Media competence as a challenge for educommunication: evaluation tools

La competencia mediática como reto para la educomunicación: instrumentos de evaluación

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ABSTRACT

Technological advances make new resources available for educational agents in order to enhance learning; however, their use requires the development of basic competencies or student skills, which is a challenge to the entire educational community. In this context, media competence becomes fundamental to encourage responsible, efficient and democratic use of media resources by citizens. Here we present the results of a research project carried out in Spain, in which various tools were designed to assess media competence of students, teachers and parents. Its application has revealed that we find ourselves in an extraordinary moment to take advantage of media resources towards improving the educational process, although it is clear that the fact of being surrounded by media and technologies does not mean that we are competent in their use. This leads us to emphasize the importance of the inclusion of media education into the school curriculum from the earliest school age.

RESUMEN

Para mejorar el aprendizaje, los avances tecnológicos ponen a disposición de los agentes educativos recursos emergentes, los cuales requieren del desarrollo de competencias o destrezas básicas por parte de los estudiantes y suponen un reto para toda la comunidad educativa. En este contexto, la competencia mediática se convierte en la clave para fomentar un uso responsable, eficiente y democrático de los recursos mediáticos por parte de los ciudadanos. Se presentan aquí los resultados de un proyecto de investigación realizado en España, en el que se han diseñado diversos instrumentos de evaluación de la competencia mediática de estudiantes, profesorado, así como de padres y madres. Su aplicación ha permitido conocer que nos encontramos en un momento extraordinario para aprovechar los recursos mediáticos hacia la mejora del proceso educativo, aunque pone en evidencia que el hecho de estar rodeados de medios y tecnologías no significa que seamos competentes en su uso. Esto nos lleva a insistir en la importancia de la inclusión de la educomunicación dentro del currículum escolar desde las primeras edades.

INTRODUCTION

The technological and digital revolution that has brought massive access to communication technologies and the Internet has led to a constant social concern of improving the quality of life of citizens, in the sense of giving them the training, tools and skills necessary to coexist with the media, as well as to maintain a positive relationship with them. Faced with this challenge, it seems necessary to know how citizens use technological resources, so one can take appropriate educational decisions that favour the empowerment of citizens through the civil and critical use of media resources (Gozálvez, 2013), thus minimizing the digital breach that exists in various vulnerable groups or those at risk of exclusion.

In this regard, various organizations and international institutions such as the UN, UNESCO and the European Commission strive to make decisions aimed at improving the access and use of media and communication resources by different citizen groups, with a strong support for the development of media education. There have been several consensually developed tools as well, such as the "Media Education Kit" (UNESCO, 2006), within the "Media and Information Literacy (MIL) Curriculum" (UNESCO, 2011), to try to involve teachers, students, families and media professionals so that ultimately, citizens will be able to make good use of their right of freedom of expression and information.

Australia has also been carrying out government initiatives in favour of digital media literacy, sponsored by The Australian Communications and Media Authority (ACMA) (2013), leading to an integration of media education within the school curriculum –both transversely and in some specific subjects– in addition to carrying out training and awareness programs for various groups. In the United States, Canada and the United Kingdom, media literacy has also been included in the initial formative years of high school and college, besides being incorporated into other social sectors.

Media literacy education has therefore become a first order necessity, creating the need to promote a critical, active and pluralistic education in media (Aguaded, 2012; Gutiérrez & Tyner, 2012). The aim is to increase the citizen's awareness about the many forms of broadcasted messages created by the media that can be found in everyday life (European Commission, 2009).

Within this context, this work aims to detect the levels of media literacy in Spanish society, the ultimate goal being a series of proposals aimed at instructing the citizenry about media literacy.

Trying to fulfil this purpose, and by following the European recommendations over the need to diagnose the level of media literacy of the population, a research project was carried out in nine universities in Spain, ("Compulsory education in light of the competence in audio-visual communication in the digital environment") with the objective of determining the level of media literacy in compulsory education[1].

This initiative is part of a broader one, directed at the media professionals and the academic area, and it involves more than twenty universities and an extensive number of researchers. The objective set by the research team –to diagnose the degree of media competence in mandatory education– implies taking a step towards a global understanding of the different social groups that have an influence on the student population, who can therefore also become a subject of research, since families (parents) and faculty members are ultimately responsible for the education of children and adolescents.

Presented below are, in general terms, the tools designed as well as the main results obtained after their initial application, which aims to influence the media literacy of the investigated population in the near future. The diagnosis process is still being undertaken, as presently, the project has crossed the Spanish frontiers. There are three European countries and ten Latin American[2] countries developing the same project, and they are now in the process of adapting the tools and collecting data.

Ultimately, this article aims to provide the Chilean public and Latin America in general, the European proposals on media literacy and, more specifically, the tools used in Spain for diagnosis and analysis of the competence required for good use of media and new technologies.

Although data analysis of each of the tools will be addressed in the near future, the intent of this work is to make the set of tools, designed from a heuristic perspective and applied in the Spanish context, available to the scientific community.

THEORETICAL FRAMEWORK
MEDIA LITERACY IN TODAY'S SOCIETY

If we focus on the conceptual framework, we refer to the ongoing discussion regarding the concept of media literacy raised by Lau & Yuen (2014) to conclude that citizens need to master computer skills, information literacy and literacy of the Internet. On this note, Buckingham (2007) proposes to extend the conceptualization of literacy starting from critical analysis, in which the education field complements digital literacy with the application of technology. The author gives a main role to media educators in response to the new challenges that arise in the age of the Internet and digital media. Years before, Buckingham (2003) had already posed the need to disseminate not only learning *with* the media, but learning *about* the media, referring to an education aimed specifically at this need. From a global perspective and most recently brought to light by the work of Pérez-Rodríguez and Delgado (2012), media literacy should combine both digital competence as much as the expertise on media and audio-visual language while being aware of the risks that Gutiérrez & Tyner (2012) observed. This means that we should not only focus media education solely on developing digital literacy, as such would result in boiling down media competence only to its more technological and instrumental aspects. Therefore, we agree with Buckingham (2007) in that digital media literacy is the most rigorous and successful way to meet the challenges posed to education in the digital era.

The European Commission (2009) provides a definition of media literacy that includes the aforementioned proposals, considering that it is related to the ability of accessing media, to understand and evaluate with appropriate criteria various aspects thereof and of its contents, as well as establishing forms of communications in different contexts. Similarly, UNESCO (2008) proposes a comprehensive view of media literacy, where information literacy converges with the skillsets, competencies and attitudes that all citizens must develop. Proposals for complete media education are the basis of all these international initiatives and are the main reasons for our diagnostic research on media competence of Spanish citizens. In line with these proposals, we submit to comprehensive model of media education, corresponding to Buckingham's model (2003) and UNESCO's recommendations as mentioned above. The comprehensive model or social model of media education goes beyond purely technical aspects, integrating socio-political, ethical, axiological, linguistic, and even aesthetic aspects related to the processes of representation and media production.

As can be seen in the scientific literature, research interest for media literacy is increasing. However, there is still not enough research with scientific evidence regarding the diagnosis of the level of media literacy amongst the citizenry that could allow proposals tailored to different population sectors, depending on the weaknesses and strengths that arise.

It is prescriptive to highlight the interest of the European Commission (European Commission, 2009) to ensure that different member countries diagnose average levels of media literacy, through the establishment of a series of standards and recommendations through the EAVI (European Association for Viewers' Interest, 2009, 2011) on how knowledge of the current reality is made. On that matter, there is a specification related to the efforts taken on media education (from early childhood and throughout life) and quality research that impact general citizens –children and adolescents, as well as adults, professionals and media-specific industries– so that exclusion situations are eliminated.

The results of the two reports conducted by EAVI indicate that an overall low level of media literacy exists in Europe, even though countries such as the United Kingdom, France, Ireland, the Netherlands and Germany stand out with higher levels. In light of the overall results, the implementation and regulation of media education initiatives aimed at all citizens' groups is vital. Among the few projects that answer to this challenge in Spain, it is important to mention the one directed by Ferres et al. (2011), which conducted an evaluation of media competence of Spanish citizens, whose results indicated that a low minimum level of media competence prevailed. A single questionnaire was used in Ferres' and others' research and was applied to a sample of 6,626 people, ranging from 16-year-old adolescents to senior citizens aged upwards of sixty-five, all of whom differed in gender and educational background. Additionally, several focus groups and interviews were conducted to fully understand the results from a qualitative perspective. After analysing the data obtained in relation to the media dimensions

and audio-visual literacy, researchers only obtained satisfactory results for technology-related competence where differences in age, gender or previous studies had no influence, although a slight increase of media proficiency is prevalent in adolescents and adults under the age of sixty-five.

Different studies such as Zhong (2011) have shown that today's greater access to technology, constant exposure to screens and media, as well as their daily usage, do not necessarily guarantee nor help develop a skillset for efficient and effective media consumption or production of new content and messages in a way that is responsible, conscious, critical and based on democratic values. For this reason, it is relevant to take the proposals for media education into account, such as the one posed by De Fontcuberta & Guerrero (2007), based on the foundations already introduced for the creation of a curriculum that integrates education and communication (De Fontcuberta, 2005).

IMPORTANCE AND DIMENSIONS OF MEDIA COMPETENCE

Taking into account the progress already made regarding citizen media literacy and the current need to establish ways and to define strategies in order to achieve the ownership of the media in a responsible, effective, and ethical manner by citizens, it is necessary to promote the acquisition of a number of skills that have to be implemented to achieve the expected results of this media interaction. Media competence, as understood and defined by the European Commission (2011), as a point of convergence of different skills, expertise, and knowledge that encompass media literacy, is the ability to perceive, analyse and enjoy the power of messages, images, stimuli and sounds that are perceived in media in addition to using them to meet the needs of communication, expression, training, or information that may be generated in various everyday situations.

Developing media competence requires taking into consideration a number of dimensions from a holistic and interrelated view as proposed by Ferres (2007) and Ferres & Pisticelli (2012): languages, technology, production and dissemination processes, processes of reception and interaction, ideology and values, and the aesthetic dimension. For each of

the dimensions, a series of indicators or criteria are established that allow the assessment of the results from the acquisition of media competence. At the same time, its content is approached from the areas of participation: expression and reception, i.e. the ability of a person to produce audio-visual messages and to understand and correctly interpret these messages. The implications of this dimensioned concept of media competence assume its development within the framework of participatory culture, combining critical and aesthetic spirit with expressive capacity, and the development of personal autonomy with social and cultural commitment.

Ultimately, the distinction of six dimensions in the concept of media competence (a distinction we made in our research) is a further development of the well-known proposal by Buckingham (2003), where key media literacy aspects were distinguished: production, representation, audience, and language. From this well-known distinction, reformulated as according to the proposal by Ferrés (2007), we have established a global view of media competence that includes the following six dimensions and indicators:

a) The technological dimension, regarded as the capacity to effectively use media and communication technologies, which includes the ability to adapt the technology for the purposes previously set by the user. It also includes the ability to learn and integrate technological innovation as well as the ability to create and manipulate images, sounds, etc.

b) The dimension of media language, or ability to properly interpret the codes of a message as well as the capacity to evaluate the significance of the contents and different systems of representation. It includes the skill of expressing oneself according to different codes and systems of representation, depending on the context and the message that will be produced or transmitted.

c) The dimension of reception and processes of representation and interaction, including the ability to self-assess their own media diet and the capacity to recognize and appreciate the emotions and values in media messages. It also includes the capability to recognize values in the media message or the skill to critically interpret the contents of the media, as well as the ability to

interact collaboratively on platforms provided by social networks.

d) The dimension of production and distribution processes, which refers to knowledge about the procedures of production, programming and broadcasting media content, including the ability to differentiate between individual and collective productions, between the popular and the corporate, and so on. It also refers to the knowledge and use of systems of production, programming and distribution of content, and the ability to collaborate in making multimedia and multimodal products. It includes knowledge on the rights of authorship and a responsible production of contents, while respecting intellectual property rights.

e) The axiological and ideological dimension, related to the above, regards knowledge on legislation that protects users and consumers of media, and ultimately includes the aptitude to both produce as well as interpret the media messages in a civil, democratic and autonomous way, detecting intentions, the rights and interests that underlie the contents. It also involves the ability to use new technologies in a responsible and democratic manner, in favour of promoting the social and natural environment.

f) The aesthetic dimension of media competence refers to the sensitivity and attention to the formal aspects, from a creative perspective, governed by good taste. It is related to the ability to use and interpret the media following standards of aesthetic quality, in a creative and original way.

METHODOLOGY

This descriptive study intends to diagnose the level of media competence of Spanish citizens. It focuses on the educational community, collecting data from students, faculty members and families, with the results separated according to three different levels: basic, intermediate and advanced. Quantitative and qualitative research methods were used on the different sample groups, in order to have results that showed the strengths and weaknesses of the study participants, as regards to their ability to interact with

the media, following previously-established criteria and indicators of media competence.

SAMPLE GROUPS

The selection of the sample groups aimed to access different groups of non-university students, families (parents) with school-aged children and faculty members of different pre-university educational stages. The purpose of the study was not to have a representative sample, but a sample of different groups from the whole of the Spanish territory. To do this, the non-probabilistic sample was composed of students, teachers and parents (father or mother) from ten Spanish provinces, as shown in Table 1. The forty schools in which the students were enrolled during the 2012-2013 academic year were all publicly funded and were selected among those that had Internet access and computers available for large groups of students.

PILOT STUDY

To ensure the validity and reliability of the tools used, we proceeded to design questionnaires and group interviews considering the six dimensions of media competence, so that they could be included in the various issues raised by each tool. The tools were applied to small samples to adjust for the different components that were aimed at the target samples. The Delphi technique was used to ensure validity. After the pilot study, the final design of the four *online* questionnaires for students was carried out, and the *online* questionnaire for faculty members, as well as the interview for family members was refined. A number of set criteria were also defined by an evaluation rubric, to sort out the results according to the three levels of media competence: basic, intermediate and advanced.

TOOLS

As indicated, each of the six tools designed to measure the degree of media competence of students, teachers and families respond to issues related to the dimensions of media competence[3]. The different variables that composed them were as follows:

The questionnaire aimed at children ages five to six consisted of thirteen items apart from five items that collected sociodemographic information such as age, gender, and details from the school they were enrolled

Table 1: Sample groups selected for research in Spain

Provinces	Students				Families	Teachers
	Pre-School	Primary School	Secondary School	High School		
Cantabria	25	58	70	52	7	132
Córdoba	28	59	82	53	6	113
Granada	25	57	52	58	5	100
Huelva	25	53	49	37	6	75
La Rioja	25	74	105	109	7	26
Lugo	25	52	102	110	8	104
Málaga	25	60	50	50	6	85
Murcia	26	50	54	50	7	101
Sevilla	44	49	51	49	7	68
Valencia	26	69	50	55	7	101
Total	274	581	665	623	66	905

Source: Own Elaboration

at. The design and validation of the questionnaire was a complex process mainly due to its digital format, which was aimed to such early ages, and can be found in García-Ruiz, Duarte & Guerra (2014).

The questionnaire for children between the ages of nine and ten was composed of twenty-two items, of which five were also intended to identify sociodemographic issues, and the rest collected aspects related to the dimensions of media competence.

For thirteen and fourteen year old students, an *online* questionnaire was also designed, which consisted of seven initial questions that inquired about information that characterized the sample group (age, gender, educational centre) as well as their previous education in audio-visual and digital communication, in addition to twenty-eight other questions that were posed following the same dimensions seen in the other questionnaires.

The questionnaire aimed at high school students, between the ages of sixteen and seventeen consisted of six questions designed to identify the students, in addition to twenty items whose content correspond to the dimensions of media competence. The design of the questionnaire process can be found in Rodríguez-Rosell, Berlanga & Sedeño (2013).

The questionnaire for teachers was the most extensive of all. It consisted of an initial five questions about sociodemographic information, and continued with thirty-eight questions that took the six dimensions of media competence into account.

The tools designed to carry out the *focus group* with families were designed to be in the form of an in-person interview and involved one of the parents of each selected family. For each of the dimensions of media competence, three to five questions were designed for the group to answer. For the process of validation for the *focus group*, see González, Sedeño & Gozálvez (2012).

All the tools used followed a process of validation using the Delphi technique, to ensure that each of them were adapted to the collective object of study and responded to the objectives. The estimation of reliability of the *online* questionnaires was calculated using Cronbach's alpha, and the results

ranged from 0.61 to 0.78 in the case of students from the four educational levels. The reliability of the faculty questionnaire was measured according to two groups of items, self-assessment and dichotomous, resulting in an estimation of reliability of 0.812 and 0.625, respectively, using Cronbach's alpha method.

DATA COLLECTION

In the development of this research, quantitative and qualitative data were gathered with the differently-designed tools, and all of them were implemented as shown below:

The family interviews, lasting between sixty and ninety minutes, were done with groups of eight to ten fathers or mothers. They followed a semi-structured script, which dealt which their perception of the media, how they used them and the importance attributed to them, especially in relation to the family. In each group there were at least two members of the research team collecting data and recording sessions, the contents of which were subsequently transcribed.

The questionnaires intended for faculty members were answered *online* by each of the 905 teachers participating in the study at the time and place they chose to do so and without the presence of researchers. The data was exported instantly to the database designed by one of the participating universities.

Questionnaires aimed at students were answered in the computer rooms of schools, and because of its *online* characteristic, the information was collected instantly. In each classroom, there was at least one researcher present for support. Each student had headphones to listen to the contents in audio format, thus avoiding overlap with their fellow classmates.

The entire process of data collection was carried out during the 2012-2013 academic year, and the participants did so voluntarily, guaranteeing their anonymity; and in the case of minors, with the permission of the school management and their families. Data processing was performed with the SPSS software program for the data collected with questionnaires *online*, and the ATLAS-Ti software program was used for the data coming from the group interviews. The amount of data collected can offer an overview of the degree of acquisition of media competence of Spanish citizens.

RESULTS

To answer the question posed as the object of the research study, and to thus determine the level of media competence of students, faculty and families with school-aged children, the data collected was categorized into three levels: basic, intermediate and advanced. It should be borne in mind that the results presented here are the result of a first analysis of the data, since the members of the research team are currently proceeding with the statistical analysis of the data on different samples and categorizing them according to the dimensions of media competence. In this sense, this paper provides an initial approach to the whole of the population under study, in order to make these tools available for the benefit of other researchers interested in diagnosing the level of media competence of other sample populations.

MEDIA COMPETENCE IN STUDENTS

From a general view, the results indicate that the overall average level of media competence of students in Pre-School, Primary, Secondary, and High School is intermediate. Of those students aged between five and six, 37.6% are at the average level, while 34.7% are at the basic level, and only 27.7% show an advanced level of media competence. Students of Primary Education aged between nine and ten are characterized by a higher percentage (56.5%) at the intermediate level, decreasing to 20.3% at a basic level, leaving only 23.2% of students in an advanced level of media competence. If we focus on the group of students aged between thirteen and fourteen we find that the highest percentage (37.0%) is at the minimum level of media competence, but also 33.7% at the advanced level, while 29.30% of students still remain at an intermediate level. Finally, in the case of students aged between sixteen and seventeen, we also find a higher proportion of students at the basic level (36.6%), decreasing to 35.8% of students located at the intermediate level, and only 27.6% of this group could be placed at an advanced level.

These results point to the need to improve the level of media competence of children and youth, since, although all groups have a percentage between 35% and 56% at an average level, except for students aged 13 and 14, which decreased slightly, few students stand out for their advanced level, although all of them belong

to the generation of "digital natives", meaning they all have had access to technology and the Internet, both at school and in their family surroundings. The analysis of the results by dimensions can be seen in García-Ruiz, Ramírez & Rodríguez-Rosell (2014).

The results obtained are consistent with other studies that have also measured the level of digital literacy, as in the case of Kim & Lee (2013), where it was found that surprisingly, more half of the high school surveyed in South Korea are situated at the basic level.

MEDIA COMPETENCE IN FACULTY

The results obtained after analysing the responses of 905 faculty members to the *online* questionnaire indicated that the level of media competence is distributed proportionally between the three levels established, meaning that 32.5% of the teachers have an advanced level of media competence, slightly surpassed by the group at an intermediate level (34%) and by the group situated at a basic level of media competence with a percentage of 33.5%. However, despite the good results that were obtained, a need for specific education regarding the media and technologies has been noted, given that 75% of the faculty members said they had not received training related to media education in the last five years. The responses also indicated the existence of gaps in the knowledge of fundamental aspects about the media, such as the existence of regulators of media, tools that control Internet content, knowledge on issues related to Internet advertising, among others aspects.

MEDIA COMPETENCE IN FAMILIES

Through the use of the interview within the method of a *focus group*, we found not only the immersion of parents in new technologies (computers, Internet, *Whatsapp*, mobile phone...), but also the parent's worries and concerns in relation to the use their children can or could give to such technologies, having a greater sense of safety with traditional media such as television, movies or magazines. The major source of concern is due to the dangers linked to the new communicative environment; especially the addictive relationship that absorbent technologies such as mobile Internet connection can result in their offspring. Among such hazards, parents are aware of the misuses that are possible with mobile phones, for example with the recording and distribution

of images without permission. On the other hand, they also highlight the potential and opportunities offered by new media, whether job-related, recreational (leisure and entertainment), informational, social, or even in the political and civic realm (social networks or solidarity campaigns...), that they already recognize as part of information and communication in today's society.

Ultimately, and taking into account the results obtained in a previous study (Ferrés, Aguaded & García, 2012), we found with the overall results of Spanish citizens that the level of media competence, measured through questionnaires specifically adapted to each of the groups under study, has significantly improved. Previous results indicated that citizens only performed well in regard to the technological dimension, showing an adequate technological competence; however, data was inadequate in other dimensions since they indicated that over 70% of the respondents did not properly know how to respond to the issues raised (aesthetic dimension: 95%, language dimension: 93%, ideology and values dimension: 93.7%, reception and interaction dimension: 73%, production and distribution dimension: 76%).

Perhaps the most important finding of our study was the development of measuring tools suited to each age group or to the collective at large, which has allowed for the identification of the strengths and shortcomings of the citizens in their interaction with and their critical use of the media.

CONCLUSIONS

The diagnosis of media competence levels is a goal to which all agencies and institutions responsible for improving the quality of life of the citizens must strive for in order to achieve mediatic citizenship through specific training that will make possible an effective, autonomous and civic use of media and technology. Throughout this paper, we have tried to show the commitment of a Spanish research team that has been able to define the level of media competence of students, faculty members and families, thanks to the design and implementation of assessment tools specifically designed for each group.

Thanks to the proper application of these tools, we have been able to diagnose, in a first general assessment, what strengths and deficiencies are present in the school

community in order to establish guidelines which favour the coexistence of the messages that we receive, produce and share in our daily lives, undoubtedly influenced by communication media. The data of this first approach is currently being exploited for its publication and distribution. It is noteworthy to point out the value of these assessment tools, unprecedented in the field of media education, which are being replicated not only in other contexts of the Spanish landscape, but also in various European and Latin American countries through the Alfamed network (www.redalfamed.org), leading to numerous doctoral and graduate works.

We consider it essential to start working on implementing media competence from early childhood; from the moment children are enrolled in schools and have pedagogical and technological resources necessary for successful literacy adapted to today's society at their disposal. In this regard, it is necessary to consider the findings of Owen, Autyb, Lewisaand & Berridgec (2007) in their study on the understanding of advertising by primary school children. Therein, it is shown that at age seven, children already have an implicit knowledge about the objectives of advertising, that being of sales, but they are not yet able to verbalize it when questioned by researchers. It is also shown that at ten years of age, most children fully understand the persuasive power of advertising. With this background, it is not advisable to postpone media education until adolescence; but instead, it should be introduced in the Pre-School curriculum. Another interesting line of research initiated by Condeza, Bachmann & Mujica (2014), delves into media consumption of adolescents regarding their news habits and appeals to the fundamental role of parents and teachers in promoting interest of younger citizens to consume news.

Specific media literacy education has positive effects on academic performance of students, as confirmed by studies such as Literat (2014), where it was found that after receiving a specific course on media and communication, where deep critical analysis of media texts in print, audio and visual media was incorporated, students improved the quality of their writing and developed the skills needed to identify the main ideas of the messages in written, audio and audio-visual form. Similarly, it improved their ability to identify important features of the messages, such as its purpose, target audience, the construction techniques used - even identifying

omitted information - both in print, audio and audio-visual forms. Cabero & Guerra (2011) arrived to similar conclusions when, after implementing a specific training program for future media educators, they found an improvement in their skills needed to understand media messages, pursue its responsible consumption and exert a participatory and democratic citizenship.

At this point, it is necessary to address the real possibilities of teaching media literacy skills (media competence) according to the curriculum of each of the educational stages. A first approach to the contents of the curricula indicates that, although there are some proposals for incorporating media literacy, and some college graduate courses and doctoral programs that encourage specialization in media education do exist, it is necessary to develop in-depth studies that analyse the relationship of media education with the curriculum. Some research works have already been published, and are encouraging, since they highlight the possibilities of addressing this issue in different proposals for teaching and learning (Ramírez, Renés & García-Ruiz, 2014; García-Ruiz, Sandoval & De Cos, 2013; Izquierdo-Magaldi, Renés & Gómez-Cash, 2013), betting on complementing digital media competence with media competence (Pérez-Rodríguez & Delgado, 2013), taking into account and embracing the possibilities of development in the curriculum from the earliest school age (García-Ruiz & Castro, 2014; Renés, Ramírez & González, 2013) until university education (Gozálvez, García-Ruiz & Aguaded, 2014).

Taking into account the benefits of specific education that encourages the development of media competence in students, we posed at the beginning of the work the need to also improve teacher education, as proposed by UNESCO (2008). That is, in order to achieve a high quality media education, we consider it crucial to design plans for initial and continuing education of faculty members that favour the proficiency of media competence that will ultimately help them to collaborate to ensure that their students become free citizens, responsible and critical of the influence of the media. This opens an interesting line of research and reflection on how to deal with the education of the faculty members at a school level, which will require different decisions on a political and curricular level.

Similarly, one has to take into consideration the need to strengthen the families' media competence, in

order to establish an effective communication, focused on the shared education of children.

Ultimately, involving the educational community in the development of media competence is a challenge proposed by the public institutions that this research team has aimed to respond to in order to achieve the empowerment of citizens in this communicative context, as proposed by Gozálvez & Contreras (2014). With this work we have tried to offer a new line of research, which starts with knowing the level of media competence of citizens to improve future media education programmes.

FOOTNOTES

1. It is the Research Project R+D: EDU 2010 – 21395-CO3, *Media Competence*, in which participate the universities from Huelva, Cantabria, Lugo, Málaga, La Rioja, Valencia, Córdoba, Granada and the Catholic University of Murcia. (Information available at http://www.competenciamediatica.es/).
2. Spain, Portugal and Italy; Argentina, Brazil, Colombia, Peru, Bolivia, Chile, Cuba, Ecuador, Mexico and Venezuela.
3. Look at *Competencia Mediática* (Proyecto de Investigación R&D: EDU 2010 – 21395-CO3) [*Media Competence* (Research Project R&D: EDU 2010-21395-CO3)], at http://www.competenciamediatica.es/. The questionnaires for the different educational levels are found, respectively, at: http://www.uhu.es/competenciamediatica/primaria/; http://www.uhu.es/competenciamediatica/secundaria/; http://www.uhu.es/competenciamediatica/bachillerato; and http://www.uhu.es/competenciamediatica/profesorado/.

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