
RESEARCH

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METHODOLOGICAL MODEL FOR THE USE OF PODCAST AND VODCAST AS A UNIVERSITY ACADEMIC MATERIAL

Modelo metodológico de uso de pódcast y vodcast como material
académico universitario

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ABSTRACT

Introduction: The implementation of New Information and Communication Technologies in the academic environment has created a new paradigm in the teaching-learning process, resulting in the Learning and Knowledge Technologies. Its qualities fit with the precepts of the European Higher Education Area to promote autonomous student learning based on innovative approaches using Virtual Learning. In recent years, there has been an increasing use of audiovisual tools (podcast and vodcast). **Methodology:** This research has searched the main databases of scientific material for all the teaching initiatives generated in Spain in the last ten years that use these tools in the Degrees in Journalism, Audiovisual Communication and Advertising through an exhaustive search for scientific material. **Results:** Fourteen projects were found that met the search parameters and were subjected to an in-depth analysis of their development, objectives, interrelationships, strengths and weaknesses. **Discussion and conclusions:** The analysis applied to the review of the matter allowed the creation of a methodological proposal for development, based on linking its purpose (reinforcement of learning or simulation of professional environments) with

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the different competence areas to be implemented or developed, both in the instrumental area and in soft skills and teamwork.

Keywords: University, Learning and Knowledge Technologies, podcast, vodcast, communication.

1. INTRODUCTION

The university paradigm changed with the implementation of the European Higher Education Area (EHEA), implementing a methodology that focuses on student autonomy to improve their academic performance - moving away from rote learning (Hernández, 2017) - and towards the development of competencies, cooperation with the teacher, their initiative or autonomy in the process (Plaza-de-la-Hoz, 2018), known as learning to learn.

The New Information and Communication Technologies, NICT, are a fundamental axis of this change and there are many teaching initiatives that have arisen in this digital context. One of them is known as knowledge pills or audiovisual knowledge pills, capable of improving academic performance. Estévez-García and González-González (2014) found that academic performance improved by using this technique instead of traditional notes. Even so, in the university it is used less than in the high school education (Izquierdo y Gallardo, 2020).

These lessons are inserted in the flipped classroom model (Andrade y Chacón, 2018) or inverted classroom. It emerged a decade ago after empirical studies by Bergmann and Sams (2012). They are characterized by improving student involvement and performance (Monedero et al., 2020) by positively valuing the possibility of consuming content on demand on any technological device (Bustamante et al. 2016). It is essential that there is a flexible environment in which the student decides when and where to learn; that the contents are accessible and that the teaching role is active and supervises progress (Melendo y Presol, 2018).

This idea ties in with one of the inherent traits of the current generation of young people, labeled as Centennials or Generation Z (Prensky, 2001), born at the turn of the century and categorized as digital natives. Data show that video viewing is the sixth most performed activity on the Internet, with more than 23 million people per month (AIMC, 2023, p.67). Podcasting is now the third most consumed digital audio format in Spain (IAB Spain, 2023), after digital music and online radio. It is particularly popular among today's Generation Z: according to the report The Podcast Consumer (Edison Research, 2023), consumption begins in adolescence (57%) and at the age of 18 (73%). In addition, 40% of users in Spain are university students. The main motivations are ease of listening -especially via telephone (97% of users)- and as a source of learning, according to the Ivoox Observatory 2023 (Martínez, 2023). All this taking into account the growing detachment of Centennials from traditional media (López y Gómez, 2021).

1.1. Implementation of technology in the classroom

At the educational level, digitalization has led to the emergence of a concept associated with NICTs called LKT: Learning and Knowledge Technologies. They imply a refocusing of the method of use of technological elements through a methodology in which digital tools are adapted to teaching and not the other way around. Its promoters, Mishra and Koehler (2006, p. 1033), stated that "knowing how to use technology is not the same as knowing how to teach with technology". For this, it must combine technological literacy -advantages and risks of its use, limitations...-, the progressive acquisition of knowledge and the development of skills associated with the management of technological instruments (Garrido, 2018).

In the case of the student, this new paradigm transforms him/her into a content generator and in this process he/she learns to search for information, be critical with it, know how to communicate it to turn it into knowledge, making possible the so-called augmented learning (Velasco, 2017).

Under the LKT label appear tools such as video editors, audiovisual content, activity generators, collaborative work, mind maps, didactic platforms, virtual classrooms, blogs, video tutorials, wikis, or social networks. They are known as VLOs, Virtual Learning Objects. To be classified as such, they must meet several requirements: ability to generate content, use of audiovisual and/or interactive formats, possibility of creating collaborative learning that encourages teamwork, accessibility to users, creation of learning activities and structuring of information through metadata to facilitate its storage, retrieval and consumption (Romero y Romero, 2013; Botero, 2014; Feria y Zúñiga, 2016). All this is part of what is known as education 4.0 (De la Iglesia-Villasol, 2019).

1.2. Learning and competence development through podcasts and video podcasts

Within the wide range of Virtual Learning Objects, and taking into account the current preponderance of audiovisuals, the tools of podcasts and video are emerging, with increasing acceptance and consumption by Generation Z.

The podcast has an educational dimension -called educasting (Borges, 2009; Solano y Sánchez, 2010)- as long as it comes from a didactic planning process. It can be elaborated by a teacher -profcast, according to Borges (2009)-, student or group. It helps to improve the learning of the contents taught in the classroom by allowing the creation of connections between them: each theoretical concept ceases to be a static element to become the result of a collaborative production process (Fiquitiva, 2019). This circumstance causes an improvement in the competence of planning autonomous work (Borja-Torresano et al., 2020) and performance, thanks to the fact that it can be consumed as many times as desired and on any device, always having the guidelines or teaching explanations available and being able to solidify their work discipline (Terol-Bolínches et al., 2023).

Pérez Tornero and Tejedor (2015) remind us that the podcast is not just a text read aloud, but must be adjusted to each teaching process, being necessary to pay attention to factors such as scripting, structuring in units or topics, insertion of music or effects, voiceover according to the content and recommended duration of maximum 10 minutes (Terol-Bolinches et al., 2023).

These guidelines make it possible to create motivating experiences for students, especially in theoretical subjects (Díaz Monsalvo, 2020) thanks to their ability to synthesize complex content in narratives that are easier to assimilate than through traditional study. This makes the student the protagonist of their learning (Climent, 2018), fostering their proactivity, consequently improving their planning, creativity, capacity for synthesis and critical observation of the environment (Sánchez-Serrano et al., 2023).

Its effectiveness has also been confirmed as a reinforcement in the learning of foreign languages (Sandoval, 2020; Díaz Monsalvo, 2023), or as a support for developing journalistic genres that in some cases have been rejected, such as coverage or research (Romero, 2016). The contribution of several business initiatives, such as Podium Podcast, of the PRISA Group, has made it possible to recover and renew these genres, thanks to the implementation of sound fiction techniques and elements of television and film language (Legorburu et al., 2021).

In the case of video, the term vodcast (Spinelli and Dann, 2019) has recently been coined as a fusion or acronym of "video podcast", a concept studied by Dupagne et al. (2009) or Clapperton (2010) to refer to on-demand audiovisual content hosted on the Internet that must synchronize text, sound and image (Moreno-Espinosa et al., 2021). Its use in education reinforces meaningful learning (Colomo et al., 2020), since, after the observation and analysis of reality, students transform it to use it in the educational environment through multimedia languages, with which Generation Z feels comfortable as they are digital natives (Colomo et al., 2018).

These multimedia languages must meet quality standards in terms of voiceover, scripting, recording and editing (Rajas et al., 2022) to obtain adequate results. An improvement in academic performance has been demonstrated (García-Martín y Cantón-Mayo, 2019; Bardakçı, 2019), especially when videos are short (Bordes et al., 2021), with brief, clear and exemplified explanations, with links to sources that support the information presented (Balderas y Tapia, 2021), although it has also been warned that an excessive dependence on this tool causes a superficial attention of the student (Zureick et al., 2018).

Even, the implementation of cutting-edge technologies such as Virtual Reality or Augmented Reality in the creation of journalistic videos can reduce the comprehension of the message (Hernández-Rodríguez y García Perdomo, 2023). It has also been pointed out that university training does not meet the demands of the labor market due to the lack of "consensus when deciding which subjects should be in charge of dealing with topics linked to high technologies in the journalistic field" (Ufarte-Ruiz et al., 2020, p.56).

2. OBJECTIVES

The basic objective of this study is to propose a methodological design for the execution of university projects based on the use of podcasts and vodcasts as VLO tools for the extension of knowledge and increase of competences in areas related to communication, taking into account the level of effective participation of the agents involved in the teaching-learning process.

The research intends the resulting methodological design to be a model or global action guideline that allows converging the planning, development and learning results derived from the use of these academic tools, since multiple systematizations, objectives and executions of this type of university projects published in the scientific literature have been detected.

3. METHODOLOGY

The starting point is a bibliographic documentary research of academic projects developed in the Spanish university environment in the last 10 years in which educational podcasts and video podcasts (vodcast) have been used. Its analysis allows us to determine the common points in their implementation, both in the structure of the projects and in the methodological approach to learning, and above all in the results intended and finally obtained in the subjects applied. The decision to limit it to Spanish territory is based on being able to establish common denominators in educational projects based on the same regulatory framework: the White Paper on Bachelor's Degrees in Communication developed by the National Agency for Quality Assessment and Accreditation (ANECA).

In a first phase, we have explored through different search engines the implementations related to the terms podcast, video, vlog, tvblog, education, university, communication, journalism, media literacy, digital literacy, educommunication, media competence, inverted classroom and Artificial Intelligence as keywords (both in Spanish and English), in the title, abstract and keywords. Similar search parameters were also used through the operators (*) and (AND) to broaden the results.

The searches were carried out in the main portals for hosting scientific material, such as Google Scholar, Scopus, ESI, JCR and WOS, filtering all those projects or experiences of an academic nature in which teaching material was generated in podcast or video format, with preference for:

1. Development in Communication-related Degrees (Journalism, Audiovisual Communication and Advertising)
2. Material created by the students themselves.
3. Evaluated material for subjects
4. The extension the collaborative learning or flipped classroom methodology

Once the projects linked to the search terms had been compiled, a detailed analysis was made of each one, paying attention to the elements of the following scheme: type of VLO used -> grade -> starting point and learning objectives -> project development

-> competency acquisition -> breakdown of positive aspects, shortcomings and suggestions for improvement.

The key words of each item were extracted and used to create a double sheet with the following elements:

- Project title
- Period of development
- University degree to which the participants belong and the university that carries it out.
- Techniques / methods of execution
- Achievements obtained
- Competencies developed

The results were analyzed looking for common denominators, as well as proposals for improvement, which will be discussed in order to, subsequently, apply the scientific literature to elaborate a proposal for methodological design.

4. RESULTS

The application of the search operator chains found 27 projects, although not all of them are included in the first filter, linked to Communication Degrees. Significant results in other areas of knowledge include the creation of television programs in the style of Boom or *Pasapalabra*, or also small videos and podcasts, to learn Law (Chaparro et al., 2022; León, 2022), the generation of audiovisual pills to reinforce language skills of students of Spanish as a foreign language (Fernández, 2016), the implementation of videos following the inverted classroom model in Pharmacology (Castillo et al., 2019) or in Pedagogy (Díaz-Martín y Gallego-Arrufat, 2015), a degree in which the podcast has also been implemented, for example at San Pablo CEU (Gallego-Jiménez et al., 2023). It has also been a didactic resource to reinforce concepts in the Geography Degree (Gallegos, 2022), or to consolidate media literacy in a transversal way in the university environment (Renés-Arellano et al., 2018).

Fourteen projects have direct applicability in Journalism, Audiovisual Communication and Advertising. They are listed in Table 1, in which the order of appearance is done chronologically (from the most recent or in execution to those carried out 10 years ago). In the first column a code has been generated that will be used in Table 2 to analyze the method, achievements and competencies.

Table 1*List of projects found after applying the search criteria of the methodology.*

Code	Project title	Period	Degree	Participants / University
P1	Audioblogs and TV Blogs (<i>Audioblogs y TV Blogs</i>) (López y González, 2014).	2011-Present	Journalism	199 / UVa
P2	Radio in the Classroom (<i>Radio Aula</i>) (López, 2015)	2013-Present	Journalism	Approximately 1,300. Since 2013 between 15 and 20 programs are generated per year, produced by groups of between 6 and 10 people. Since 2020, the rate of content generation has slowed down due to the pandemic.
P3	Podcasting for innovative learning and evaluation in Journalism (<i>Podcasting para aprendizaje y evaluación innovadores en Periodismo</i>) (Padilla et al., 2022)	2021-22	Journalism	No record / UCM
P4	<i>Ondaula</i> (Díaz Monsalvo, 2020)	2018-2020	Journalism-Audiovisual Communication-Advertising	71 / UEMC
P5	Educast: Long live the podcast (<i>Educast: Larga vida al pódcast</i>) (Fernández-Planells et al., 2022)	2020-2021	Audiovisual Communication	No record. Seven subjects included / UPV
P6	Transmedia competencies in journalism students: production and editing of multimedia news content (<i>Competencias transmedia en estudiantes de Periodismo: producción y edición de contenidos informativos multimedia</i>)(Giraldo-Luque et al., 2020).	2019	Journalism	7 papers, groups 4 to 6 students / UAB
P7	Communication students' transmedia project on women's sports (<i>Proyecto transmedia de los alumnos de comunicación sobre deporte femenino</i>) (Valencia Plaza, 2019).	2019	Audiovisual Communication and Journalism	100 / CEU Cardenal Herrera

P8	Audio notes: Use of podcast as an educational resource in Audiovisual Communication (<i>Audioapuntes: Uso del pódcast como recurso educativo en Comunicación Audiovisual</i>) (Sanchis-Rico et al., 2021).	2019-20	Audiovisual Communication	104 / UPV
P9	The use of podcast as a pedagogical tool in theoretical subject (<i>La utilización del pódcast como herramienta pedagógica en asignatura teórica</i>) (Terol-Bolinches et al., 2019).	2018-19	Audiovisual Communication	75 / UPV
P10	Video podcasts developed by Communication and Mathematics undergraduates for use in Primary School (<i>Pódcast de video elaborados por universitarios de Comunicación y Matemáticas para ser usados en Primaria</i>) (Pagadigorria et al., 2017).	2016-2017	Audiovisual Communication and Mathematics	71 / UPV-EHU
P11	Digital information portals as a motivational tool (<i>Portales informativos digitales como herramienta de motivación</i>) (Carrasco y Cárda, 2013).	2013	Journalism-Audiovisual Communication-Advertising	No record / UCM
P12	Comunic@ndo cybernewspaper podcast (<i>Pódcast ciberperiódico Comunic@ndo</i>) (Iglesias y González, 2013)	2012-13	Advertising	24 / UA
P13	Use of podcasts by Audiovisual students (<i>Uso pódcast por parte de estudiantes de Audiovisual</i>) (Piñeiro-Otero and Costa, 2011).	2011	Audiovisual Communication	189 / UDC
P14	Knowledge pills: evaluation of teaching videos (<i>Píldoras de conocimiento: evaluación de vídeos docentes</i>) (Pastor-Rodríguez et al., 2022).	No record	Advertising	525 / UVA-ESIC

Source: Elaborated by the authors.

Subsequently, a detailed study was made of the learning objectives, project implementation and development techniques, evaluation systems, achievements obtained and competencies developed, which are summarized in Table 2.

Table 2

Content analysis linked to project development keys.

Code	Method	Achievements	Competencies
P1	<ul style="list-style-type: none"> • Project briefing and explanation of objectives • Meeting of each work team to decide contents and formats. • Task distribution and breakdown of tasks according to planning schedule • Production of sources and content scripting • Creation of the blog • Field supervision: meetings to verify compliance with the schedule • Content generation • Oral defense of the program and delivery of the final report 	<ul style="list-style-type: none"> • 70% of the participants passed the grade of "B". • Reinforcement of feedback between teacher and students thanks to the collaborative space created. • Increased responsibility, thanks to the development of negotiation, discussion and debate. 	<ul style="list-style-type: none"> • Team work • Negotiation and decision making • Task planning • Production of sources • Content specialization • Copywriting • Voiceover • Digital editing • Scriptwriting
P2	<ul style="list-style-type: none"> • Initial training at the university radio station • Project briefing and explanation of goals • Meeting of each work team to decide contents and formats. • Task distribution according to planning schedule • Production of sources and content scripting • Hosting on the university radio web site 	<ul style="list-style-type: none"> • Commitment of students to generate content on a regular basis. • Development of critical and reflective thinking: the student assumes responsibility for having to explain a complex concept in an informative way. 	<ul style="list-style-type: none"> • Production of sources • Content selection • Copywriting • Scriptwriting • Voiceover • Digital editing • Team work • Leadership
P3	<ul style="list-style-type: none"> • Initial survey on usage trends • Analysis of social networks and podcast dissemination platforms. • Master class on broadcasting techniques and viralization of voice content on social networks and the Internet. • Topic selection • Correlation between selected topic and current news (or recent movie/novel) • Recording, editing and publication • Survey to know the opinion of the podcast as an evaluation method. 	<ul style="list-style-type: none"> • Evaluation of the podcast as a professional portfolio content. • Improvement of interest in addressing a topic of personal interest • Consolidation of the student's digital profile 	<ul style="list-style-type: none"> • Production of sources • Follow-up of current events • Scriptwriting • Digital editing • Creativity • Voiceover

P4	<ul style="list-style-type: none"> • List of topics to be developed • Research on the topic to develop content • Scriptwriting • Recording in the radio studio • Hosting of material on the web • Listening to material in class to generate debate • Student survey 	<ul style="list-style-type: none"> • Improved interest • Less fear of public speaking without visual support • Theoretical contents are presented in a more dynamic way. • Better assimilation and study of theoretical concepts. 	<ul style="list-style-type: none"> • Voiceover • Outreach
P5	<ul style="list-style-type: none"> • Learning in the classroom and in the radio studio how to make quality recordings • Topic selection • Podcast scripting and revision • Voiceover and editing • Final evaluation • Repetition of all phases involving new subjects 	<ul style="list-style-type: none"> • Better understanding of the concepts by studying them through a non traditional technique. • Problem solving • Planning ability 	<ul style="list-style-type: none"> • Team work • Leadership • Sound editing • Outreach • Voiceover • Technical and technological management
P6	<ul style="list-style-type: none"> • Random selection of transmedia projects carried out by students in the last 5 years. • Study of selected projects by applying a proposal of indicators that should exist in transmedia narrative. • Discussion group of 5 students to analyze the results obtained. 	<ul style="list-style-type: none"> • Greater use of visual elements in the generated contents • Valuation of the versatility of digital versus analog storytelling. • Development of instrumental and technical literacy, but not critical literacy 	<ul style="list-style-type: none"> • Technological performance (interactive tools) • Aesthetic dimension of transmedia literacy (website design) • Technical and technological management
P7	<ul style="list-style-type: none"> • Preliminary practical workshop by BBC video journalist • Coordination of objectives of the subjects involved • Project planning • Scriptwriting • Creating and making the 15 interviews • Arranging space for the recording of interviews and resources • Product creation 	<ul style="list-style-type: none"> • Learning values • Facing a job according to professional routines and requirements 	<ul style="list-style-type: none"> • Making interviews • Dissemination of values (effort and self-improvement of women athletes). • Development of multimedia languages • Knowledge of broadcasting platforms to generate transmedia. • Digital editing • Scriptwriting
P8	<ul style="list-style-type: none"> • List of topics and theoretical concepts of subjects involved • Distribution of topics per group • Reading of the topic and development of contents 	<ul style="list-style-type: none"> • Active participation in the teaching process • Perception of usefulness • Better assimilation of 	<ul style="list-style-type: none"> • Team work • Communication skills • Sound editing

	<p>according to bibliography.</p> <ul style="list-style-type: none"> • Preparation of technical script • Recording and editing • Hosting in Ivoox • Presentation of contents in the classroom and generation of debate. 	<p>theoretical concepts</p>	
P9	<ul style="list-style-type: none"> • Student survey on podcast potential • Distribution of topics by groups • Adaptation of contents to radio scripts • Teacher review of the script • Preparation of podcast (4:00) • Hosting of contents in a web portal 	<ul style="list-style-type: none"> • Reinforcement of podcasts as a valid study tool. • Learning autonomy • Ease of content assimilation 	<ul style="list-style-type: none"> • Voiceover • Radio production • Scriptwriting • Digital sound editing
P10	<ul style="list-style-type: none"> • Presentation of the project and generation of ideas • Implementation of the workloads of each grade (Audiovisual and Mathematics-Physics). • Adaptation of the syllabus to the primary school real conditions • Recording and assembly of material • Publication of contents • Completion of questionnaires 	<ul style="list-style-type: none"> • Motivation increase 	<ul style="list-style-type: none"> • Team work with students of different profiles and Degrees • Innovation • Digital edition of audio and video
P11	<ul style="list-style-type: none"> • Proposal of topics to the portal's editorial manager • Decision of whether the work is autonomous or there is teaching supervision (to be evaluated in a subject). • Creation and editing • Detection of writing style and technical editing errors • Correction of errors • Second revision • Publication on the portal • Completion of questionnaires 	<ul style="list-style-type: none"> • Improvement of motivation • Assumption of the effectiveness of academic teachings to develop real practical work 	<ul style="list-style-type: none"> • Self-criticism, as there are two content reviews • Copywriting • Voiceover • Production of information sources • Initiative and creativity
P12	<ul style="list-style-type: none"> • Visit to a radio studio to learn how podcasts are made. • Establishment of a newsroom organization chart • Distribution of topics • Scripting and recording • Hosting in Ivoox 	<ul style="list-style-type: none"> • Complement to formal learning • Improvement of autonomy, by making the decisions of a professional editorial staff. 	<ul style="list-style-type: none"> • Copywriting • Content editing using web tools (databases, infographics...) • Management and publication of contents in a digital portal • Production of

			sources
P13	<ul style="list-style-type: none"> • Questionnaire that is designed according to the research objectives 	<ul style="list-style-type: none"> • Detection of usage habits of technological devices • Confirmation that students are well equipped technologically to be able to consume podcasts • Detection of underuse of the Internet as a means of listening to or downloading podcasts • Identification of time slots during the day when students use their phones for leisure purposes, in which the consumption of educational podcasts can be encouraged. 	<ul style="list-style-type: none"> • Not described
P14	<ul style="list-style-type: none"> • Decision of topics to be addressed according to the contents of the subject. • Development of audiovisual training pills • Educational blog and YouTube hosting • Audience index measurement • Generation of questionnaires according to objectives 	<ul style="list-style-type: none"> • Reinforcement of self-learning • Favorable evaluation of the usefulness of the pills • Identification of absence of correlation between usefulness and level of difficulty of contents • Detection of a common viewing pattern, with peaks and troughs in audience. 	<ul style="list-style-type: none"> • Since they are not videos created by students, competence development is limited to the field of study.

Source: Elaborated by the authors.

5. DISCUSSION AND CONCLUSIONS

The development of competencies presents common denominators in the projects analyzed. Students have improved in the instrumental area in terms of voice-over, scriptwriting, editing and production; and in task planning and teamwork in terms of interprofessional skills.

The consolidation of competencies in the instrumental area is related to the teacher's advice. Several projects establish intermediate phases in which the text, script and

voice-over are corrected and revised. Other skills have been developed according to the specificity of the project: in those linked to Journalism, the improvement in writing and production of sources is noted; in Audiovisual Communication, the technical management.

The use of VLOs to generate study material (audio notes) for theoretical subjects has improved the capacity for dissemination. Students become aware that their content will be used by classmates to reinforce or learn concepts of a subject that usually involves complexity due to its theoretical framework. Dissemination acquires more complexity and value when the work is done involving people of different degrees and, consequently, with different profiles.

When the audiovisual material generated acquires a public dimension by being hosted on a digital platform, a triple capacity is acquired: critical decision about which place in cyberspace is better to host the content created; strive to innovate, and also to be creative in order to capture the attention of the external receiver.

If the receiver are the students, the VLO is articulated as a study tool, outreach and accountability have been tangentially developed. In these projects based on the flipped classroom the student becomes a teacher of a part of the subject. They therefore feel committed to explaining complex content in order to make it understandable. This perspective therefore encourages a critical and reflective attitude, which is prolonged over time if the teacher contemplates that the material generated is exhibited in class to discuss strengths and weaknesses. This heteroevaluation or performative evaluation also reinforces self-criticism, provided that there are clear criteria and instructions, because the student experiences teaching skills (Fernández, 2014).

All the projects carried out by students have involved teamwork, a relevant competence demanded in a changing labor market that requires continuous adaptation (Palomo y Palau, 2016; López-García et al., 2017). However, not all groups have functioned evenly. Those in which there has been the figure of leader / boss have produced a distribution of roles that has enhanced responsibility in the fulfillment of tasks and leadership.

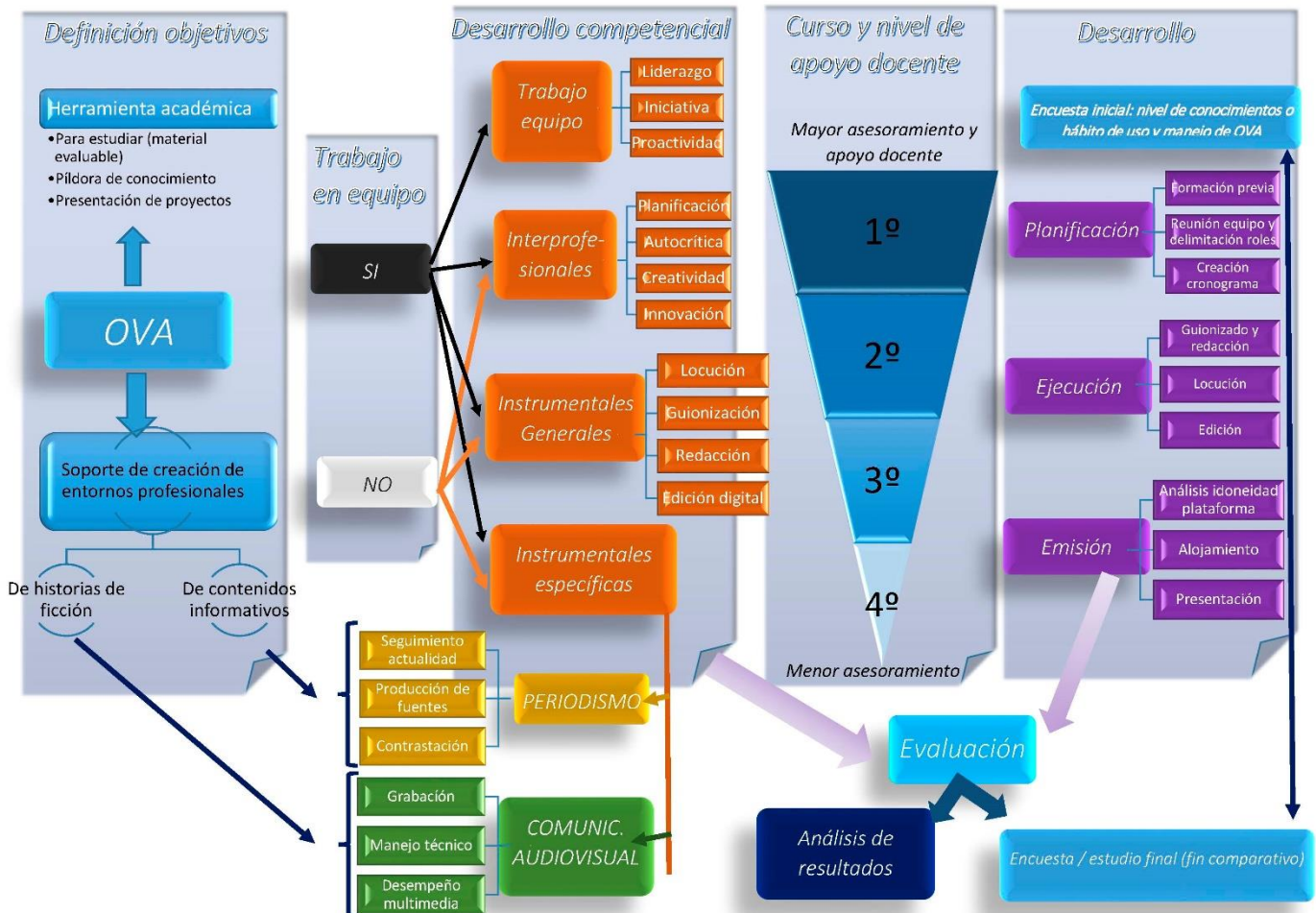
In this sense, teacher mentoring helps to capitalize on other competencies. It has been observed that the lower the academic year in which the activity is developed, the more the figure of the teacher appears to review scripts, writing, voice-over and editing -the basic instrumental skills-, since the students have not yet assumed them in a solid way. This review should not be understood negatively because it reinforces self-confidence, planning and critical analysis of what has been done.

In Journalism, the variable of monitoring current affairs in projects generated through VLO is being implemented (Olmedo et al., 2022) although it is not perceived as a transversal competence. This aspect is relevant because the aforementioned competence usually presents development deficits due to the media diet of Generation Z (Díaz Monsalvo, 2022a), despite being one of the basic requirements of job recruiters (Díaz Monsalvo, 2022b).

Taking these factors into account, a global methodological design is proposed, structured in the following graph (Figure 1):

Figure 1

Proposal for the methodological design of academic projects based on the use of VLO podcasts and vodcasts.



Source: Elaborated by the authors.

At a first level it is necessary to determine the functionality of the VLO. Borges (2009) coined the concept of educasting to refer to the use of these elements to reinforce or explain concepts dealt with in the classroom, either by teachers (profcast) or students. In addition, in Communication Degrees, VLO can be used as a support for informative, entertaining or fictional contents to apply specific competences and thus generate a real professional environment. These are included in the second level of the methodological design, that of the linking of competences with the employment objective of the VLO. Four competence areas are structured:

1. The general instrumental ones, inherent to the own process of creation of podcast and vodcast: the scripting of the content, the writing, the voice-over and the digital edition.
2. The specific instrumental ones, provided that the VLO is used as a support

for the creation of professional environments. A student of Journalism can develop the competence of monitoring current affairs, highly demanded by job recruiters, and those associated with the production of news sources (management and conducting interviews), and data verification. Meanwhile, in the Degree in Audiovisual Communication, the skills linked to the technical area are worked on, from recording, handling of technical equipment and the so-called multimedia performance, ranging from the implementation of digital tools in the content -QR codes, animated infographics...- to the decision on which platform is best to host the product, after studying the existing options.

3. The interprofessional ones, linked to the autonomous work of the student promoted from the EHEA (Plaza de la Hoz, 2018), which encompass process planning, creativity, innovation and the capacity for self-criticism. If the VLO is focused on being an academic tool, it is necessary to develop the capacity for dissemination.
4. Teamwork skills, provided that the project is a group project. If it is individual, the three previous competence groups will be developed. Here the skills of leadership, proactivity and initiative, basic requirements for a person to integrate into a professional team (Ortiz Sobrino et al., 2016; Martín-Gracia et al., 2018). The articulation of work groups should involve two premises; on the one hand, the creation of roles associated with the group leader or supervisor; on the other hand, the establishment of a schedule of regular meetings about the contents and order of broadcasting or programming. In fact, P1 collected testimonies from students about the difficulty of coordinating with colleagues due to the continuous effort of having to negotiate agreements.

The third level is related to the variable of the course in which the participants are integrated and the correlative level of teaching advice: the projects carried out with first and second year students have shown the need for prior training and/or greater supervision, since the students' level of competence acquisition is basic. The P4 project has raised it as a suggestion for improvement, P8 discovered deficits in digital editing and P6 also detected it in relation to transmedia concepts and digital literacy. This follow-up work is transversal to all the aforementioned competencies, because it can be monitored from the compliance with the group meeting schedule and the role assumed by each person to the establishment of intermediate corrections of the product in terms of instrumental competencies, both basic and specific.

The assessment is extended to the fourth level, that of the development of the activity. It is up to each teacher to decide how his or her participation is instrumented, whether in a more passive way, as an observer or evaluator, or actively as a participating agent, as suggested by Melendo and Presol (2018). Their presence is unavoidable in the initial planning stage, in which teams are created, roles are delimited and the activity schedule is established.

Regarding the suggestions for improvement reflected in some projects, the planning stage is more relevant if VLOs are used as study material.

Although several initiatives have shown an increase in performance, P11 quantified the number of people who did not manage to improve their learning after listening to podcasts at 53%, although they emphasize that the data come from surveys, so they believe an experimental design is necessary. P14 -videos produced by teachers- discovered audience drops shortly after the start of the viewing and in the final stretch, which they linked to the students' interest in the content narrated, and not to the length of the video, which is longer than the usual standard of 4-6 minutes proposed by Clossen (2018) or TechSmith (2021). The researchers understand that the complexity of the content should be the determining factor in the elaboration of the material, rather than the length of the minutes.

Pre-training is also envisaged at this level if deemed necessary. A suitable tool detected in several projects is the creation of a previous survey to x-ray the level of knowledge of the students or even how they use the VLO. If deficiencies or deficits are perceived in the coding of results, training is essential to ensure the correct implementation of the second stage of development, called project execution. This is where the instrumental competencies are worked on.

Once the product has been built, the third stage arrives, the broadcasting or hosting of material on platforms; for this purpose, it must be previously decided which one is the most suitable, depending on the potential of each support and the type of content created. If the VLO is used as an academic tool, the broadcasting phase includes the presentation of the product to colleagues to generate debate and reflection through heteroevaluation. The project ends with the evaluation level, according to the criteria indicated by the teacher in the planning stage of the fourth level. In order to articulate the assessment grid or evaluation system, it is necessary to take into account the competency references, bearing in mind that in the work area, performance should be graded according to the expectations of the role assumed by each member (leader, coordinator, editor, etc.).

An active role of the teacher in the assessment is recommended in order to rate more objectively the development of those soft skills associated with schedule follow-up, innovation, creativity, or proactivity, and also to positively assess the assumption of responsibilities, leadership or decision making, in case there are hierarchies. Similarly, if the VLO is to be used as study material, the ability to disseminate should be included.

Several projects -P1, P6, P10, P13- have raised as a suggestion for improvement to expand it to other degrees or involve several subjects, in order to generate repositories -such as audio-notes- and thus avoid a drop in student motivation because the activity is limited to only one academic year or one term.

The evaluation can also expand its scope by means of a final comparative survey or study, if this tool has been implemented in the initial stage of the project, in order to obtain a comparative that goes beyond an academic grade.

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