


Transversal competencies in the Basque audiovisual field. Perceptions of professionals, lecturers and students at the UPV/EHU¹

Competencias transversales en el ámbito del audiovisual vasco. Percepción de los profesionales, profesorado y estudiantado de la UPV/EHU



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Abstract:

This study analyses the competencies required in the field of Basque public radio and television, the skills taught and evaluated at the UPV/EHU and the perception of students, teachers and professionals active in the Basque audio-visual sector, regarding the importance, shortcomings and teaching of such transversal competencies. The methodology used combines documentary analysis, and both qualitative and quantitative techniques. Following a bibliographic review, this paper proposes, advocates and contrasts, by means of a qualitative phase, a list of transversal competencies called for in the Basque audio-visual sector. This new catalogue is checked through quantitative surveys, detailing and discussing the results obtained. It is concluded that communication is the most important competence for the three agents surveyed, although they are largely satisfied with its implementation, except the professionals, 82% of whom think it requires greater attention. Adaptation to change is another of the competencies most highly valued by students and teachers.

Keywords:

Transversal competencies; audio-visual sector; digital transformation; university; soft skills.

Resumen:

El presente estudio analiza las competencias requeridas en el ámbito de la Radio Televisión Pública Vasca, las competencias enseñadas y evaluadas en la UPV/EHU y la percepción del estudiantado, profesorado y profesionales en activo en el sector audiovisual vasco, respecto a la importancia, carencias y enseñanza de las competencias transversales. La metodología utilizada combina el análisis documental, técnicas cualitativas y técnicas cuantitativas. Tras una revisión bibliográfica, este artículo propone, justifica y contrasta, a través de una fase cualitativa, un listado de competencias transversales necesario en el ámbito del sector audiovisual vasco. Este nuevo catálogo se coteja mediante encuestas cuantitativas, exponiendo los resultados obtenidos y su discusión. Se concluye que la comunicación es la competencia más importante para los tres agentes interpelados, aunque están medianamente satisfechos con su implementación a excepción de los profesionales, que en un 82% piensan que necesita mayor atención. La adaptación al cambio es otra de las competencias mejor valoradas por el estudiantado y docentes.

Palabras clave:

Competencias transversales; sector audiovisual; transformación digital; Universidad; soft skills.

1. Introduction

Modern economies are based on Information and Communication Technologies (Reljic et al., 2021), also termed digital transformation (Furr et al., 2022). This techno-productive situation affects employment and the organisation of companies, which require new knowledge, competencies and skills in all areas of life, both at work and in everyday life (Kalantzis & Cope, 2008).

Focusing on the creative industries, digital transformation implies digital training of employees, requires knowledge of Big Data, and calls for familiarity with digital tools along with a solid strategy that provide a good digital reputation, so all processes

and departments need to be involved (Fernández-Márquez et al., 2020). This change is currently becoming more acute, since artificial intelligence poses new challenges, equivalent to the digital transition. But technical knowledge is not all that is being called for. Technology is not enough for a profound transformation: the implementation of digital culture is necessary (Ochoa, 2016), that is, “a change in mindset, a reorganisation of work and, of course, a development of skills, which implies major transformations in organisational culture and in ways of working to be able to respond to the development and dynamization of the industry” (Meriño Aranda, 2020, p. 351).

The agents involved, researchers (Ananiadou & Claro, 2019), professionals, policy makers and the private sector, all support the need for reform in the educational system to provide students and new employees with the tools necessary to face the challenges of the 21st century. The European Commission financed the Tuning Project in 2000, with the aim of developing basic competencies in Higher Education programs and promoting the harmonisation established in the Bologna Declaration. That project identified the existence of a “skills gap” (Moore & Morton, 2017), as degree programs did not always address core generic competences (González & Wagenaar, 2003). Therefore, the need to include competencies such as critical and abstract thinking, analysis and synthesis, practical application of knowledge, problem identification and resolution, teamwork, project design and management, oral and written communication, decision making, creativity and autonomous learning in degree programs were recognised. Subsequently, it focused even more on the student body and learning with the ECTS User Guide, corresponding to the European Commission (Wagenaar, 2019c), which is included in the UPV/EHU Strategic Plan 2018-2021.

This study analyses the competencies required for the current Basque audio-visual sector, the skills taught and assessed at the UPV/EHU and the perception of students, teachers and working professionals, mainly in EITB (the Basque public broadcaster), regarding the importance, deficiencies, teaching and evaluation of competencies. This goal arises from a University-Business-Society project between the public broadcaster and the Faculty of Social and Communication Sciences, specifically with the Department of Audio-visual Communication and Advertising, requested by the Training and Human Resources department of the regional broadcaster. The project looked at the need for, shortcomings of and any possible training initiatives concerning the competencies required in the context of digital transformation.

The regional channel, in addition to collaborating on this project, is the preferred place for student internships and welcomes the largest number of dual-training students. The public nature of both institutions favours this alignment in the search for improvements for their current and future professionals. The Faculty of Social and Communication Sciences of the UPV/EHU teaches five standard degrees and three double degrees. 331 staff perform research and/or teach in the degrees of Audio-visual Communication, Advertising and Journalism, this number including contracted research staff linked to these last three degrees. In the 2022/23 academic year, 2,386 students were enrolled in the four years of the five degrees and double degrees. Throughout its 40-year existence, the Faculty of Social and Communication Sciences has trained numerous EITB professionals, the channel having been involved in such training through grants, internships, dual-training and programs such as the UPV/EHU-EITB Master’s in Multimedia Communication. Since the two organisations signed the agreement to implement dual-training, seventeen students have completed such training at ETB (seven in the 2021/22 academic year, five in 2022/23 and another five in 2023/24), which has a staff of a thousand employees. The two entities’ strategic plans highlight the social impact and the transfer to society. The launch in September 2023 of the University-Business-Society workshop with ETB, the first by the Faculty of Social and Communication Sciences, aims to carry out training, research and dissemination

activities and projects in areas of mutual interest, fostering the generation, exchange and transfer of knowledge. The Workshop will promote and transmit information and public communication at the service of citizens, as well as fostering young talent and skills development. The research was also extended to the Basque Audio-visual Cluster, a matrix of many companies in the sector, so as to include their input.

The dimensions addressed in this paper are, firstly, a bibliographic review to define those competencies and their subsequent discussion in focus groups, these latter providing the latest thinking on the design of the competencies to be measured. This paper, firstly, looks closely at the definition of those “soft” skills, what they are and how they can be described, as well as those linked to the creative industries or the audio-visual sector. Subsequently, the training or implementation needs detected in the university and the company are measured, according to the perceptions of its actors, that is, students, teachers and active professionals. The sharing of ideas by the three agents involved in training and continuing education (students, professionals and teachers) is one of the merits of the study.

2. State of the question: concerning skills and competencies; soft and hard skills; digital or 21st century

There is a large amount of literature referring to skills and competencies. However, there is no agreement on the specific number of these abilities and competencies or on their definition. According to Thornhill -Miller et al. (2023), in the digital and information age, machines have replaced much of the traditional work that involves hard skills, such as number-crunching, driving, drawing up budgets, or proofreading. Those skills involve mastering fixed knowledge sets and standard procedures and are often learned on the job. Such skills tend to be more routine, related to machinery, and less focused on human interaction. Therefore, in the 21st century, work requiring more complex skills, human interaction and/or non-routine skills is increasingly valued. These “soft skills” are those skills that cannot be captured through standardised knowledge tests, but that can be identified by observing people’s behaviour (Ladrón de Guevara Rodríguez et al., 2023; Humphries & Kosse, 2017). The technification of the 21st century has increased, paradoxically, the need for non-technical skills in performing a profession (Burbekova, 2021).

Whitmore (1972) was the first to term non-routine competencies related to human interaction as soft skills. The terms *skills* and *competencies* appear during the 1980s, and a decade later the notion of continuous learning came into use, a requirement of the current socioeconomic context of rapid changes. Although there is no absolute consensus on its definition, “skill” is described as multi-dimensional and implies the ability to solve problems in context and to perform tasks using the appropriate resources at the right time and in the right combination (Lamri & Lubart, 2021). In its simplest form, a skill is a learned ability to do something useful (Lucas & Claxton 2009), or an ability to perform a given task at a specific level of performance, which is developed through practice, experience and training.

Soft skills are malleable personal qualities that regulate emotions, behaviour and cognition, allowing us to achieve our objectives (Feraco et al., 2023; WEF 2016 Social and Emotional Learning model, Tsey et al., 2018, Borghans et al., 2008; Koch et al., 2015; John & Srivastava, 1999; Heckman et al., 2006; John et al., 2008; Almlund et al., 2011; Heckman et al., 2013; Flinn, 2018). These soft skills enhance employment opportunities and success at work (Deming, 2017; Heckman & Kautz, 2012). Some authors even relate them to individual happiness or emotional well-being (Heckman, 2011; Hilton & Pellegrino, 2012).

Other writers (Heckman et al., 2014; Beaudry et al., 2016; Caines et al., 2017; Glewwe et al., 2017; Zamarro et al., 2018) apply them in higher education and conclude that they favour the gaining of better qualifications and better-paid jobs.

Ramachandran & Watson (2021) point out a change in the trend concerning the valuation of different professional skills. Technology companies call for increasingly fewer skills related to engineering, marketing, public relations, administration and customer relations and are looking for softer skills, those that are necessary “to relate to others and to oneself, understand and manage emotions, set and achieve goals, make autonomous and responsible decisions and face adverse situations in a creative and constructive way,” according to the Ayrton Senna Institute (2014). This implies that companies have to choose between new hires or upskilling.

Competencies go beyond knowledge and aptitudes: they imply the ability to face complex demands, using and mobilising psychosocial resources (including abilities and attitudes) in a specific context (Ananiadou & Claro, 2009). Vitello, Greatorex & Shaw (2021, p.11) define a competence as “the ability to integrate and apply contextually appropriate knowledge, skills, and psychosocial factors (e.g., beliefs, attitudes, values, and motivations) to perform successfully within a specific domain.” A competence is not limited to cognitive elements (involving the use of theory, concepts or tacit knowledge), it also encompasses functional aspects (involving technical skills), as well as interpersonal attributes (for example, social or organisational skills) and ethical values. However, the term “competence” is often used as a broad concept encompassing skills, abilities and attitudes, while, in a narrower sense, the term “skill” has been defined as “well-organised and directed behaviour.” an objective that is acquired with practice and is achieved with economy of effort” (Proctor & Dutta, 1995, p. 18).

Concern about competencies arises from the technological change inherent to the turn of the century. 21st century competencies include the abilities, skills and knowledge that are considered essential to prepare students to be successful in today’s digital world and in the future jobs market (P21, 2011) and digital competencies are considered crucial, but their combination is still not sufficiently defined (Van Laar et al., 2017). Van Laar et al. (2017) prefer to talk about 21st century skills, because digital skills are generally reduced to technical knowledge (digital literacy), and should include contextual competencies – cultural awareness, flexibility and self-direction – that also have a strategy and a digital origin. Along these lines, Obermayer et al. (2022) advocate integrating and embodying human factors in digitalised workplaces (Longo et al., 2020). Tabrizi et al. (2019) underline the fact that digitalisation is not just a question of technology, but rather a question of strategy in which the human dimension plays a key role. Mineco (2022) considers the digital skills necessary to live, learn and work, specifically, in information and data literacy, they are communication and collaboration, content creation, security and problem solving. International organisations such as UNESCO (2017) and ITE-OECD (2010) link 21st Century Skills with Sustainable Development (González-Salamanca, Agudelo, & Salinas, 2020).

2.1. Transversal competencies in the audiovisual sector

The audio-visual sector has several characteristics: there is a high degree of entrepreneurship, those who enter the sector are more highly qualified than in other areas (Warren et al., 2015), but there is somewhat less job security. To the extent that creativity is one of the characteristics, innovation is always present, as indeed is communication (Munro, 2017). Furthermore, once people are hired, additional training is commonplace (Spilbury, 2002). Another characteristic is the high level of self-

employment (32% in Europe, as opposed to 14% in the wider economy, Hausemer, 2021). Finally, the creative industries are the ones that will be least affected by automation, since this is difficult when the end of a task is not specifiable from the beginning (Bakhshi et al., 2015). Moreover, the development of the metaverse and its base technologies (virtual, augmented and mixed reality) will mean a potential increase in the weight of creative economies (Easton & Djumalieva, 2018).

As a result of the presence of reports on the creative industries in Europe, studies have emerged concerning the skills involved in the uncommon set of activities that the creative industries entail. Competencies are classified in several dimensions. Mietzner & Kamprath (2013) carry out a review of authors who classify competencies, which converge into four types of competencies (professional, personal, social and methodological). Subsequently, by means of surveys, they draw up a classification of three types of competencies (personal-social, methodological and professional). The first type is the synthesis of personal and social skills and considers 17 skills (motivation, creativity, willingness to learn, etc.). The methodological ones include 9 skills (organizing skills, scientific methods, etc.) and 10 for the professions (intercultural understanding, entrepreneurial thinking, etc.). CFE research (2018) analyses skills gaps in the creative industries in Great Britain, although it does not differentiate between types of skills. They point out, for example, that companies consider that there is a gap in marketing and communication and in problem solving. UNCTAD (2022) only talks about skills and does not use the word competence.

The panorama of public television is especially complex. There are different positions regarding the permanence of public television in the current environment, where digitalisation, the expansion of the Internet, growing competition and market segmentation all pose challenges. Some authors question its relevance in this new context (Tracey, 1998; Syvertsen, 2003). However, others argue that public television should play an important role in the process of convergence between the communication sector and other social sectors (Meier, 2003; Steemers, 2003; Storsul & Syvertsen, 2007; Moe, 2008). They consider that new media represent an opportunity to redefine the mission of public media (Enli, 2008) and even advocate the development of online strategies to extend their reach and purpose (Trappel, 2008). The EITB Strategic Plan (EITB 2030) points to five challenges that EITB has to face: global competition, public audio-visual's legitimacy problems, loss of connection with young people, and the changing technological and social environment. The latter requires skills that facilitate, accompany and enhance the changes necessary to adapt to the speed of change.

The notion of digital skills in the 21st century has been developed by Van Laar (2017) and aims to consider the skills necessary to perform creative jobs today, placing special emphasis on performance in new situations, and the use of digital technologies. She highlights information management, communication, collaboration, critical thinking, creativity, and problem solving. She arrives at this list of skills after analysing the scientific literature around digital-related competencies. The term is intended to cover a set of skills that are required today, skills related to digital media and that are a consequence of the current situation of continuous technological change. They are related to technological change, because in practically all jobs in cultural industries tools are used to communicate, manage work, etc. The need to consider them is not due only to the use of digital tools, but to the need for users to not only continuously update their media literacy, but their ability to autonomously search for solutions as well. The basic premise is that we live in a knowledge society. To the extent that knowledge is continuous (and not discrete, or incremental), training is required regarding changes in knowledge and in its application to the tasks and activities of each job. As knowledge advances socially, this sociability must be incorporated into daily work practices. Otherwise, it would be impossible to follow the path of technological advances.

When one considers the transversal competencies identified at the UPV/EHU, we see that they align with the digital skills proposed by Van Laar (2017). This study terms the skills that Van Laar defines as “21st century” as transversal competencies because they refer to interdependence and mutual influence, their categorisation being a necessary intellectual exercise, though far from the reality in which they operate, always in permanent incidence and interrelation. The similarities and differences can be seen in Table 1.

Table 1. Comparative framework

UPV/EHU Competencies	21st Century Skills (Van Laar)
Autonomy and Self-regulation	Self-direction
Social Commitment	Cultural Awareness
Communication and Multilingualism	Communication
Professional Responsibility and Ethics	Ethical Awareness
Information Management and Digital Citizenship	Information Management
Innovation and entrepreneurship	Creativity
Critical thinking	Critical thinking
Teamwork	Collaboration
	Continuous Learning
	Problem Solving
	Technical
	Flexibility

Source: created by the authors

3. Goals

The general objective of the research is to analyse the perceptions of the different transversal competencies, establishing the differences between the three groups considered: students, teachers and EITB professionals.

There are four specific objectives. First, establish the validity of the table of skills established by Van Laar (2017). Secondly, study the different perceptions about the importance attributed to these skills. Third, study the opinions as to which require closer attention. Fourthly, study in what area the learning of transversal competencies should take place.

4. Methodology. Research instruments and techniques

To respond to the stated objectives, a hybrid methodological design has been employed, combining documentary analysis, and both qualitative and quantitative techniques. This methodological triangulation has become a research trend (Denzin, 2012; Creswell, 2011, Tashakkori & Teddlie, 2003).

The study consists of three phases: first, compilation and systematic analysis of the literature, a second qualitative phase utilising focus groups formed of students, teachers and experts, and a final quantitative phase based on surveys of students, teachers and professionals in the sector in question, the participants having been selected through accidental non-probabilistic sampling.

In the initial phase, compilation and systematic analysis of the literature has been carried out, which has offered keys for the design of a classification model of transversal competencies in the university and professional contexts of the audiovisual sector. The qualitative analysis seeks to validate Van Laar's skills proposal (2017), selected after the bibliographic review, due to it being the closest to the audio-visual sector in which the research is framed, and because it is aligned with some of those gathered by the UPV. /EHU. The results of the qualitative phase seek to validate her proposal, and where appropriate, introduce changes to it.

An exploratory focus group technique was chosen for the qualitative phase. This is a type of group interview made up of people who are concerned with a specific topic and allows for the understanding, analysis and dissection of the underlying basis behind the opinions expressed by the participants. The focus groups constitute a research technique carried out through group dynamics that point towards a type of exploratory and/or explanatory information, providing data of great richness and depth (Ruiz Olabuénaga, 1999). Six group dynamics were addressed, two for each group under study: professionals, university professors and students. Concerning the professionals, two focus groups were formed of 6 EITB professionals together with 6 representatives of the sector (cluster and associations), which allowed the two focus groups to be formed of groups with six participants each, three from each collective. The selection criterion utilised was, for the EITB, to choose those people who, occupying positions of responsibility, have or have had greater involvement in the digital transformation process at the Basque public broadcaster. Regarding professionals from outside EITB, the criteria were their experience in the sector and their representativity. As for teaching staff, 12 university professors were selected to form two focus groups, the criteria applied were their seniority and degree of dedication to teaching. Finally, the focus groups made up from the student body; 6 graduates from the Faculty of Social and Communication Sciences of the UPV/EHU were selected along with 6 fourth-year students, some with experience as interns and others without such experience.

Once a review of the Van Laar categories (2017) had been attained, the compilation of information from the quantitative phase was addressed through the online survey. It is an optimal tool in this context since most of its members have easy access to virtual environments. The main drawback in utilising this instrument, the low response rate, has been overcome by reinforcing in-person data collection, as these are a perfectly locatable collective (Alarco & Álvarez-Andrade, 2012).

Turning to the quantitative phase, 32 questionnaires composed the sample size in the group of university professors of the Faculty of Social and Communication Sciences at the UPV/EHU, for a 95% confidence level and a margin of error of +/-13%. The total population considered is that of the teaching staff of the Faculty of Social and Communication Sciences, some 60 people.

These are professionals who dedicate between 5 and 20 hours a week to teaching, which gives the research team guarantees of their being fully familiarised with the reality being studied. The sample size of EITB professionals is 34 questionnaires for a 95% confidence level and a margin of error of +/-12%. The total population considered is that of the management team working on the digital transformation process at EITB, approximately 80 people. The sample size of the student body at the same faculty is 236 questionnaires for a 99% confidence level and a margin of error of +/-4%. The total population considered is that of the properly enrolled students, that is, those who are fully enrolled in the course and actually attend class regularly. Students enrolled only for their final degree dissertation or in a single subject were eliminated from the population, as they were not considered useful for the purposes of this study.

5. Results

5.1. Results of the qualitative analysis: Competencies required to work in the Basque audio-visual sector

The objective of the qualitative analysis carried out is to observe the understanding and clarity of the definitions provided by Van Laar (2017) and to focus on any similarities and differences in the appreciations of transversal competencies between the different actors. The students, professionals and teaching staff in the focus groups stressed the importance of teamwork, communication and creativity, but nuanced and disagreed on the characteristics and differences between self-learning, critical thinking and information management. Professionals and students agreed on leaving technical skills to one side, since they consider that, in an environment with easy access to information, self-learning is perfectly possible. *“We had to use the DaVinci system on the EITB job boards and didn’t know how. I got on the internet one night and did it in 10 minutes. It’s very easy to learn with the right attitude. We have to know how to adapt, and you have to update your knowledge”* (student 3). An EITB manager expressed himself along the same lines: *“Lacking the necessary skills is the big obstacle.... You, even if you have this (points to his mobile phone), if you don’t know how to use it or how to use it properly, I’m not referring to pressing a key, but everything else: knowing how to be critical of what you’re being shown, knowing how to send an email more effectively, work collaboratively, etc.”* It is clear from these conversations that the technical aspect is neither complicated nor essential, but it is rather non-technical skills that are the fundamental ones in facing new technologies. *“Everyone thinks they’re very important, but it is more difficult to develop that type of skill than to learn how to operate an image- or sound- mixing console or to prepare a news report”* (professional 2). Self-learning is essential in public radio and television where the traditional organisation is mechanical, far from organic, highly structured, with watertight departments, no lateral movement or transversality, and little convergence (professional 2). As can be seen from their conversations, critical thinking is essential to self-learning, which they associate with coherence, rationality, discussion of alternatives, and justified and reasoned choice. It can be described by the conjunction of facts-ideas-notions-data, and therefore it is important to learn how to learn. It is for this reason that students and experts link it to information management, the latter being an interwoven or subordinate competence of critical thinking. The teachers, on the other hand, consider such self-learning the most relevant competence.

Related to this reflection, there is a disparity when it comes to defining critical thinking and information management, between teachers and students, on the one hand, and professionals, on the other. *“Information management is relevant as long as it has*

to do with the ability to create in a context of information overload. That is, what is of use is the ability to redefine what already exists” (teacher 1). The teachers consider that soft skills are learned through tools, and technical skills through know-how (teacher 5): *“Neither the research on the types of tools is up to par, nor are the conditions and options we have to be able to do research, initiate, test, try and evaluate those tools up to the task. It is due to the devaluation of teaching compared to research.”*

On the other hand, the students do not make an express reference to social commitment or ethics. The UPV/EHU teaching staff are increasingly concerned about the environment that surrounds us and has Sustainable Development Goals (SDG) in mind, although, as expert 6 summarizes, “transversal competencies are more important than SDG.” In fact, this teacher did an internship in a subject with students from the NGO Aspace, with cerebral palsy. The objective was to make creativity visible and foster it within the Aspace group itself, and she sums up by saying that both the students and the members learned from Aspace. An interesting observation by expert 5 regards the need to put gender perspective in soft skills at the centre, under the spotlight: *“all soft skills are crisscrossed by gender. There’s a triple dichotomy based on the appreciation of what is public, rational and productive versus the reproductive / emotional / private. The public, productive and rational are associated with the masculine and the rest (reproductive, private, emotional) with the feminine.”* The same teacher considers that it is essential to put oneself in the other’s shoes: *“Managing multicultural environments means realising that there are many other frameworks, so as not to repeat and give feedback to the same logic of power.”*

The professionals, for their part, contributed a new competence: proactivity. They agree with all of them, but highlight the analysis and resolution of problems, adaptation to change, innovation and teamwork. Furthermore, it is repeatedly pointed out that, in this changing, accelerated digital environment, the ability of people to act preventively, to be able to anticipate and adapt to the challenges posed, instead of simply reacting to them, is a differentiating factor. *“You have to be quick, to have analytical ability, to have a kind of curiosity, to see what is moving around you to be able to handle it, because with everything going so fast, what you have seen work today may not work tomorrow.”* Therefore, proactivity is added to the catalogue (Tuning Project, 2006, cited by González & Wagenaar, 2006) as a key competence for the success of organisations in a sector such as the audio-visual. A proactive attitude involves seizing the initiative and taking action, taking responsibility for the solution to the problems that arise and getting ahead of others. It involves dialogue, acting, resolving or making decisions without the need to receive instructions.

The result of this phase was a new categorisation of the skills involved and required in this professional sector. Our proposal for a new categorisation of the transversal competencies in the Basque audio-visual sector would be the following: communication, autonomy and self-management, critical thinking, adaptation to change, continuous learning, proactivity, ethical and professional responsibility, innovation and creativity, problem solving, teamwork, and the recognition of diversity.

The extensive definition of each of these can be found in Table 2.

Table 2. Proposal for a new categorisation of transversal competencies in the Basque audio-visual sector

Communication	Ability to listen to and send verbal, written and audio-visual messages clearly and coherently, in all available media and formats, adapting the code to each communicative context, to the interlocutors, to the message's content, and to the objective of the communicative action.
Autonomy and self-management	ability to set the goals and priorities of one's own work. It involves contemplating one's surroundings, anticipating possible obstacles, acting to deadlines and available resources, and implementing follow-up mechanisms to monitor tasks and fact-check.
Critical thinking	capacity for detailed and meticulous analysis and management of large & complex sets of information to understand a situation, issue or problem, identifying step by step all the variables and their implications.
Adaptation to change	ability to effectively adapt behaviour to changes in any given setting. This involves analysing the situation, creating alternative plans, understanding different postures, and working in unaccustomed areas.
Continuous learning	ability to acquire and apply new knowledge, tools and information necessary for the proper performance of a professional activity, in a lasting, continuous and progressive manner.
Proactivity	Ability to seize the initiative and act, taking responsibility for the solution to any problems that arise and anticipating others. It involves dialogue, action, resolution, or the taking of decisions without the need to receive instruction.
Ethical and Professional responsibility	ability to act in accordance with certain ethical positions, good habits and professional practices in the performance of an activity. It means acting honestly, communicating intentions, ideas and feelings clearly.
Innovation and creativity	ability to modify things, even starting from unforeseen ways or situations. It involves devising new and different solutions to problems and/or situations that arise in the organisation.
Problem solving	ability to identify problems, gather, retain and coordinate relevant information for the diagnosis of possible causes and to quickly implement the actions necessary for their solution in light of institutional needs and objectives.

Teamwork	ability to cooperate in a stable and systematic manner with others towards the organisational objective. It involves transferring and exchanging knowledge, experiences and new ideas. Cooperative working to complement resources and information.
Recognition Of diversity	ability to establish and maintain warm, cordial, reciprocal relationships with diverse people, respecting diversity and valuing difference as a positive and enriching aspect.

Source: created by the authors

5.2. Results of the quantitative phase

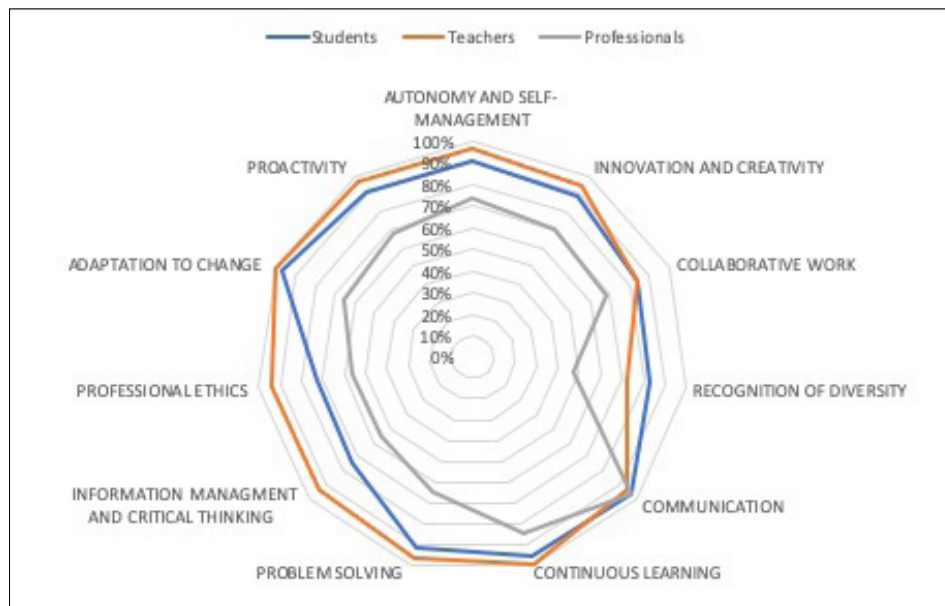
The results of the quantitative research provide data on the agents' perceptions regarding the importance of the transversal competencies proposed (See Table 3).

Table 3. Classification of transversal competencies according to the perceptions of the teachers, students and professionals. Number of votes and percentages

	Students	Teachers	Professionals	Students	Teachers	Professionals
Communication	231	30	33	97%	94%	97%
Adaptation to change	229	32	22	97%	100%	65%
Continuous learning	227	32	29	96%	100%	85%
Problem solving	218	31	22	92%	97%	65%
Proactivity	215	31	23	91%	97%	68%
Autonomy and self-management	215	31	23	91%	97%	74%
Innovation and creativity	210	30	24	89%	94%	71%
Collaborative work	200	27	23	84%	84%	68%
Recognition of diversity	196	23	16	83%	72%	47%
Information management and critical thinking	176	30	19	74%	94%	56%
Professional ethics	173	30	19	73%	94%	56%

Source: created by the authors

Graph 1. Distribution of the most valued competencies, according to the opinion of students, teachers and professionals



Source: created by the authors

The opinions of the three groups are represented in three relatively concentric circles. On the outside, with very high percentage values, are the teachers. In the middle, with somewhat lower values, are the students, and in the inner circle, the professionals, with lower values. The teaching staff show a less discriminatory position than professionals and students, in that they emphasize the relevance of all transversal competencies with almost the same intensities, because transversal competencies are worked on daily in the classrooms.

Students, teachers and professionals agree in granting communication the maximum degree of importance (97%, 94% and 97%, respectively). The same coincidence occurs with the competence of continuous learning, where students (97%) and teachers (100%) value it as essential, while professionals do so to a lesser degree (85%). The biggest differences between the three come in ethics and critical thinking, although teachers and students are more closely aligned. While 94% of teachers think them very important, students and professionals differ considerably, with 74% and 56%, respectively.

The recognition of diversity is strikingly low in the perception of the professionals (47%). A possible explanation is that professionals in the Basque audio-visual industry operate in a relatively endogamous environment, since the jobs called for by Basque public media, particularly in EITB's orbit, require a bilingual profile, which homogenizes the geographical origin of the workers.

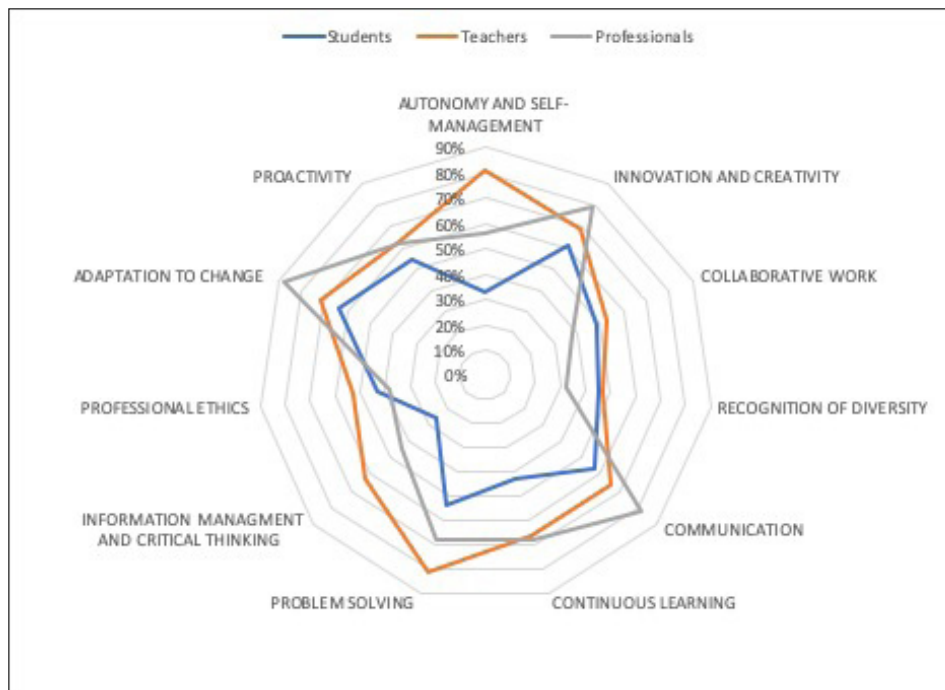
The catalogue of competencies needs to be improved in the following way (see data in Table 4).

Table 4. Classification of perceived competencies according to the level of attention they need in the respondent's environment

	Students	Teachers	Professionals	Students	Teachers	Professionals
Communication	153	21	28	57%	66%	82%
Adaptation to change	172	23	30	64%	72%	88%
Continuous learning	116	21	23	43%	66%	68%
Problem solving	144	26	23	54%	81%	68%
Proactivity	145	20	21	54%	63%	62%
Autonomy and self-management	87	26	19	33%	81%	56%
Innovation and creativity	164	22	27	61%	69%	79%
Collaborative work	127	17	13	48%	53%	38%
Recognition of diversity	121	15	11	45%	47%	32%
Information management and critical thinking	70	20	15	26%	63%	44%
Professional ethics	114	17	13	43%	53%	38%

Source: created by the authors

Graph 2. Distribution of transversal competencies that need greater attention in the environment of the person surveyed



Source: created by the authors

The three agents coincide to a lesser degree on the transversal competencies that require greater attention. The students agree with the level of intensity that is generally dedicated to transversal competencies, occupying the smallest circle in Graph 2. The teachers and professionals compete for the outside of the circle. Professionals, for their part, show interest in competencies linked to the dynamism of the professional environment such as adaptation to change (88%) and innovation and creativity (79%), while teachers chiefly notice shortcomings in autonomy (81%) and problem solving (81%). The students agree with the professionals on innovation (61%) and adaptation to change (64%) as the main competencies to work on. Unlike their teachers, students perceive themselves as autonomous (33%) and very capable of the critical thinking necessary for information management (26%). Ethics is not a problem area for teachers, it has the lowest score in their assessment (53%), although it is a higher score than that given by students (43%) and professionals (38%). Professionals place the recognition of diversity as the area that requires the least attention (32%) in line with the degree of importance they grant it. They do not consider it necessary, nor do they believe that it needs to be improved.

Once the classification of competencies, their importance and the need to improve them, have been established, the participants were asked when they should be implemented, and who has that responsibility.

Table 5. Classification of when transversal competencies should be implemented according to teachers and students

	Before university		During University		Both (before & during)	Teachers	In the company		In all	
	Students	Faculty	Students	Faculty	Students		Students	Teachers	Students	Teachers
Communication	54%	66%	20%	19%	20%	3 %	3 %	0%	2 %	13%
Adaptation to change	54%	53%	35%	22%	19%	0%	7%	13%	0%	13%
Ethical and professional responsibility	27%	25%	34%	44%	8%	3 %	33%	9%	0%	9%
Collaborative work	62%	47%	25%	22%	24%	9%	8%	3 %	0%	9%
Recognition of diversity	60%	38%	25%	25%	28%	6%	7%	9%	0%	22%
Autonomy and self-management	53%	28%	34%	34%	20%	9%	5 %	6%	0%	13%
Information management and critical thinking	23 %	19%	49%	44%	12%	9%	11%	9%	0%	9%
Continuous learning	22%	25%	48%	28%	19%	9%	5 %	9%	0%	19%
Proactivity	57%	38%	27%	16%	22%	6%	7%	19%	0%	16%
Troubleshooting	60%	41%	24%	13%	25%	3 %	8%	22%	0%	19%
Innovation and creativity	35%	25%	30%	19%	12%	3 %	20%	31%	0%	13%
Total	27.34%	36.64%	31.95%	25.85%	18.91%	5.68%	10.31%	11.93%	0.15	13.92

Source: created by the authors

The students believe that the competencies should be introduced during the training period, mainly at university, but they also consider the pre-university period relevant both as a sole option (27.34%) or as a joint option with the university (18.9%). If we add the three options of the training period (solely in the pre-university period, only at university, and both) we obtain around 83%, therefore this and not the workplace is, as they perceive it, the moment for these to be learnt.

By competencies, students assign a fundamental role in pre-university education to teamwork (63%), recognition of diversity (60%) and problem solving (60%). The students consider that the university is key in information management and critical thinking (49%) as well as continuous learning (48%). This means that they assign less relevance to the company and only recognize it in ethical responsibility (33%) and in innovation and creativity (20%).

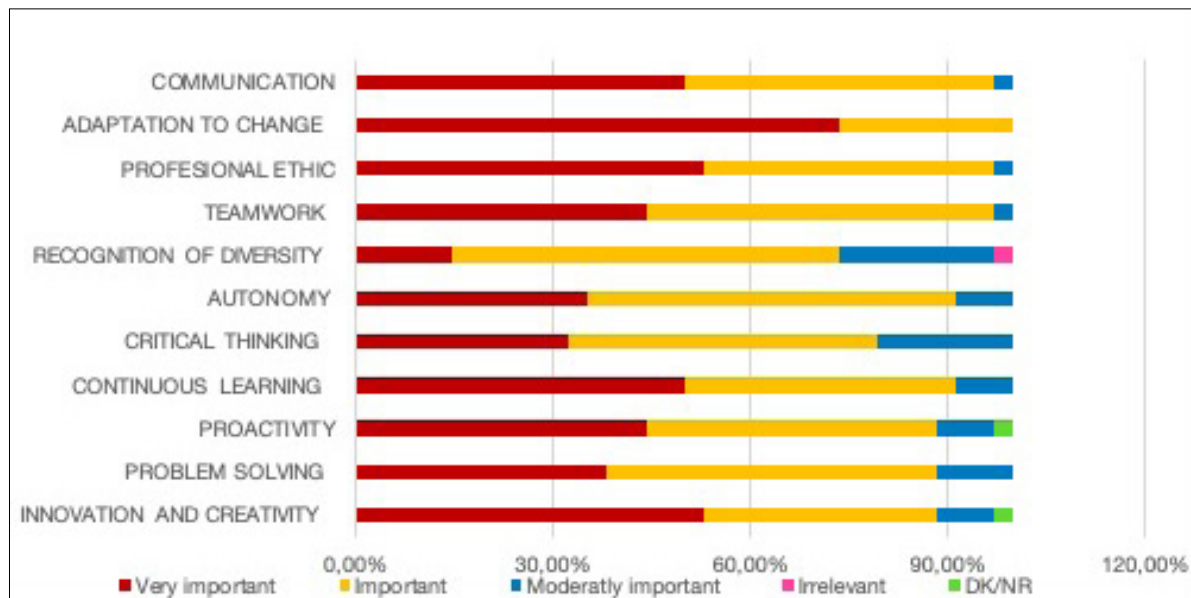
In general, students and teachers consider that learning should be done before or during university. The teaching staff considers that communication and adaptation to change must be learned before university, and the university is assigned learning in information management and ethical responsibility (Table 6).

Table 6. Classification of transversal competencies to be acquired at university

	very important	Important	Moderately important	Irrelevant	DK/NR
Communication	50.00%	47.06%	2.94%	0.00%	0.00%
Adaptation to change	73.53%	26.47%	0.00%	0.00%	0.00%
Professional ethics	52.94%	44.12%	2.94%	0.00%	0.00%
Collaborative work	44.12%	52.94%	2.94%	0.00%	0.00%
Recognition of diversity	14.71%	58.82%	23.53%	2.94%	0.00%
Autonomy and self-management	35.29%	55.88%	8.82%	0.00%	0.00%
Critical thinking	32.35%	47.06%	20.59%	0.00%	0.00%
Continuous learning	50.00%	41.18%	8.82%	0.00%	0.00%
Proactivity	44.12%	44.12%	8.82%	0.00%	2.94%
Problem solving	38.24%	50.00%	11.76%	0.00%	0.00%
Innovation and creativity	52.94%	35.29%	8.82%	0.00%	2.94%

Source: created by the authors

Graph 3. Classification of transversal competencies to be acquired at university according to professionals



Source: created by the authors

Professionals wish their new workers to come with all the competencies acquired, but they attach special importance to adaptation to change, which they consider very important, 73.53%, and important, 26.47%, with no other possible assessment. It follows that they are encountering personnel resistant to Digital Transformation.

Responsibility for training in transversal competencies seems to fall in general terms to the pre-university and university stages. This general perception is shared by the three groups participating in the research. The students display no clear position on the role of companies, perhaps due to lack of knowledge about work realities.

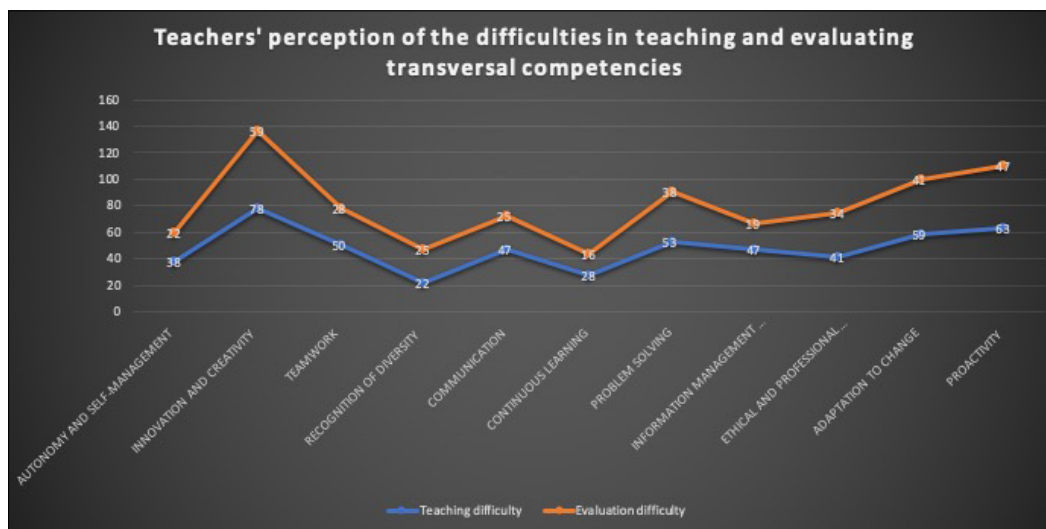
The UPV/EHU includes a catalogue of transversal competencies that, although different from that proposed in our research, coincides on some aspects. Its implementation in the teaching guide brings into question perceptions of the difficulty of its teaching and its evaluation (Table 7).

Table 7. Classification of the difficulty of teaching and evaluation of the competencies

Teachers	Teaching difficulty		Evaluation difficulty	
Autonomy and self-management	12	38%	7	22%
Innovation and creativity	25	78%	19	59%
Teamwork	16	50%	9	28%
Recognition of diversity	7	22%	8	25%
Communication	15	47%	8	25%
Continuous learning	9	28%	5	16%
Problem solving	17	53%	12	38%
Information management and critical thinking	15	47%	6	19%
Ethical and professional responsibility	13	41%	11	34%
Adaptation to change	19	59%	13	41%
Proactivity	20	63%	15	47%

Source: created by the authors

Graph 4. Teachers' perception of the difficulties in teaching and evaluating transversal competencies



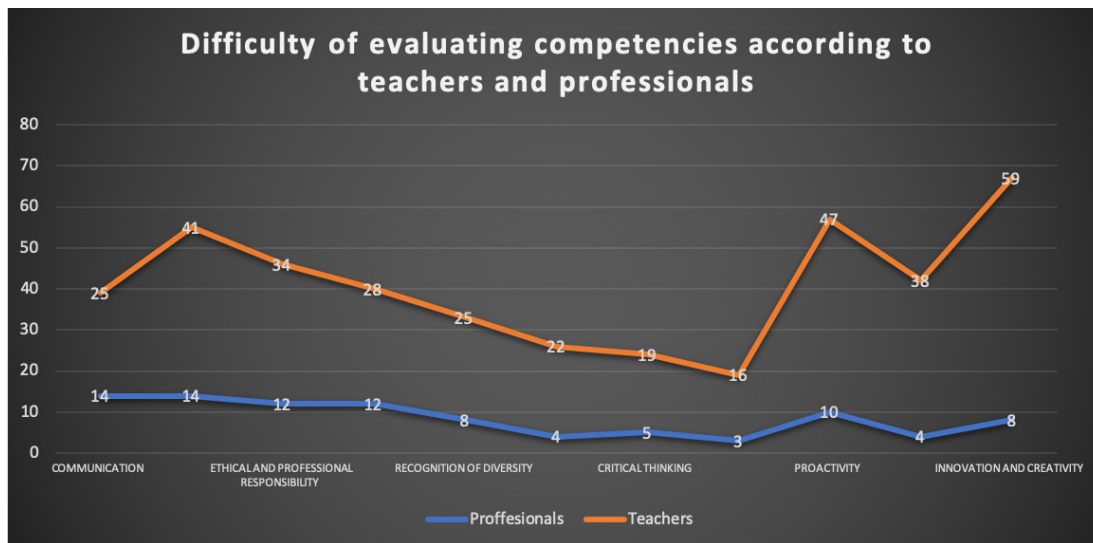
Source: created by the authors. The graph highlights the distance between teaching and assessment

Assessment is the chief challenge that teachers believe they face when it comes to training in transversal competencies. As regards their teaching, the most difficult to teach are problem solving (53%), adaptation to change (59%), proactivity (63%) and, especially, innovation and creativity (78%). The latter is also considered the most difficult to measure (59%), followed by proactivity (47%) and adaptation to change (41%). It is understood that what is difficult to teach is also difficult to evaluate.

However, the distance between both lines yields several striking interpretations. The distance between teaching and evaluation of critical thinking (28 points), collaborative work (22 points) and communication (22) is notable. Teachers consider these difficult to teach (47%, 50%, 47%) but not so hard to evaluate, therefore it follows that they are competencies that have not been implemented in the pre-university phase, which entails extra work for teachers.

The professionals also assess the competencies of their profiles and perceive the difficulty of this task in the following way: while teachers see difficulties in evaluating innovation and creativity, proactivity, and adaptation to change, professionals do not consider any particular competence to be difficult to evaluate. (Graph 5).

Graph 5: Difficulty of evaluating competencies according to teachers and professionals



Source: created by the authors

7. Conclusions

Digital transformation highlights the need to develop competencies that are transversal as regards technological and instrumental development. Van Laar's list of transversal skills constitutes a good starting point for the study of the perceptions of the different agents involved in an activity. In our case regarding the Basque audio-visual field (EiTB), along with the students and teachers of the UPV/EHU public university.

This paper is of an exploratory nature and opens and suggests multiple fields of research. It shows that the three groups involved consider the defined competencies to be important and that there are coincidences in the importance attributed to them, although to different degrees: the teaching staff attribute the highest values to these competencies, while, of the three groups the professionals grant them the lowest. This suggests that professionals may continue to attach very considerable importance to technical skills, though they say the opposite. Further studies should consider this and look more deeply into this apparent contradiction.

Where there are divergences is in the consideration of which competencies require greater attention, from the actors' points of view. The professionals propose innovation, communication and adaptation to change as requiring further development, while teachers focus on autonomy, problem solving and communication. The students are similar to the teaching staff, though with lower scores, that is, with less emphasis. The fact that communication is coincident should lead us to think that communication

is a competence that summarises, synthesises, or at the very least is related to some of the other competences. Thus, it could be concluded that communication requires (or at least influences) teamwork. Furthermore, communication requires possession of certain information –information management–, etc. This consideration needs to be analysed and developed in different academic and professional fields (communication faculties, business organisation, sociology of work, etc.).

The teaching staff and students agree on underlining the importance of the competencies evaluated and consider that these should basically be learned before university. It can be said that the company is seen as residual in terms of the implementation of the different competencies and the company does not see itself as another possible agent in their teaching, since they consider it either Very Important or Important that new employees join with all the competencies acquired. Only innovation and professional ethics are perceived as relevant to this field of action. This shows a bias, namely, considering the company as a space in which to exercise what has been learned, and ignores the importance of continuous learning at work, which cannot be improvised. In fact, in the University-Business-Society project which gave birth to this study, EITB showed its concern for the training of non-technical skills in the new scenario of digital transformation. This also leads one to ponder the need to study what transversal competencies are worked on in pre-university education. It may be of great interest to analyse dual-training students as a collective, since they bring both worlds together and may provide the keys to detect, train and evaluate training in the competencies that both spheres require.

A latent issue in the study is the evaluation of the competencies. They are difficult to teach, their evaluation even more so. This is another field ripe for study and whose interest lies in the fact that to the extent that one studies how to evaluate them, the definition and interrelation between the different competencies can be elucidated. The practical aspect here is that it can be used to establish diagnoses of the degree of knowledge and utilisation of the different competencies, to find out which require greater dedication and effort. This applies to both the university and work environments.

In addition to the suggested areas for future research, further studies should carry out comparative and updated research in different Spanish public media. A comparison of attitudes about competencies in private and public media would allow the establishment of whether there is any difference in their consideration, application, and the design of training plans. It is worth considering the hypothesis that some of the competencies –recognition of diversity and ethical considerations– could have different values in the fields of private and public media.

Furthermore, a comparative study at international level would allow the observation of any differences and similarities in the importance granted to transversal competencies. This type of comparative studies will allow the improvement of training in the audio-visual sector, as well as the implementation of continuous training policies within the framework of Universities-Business-Society.

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9. Specific contributions of each author

	Name and surname
Conception and design of the work	Juan Carlos Miguel de Bustos, Itxaso del Castillo and Andoni Iturbe Tolosa
Methodology	Juan Carlos Miguel de Bustos and Itxaso del Castillo
Data collection and analysis	Juan Carlos Miguel de Bustos, Itxaso del Castillo and Andoni Iturbe Tolosa
Discussion and conclusions	Juan Carlos Miguel de Bustos and Itxaso del Castillo
Drafting, formatting, version review and approval	Juan Carlos Miguel de Bustos, Itxaso del Castillo and Andoni Iturbe Tolosa

10. Conflict of interest

The authors declare that there is no conflict of interest contained in this article.

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12. Annexes

Table 1. The comparative framework is available at: <https://figshare.com/s/354f43ae3b96113d1ad5>

Table 2. Proposal for a new categorisation of transversal competences in the Basque audio-visual sector is available at: <https://figshare.com/s/bd813b5f3439b77aa0a0>

Table 3. Classification of transversal competencies according to the perception of teachers, students and professionals. Number of votes and percentages, available at: <https://figshare.com/s/245aa31b2c250d1d53e2>

Table 4. Classification of perceived competencies according to the level of attention they need in the respondents' environments is available at: <https://figshare.com/s/7cc18ff586b1ec41dfc8>

Table 6. Classification of transversal skills to be acquired at the University is available at: <https://figshare.com/s/b0a1284c5ca04a945bbd>

Table 8. Classification of teaching difficulty and evaluation of competencies is available at: <https://figshare.com/s/980f10f5bb2ffa5eefde>

Graph 4: Difficulty of evaluating competencies according to teachers and professionals is available at: <https://figshare.com/s/dca1d872ad516a96dbf1>