

● M^a Amor Pérez & Águeda Delgado
Huelva (Spain)

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From Digital and Audiovisual Competence to Media Competence: Dimensions and indicators

De la competencia digital y audiovisual a la competencia mediática:
dimensiones e indicadores

ABSTRACT

The need to set out the conceptualization of media competence leads to a broader perspective in which there is a convergence of factors linked to the digital and audiovisual competences, both of which constitute the reference framework for «information processing and digital competence», which is the key competence in Spain's national curriculum. Despite the ongoing experiences in audiovisual and digital communication few attempts have been made to define the knowledge, skills and attitudes needed for a person to be deemed competent in these two areas, which are essential for the teaching and learning processes. This paper analyzes six important studies on digital and audiovisual literacy, considering issues such as the recipients, the conceptualization used in each study and the dimensions they suggest, the type of taxonomy, indicators...and the educational proposals: objectives, content, activities are systematized in a series of dimensions and indicators to define media literacy and design activities for a didactic proposal in accordance with the indicators established. The development of this research has led us to affirm the need for convergence in terminology and the expansion of resources based on the indicators defined, which affect the diverse areas of media literacy in an effective way and function to enable teaching actions among the various groups that comprise today's society.

RESUMEN

La necesidad de plantear la conceptualización de la competencia mediática conduce a una perspectiva más amplia en la que convergen aspectos vinculados a la competencia audiovisual y a la competencia digital. Ambas constituyen el marco de referencia de «El tratamiento de la información y competencia digital», competencia básica del currículum vigente en nuestro país. A pesar de las experiencias que se están llevando a cabo tanto en comunicación audiovisual como digital, aún son pocas las tentativas para definir, de manera precisa, los conocimientos, habilidades y actitudes necesarios para considerarse competente en sendos ámbitos, ineludibles a la hora de llevar a cabo los procesos de enseñanza-aprendizaje. Este trabajo parte del análisis de seis estudios significativos en la temática de alfabetización tanto digital como audiovisual. Considerando aspectos como los destinatarios, la conceptualización que se utiliza en cada uno de ellos, las dimensiones que plantean, el tipo de taxonomía, indicadores... y las propuestas didácticas: objetivos, contenidos, actividades, se sistematizan en una serie de dimensiones e indicadores para definir la competencia mediática y plantear el diseño de actividades para una propuesta didáctica de acuerdo a los indicadores establecidos. La investigación desarrollada nos ha permitido afirmar la necesidad de la convergencia terminológica, así como de la elaboración de recursos, a partir de los indicadores definidos, que incidan en los distintos ámbitos de la competencia mediática de una manera efectiva y sirvan para llevar a cabo actuaciones didácticas en los distintos grupos que componen la sociedad actual.

KEYWORDS / PALABRAS CLAVE

Media competence, key competences, digital competence, media literacy, dimensions and indicators.
Competencia mediática, competencia digital, alfabetización mediática, dimensiones e indicadores, didáctica.

- ◆ Dr. M. Amor Pérez-Rodríguez is Professor of Didactics of Spanish Language and Literature at the Department of Didactics of Spanish Language at the University of Huelva (Spain) (amor@perez-rodriguez.es).
- ◆ Águeda Delgado-Ponce is a Member of Agora Research Group and Lecturer in the Department of Didactics of Spanish Language at the University of Huelva (Spain).

1. Introduction

Children and the youth of today develop new and uncontrolled skills, and ways to manage information and provide answers that differ from adults' views. This explains the relevance of the 'digital native' concept subscribed to by Prensky (2011; 2001). The new ways of dealing with information, to link concepts, to search, to express and ultimately, to think in a more visual, kaleidoscopic way, faster and more interactive than before, challenge the current pedagogical approaches followed at schools. Paradoxically, this development implies a confrontation with the traditional skills.

The speed of technological advances unquestionably affects teaching and generates changes in communicative processes. According to Buckingham (2006), «we urgently need to define a much more proactive role for the school as a key public sphere institution». And as the Delors report (1994: 91-103) states that «the 21st century offers unprecedented resources for information dissemination, information storage and for communication. These resources demand education to provide new requirements for a massive and efficient transmission of information, with more and more evolutionary, theoretical and technical competences at stake, as well as new approaches which need to be defined». Therefore, education «must provide the guidelines in a complex, changing world as a compass that guides us along the new paths».

Technologies and the media are complicating the traditional paths, and their presence in education is not systematized. As we observe, the implementation of new technologies has often been an exclusively political issue. Politicians provided schools with equipment that in many cases has not been used while promoting training courses for teachers... In any case, technological determinism does not imply a direct change in education. Attempts to consolidate coordinated projects in the curriculum, transforming the media and the new technologies into tools for learning, are usually unsuccessful. «Technology must not be an end in itself, and a significant use is necessary to overcome difficulties regarding its implementation in education, considering the purposes for its usage and establishing an integral pedagogical framework according to the needs of teachers, students and society» (Levis, 2006: 79).

According to Pérez-Tornero & Martínez-Cerdá (2011: 41-42), the paradoxical effect of technological advance and the inadequate citizenship training prove how diffusionist, economic and biased approaches leave aside changes in cultural attitudes and in the development of critical skills, creativity and the personal autonomy of individuals. Some of the investigations

in which we have participated confirm this paradox (Pérez-Rodríguez, Aguaded & Monescillo, 2010). In this sense, the development of media competence would support a new concept of education, fostering critical thinking, cooperation, dialogue and the production and management of new knowledge, the functionality of learning, tolerance and diversity.

In the late twentieth century, the concept of «competence» gradually emerges in the educational context, evolving towards a new perspective, from the traditional behavioural approach into a new approach closer to the social constructivism, including the skills needed to face the complex demands of specific contexts (Pérez-Gómez, 2007).

These basic competences were incorporated into the Spanish education system in 2006, with the appearance of the Organic Law of Education 2/2006. However, these initiatives first started to appear back in 1990, with the «World Declaration on Education for All and Framework for Action to Meet Basic Learning Needs» (Jomtien, Thailand), ratified ten years later at the World Education Forum in Dakar. More recently, a working group appointed by the European Commission presented a report on «Education & Training 2010. Key competences» (OECD, 2005; European Commission, 2006).

There are interesting elements in competency-based education which are presented as new ways to approach and solve some of the current educational problems. One of the most interesting ideas is introduced by Perrenoud (2004), «the capacity to choose and use relevant content to face specific situations and problems», which is very useful when confronting current social challenges in education. This new approach should integrate the media and ICTs, fostering the development of critical skills, creativity and freedom of speech with no limits in format, time or space.

In accordance with the guidelines provided by the European Parliament, the Organic Law of Education 2/2006 (MEC, 2006) includes eight basic competences among which «information processing and digital competence» represent a significant acknowledgment of the initiatives carried out in Spain in the implementation of ICTs. Also in line with the European Parliament guidelines, the Spanish Organic Law of Education sets out some extra skills in relation to the information and communication process, as the main aim of this competence is to transform knowledge. In our opinion, this competence incorporates language and media proficiency, the decoding and transfer patterns used by the media and their subsequent comprehension, the critical approach, communication and deli-

very. According to the guidelines, «information does not automatically imply knowledge acquisition. Transforming information into knowledge requires thinking skills to organize, link, analyse, synthesise, infer and deduct information at different levels of complexity, also with prior knowledge. These skills also permit the transfer of the information using expressive resources, different languages, specific techniques and possibilities offered by the ICTs» (MEC, 2006). All these aspects need to be taken into account for the literacy required in the development of media competence.

Historically, the digital and audiovisual competences have been separate, with the latter focused on the knowledge, skills and attitudes related to the mass media and audiovisual language, and the former linked to searching abilities, processing, communication and information dissemination with technologies. Masterman (1993: 275-284) laid the groundwork for media education, highlighting the importance of audiovisual literacy, collaboration with families, teachers and media professionals, training programs for teachers and the creation of agencies to foster the interaction and integration of media education in schools. By the end of the twentieth century, technological development displaced the audiovisual, and many media education supporters thought that technologies would turn everything upside-down in education. However, nowadays the instrumental dimension of technology prevails over training practices, critical skills development and creativity.

The need to train to develop critical views towards the media remains a priority for the European Parliament and the European Commission. Many initiatives have been launched to pursue the goal of global media literacy in the educational environment (Audiovisual Media Services Directive, European Approach to media literacy in the digital environment, Commission Recommendation on Media Literacy, Mapping Media Education policies in the world: contributions and world challenges). In order to create a new concept of media literacy, it is important to com-

bine the educational and socio-cultural dimensions, the new digital competences and classic forms of literacy (reading and writing), and take into account the cultural transformation and the convergence of the media (Pérez-Tornero, 2004; Pérez-Tornero & Martínez Cerdá, 2011).

According to Spanish Directive 2007/65 «Media Literacy includes abilities, content and comprehension skills to interact efficiently and safely with the media. Competent users are able to choose and understand content, to optimise the opportunities offered by new

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technologies and to protect their families and themselves from offensive content». As digitalisation is the current trend today, it is necessary to consider the conceptual and terminological integration of digital and/or audiovisual literacy together with media literacy and, therefore, to propose dimensions and indicators to formulate a didactic and convergent approach.

2. Material and methods

After the analysis of six investigations on digital and media literacy, this study qualitatively describes the relevant aspects of each, focusing on the audience, the conceptualization used and the concept itself (audiovisual, digital or media literacy), the dimensions proposed, the taxonomy and indicators and the didactic proposals: objectives, content, activities... directly linked to the development of media competence. All this information permits us to introduce dimensions and indica-

tors for a convergent, didactic approach for the development of media competence.

According to currency, authorship, institutional support and other specific criteria, the sample selected comprises:

- An article by Area (2008) about the development of information and digital competences in order to train students to become autonomous, intelligent and critical in our current society, defending the use of technology in a new educational model, suggesting didactic activities according to three basic dimensions described in the competences.
- Research carried out by Celot & Pérez-Tornero (2009) on Media Literacy policies and the analysis, reflection and proposals on digital literacy in Europe,

La Mancha, Comunidad Valenciana, País Vasco, Murcia).

3. Outcomes

The information in these studies will help to systematize the concept of media competence, establishing dimensions and indicators from a convergent didactic approach. To this end, the elements analysed are the audience, the conceptualization or the underlying concept, the dimensions and indicators presented and the didactic proposals if applicable.

The Area study (2008) is aimed at teachers working with students to develop their informational and digital competences. The 'information competence' and 'digital competence' concepts are based on the

link they have with the current curriculum, as it has been demonstrated that by «separating both competences, as we used to do in the past, the approaches might be biased and simplistic». In this study, literacy in digital culture is presented as the best option in order to learn how to use hardware and software and «to develop cognitive skills for collecting information, understand content and produce information, for communication and social interaction with technology, developing values

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and attitudes to give moral, ideological and political meaning to the actions developed with technology». In relation to these dimensions, the study presents three different scopes for the development of information and digital competences that should be considered as a whole: 1) Information acquisition and comprehension; 2) Conveying and disseminating information and 3) Communication and social interaction. The didactic proposal is based on the principles of the New School and Freire's literacy theory adapted to educational practice with the support of ICTs. Generic didactic activities are proposed for the use of ICTs in the three established dimensions.

as a first system of indicators to determine the levels of media literacy.

- «Bloom's taxonomy in the digital era» (Churches, 2009), in which behaviours, actions and learning opportunities are analysed and new tools introduced for the new learning methods.

- The «Teacher Resource Guide» (Di Croce, 2009), whose aim is to develop new media skills in students to help them deconstruct media images and messages.

- A proposal by the Pompeu Fabra University in collaboration with the Audiovisual Council of Catalonia (Ferrés, 2007), with new dimensions and indicators to assess audiovisual competence.

- Contributions by Marquès (2009) on the integration of 39 items organized in 11 dimensions established in 2002 in the study presented by the «Consell Superior d'Avaluació del Sistema Educatiu de la Generalitat de Catalunya» together with seven other Spanish regions (Asturias, Baleares, Canarias, Castilla-

The research by Celot & Pérez-Tornero (2009) is aimed at assessing media literacy levels in Europe. Media literacy is presented as a concept «that includes the consideration of all media, traditional (analogue), novel (digital) and their convergence». Two dimensions are identified; the first is linked to the individual's capacity to use the media, divided in turn into indivi-

dual and social competences. The second dimension derives from a contextual analysis of the «environmental factors» of the field. Each dimension is distributed according to different criteria. Contextual factors include the following criteria: «availability of the media» and «context» (educational, legal, industrial and civil), and criteria related to individual skills regarding «use» (technical skills), «critical comprehension» (fluency in interpreting and comprehension) and «communicative skills» (the ability to establish social links through the media). According to this research, media literacy is the result of a dynamic process of availability, context and communicative skills, including the levels of media competence within the scope of the individual. Other components are also defined and presented as indicators to assess the level of media competence in Europe. There are no didactic proposals, but some recommendations for the curriculum that include the development of media competence, allocating resources for training teachers in media literacy, promoting the assessment of media competence in teachers and media training in the professional training programs.

Churches' work (2009) focuses on teachers and trainers in general. The conceptualization is linked to digital competence, and it begins with a classification of cognitive processes in learning (Bloom's taxonomy), adapted to include digital competence skills. There are six categories in ascending order: to remember, to understand, to apply, to analyse, to assess and to produce). Each of these categories comprises different skills. Collaboration and communication are presented as essential elements, and some digital activities are included for use in anyone of these dimensions, highlighting the importance of using tools to foster cooperation in students, such as wikis, blogs, collaborative tools, social networks...

The work by Di Croce (2009) consists of a guide to support teachers in the development of media literacy in students, helping them to assess consumer societies and the different responses of people towards information. The terminology used (Media Literacy) implies the convergence of traditional and digital media. It is, therefore, necessary to include it in the definition of the Media in the 21st century: Internet (websites, blogs, podcasts, RSS feeds and social networks), music and films, books (including e-books), comics, journals, advertising (billboards, branded products), cell-phones (and applications), video games and physical places (Coca-Cola store). Regarding the media literacy dimensions there are no classifications, but a series of key concepts of the media that refer to

the construction of reality, the negotiation of meaning, commercial, ideological, social and political implications, form, content and aesthetics. A list of activities is included to reflect on issues related to the media, as well as production activities that place students in the role of editors or which deconstruct adverts with the aim of assessing the information provided by the media.

Ferrés' research (2007) aims at «identifying objectives, processes and contents in audiovisual communication to be acquired and developed by students at the end of compulsory secondary education. These objectives, processes and contents would act as the foundations for the development of life-long learning. University curriculum content would serve to train future teachers and professionals in the audiovisual communication and information environments». The underlying concept of audiovisual competence is understood as the «ability to critically analyse and interpret images and audiovisual messages, and to communicate properly in the communicative environment. This competence is related to knowledge of the media and basic use of multimedia technologies». More specifically, this competence involves «mastering concepts, procedures and attitudes related to the six basic dimensions of Audiovisual Communication».

The six dimensions are interconnected and include indicators divided into two areas: analysis and delivery of information: language (codes and analysis skills for audiovisual messages); technology (theoretical knowledge and ability to use tools for audiovisual communication), production and programming processes (the work of the main agents in the process, ability to create audiovisual messages); ideology and values (comprehensive and critical reading and analysis of audiovisual messages); reception and audience (ability to recognise the active role of the audience and to critically evaluate emotional, rational and contextual elements in the reception of audiovisual messages); the aesthetic dimension (ability to analyse and assess audiovisual messages from an aesthetic point of view and the capacity to link them to other forms of artistic and media expression). In this research there are no explicit didactic proposals, but the objectives, processes and content are presented as part of the final product.

Marquès (2009) focuses on teachers involved in the development of competences among students. The «Digital competence» concept is defined as the «combination of knowledge, abilities and skills together with values and attitudes to reach objectives efficiently in different contexts with the support of digital tools.

This competence is framed within the mastery of five abilities related to the different dimensions of digital competence». Five dimensions are presented, each divided into five indicators: the learning dimension (transforming information into knowledge and information acquisition); the informational dimension (access, evaluation and treatment of information in digital environments); the communicative dimension (interpersonal and social communication); the digital culture dimension (social and cultural practices of the knowledge society and digital citizenship); the technological dimension (technological literacy and mastery of digital environments). These dimensions are embodied in five abilities related to the media and digital

The increasing exposure to information today is not associated to a growing development of critical analysis among viewers. According to studies by Agueded et al. (2007), Agueded et al. (2011) and Pérez-Tornero & Martínez-Cerdá (2011), technological or media equipment does not make citizens competent in that field. Educational training is required in order to become competent, to be able to search for and discriminate information, to understand meaning and to express oneself with and through the media, to participate and interact, to communicate... Our research leads us to conclude that there is an increasing interest in information, focused on training teachers, in the works by Area (2008), Churches (2009), Di Croce (2009), Ferrés (2007) and Marquès (2009). Ferrés (2007) also includes Spanish students in compulsory secondary education and future information and communication professionals. In general, all these works focus on formal education, but do not include references to other sectors of society, which are also part of the media society, but remain outside the literacy process (housewives, the elderly, the unemployed). Coinciding with Buckingham (2009), we underline the importance of this key aspect in relation to the changes needed in policies on and practices in media literacy.

To carry out didactic proposals that focus on media competence, it is necessary to deal with the procedures for accessing information, with the different languages that encode messages today, with the reception and comprehension of messages, the technology spreading this information, the production, policies and ideology of the media industry, citizen involvement and the creative dimension. In this sense, training citizens to be autonomous and critical towards the media and ICTs would be a success.

environments: learning and producing knowledge; obtaining, evaluating and organizing information in digital formats; communicating, interacting and collaborating in digital environments; acting in a responsible, safe and civic way; using and managing devices and digital work environments that would be useful for creating teaching and learning activities to foster digital competence development.

4. Discussion

Given the fact that skills related to the media, technology and information are necessary for citizens to become autonomous and continue learning, it is important to determine the dimensions and indicators needed to present an appropriate didactic proposal for the development of media competence.

According to our analysis, and concerning the terminological and conceptual questions, there are two differentiated tendencies: studies that refer to media literacy (Celot & Pérez-Tornero, 2009; Di Croce, 2009) bridging traditional media (TV, radio, newspapers) and new technologies; studies that describe digital competence (Marquès, 2009) or information and digital competence (Area, 2008), focusing on the development of digital competence: content, abilities and attitudes related to searching for and comprehension, communication, creation and dissemination of information using technologies. Ferrés (2007) introduces the concept of competence in audiovisual communication, including the technological dimension, but focuses on the use of these tools as a boost to audiovisual communication. Churches (2009) adapts the abilities related to digital competence to the cognitive processes of learning in

Bloom's taxonomy. It seems convenient to propose a terminological convergence together with the convergence of the media, as suggested by Pérez-Tornero (2004) in relation to socio-cultural aspects and conceptualized by the European Commission (2007; 2009).

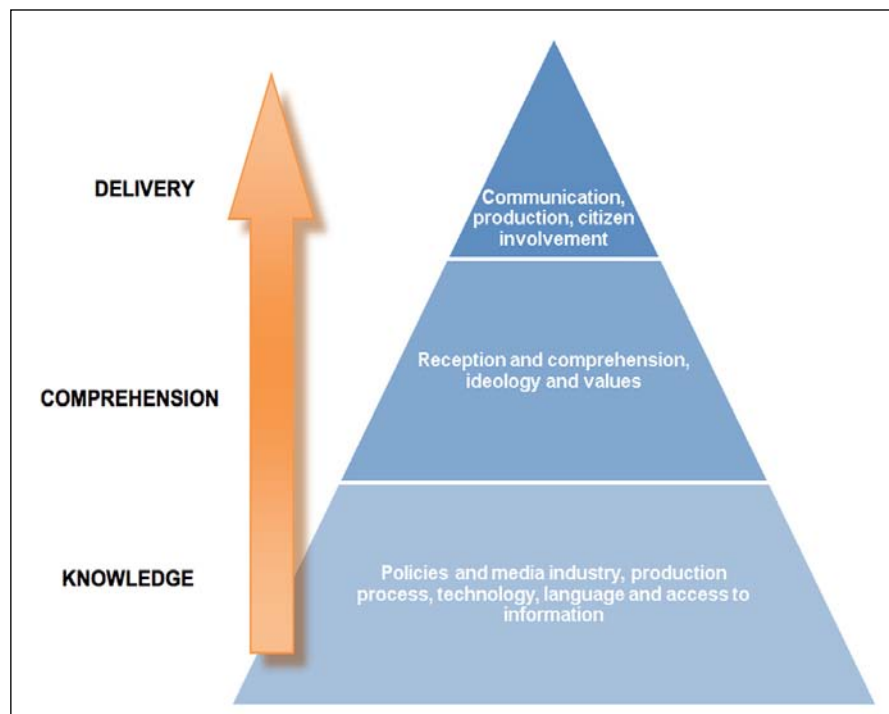
Regarding the dimensions detailed above, the proposals are diverse but there is a link between the works that describe the dimensions for media literacy (Celot & Pérez-Tornero, 2009) and those describing competence in audiovisual communication (Ferrés, 2007); and between those works that introduce the dimensions of digital competence (Area, 2008; Marquès, 2009). The main difference in the first group is the incorporation of contextual factors (Celot & Pérez-Tornero, 2009), while in Ferrés (2007) there appears to be only one dimension that refers to processes and production agents and no references to laws regulating the media or citizenship involvement. However, there is a reference to the dissociation of emotion and reason generated by images, one of the most important and least studied aspects of media education since the discovery of neuroscience (Damasio, 2005). It would be interesting to analyse the emergence of video games and the permanent connection and exposure to images in adolescent networks.

In «Study on Assessment Criteria for Media Literacy Levels», the indicators cited are more functional, and the criteria related to traditional digital competence are more integrated when compared to the «articulated proposal for dimensions and indicators in the audiovisual communication competence». As for digital competence, Area (2008) and Marquès (2009) both present dimensions related to the acquisition and comprehension of information, communication and social interaction, delivery and disse-

mination of information. Marquès (2009) introduces the digital culture dimensions, which include the social and cultural practices of the knowledge society and digital citizenship, the technological literacy dimension and the knowledge and mastery of digital environments.

Due to the divergence observed, our proposal would add to these dimensions and indicators the most relevant aspects for the development of media competence, with ten dimensions classified in a hierarchical pyramid in which the knowledge field would include policies and media industry, production processes, technology, language and access to information; the comprehension field would have reception and comprehension, ideology and values; and at the top of the pyramid, the delivery field would comprise communication, creation and citizen involvement. After defining a series of indicators for each of these dimensions, we would propose some general activities.

In this sense, only half of the works analysed offer didactic proposals. Area (2008) and Churches (2009) present general activities related to the dimensions or categories described, together with material or resources (Area) and digital tools (Churches). This trend is also evident in Bloom's taxonomy, where the activities proposed consist of defining, reciting and playing in a general sense, with no further specific didactic guidelines. However, in «Guide for Media Literacy» (Di



Croce, 2009) there are activities that focus on the development of media literacy, and the context is defined together with background, resources, types of questions...

In accordance with the dimensions described and the analysis carried out, the following activities are proposed for the development of media competence.

With this analysis, we would like to state that the development of media literacy involves a wider conceptualization regarding the concepts, procedures and attitudes needed to express and understand communication in technological or media supports. In consequence, to carry out didactic proposals that focus on media competence, it is necessary to deal with the procedures for accessing information, with the different languages that encode messages today, with the reception and comprehension of messages, the technology spreading this information, the production, policies and ideology of the media industry, citizen involvement and the creative dimension. In this sense, training citizens to be autonomous and critical towards the media and ICTs would be a success. We are aware of the fact that the analysis of six works can limit the results. Given the nature of technologies, their rapid changes and evolution require constant revision of the dimensions and indicators. In order to assess the efficiency of the classification proposed in this study, the creation of a specific didactic proposal and its application in a real context is our next goal.

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DIMENSIONS	ACTIVITIES
Access to information	<ul style="list-style-type: none"> • Topic-based search through search engines, defining and using the topics. • Access to databases, libraries, official websites... • Search information related to films, books...
Language	<ul style="list-style-type: none"> • Analysis of codes appearing in advertisements, films, chat conversations... • Making minor productions.
Technology	<ul style="list-style-type: none"> • Using different technological tools to create an audiovisual document.
Production process	<ul style="list-style-type: none"> • Deconstructing a program into phases. • Analysis of differences between live and recorded broadcasts.
Policy and media industry	<ul style="list-style-type: none"> • Simulating a complaint.
Ideology and values	<ul style="list-style-type: none"> • Analysis of the use of stereotypes in TV. • Analysis of the accuracy of websites.
Reception and comprehension	<ul style="list-style-type: none"> • Summary and organization of information through conceptual maps. • Analysis of feelings after programs or adverts.
Citizen involvement	<ul style="list-style-type: none"> • Role playing on participation profiles towards technology.
Production	<ul style="list-style-type: none"> • Film production with tools such as Movie Maker, Pinacle... • Podcast production. • Multimedia documents. • Blogs and wikis.
Communication	<ul style="list-style-type: none"> • Fostering discussion in virtual environments. • Collaborative e-projects. • Cooperation in carrying out activities using technological tools.

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