which are: *El hijo de Cruz Diablo* (1941) by Vincent Oroná, her film debut, *El rayo del sur* (1943) by Miguel Contreras Torres, *La barraca* (1944) of Roberto Gavaldón,

⁴⁵ The family information provided below is based on an interview with José Luis Mussot Fauste, son of actor, in Mexico DF.

Pepita Jiménez (1945) by Emilio Fernández, *Reina de Reinas (la Virgen María)* (1945) by Miguel Contreras Torres, *La casa de la Troya* (1947) by Carlos Orellana, *Tierra Baja* (1950) by Miguel Zacarías, *La noche avanza* (1951) or Robert Gavaldón *Nos veremos en el cielo* (1955) by Julián Soler.

In 1959, after the death of his wife, Luis Mussot left Mexico. Take a journey through Egypt, Greece and other European countries until arriving in Spain. He settled in Madrid, where he died in 1980 at age 84.

Antonio Palacios (Granada, 1890 - Havana, 1972)

His first film is the comedic short film *Isidro Labrador* (1922) Antonio Sabino Micon.

During the Republican period, his acting and lyrical profile allows you to participate in such films as *El canto del ruiseñor* (1932) by Carlos San Martín, which plays the tenor Julián Gayarre, adaptation of the operetta *Doña Francisquita* (1934) by Hans Behrendt and *El malvado Carabel* (1935) by Edgar Neville, among others.

During the war his Republican commitment led him to create a theater group that travels the front and rear to boost the morale of soldiers and civilians, while wheel Barcelona Republican producing two films: *La Millona* (1937) by Antonio Momplet and *Bohemios* (1937) by Francisco Elias. Defeated the Republic took the road of exile. In 1940 arrives in Cuba and settled in Havana where he combines lyrical work activity on the radio.

In 1944, tempted by the powerful film industry Mexican, march to Mexico City, where it rolls include: *Memorias de una vampiresa* (1945) by Ramon Peon, *Marina* (1945) by Jaime Salvador, *Lo que va de ayer a hoy* (1945) by Juan Bustillo Oro, *La selva de fuego* (1945) by Fernando de Fuentes, *El amor las vuelve locas* (1946) by Fernando Cortés, *Sinfonía de una vida* (1946) by Celestino Gorostiza, *A media luz* (1947) by Antonio Momplet , *Los que volvieron* (1948) by Alejandro Galindo and *El inspector Víctor contra Arsenio Lupín* (1949) by Ramon Peon. In the early fifties he returned to Havana.

Alicia Rodriguez (Málaga, 1935)

Of the three sisters, Alicia is consolidating a continued career in film and television. At seven years old won a contest to play the role of the dog in the play *Pipa Pinocchio* theater in the country of tales written by exiles and Magda Donato Salvador Bartolozzi, which opens in March 1942 the same year the work takes the theatrical film *Las aventuras de Cucuruchito y Pinocho* (1942) directed by Carlos Vejar Jr., where Alice is the Pipa dog. This character also has a radio show where Alicia, like Pipa dog, tells stories for children. This marks Alice, which is known as Pipa.

From this early beginning, Alicia develops a brilliant career. At nine wins the Ariel Award for Best Children's Performance for his work on *El secreto de la solterona* (1944) by Miguel M. Delgado. At this stage it is lavished giving life in childhood characters who in adulthood are played by leading ladies of Mexican cinema, as in *Les Misérables* (1943) Fernando A. Rivero, *Más allá del amor* (1944) by Adolfo Fernández Bustamante, *Entre hermanos* (1944) by Ramon Peon or *Sinfonía de una vida* (1945) by Celestino Gorostiza. Over the years, assumed other roles in films such as *Yo quiero ser hombre* (1949) René Cardona *Muchachas de uniforme* (1950) by Alfredo B. Crevenna, where he is a student at the Catholic school where the film takes place. In the fifties began a successful career in television, alternating with performances in film and theater.

Since his television debut in the program *Se levanta el telón*, which follows *La familia Bellavista*, his business is turning to the new medium, being usual Mexican telenovela star of the sixties, seventies and eighties, among which are: *Marianela* (1961), *El derecho de nacer* (1966), *Cruz de amor* (1968), *No creo en los hombres* (1969), *Yesenia* (1970), *Los ricos también lloran* (1979), *Lágrimas de amor* (1979), *Amalia Batista* (1983), *De pura sangre* (1985) or *La pobre señorita Limantour* (1987), among a long list. Keep holding special collaborations on television and has recently participated in the telenovela *Triunfo del amor* (2011) and *Una familia con suerte* (2011).

Gloria Rodriguez (Málaga, 1934)

Gloria Rodriguez, works alongside her sister Alicia in some films already mentioned as *El secreto de la solterona*, *Muchachas de uniforme* y *Mi canción*

eres tú. On stage highlights its involvement in *La mujer no hace milagros* does Uzili Rodolfo and *Me gusta tu papá* by Adolfo Torrado. In the fifties, the artistic experience in film and theater facilitates Gloria - using the stage name of Gloria Bros, taken from his mother's maiden name: Brossoise- start a promising career in the newly opened Mexican commercial television. When cementing his television actress decides to leave his artistic career to marry and provide care for their three children.

Azucena Rodríguez (Mexico City, 1940)

Azucena Rodríguez, born in exile, with only two years involved with his older sisters in *Secreto eterno* (1942) by Carlos Orellana. Since that debut baby acts in a number of films, the last being *El águila negra contra los enmascarados de la muerte* (1958) by Ramon Peon. Subsequently orients his career dubbing for film and television being highly recognized their work to give voice to Agent 99 in the popular TV series *El súper agente 86*.

At the end of the nineties working on a theater project directed read by the poet Alejandro Aura, to bring a public popular classic plays and Mexican theater. He is a cultural promoter and coordinates the Benito Juarez Mexico City theater.

Francisco de Valera

Actor Sevillian Francisco Valera was only known by his participation in two films: *El verdugo de Sevilla* (1942) by Fernando Soler, based on the play by Pedro Muñoz Seca, and *Rise of Ghosts* (1949) by Adolfo Fernández Bustamante, in the role of Chopin.

Though not Andalusians be mentioned in this connection two actors closely linked exile Andalusia *Angelillo*, Madrid's Vallecas prototype of the Andalusian in Argentine cinema, and Paquita de Ronda, Andalusia woman quintessential Mexican film although it was Valencia.

3. Directors

Francisco Elías (Huelva, 1890 - Barcelona, 1977)

Throughout his life Elijah Francisco Riquelme directed numerous films in Spain, France, United States and Mexico. In the transition to talkies has a very prominent role in the Spanish film role: in 1929 directed *El misterio de la Puerta del Sol*, first sound film made in Spain, and soon after co-founded in Barcelona in Orphea studies, the first mounted sound studios in Spain. Republican period marks the zenith of his career.

During the Civil War, he is artistic director of the Union of Industry Show and directed two feature films: *Bohemios* (1937) and *¡No quiero...no quiero!* (1938).

In 1938 accompanied his mother to Mexico in what was to be a short trip that ends up as a stay of ten years. In the Aztec film directed *Calumnias* (1939), *Mi madrecita* (1940), *El milagro del Cristo* (1940), *La epopeya del camino* (1941), *La canción del plateado* (1941), *La virgen roja* (1942), *Sierra Morena* (1944) and *No te dejaré nunca* (1947).

He returned to Spain in 1948 and until his death just directed a feature film: *Marta* (1954). Survive translated into Spanish French and English books and writing scripts that will never come to lead. Francisco Elias died in Barcelona in 1977, aged 86.

Antonio Momplet Guerra (Cádiz, 1899–Cadaqués, 1974)

Traveler and multifaceted, founded in Barcelona *Cine Art* magazine, which gives a certain prestige as a film critic character. During the Republican period he directed his first feature film: *Hombres contra hombres* (1935), pacifist film set in World War I, and shortly after *La farándula* (1935), whose assembly was cut short by the Civil War. During the war directed *La millona* (1937), based on the

eponymous play by Enrique Suárez de Deza⁴⁶. Soon after, put on notice by friends, abruptly abandons Spain before his imminent arrest⁴⁷.

He went into exile in Argentina where he runs: *Turbión* (1938) which are seven features among which: *Novios para las muchachas* (1941), *En el viejo Buenos Aires* (1941) and *Los hijos artificiales* (1943).

Heads to Mexico where he moved: *Amok* (1944), *Vértigo* (1945), *A media luz* (1946) and *Bel Ami / El buen mozo* (1946), among others. After spending two years back again to Buenos Aires and wheel: *La Cumparsita* (1947), *La otra y yo* (1947), *Yo no elegí mi vida* (1949), *Toscanito y los detectives* (1950) and *Café cantante* (1951).

In 1952 he returned to Spain to film *La hija del mar*, the play version of Angel Guimerá, which continue *Viento del norte* (1954), *Las de Caín* (1959) and *Julia y el celacanto* (1961), among others. After directing *El Sheriff terrible* (1964) and participate as a script in *Jandro* (1964) by Julio Coll, is removed from the film and is set in Cadaqués.

4. Writers, writers and film critics

Octavio Alba (Nerva, 1914 - Mexico City, 1992)

He spends his childhood in Huelva.

Its way to the cultural journalism in the *Claridades y Excelsior* newspapers and *Ovaciones y Tele Guía* magazines. Later passes to lead the *Cine Mundial* magazine, ongoing work for 39 years.

⁴⁶ Gubern, Román: *Cine español en el exilio, 1936-1939*, p. 179

⁴⁷ Article “Ha llegado al país Antonio Momplet, inteligente director español que dirigirá películas argentinas” published in the journal *Sintonía* Argentina, 1938.

Alba is writer Octavio *Una gitana en Jalisco* (1946) by José Díaz Morales and *La mujer del otro* (1948) by Miguel Morayta. The story has occasional forays as an actor in films *En este pueblo no hay ladrones* (1964) by Alberto Isaac and *El moro de Cumpas* (1976) Mario Hernandez.

The Huelva Octavio Alba died in Mexico City, at 78 years of age.

Rafael Alberti (El Puerto de Santa María, 1902-1999)

Cadiz poet published in 1929 a series of poems about comic actors of American cinema (includes Chaplin, Buster Keaton, Harold Lloyd and Harry Langdon, the "dumb" movie) in the journal *La Gaceta Literaria*, which are then published in the volume *Yo era un tonto y lo que he visto me ha hecho dos tontos*. A year later he married the writer María Teresa León.

During the Civil War plays a flurry of activity on behalf of the Republic in the film crystallizes in the documentary *Defensa de Madrid* (Part Two) (1937) Angel Villatoro, which recites his poem "*Madrid, the heart of Spain*."

In 1945, María Teresa León and Alberti wrote the adaptation for the Argentine film of the play by Calderon de la Barca *La dama duende*, directed by Luis Saslavsky. Some historians attribute the script to Maria Teresa and limit the participation of Alberti to writing lyrics and popular songs⁴⁸. *La dama duende* is a film with great impact on Argentine exile circles - that was comparable to the film *La barraca* in the Mexican-exile since the number of refugees involved in the cast and crew.

Rafael Alberti and María Teresa León also appear as writer in *El gran amor de Bécquer* (1946), Alberto de Zavalía. Three years later Rafael Alberti participates in the experimental documentary *Pupila al viento*, shot in Uruguay, in

⁴⁸ On this question of authorship and other aspects of the relations of Rafael Alberti and film, see film Poetics Rafael Alberti Rafael Macias Utrera.

the sea and the beach of Punta del Este, where Alberti spends summers and write *Poemas de Punta del Este*, starting point of the script of the documentary. The voice that accompanies the rapid succession of images on the screen is Alberti, who also writes, with Maria Teresa Leon reciting the final text. This poetic, visual and audible fifteen minute *Pupila al viento*, experimentation is co-directed in 1949 by Enrico Gras and Danilo Trelles.

Alberti returned to Spain in 1977 and died in 1999 in his hometown.

Manuel Altolaguirre (Málaga, 1905 - Burgos, 1959)

Altolaguirre is studying law but soon abandoned law to pursue books. Moved to Madrid where he is part of the group of poets of the Generation of 27 and meet the poet Concha Méndez, with whom he married in 1932.

In 1943, after several years in Havana dedicated to publishing, and Concha Méndez Altolaguirre move to Mexico in search of better economic horizons.

In the Aztec capital, Altolaguirre writing debut in the film adaptation of the novel *La casa de la Troya* by Alejandro Pérez Lugín, brought to the screen in 1947 by Carlos Orellana. In that time he begins an affair with the Cuban María Luisa Gómez Mena and separated from Concha Méndez. Cover with Maria Luisa Island Productions film company that filmed several movies in Mexico and Cuba but without commercial success.

Despite the economic uncertainty, Isla Producciones wheel between 1950 and 1953 the following features: *Yo quiero ser tonta* (1950), *Doña Clarines* (1950) and *El puerto de los siete vicios* (1951) directed by Eduardo Ugarte, *Subida al cielo* (1951) by Luis Buñuel, *Prisionera del recuerdo* (1952) Eduardo Ugarte, *Misericordia* (1952) and *Legítima defensa* (1953) directed by Zacharias Gómez Urquiza. Of these films, it is noteworthy that *Subida al Cielo* won the Best Film Award Vanguard in Paris, the International Critics in Cannes and Silver Eagle in Mexico.

Between 1953 and 1954, Producciones Island performs three film projects in Cuba led by Altolaguirre: *Los inmigrantes* on the novel by Guy de Maupassant, *Golpe de suerte y Cuando baila Trinidad*, an unfinished documentary about the rituals, customs and music blacks in Cuba. After this period Cuban roll in Mexico

El condenado por desconfiado (1955), *La muñeca negra* (1956) and *El cantar de los cantares* (1958), directed by poet Malaga.

In the summer of 1959, Gomez Mena Altolaguirre and travel to Spain to promote *The Song of Songs*, which is presented out of competition at the Festival de Cine de San Sebastián. After the screening, back to Madrid, suffered a car accident: Gómez Mena died on the spot while Altolaguirre died three days later, on July 26, 1959.

Enrique Bohorquez (Ubrique, 1885-Mexico, 1963)

The Cadiz Enrique Bohorquez Bohorquez little biographical information we could find in this research. Exiled in Mexico City, working as a bullfighting critic in the capital press and occasionally collaborates with the film industry. His Andalusian ancestry and bullfighting are good background knowledge to participate in numerous films produced Andalusian atmosphere in the forties in Mexico.

Appears as the author of the lyrics of *Sierra Morena* (1944) by Francisco Elias, counsel's argument *Pepita Jiménez* (1945) by Emilio Fernández, responsible for the film adaptation, with Rafael Solana, *Sol y sombra* (1945) Rafael A. Portas, Dialogue *La morena de mi copla* (1945) by Fernando A. Rivero and scriptwriter of *Chachita la de Triana* (1947) by Ismael Rodríguez.

Alvaro Custodio (Ecija, 1914 - Madrid, 1992)

Alvaro Custodio is the name that signs his literary work Álvaro Muñoz Custodio, brother of actress Ana Maria Custodio. Lawyer and diplomat during the Civil War is a member of staff of the Republican aviation.

In 1939 went into exile in France and later in Latin America, first in Santo Domingo, later in Havana - where he has reviewed theater and cinema in the newspaper *Hoy* - and from 1944 in Mexico DF.

Alvaro Custodio was always a man of the theater while in exile he displayed an intense film industry. His movie reviews in the newspaper *Excelsior* considered the first texts that deal in Mexico a true film criticism, beyond chronic interested.

In 1952 a collection of them under the title *Notas sobre cine* (Notes on cinema published).

The avowed necessity of earning a living takes to be a translator in Churubusco dubbing studios for Metro Goldwyn Mayer, writer and director of television programs, most notably the *Historia del cine*, film director club house series France in the Aztec capital, plus speaker on film, theater and literature in universities and Mexican institutions. Undoubtedly the most successful foray Alvaro Custodio in cinema is as a writer, highlighting the *Aventurera*, arguably the most interesting example of Mexican melodrama cabaret and sin. *Aventurera*, directed in 1949 by Alberto Gout, is a cult film so preposterous and having transgressor of moral norms.

The career as a writer Alvaro Custodio is completed by *Coquette* (1949) by Fernando A. Rivero, *Sensualidad* (1950) by Alberto Gout, *Pobre corazón* (1950) by José Díaz Morales, *También de dolor se canta* (1950) René Cardona in *No niego mi pasado* (1951) by Alberto Gout and *Puerto de tentación* (1951) by René Cardona.

5. Bibliography

Books:

- ALTOLAGUIRRE, Manuel (2006): *El caballo griego. Reflexiones y recuerdos (1927-1958)*, Visor Libros, Madrid.
- AMADOR, María Luisa y AYALA BLANCO, Jorge (1980): *Cartelera cinematográfica 1930-1939*, Filmoteca UNAM, México DF.
- AMADOR, María Luisa y AYALA BLANCO, Jorge (1982): *Cartelera cinematográfica 1940-1949*, Filmoteca UNAM, México DF.
- AYALA BLANCO, Jorge (1976): *La aventura del cine mexicano. En la época de oro y después*, Grijalbo, México DF.
- CUSTODIO, Álvaro (1952): *Notas sobre cine*, Patria, México DF.
- DI NUBILA, Domingo (1998): *La época de oro del cine argentino I*, Ediciones del Jilguero, Buenos Aires.
- DÍAZ PÉREZ, Eva (2008): *Andalucía del exilio*, Fundación José Manuel Lara, Sevilla.
- GARCÍA RIERA, Emilio (1992): *Historia documental del cine mexicano*, 18

volúmenes, Universidad de Guadalajara, Guadalajara.

- GUBERN, Román (1976): *El cine español en el exilio*, Lumen, Barcelona.
- MOLINA, Miguel de (1999): *Botín de guerra*, Planeta, Buenos Aires.
- SÁNCHEZ OLIVEIRA, Enrique (2003): *Aproximación histórica al cineasta Francisco Elías Riquelme (1890-1977)*, Universidad de Sevilla, Sevilla.
- UTRERA MACÍAS, Rafael (2006): *Poética cinematográfica de Rafael Alberti*, Fundación El Monte, Sevilla.
- VALENDER, James (2005): *El espacio interior: Manuel Altolaguirre, 1905-1959*, Centro Andaluz de las Letras/Publicaciones de la Residencia de Estudiantes, Madrid.

Chapters or articles in books or magazines on paper:

- COLINA, José de la (1982): Los transterrados en el cine mexicano, en VV.AA.: *El exilio español en México, 1939-1982*, Salvat/Fondo de Cultura Económica.
- JURADO LÓPEZ, Manuel (2005): Manuel Altolaguirre: Poesía y cine, en *República de las Letras*, nº 93.
- McCARTHY, James (2003): Luis Mussot: observaciones sobre su teatro de urgencia, en *ADE Teatro*, nº 97, Madrid.
- VEGA ALFARO, Eduardo de la (2001): El exilio cinematográfico español en México (1936-1961), en *Cuadernos de la Academia*, nº 9, Academia de las Artes y las Ciencias Cinematográficas de España.

XXIX. ENERGY STORAGE IN THE FORM OF AIR IN SMALL POWER PLANTS

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1. Introduction

This paper includes the study of a way of storing energy from renewable sources. We have studied the energy storage in the form of compressed air produced in wind farms at the time of generation, can not be shed in the form of electricity to the grid for technical reasons or saturation energy.

The interest of late delivery network is also linked to economic reasons, since, at peak times, the sale of energy allows for a higher price of kWh. For the study object of this paper, it is contemplated that the park may have a heating system of support with a conventional powered or alternative fuel.

It was considered a system of artificial storage option explored just now, allowing the installation location is not conditioned by the availability of a natural reservoir (cave, mine, depleted gas reservoir, etc.).

This paper includes feasibility analysis, technical and economic, energy storage, by means of compressed air, wind farms up to 30 MW of installed capacity. Has also been studied most appropriate technology and components for both the storage and for the generation of electricity from compressed air.

Here are the three main objectives of the study object of the present paper are listed below:

- Analysis of the technical feasibility of storing surplus electricity from wind farms up to 30 MW in the form of compressed air in facilities built for this purpose.
- Carrying out a conceptual design for the installation of compressed air storage.
- Generation of electricity from the installation-defined components and equipment available in the market indicating, or otherwise, the new design that are needed.

2. Technology Assessment electricity generation from stored compressed air (CAES systems) used in existing plants and proposed

We conducted a preliminary study of systems compressed air storage currently used for power generation and evaluated the advantages and disadvantages of each possible thermodynamic cycle (diathermy, adiabatic and isothermal).

2.1 Diathermy Technology

The diathermic cycle is employing the two central compressed air storage operating today (Huntfort & MacIntosh). This cycle is, therefore, of which are more experimental information.

2.1.1 Central Huntfort

The central Huntfort in Germany was built in 1978 and has a capacity of 290 MW. It consists of a compressor station, one engine-generator unit, a gas turbine and an underground storage system of compressed air⁴⁹.

During periods in which electricity has a low sale price, it is used to start an engine that allows the compression process. The compressed air is stored in underground salt mines. Later, during periods of peak demand or when the selling price of energy is advantageous, the process is reversed. The compressed air is led to the admission of a gas turbine in which it will be used as oxidizing. The combustion air and gas in the turbine drives the electric generator.

This plant which, at full load, provides 290 MW for 3 hours, requires a constant air flow of 417 kg / s. The compressor system requires 12 hours of operation and flow of working air is 108 kg / s. Therefore, the generation ratio of hours and hours storage consumption is $\frac{1}{4}$. The core has two caverns which totaled 310,000 m³ volume and support a maximum pressure of 70 bar.

The plant layout is shown in Figure 1; in it you can see the use of heat exchangers to the compressor outlet. When air at ambient temperature and atmospheric pressure enters the compressor, increasing its enthalpy and its temperature increases according to the compression ratio. The storage system can not withstand the temperature resulting from the compression, so it is necessary to cool the air prior to storage.

The core has an overall yield of 42%

⁴⁹ CROTOGINO Fritz, MOHMEYER Klaus-Uwe, SCHARF Roland (2001): Huntorf CAES: More than 20 years of successful operation.

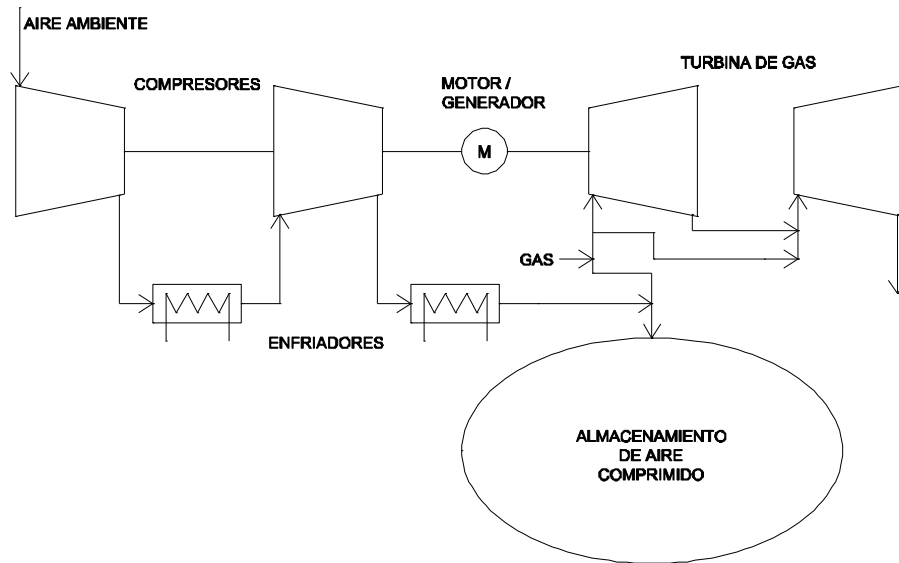


Figure 1 System diagram of the CAES plant Huntfort

From the analysis of this core, it is noted that the storage medium is one of the most important elements, as it must ensure a complete sealing and stability volume of pressurized air. Therefore, the design of the caverns has been a high cost. There are also the issue of high maintenance costs involved.

The development of this plant has demonstrated the viability of this storage, despite the disadvantages and problems associated with it. The biggest problems occur in the storage caverns. One of these is the risk of corrosion in the walls due to moisture of the pressurized air. Another is due to the possibility of heat exchange between the air and the salt cavern. In addition, reports indicate that considerable time is required to reach the underground storage to stabilize.

2.1.2 Central McIntosh

One way to increase the performance of power generation facilities from the expansion of compressed air is stored recover flue turbine for preheating the air at the outlet of the storage system. Under this principle the plant located in Alabama (McIntosh) works.

This plant of 110 MW at full power can supply power for approximately 110.00 homes. The cavern where the air is stored has a volume of 500,000 m³ and

supports a maximum pressure of 76 bar. The overall yield of this center is 54%. (Figure 2)

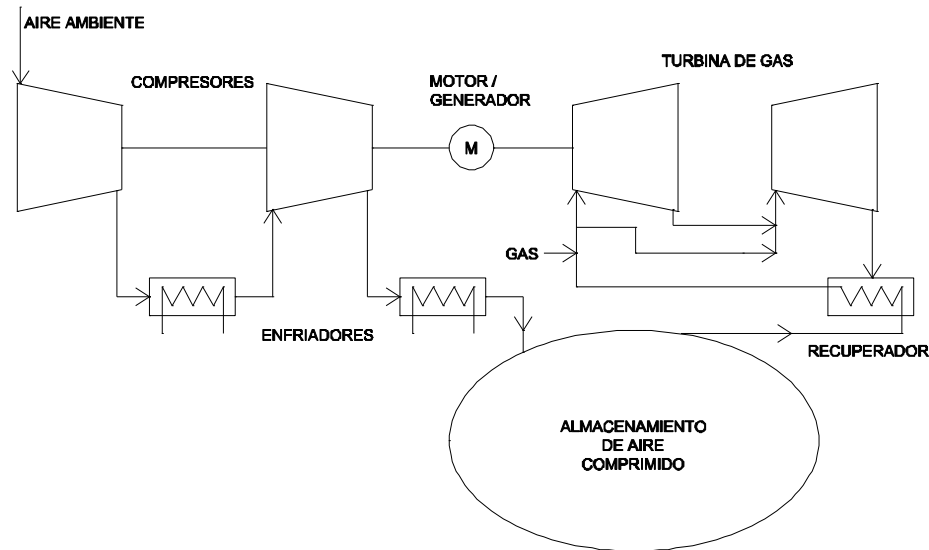


Figure 2 System Diagram of the central CAES McIntosh

There are proposed two such plants, one located in Ohio 2700 MW and 540 MW in another Texas.

The fact that the storage infrastructure (caverns), should be close to the generating plant to use excess energy in the implementation of the CAES system limits the places where these facilities can be located.

2.2 Adiabatic Technology

The adiabatic CAES no heat exchangers the compressor outlet since storage is done at the pressure and temperature of compressed air. Then the air to an expansion turbine coupled to an electric generator is released. Neither does the combustion unit of the central diathermy. The smaller number of components with respect to those reduce thermal losses. However, it requires a good insulation and sealing system to keep the energy of compressed air.

The only plant with this technology is that of ADELE (Germany) project that aims to maximize the capture of pressurized air at high temperature. This operation is expected in 2016.

For storage of the compressed air also here is made in subterranean salt caverns conditioned to minimize heat losses through the walls and have a good seal.

Faced with the near 100% theoretical yield is expected that the actual value is around 70%. (Figure 3).

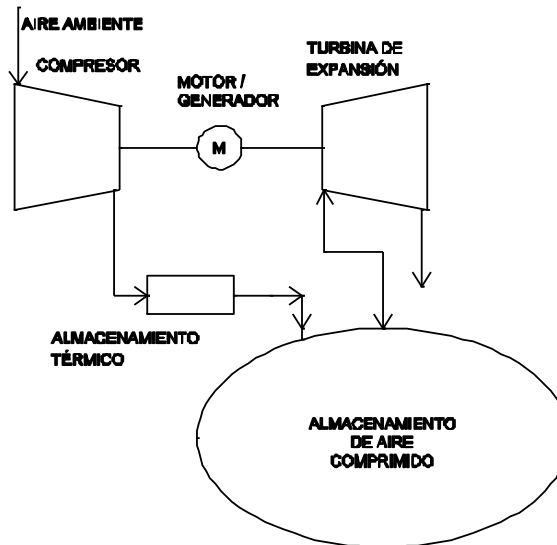


Figure 3 Diagram of adiabatic CAES system type

2.3 Isothermal Technology

The type isothermal CAES systems are still in the stage of research and development, prior to a demonstration facility⁵⁰.

⁵⁰ SustainX CAES: Isothermal CAES Better than the molten salt storage? CSP Today

3. Evaluation of Storage Technologies and Components Plant Technician from the point of view.

After analysis of existing plants and those that are planned, two alternatives have been studied for the development of wind farms CAES power up to 30 MW.

The first alternative is based on a system that improves diathermic two central operating analyzed using this technology because the storage is made under the conditions of temperature and pressure that results from compression of the air and will be used in a recovery boiler the energy of the flue gas turbine to preheat the compressed air before it passes to the combustion chamber.

The studied system consists therefore of the following equipment: compression system, storage system, heat exchanger with flue turbine and gas turbine (Figure 4).

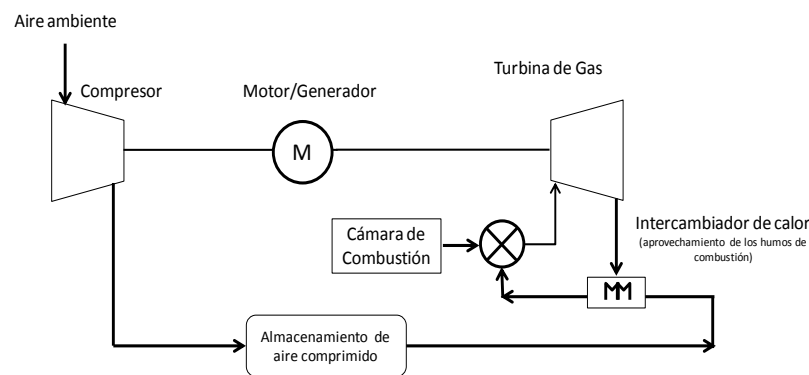


Figure 4 Diagram of diathermal type with CAES system enhancements

The second system studied is an adiabatic system with an air motor. Its components are in addition to the latter, the compressor and the storage system. This variant regarding the ADELE project is justified by the market availability of air motors regarding expansion turbines and its wide use in industrial activities (Figure 5).

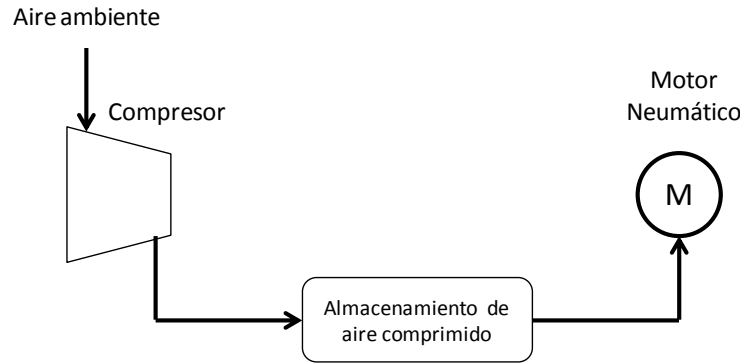


Figure 5 Diagram of the System with type adiabatic CAES variant

Of the two alternatives studied, has delved into the adiabatic to be:

- More efficient
- More simple, not requiring a gas turbine installation or a fuel for the latter.
- Lower investment cost and plant maintenance and operation by not consuming any fuel.
- Use only renewable energy

3.1 Simulation of the adiabatic system with variant SCAES

Then we analyze and simulate the elements shown in the diagram of Figure 5 were searched commercial equipment available in order to have real technical data provided by manufacturers and get more reliable results.

DRF is selected PUSKA 220/13 of compressor 220 HP (164 kW), which can reach a maximum working pressure of 13 bar and a flow rate of 1240 m³/h⁵¹.

⁵¹ DRF screw compressor series. PUSKA

For ambient air (T1), are taken 23 ° (296K) and a pressure of 0.86 bar. (Figure 6).

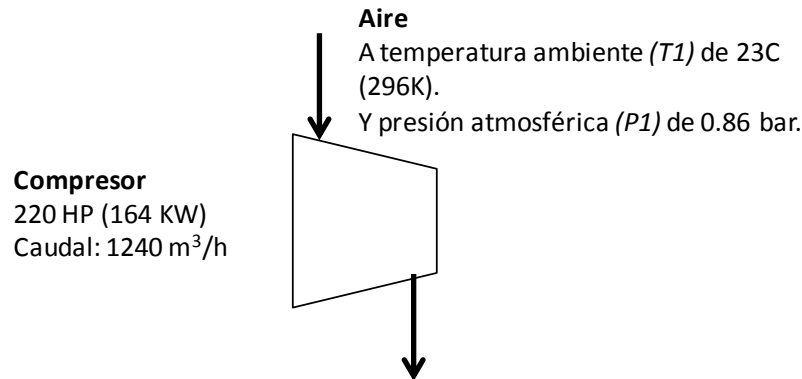


Figure 6: Characteristics of the compressor and initial data

Assume an ideal behavior, so that the polytropic index (γ) is 1.4.

Assuming polytropic compression, the air temperature at the compressor outlet (T2) increases its enthalpy, depending on the compression ratio (PR), the polytropic index and the theoretical isentropic efficiency of the compressor (η_{isen}), according to the equation 1.

$$T_2 = T_1 \left(1 + \frac{1}{\eta_{ise}} \cdot PR^{\left(\frac{\gamma-1}{\gamma} \right)} \right)$$

Equation 1 The theoretical isentropic compressor efficiency (η_{isen}) is calculated using Equation 2.

$$\eta_{isen} = 0.91 + \frac{PR-1}{300}$$

Note that the air temperature increases significantly increasing the compression ratio, as shown in Figure 7.

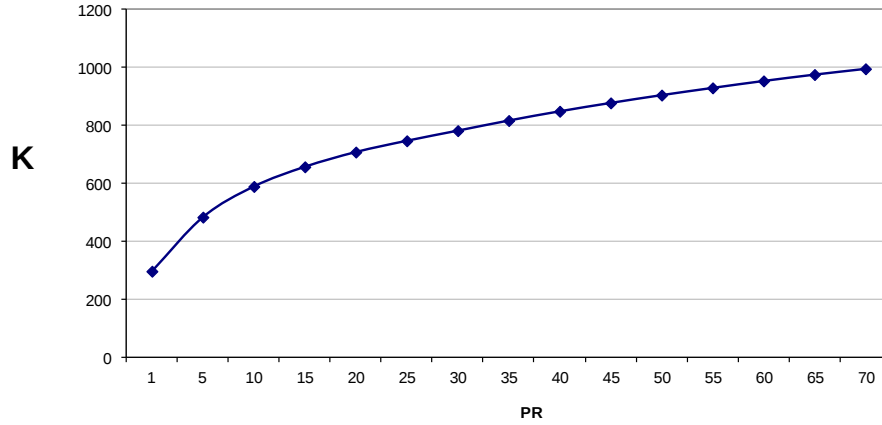


Figure 7 Variation of outlet temperature of the compressor according to the pressure ratio.

Achieving high pressures leads to significant increase in air temperature, which affects the storage system. Therefore, in this first point you need to set a limit to the pressure.

Regarding the isentropic efficiency of the compressor increases as it makes the compression ratio. It can be considered from a PR = 13 (maximum value that can reach the compressor in the considered environmental conditions: $T = 23$ and $P = 0.86$ bar), the performance of the latter is less than 95% (Figure 8).

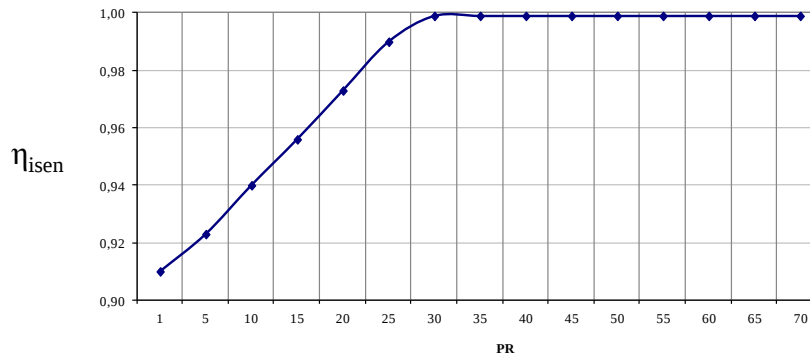


Figure 8 variation Compressor isentropic efficiency depending on the pressure ratio.

Operating under these conditions ($PR = 13$, $95\% \eta_{isen} = \gamma^\gamma = 1.4$) and neglecting losses, air temperature at the outlet of the compressor reaches 360°C (633K) and 13 bar, values which must support system storage.

The storage system volume is calculated from the characteristics of the air motor. They have chosen a 23 kW engine whose technical data indicates that provides maximum power with airflow of 425 l / s at 7 bar (Figure 9).

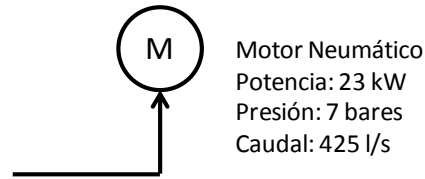


Figure 9 Features Air Motor

With this information, provides a discharge time (t_{des}) 3 hours in which the engine can deliver this power. This makes it possible to determine the required storage volume (V_{alm}) from the relationship between the flow rate required by the engine in liters / hour (Q_{motor}) and discharge time ($TDES$), as shown in Equation 3.

$$V_{alm} = Q_{motor} \cdot t_{des}$$

The resulting storage volume is 4590 m³, equivalent to a cubic container of 16.7 m on a side. (Figure 10)



Figure 10 Storage System Features

The mass of this volume is 2559 kg calculated from the air density ($\rho = 346.02 \cdot T_2^{-0.997}$) at the temperature of 360 ° C (Equation 4).

$$\begin{aligned} \bullet \quad m_{alm} &= V_{alm} \cdot \rho_{aire} \\ \bullet \quad m_{alm} &= V_{alm} (346,02 \cdot T_2^{-0.997}) \end{aligned}$$

- $m_{alm} = 4590 \times 0,55 = 2559 \text{ kg}$

For these conditions, the time required to store the volume of air (MLAT) is given by Equation 5.

$$t_{alm} = \frac{V_{alm}}{Q_{comp}} = \frac{4590 \text{ m}^3}{1240 \text{ m}^3 / \text{h}} = 3,7 = 3 \text{ horas y } 43 \text{ min}$$

The system diagram shown in Figure 11.

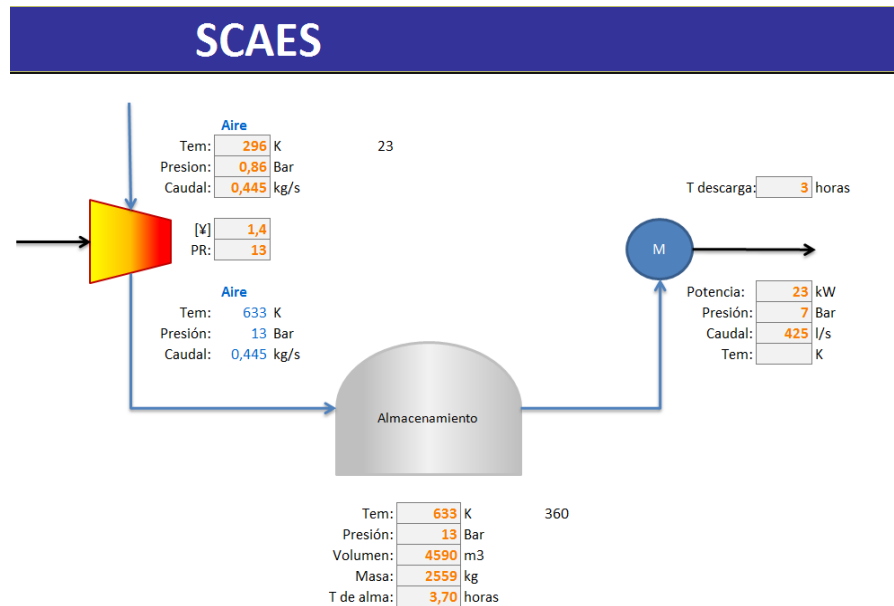


Figure 11 Diagram System SCAES adiabatic type.

In terms of electrical performance, in a cycle of charge and discharge, the compressor consumption of 606 kWh and an electric motor generation will take 70 kWh. Overall, the yield is 11.4%.

The SCAES adiabatic system presented in this paper, has the versatility to dispense with the gas turbine, and consequently fuel, which in principle is to be a more cost effective option. However, we face two problems. The first lies in the means of storage and pipelines, which must be built to withstand such conditions of pressure and temperature. The second point lies not only in the power of existing engines, not exceeding 23 kW, but also on the maximum operating

temperature, which can not exceed 80. For this project it will be necessary to design an engine at this pressure and temperature, which is observed as difficult to solve.

Have considered the possibility of replacing the air motor by an expansion turbine. Not available on commercial scale, it is proposed that, for a preliminary study, a steam turbine, which could be the basis of the design of an expansion turbine (Figure 12).

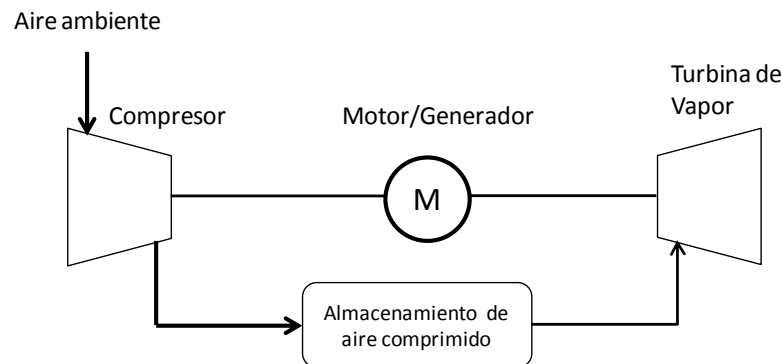


Figure 12 Diagram of adiabatic CAES system type steam turbine.

3.2 Simulation with steam turbine

To this end was selected S2E 50-250 microturbine-which allow a working temperature range from 130 to 350, with pressures of 4-20 bar and flow rates between 1.5 and 8 t/h⁵².

In this case and in view of the characteristics of the turbine, it has been considered to operate at a pressure of 10 bar, in order to reach working temperatures no higher than 350 ° C (623 K). At this pressure, the temperature at the compressor outlet (T2) is 316 ° C (589 K). These conditions are that, in

⁵² 4 Steam Microtrubina S2E50-250, Nova Group Energy- Bio-Calora.

principle, and neglecting losses, are maintained in the storage system and then form the input to the steam turbine (Figure 13).

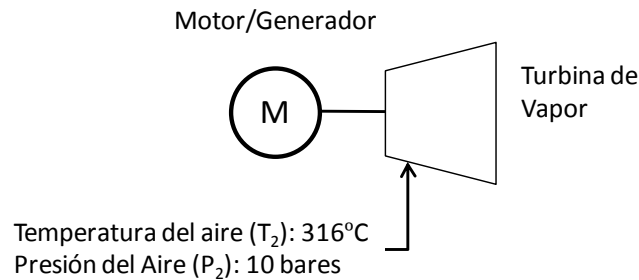


Figure 13 Working conditions for the steam turbine.

From the information provided by the manufacturer in the Mollier diagram (Figure 14), the turbine outlet air is 120 ° C and 1 bar.

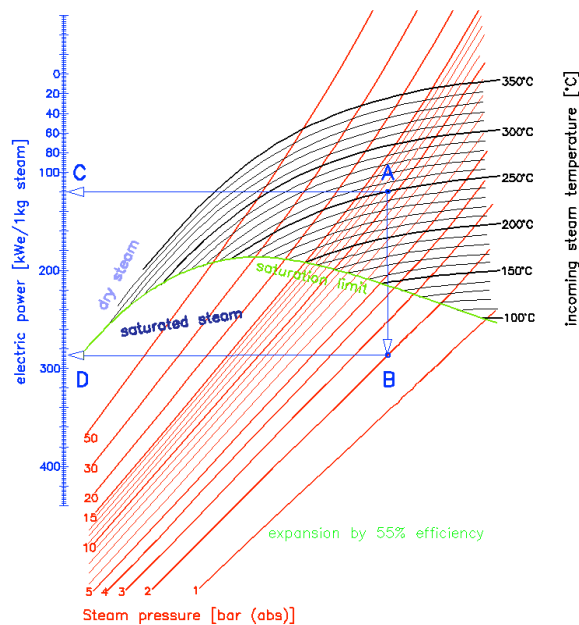


Figure 14 Mollier diagram for the steam turbine.

For a flow rate of 1.5 t / h, equivalent to 695 l / s (considering the density of air at the temperature T_2), the turbine has to be during the three hours of operation generates 274 kWh (Figure 15).

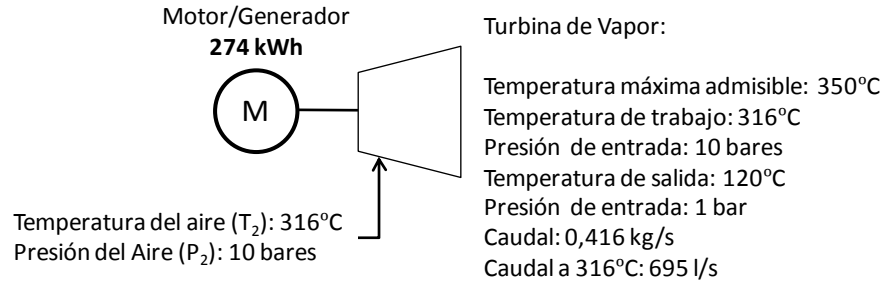


Figure 15 Features and operation of the steam turbine.

The calculated output power makes a storage volume of 7506 m³ is required, which leads to the compressor to 6 hours 3 minutes to provide the volume of air and involves a consumption of 992 kWh. The electric yield obtained is 27%.

The addition of an expansion turbine would achieve better performance than that obtained with a steam turbine, but, as already mentioned, no expansion turbines on the market which fulfill the requirements. Currently expansion turbine Adele is in a project design stage and is intended to be pressurized air to 600 ° C and 100 bar.

4. Definition of the most suitable plant type SCAES Design and cost estimates.

4.1 Technical Analysis

From a technical viewpoint, an adiabatic CAES expansion turbine system is proposed, as shown in the diagram of Figure 16, to allow a working range with higher performance and consequently higher throughput.

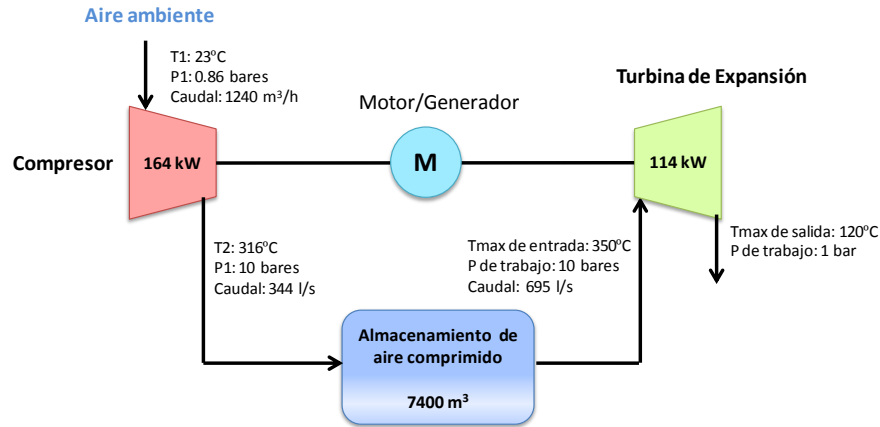


Figure 16 System Diagram CAES turbine expansion.

This system consists of a compressor, the storage unit and an expansion turbine.

As for the compressor system, no commercial technical problem for implementation is targeted. Similar to existing CAES plants installed in computers, you may have a compressor train with a power up to 60 MW.

Regarding the storage system is considered to be fulfilled by the working conditions given by temperature and pressure, leading to the design of a specific container that is technically feasible, as stated above (). Refer otherwise, the page number may vary by size

Finally, the expansion turbine is the element that requires a specific design phase. This equipment is being developed to make it operate in the adiabatic system ADELE plant whose operating conditions are similar to those studied in this article.

4.2 Economic Analysis

Whereas SCAES system with a steam turbine has an efficiency of 27%, the annual electricity production is estimated at 100 MWh. If a price of 90 € / MWh (the highest in the Spanish market in 2013), allow the surplus revenues of around € 9,000.

Most of the investment system involves the storage system of compressed air (Table 1). Considering a life cycle of 30 years, sales of surplus will be € 270,000. For the investment is amortized, the cost of the storage system of compressed air should not exceed € 100,000.

Quantity	Team	Cost (€)
1	Compressor DRF 220/13	83.000
1	Microturbine Steam S2E50-250	50.000
1	Storage System	100.000
	Miscellaneous (pipe conditioning systems)	40.000
Investment		273.000

Table 1 goal CAES system costs with steam turbine

With the introduction of the expansion turbine, the yield reaches 70%, the annual electricity production is 253 MWh and surplus sales are € 22,770 / year.

If the system has the same life cycle, selling surplus amounted to € 683,100. In this case, so that the investment can reach amortized the cost of the storage system could be in the range of € 400,000.

Quantity	Team	Cost (€)
1	Compressor DRF 220/13	83.000
1	Expansion turbine	120.000
1	Storage System	400.000
	Miscellaneous (pipe conditioning systems)	40.000
Investment		643.000

Table 2 Target system costs CAES turbine expansion

5. Conclusions

The adiabatic CAES system is in principle a more cost effective option than diathermy, which is the most developed at present because they are dispensed heat exchangers, and gas turbine fuel. Also has the advantage of not depending on the supply of fuel, which can be installed in remote places. In addition, this system would have a greater interest from the environmental point of view the absence of emissions from combustion processes.

For the generation of electricity from compressed air is more efficient to use a pneumatic turbine expansion engine. The expansion turbine is not yet available commercially. Only two prototypes of 5 and 20 kW respectively, the R & D are known. Moreover, it is being designed an expansion turbine which allows more power to work at 600 ° C and 100 bar for ADELE project. Once in the market can address its application to adiabatic CAES systems less powerful.

As it relates to the installation of air storage, is technically feasible and necessary in-depth study of the storage system in order to establish to what degree can reduce your cost to reach SCAES competitive systems.

6. Bibliography

Chapters in books, reports and articles in newspapers or magazines on paper:

- DENHOLM Paul (2005): *Improving the technical, environmental and social performance of wind energy systems using biomass-based energy storage*. Renewable Energy 31 (2006) 1355–1370
- CROTOGINO Fritz, MOHMEYER Klaus-Uwe, SCHARF Roland (2001): *Huntorf CAES: More than 20 years of successful operation*.
- INTELIGENT ENERGY EUROPE: *European Regulatory and Market Framework for Electricity Storage Infrastructure. Analysis and recommendations for improvements based on a stakeholder consultation*. Deliverable 4.2 – June 2013.
- INTELIGENT ENERGY EUROPE: *Recommendations for furthering the Sustainable Development of Bulk Energy Storage Facilities*. Deliverable 3.2 Intelligent Energy Europe, October 2012

Articles, blogs or web publications records:

- SustainX's ICAES: *CAES Isotérmico ¿Mejor que el almacenamiento en sales fundidas?* CSP Today, Disponible en:
- www.es.csptoday.com/tecnolog%C3%ADa/caes-isot%C3%A9rmico-%C2%BFmejor-que-el-almacenamiento-t%C3%A9rmico-en-sales-fundidas. Julio 2011. Consultado el 31 de marzo de 2014
- PUSKA: Catálogo de compresores de tornillo. Disponible en:

- www.viewer.puska.com/Puska_DRE_150_DRF_150_220_Y_DRE_150_DRF_180_240_IVR/html/2.html. Consultado el 1 de abril de 2014
- GRUPO NOVA ENERGÍA: Ficha técnica de microturbinas de vapor S2E 50-250. Disponible en: www.gruponovaenergia.com/productos/ficha-turbinas-vapor.php. Consultada el 1 de abril de 2014
- KEPPLINGER Jürgen, CROTOGIN Fritz, DONADEI Sabine, (KBB Underground Technologies GmbH, Hannover, Germany), WOHLERS Manfred (IVG Caverns GmbH, Etzel, Germany): *Present Trends in Compressed Air Energy and Hydrogen Storage in Germany. SMRI Fall 2011 Technical Conference, 3–4 October 2011, York, United Kingdom*. Disponible en: www.kbbnet.de/wp-content/uploads/2011/09/Present-trends-in-compressed-air-energy-and-hydrogen-storage-in-Germany1.pdf. Consultado el 31 de marzo de 2014.

XXX. PERCEPTION OF HEALTH IN A MODEL OF GENERATIONS LIVING: PLAZA BUILDING AMERICA (EPA)

Rosa Maria Torres Valdés (Universidad de Alicante -Spain-)
Carlos Plaza Sirvent (Universidad de Alicante -Spain-)

1. Introduction

The World Health Organization (WHO, 1964) defines health as "a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity." This definition makes it relevant to consider the concept based on three factors that we considered in this work as categories under study variables, namely biological health, psychological health and social health, and considering gender and chronological edges.

Overall for the study has taken into account the recommendations of the World Health Organization and specific programs such as health 21 health regions, and the guidelines framed by the Healthy Cities Network and the guidance of friendly cities with the highest since the study analyzes a model of urban and social management in a given space for intergenerational living.

Numerous investigations addressing the functional aging and premature aging, and in light of the results, it becomes manifest that health is multidimensional and "multi-disciplinary" The general population is aging, life expectancy is higher and that social and psychological factors influence to some extent in biological. It is inferred from this that the need for balance is inherent in the human society.

This is a hot topic. The year 2012 was the "European Year for Active Ageing and Intergenerational Solidarity", which shows the relevance of the study from this point of view, and invites you to explore why divergences or convergences could

be between the felt needs and perceived each other for each collective present in this study, ie young and old who live in the EPA.

The objectives of this work are:

1. Describe the perceived benefits that people living in an intergenerational community features EPA.
2. Describe the perceived negative aspects of intergenerational cohabitation in the EPA model.
3. Describe the changes in the perception of health in individuals living in the EPA, over their previous situation and in relation to the categories of biological health, psychological health and social health.
4. Determine whether there are differences in gender and age for the three previous goals.

2. Material and methods

2.1. Participants

The sample consists of people who live in the Building Plaza America (EPA) managed by the City Council of the city of Alicante (Spain), which are divided into two groups: young (18-35 years) and older (a from age 65).

2.2. Material

Data collection for this study was done through semi-structured interviews and group dynamics during the months of February, March, April and May 2011.

The script for the interview consists of the following questions:

1. How was your life before living in the EPA?
2. How you live your life from the EPA?
3. How would you describe the building (in terms of quality of life and living)?
4. What are the differences to live here?
5. What are the differences in regard to your health to live here?
6. And when it comes to relationships with people?
7. How do you think the people who live here feel?

Moreover with regard to group dynamics related to gender, the protocol was designed with extreme delicacy, as the age of the female participants was very advanced (70 to 94 years) and the research team should approach experiences related to their history of private life, in order to know how it affected the relationship life in the EPA relating it to the social fact of female aging, so they could know how deep experiential footprint could be and how it might be affecting your current life with younger people.

2.3. Methodology

2.3.1. Assessment instruments

For interviews are frequently used validated on self-perceived health status, "which together with the chronological age and gender influences self-perceived age" (Ramos, 2007: 102) questionnaires.

However, being a different pilot, exploratory study to be conducted under the Intergenerational building, which, as its name suggests, houses elderly, with greater or lesser chance of understanding the scope and objectives of the study and profiles of young people living in the EPA, we opted to develop a protocol for ad-hoc interviews and group dynamics, to allow the flow of communication, and convenience of the respondents at the time of collecting the information needed by researchers.

For the definition of the categories we started from the sociobiological perspective of the study, taking into account the need for balance between the biological, psychological and social systems in relation to the quality of health of people. Thus three categories were defined as follows were established:

1. Biological Health: metabolic balance, biological systems is in balance with each other and with the environment while maintaining a relation between chronological age biological age and acceptable in terms of functionality and quality of life. For example, immune system, respiratory system, endocrine system.

2. Psychological Health: emotional balance and how to respond to situations that could in any way interfere with the health and quality of life of the person. For example: fear, stress, depression.

3. Social Health: balance in the form of adaptation to the social environment, how to interact with the environment situations based on personal history.

Regarding the sampling was taken into account as a criterion for inclusion in the sample which the participant resided in the Intergenerational America Plaza building, at least one year continuously and had consented to participate in the study. Moreover exclusion criterion for participation in the study which the person is not able to understand and / or express what was said in the interviews and group dynamics was considered.

He was elected president of the community as a key informant because, by its position and its relationship with neighbors, widely known to the inhabitants of the same and has information on their profiles. From the information from the key informant, the convenience sample for qualitative research as it is presented and protocols for group dynamics and semi-structured interviews were prepared was selected.

A total of four interviews and group dynamics on intergenerational cohabitation did.

The sessions were recorded with digital recorder and transcribed voice, and the contents of the transcript was processed by HyperResearch version 2.8.3 which were described from the 3 main health categories, sub categories and codes related to them, to describe differences in the perception of the three categories of health before and after living in the EPA.

Table 1 shows the grouping by categories and sub categories and codes associated with the initial Sub Category + categories:

Category (health)	sub category	Initial	Code
biological	before Negative	BAN	
biological	before Positive	BAP	
biological	after Negative	BDN	Drugs
biological	after Positive	BDP	Protect Housing

psychological	before Negative	PAN	Agony Deprotection hosing
psychological	before Positive	PAP	
psychological	after Negative	PDN	Building Unrest Housing
psychological	after Positive	PDP	Attitude Welfare Change Building Leisure Protection Tranquility Housing
social	before Negative	SAN	Family relationships
social	before Positive	SAP	
social	after Negative	SDN	Intergenerational relationships
social	after Positive	SDP	Building Independence Intergenerational relationships

Table 1 Source: Prepared

3. Results

Interviews and intergenerational group dynamics.

(Sample size: 11 participants)

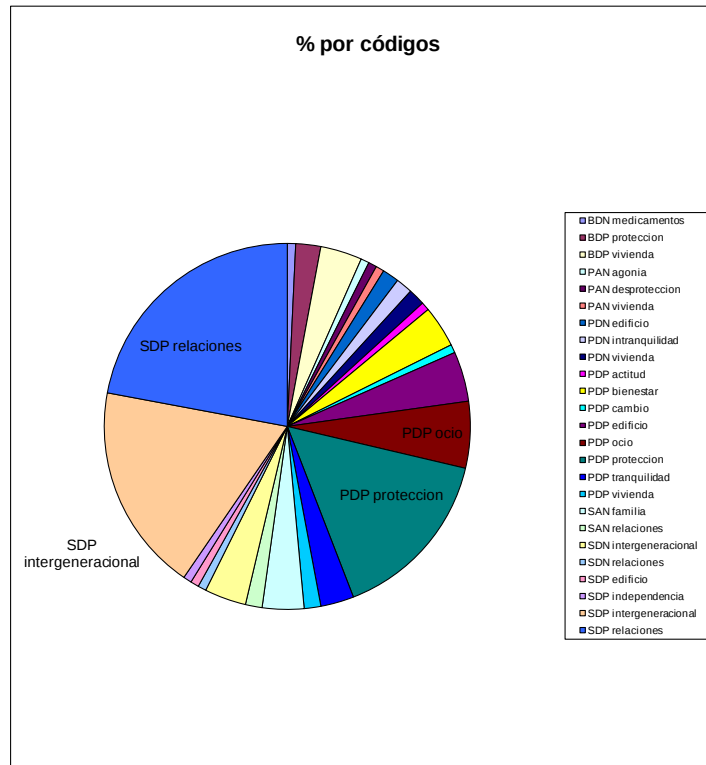


Figure 1 Frequency of codes. Shows the percentages of occurrence of the different codes during interviews. Remarkable is the high proportion of events and intergenerational relations, including in the SDP and leisure subcategory and protection belonging to the PDP subcategory.

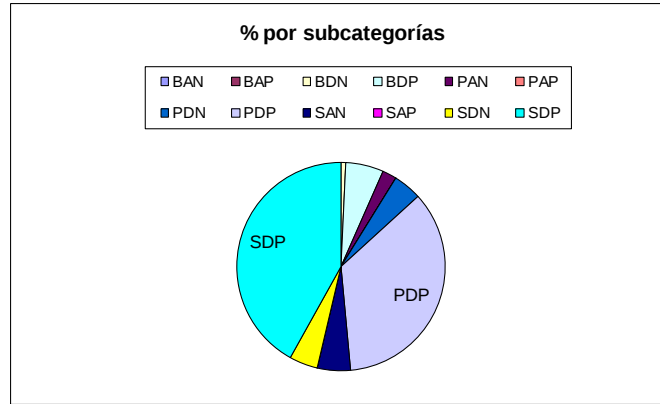


Figure 2 Frequency of subcategories. The graph indicates the percentage of codes grouped by subcategories. The two categories with the highest representation were SDP (Social After Positive) and PDP (Positive Psychological After), well above the rest.

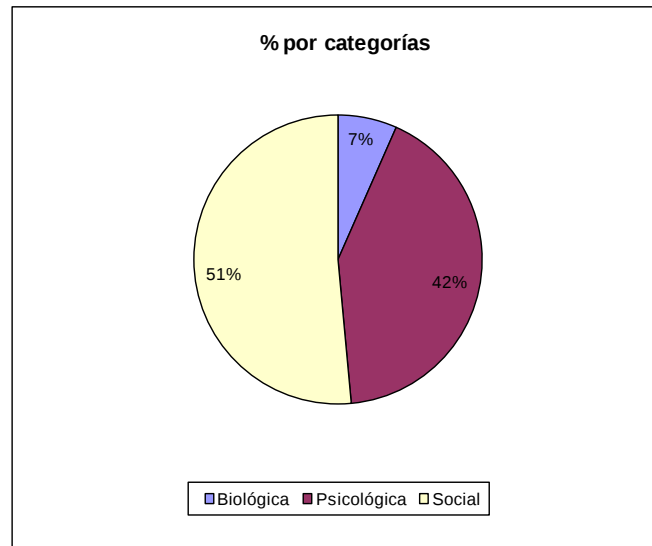


Figure 3 Frequency categories. Percentage of occurrence of the categories that encompass the subcategories. Psychological health and social health are well represented in the perception of respondents.

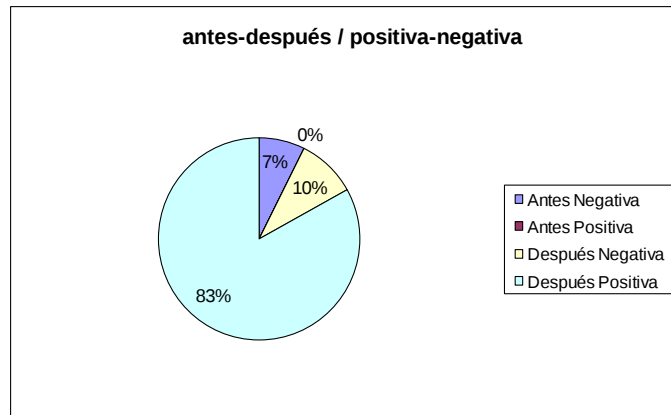


Figure 4 Frequency of positive / negative events and before / after. This graph is to evaluate the influence of the building (positive or negative) compared to the situation in the previous home. Striking appearance of the null prior to residency America Plaza Building positive events. On the other side is the large proportion of significant positive events after entry to the building as a resident.

4. Discussion

As shown in Figure 1 EPA interviewed residents and participants in group dynamics have positive perception of their health in terms of social relations, intergenerational living, and the positive psychological health in terms of leisure, and feeling protection.

The results in Figure 2 confirm the information presented in Figure 1 revealing the great weight that the inhabitants of the EPA, the positive perception of positive psychological health and social health.

Figure 3 comes to tell us that the psychological health and social health are elements clearly perceived by residents in EPA, referring to them on numerous occasions, with expressions such as: *"... from the first minute, my life took a total change . To be in a situation of agony to be at peace, relaxation and tranquility ... " "I am now very happy to be here, I have improved health and well-being, if something happens to you that are pending neighbors "... (Absence stress). "... Well, look at the building gives me a huge peace of mind because it is here for example you leave the door open and no problem ... They offered to do some activities and to me I like agriculture and have room to develop and that agriculture gives me happiness I had when I was in the field ... " " It is very good*

that we have these workshops. It is an opportunity to give the most ... "It helps me mentally because it gives me a lot of work, but for me it is not, it is a pleasure (Entertainment) ..."

All these expressions explain the high percentage of Figure 4, where it can be seen that 83% considered positive health after going live to EPA. 10% considered not to have improved, but in relation to the size of the apartment. In this regard, one interviewee said that was the last we had moved to the EPA building, and still missed home, besides having recently widowed. However, recognizing that when activities *"gets good, and forgets the disease."* 7 percent recognizes that EPA before living in their quality of life was worse. These are people who in addition to having health problems (see Figure 3: 7% biological health), they were on protected and their autonomy was diminished.

We can relate this high percentage (83% after positive), also with the characteristics of the building itself, beyond intergenerational coexistence. *"... Now a pleasure to be sick. It is very valuable ease and comfort. The doctor will have next. They have managed to do many things that is very beneficial for us ..."* *"Well, it's also a help because you do not have to move. Because if something happens you have your doctor about ..."*

Asked how do you see yourself before and now here in your new neighbors?

"Well it all depends on the environment in which you have unfolded, my husband was a bank manager, and made me relate, and this has left us feeling older than the others, but now comparing this with the building where we live, we are all too same, and we also felt very or older or younger, as she was used to living by the work of my husband with all of the 20 branches people of different ages, now also I can live with the youngest ... and no problem ..." *"and if it happens here because eventually something and do not see me in the morning any neighbor called me to see what happens ..."* *with me at night and until I close the door behind me not leave. All men and women behave too well ..."* *a woman recently fell here and young people living here heeded quickly, were the first to arrive."*(Safety and protection of coexistence *"We get along really well, until exchanged meals"* *"We are all united, especially on the ground where I live are all very close," ... "Here you are with a family of many people" (Foreign). "Well encourages you to see that a young man interested"*

... "It's great to live young people with old people" ... "I'm in love with the young because I greet everyone" ... "you see young people and does not seem that an asylum elderly "(intergenerational cohabitation)." we used to live with a daughter and then had to become independent, which was what we wanted. ... today we are enjoying life" (autonomy).

5. Perspective

The lines of research that are at present in relation to aging, broadly focus on:

- Public policies concerning elderly care and the evolution of aging and health response.
- Psycho sociology of old age related negative stereotypes toward the elderly, role of elders in society, protection or neglect of the elderly.
- From geriatrics and gerontology working on practical problems have occurred by aging, preventive activities in the elderly.

From a gender perspective the difference between andropause and menopause, both physiologically and socially.

In other include the study of urbanization and aging that comes to question if the cities can be designed to promote active aging (Bearnad and Petitot, 2010), the revision of the concept of active aging (Venera Bucur, 2012), and the commitment intergenerational dialogue for active aging (Kruse and Schmitt, 2012) and current experience as interest are celebrating the European day of intergenerational Solidarity, in which intergenerational dialogue between young students and older people is promoted.

The experience of intergenerational cohabitation has spread to other cities such as the Council of Ferrol and intergenerational coexistence program shares launched in 2013, in which students Ferrol Campus of the University of Coruña share housing with seniors.

The innovative nature of the research presented in this paper is that the study of intergenerational living and mainstreaming seeks to address health from three fundamental aspects according to the World Health Organization: the biological health, health psychological and social health.

This work opens the door to investigate the correlation between the sociological psychological, and biological values. Is, to continue the work started from the study of health perception with objective measurement study of aging considering the three aspects of health discussed qualitatively in this study on Intergenerational America Plaza Building.

6. Bibliography

- ARBER, S., & JAY, G. (1996). *Relación entre género y envejecimiento: Enfoque sociológico*. Narcea S.A.
- BEARNARD J R, PETITOT C. (2010) *Ageing and urbanization: Can cities be designed to foster active ageing?* Public health review, vol. 32, nº 2. Págs. 32-50
- CARRASCO, M. D., MÁRQUEZ GARRIDO, M., & ARENAS FERNÁNDEZ, J. (2005). *Antropología-Enfermería y perspectiva de género. Cultura de los cuidados*, 52-59.
- KRUSE A, SCHMITT E. (2012). *Generativity as a route to active agein*. Hindawi Publicshing Corporation. Current gerontology and geriatrics research. Vol. 2012. pp. 1-10
- MENA, M. J., SÁNCHEZ PALACIOS, C., & TRIANES, M. V. (2005). *Cuestionario de evaluación de estereotipos negativos hacia la vejez*. Revista multidisciplinar de Gerontología, 212 - 220.
- PASCUAL, B. M., DÍAZ PALARREA, M. D., ALONSO, J., & CALVO, F. (2006). *Evolución del envejecimiento poblacional y respuesta socio sanitaria*. Revista multidisciplinar de gerontología, 26-31.
- RAMOS, I. (2007). *El estilo de vida de los mayores y la publicidad*. Barcelona: Fundación "la Caixa".
- ROIGÓMEZ., A., ALONSO, J., & ANTÓN, J. (1991). *Salud percibida y capacidad funcional de la población anciana no institucionalizada de Barcelona*. Gaceta Sanitaria, pp. 117-124.
- SOLER, A. (2008). *Una perspectiva psicosociobiológica aplicada a la geriatría preventiva: Salud, edad biológica y calidad de vida*. Universidad de Alicante: TESIS DOCTORAL.
- VENERA BUCUR M, (2012). *The concept of active aging*. Social Research Reports, Vol. 22, pp. 28-35.
- WILSON, E. O. (2008). *SOCIOBIOLOGÍA. La nueva síntesis*. Barcelona: OMEGA.

Pages in web publications:

- Grupo de estudio de enfermedades no transmisibles y salud mental. OMS. Hombres, envejecimiento y salud. Conservar la salud a lo largo de la vida. healthyregions. (s.f.). Recuperado el 10 de Mayo de 2011, de <http://www.healthyregions.eu/healthyRegion/regions.html>
- LÓPEZ DOBLAS, Juan; DÍAZ CONDE, María Pilar (2007). .“Aspectos sociológicos del envejecimiento”. Madrid, Portal Mayores, Informes Portal Mayores, nº 73. Madrid, Portal Mayores, Informes Portal Mayores, nº 73. Lecciones de Gerontología, XIV [Fecha de publicación: 14/06/2007]. Recuperado el 2 de Marzo de 2014. <http://www.imfersomayores.csic.es/documentos/documentos/lopez-aspectos - 01.pdf>
- Generations at School. Obtenido el 2 de Marzo de 2014. <http://www.generationsatschool.eu/es>
- Noticia sobre programa comparte en diario de Ferrol Obtenido el 2 de Marzo de 2014. <http://www.diariodeferrol.com/media/diariodeferrol/files/2013/12/30/anuario-ferrol-0.pdf>
- Organización mundial de la salud. (s.f.). Obtenido de http://www.who.int/about/brochure_es.pdf
- Red Española de Ciudades Saludables. (s.f.). Obtenido de <http://www.ciudades-saludables.com/>