Universidad Zaragoza
1542

Trabajo Fin de Grado

Enhancing Employability through Transversal Competencies: An Analysis of the Project Sello 1+5 at the University of Zaragoza

Autor/es

Sofía Alcalde Sierra

Director/es

Raquel Ortega-Lapiedra

Administración y Dirección de Empresa en inglés

2024

INDEX

INDEX OF GRAPHS

INDEX OF TABLES

1. INTRODUCTION

In the current higher education environment, the holistic development of students goes beyond the mere acquisition of technical knowledge. Increasing emphasis is placed on the development of transversal competencies (TC), essential skills for navigating a dynamic and complex world.

This Final Degree Project focuses on contextualizing, analyzing, and understanding the importance of these competencies in university education and their impact on students' employability and academic and professional success.

The relevance of this study lies in the need to adapt higher education to the demands of the contemporary labor market, both nationally and internationally. Various studies have highlighted the discrepancy between the competencies university graduates possess and those employers demand, emphasizing the importance of TC in graduates' adaptability and employability.

The main objective is to analyze the role of transversal competencies in university education and their impact on the employability of students, highlighting the real need to implement the Sello 1+5 Unizar project at the University of Zaragoza. This project seeks to adapt the educational system to the demands of the global labor market, ensuring that students develop crucial skills for their professional future. To achieve this goal, previous studies are examined, the Spanish labor market is analyzed and the Sello 1+5 UNIZAR Project at the University of Zaragoza is detailed in depth, evaluating its competencies, requirements, and evaluation model within the curricula.

Methodologically, this study employs a mixed-method (quantitative and qualitative) survey addressed to the students at the University of Zaragoza. The survey aims to assess students' perceptions and development of TC prior to the implementation of the Sello 1+5 Project. In addition, it is intended to reveal key areas where the promotion and development of these competencies should be further encouraged.

The structure of this paper is organized into four chapters: the introduction, the theoretical framework, the methodology and results, and the conclusions and limitations. Finally, recommendations based on the results are proposed to improve the

integration of transversal competencies in university education. The problems or limitations of the study could be the result of the sample used not adequately reflecting the general population that is intended to be analyzed.

2. Theoretical framework

2.1. Conceptualization of transversal competencies.

The global economy is rapidly changing, and so is the labor market. Today, although there are not enough job opportunities, the challenge of creating them persists. That is why many EU reports and research studies by companies and Human Resources experts highlight the importance of "transversal" competences (TC) to boost employability, especially for recent university graduates entering the labor market. But amidst all this talk, what exactly do these competencies consist of?

The essence of transversal competencies lies in cultivating skills applicable across diverse professional, social, and personal contexts. These competencies are characterized by their ability to generate valuable outcomes at both individual and societal levels, their adaptability to various pertinent situations, and their crucial role in enabling individuals to effectively navigate life's multiple challenges. (Salganik & Rychen, 2003) The acquisition of these competencies entails a multifaceted and integrative process, characterized by active engagement, contextual relevance, social interaction, and reflective practice. (Lasnier, 2000) In summary, transversal competencies are critical for the holistic development of individuals due to their inherent universality and enduring quality, fostering continuous learning throughout life (Corominas, 2001).

These competencies, referred to interchangeably as generic, transversal, basic, participatory, social, or socio-emotional skills, are recognized internationally under various titles, such as "key competencies" in Australia, "essential skills" in New Zealand, "core skills" in England, "employability skills" in Canada, and "workplace know-how" in the United States. (Rodríguez, 2015)

It is evident that different terms are frequently used to refer to the same idea, indicating a lack of common language. However, upon closer examination and the absence of a common definition, these terms shed light on different aspects of a broader concept.

Among all these terms, "transversal" and "generic competencies" have become the most prevalent within European university circles, being widely adopted across institutions. (González Morga, 2017)

In numerous sources such as the article "Programme Profiles and the Reform of Higher Education in Europe: The Role of Tuning Europe," one of the main reasons for the widespread use of this competences in Europe is the role of the Tuning project in promoting a competence-based approach in European higher education. (Haug, Luigi, & Dalle , 2013)

At the national level, this adoption is linked to the creation of the White Papers of degree programs by the National Agency for Quality Assessment and Accreditation (ANECA). These documents integrate transversal competences into the academic profile of graduates, delineating their aptitude and behavior in socio-professional contexts. (González Morga, 2017)

Against this backdrop, it is also important to differentiate between the concepts of *skill* and *competence*, since they are continually mentioned and there is no obvious distinction between them. Although they are often used interchangeably in an attempt to define these already established competencies, they are not necessarily synonymous. The Organization for Economic Cooperation and Development (OECD), through the DeSeCo Project, delineates the difference: *competence* refers to the ability to meet demands of a high degree of complexity, and implies complex action systems, while *skill* denotes the ability to apply knowledge to relatively simple tasks. While the distinction between competence and skill may appear somewhat ambiguous, it is a real conceptual difference. There are cases where skills are considered the visible or behavioral aspects of competence, but never the other way around. For instance, in the European Qualifications Framework, competence is associated with responsibility and autonomy, while skills encompass cognitive (logical, intuitive, and creative thinking) and practical (manual dexterity and the use of methods, materials, tools, and instruments) aspects. (Avila & Santiesteban, 2018) (Cinque, 2016)

As a result, nowadays an effective professional should handle the skills and knowledge they have acquired throughout educational institutions (know-how/technical

competence), deploying them across multiple contexts and modifying them to meet the requirements of their job position (know-how/methodological competence). For their professional activities, they should interact and cooperate with coworkers in team situations with effectiveness (know-how/participatory competence). In addition, they must autonomously address problems with adaptability, supporting organizational goals with introspective self-awareness and actively molding their experiences. (Rodríguez, Cortés & Val, 2019).

2.2. Relevant skills for today's society

In the contemporary globalized era, there is an urgent need for political, economic, and social transformations that are intrinsically linked to educational advancements. Neglecting these changes could lead to regression across various facets of human existence. Amidst the evolution of global educational trends, there is a vital call to enhance the quality of knowledge and skill development through lifelong learning. It is essential to focus on international experience, cutting-edge production technology, and how they fit into both individual business and national production and management strategies. In such a context, lifelong learning (LLL - education) assumes importance in stabilizing social tensions and optimizing the balance between tradition and innovation (Voitovska, Tolochko & Bordyug, 2018)

The demand for a diverse set of competencies has never been more crucial to thrive in both, personal and professional life. From technical knowledge to interpersonal skills, the ability to adapt and excel in diverse environments has become a defining factor for success.

In the context of modern business structures that prioritize innovation, specialists need to possess a diverse set of skills that go beyond traditional technical expertise. Cultivating these skills among the professionals of these new business structures through lifelong learning is imperative to foster adaptability, innovation, promote collaboration, improve problem-solving capabilities, improving communication skills, leadership acuity, fostering a culture of continuous learning, and gaining a competitive advantage. By prioritizing the cultivation of these core competencies, organizations can develop a versatile and agile workforce capable of driving success and prosperity within

today's ever-changing and fiercely competitive business landscape. (Tolochko, Bordiug, & Knysh, 2020)

And that is why, currently, in almost all job descriptions, employers usually demand a combination of hard and soft skills. (Birt, 2023) Though challenging to assess or quantify, soft skills are indispensable for achieving success across various industries and occupations. Whether interacting with colleagues from diverse cultural contexts or communicating with global customers and clients, adeptly managing intricate interpersonal dynamics, and fostering robust relationships serve as pivotal factors for achieving desired outcomes. (Forbes, 2023). Conversely, hard skills refer to specialized technical skills relevant to certain professions, such as expertise in finance or auditing.

There exists an imminent necessity to recalibrate the focus of the education sector, aiming to equip professionals with competencies extending beyond rigid technical skill sets. The goal is to cultivate individuals capable of not only comprehending and influencing shifts within their respective domains but also adapting and evolving through the acquisition of soft skills, attributes that are less formalized yet universally indispensable across all professions. (Tolochko, Bordiug, & Knysh, 2020)

If we focus on this context, in the case of Spain, according to the report "The Challenge of Job Vacancies in Spain" from September 2023, prepared by the Spanish Confederation of Small and Medium Enterprises (CEPYME), it is currently a challenge for Spanish companies to fill job vacancies. The labor market in Spain faces a serious problem: the difficulty of aligning the supply and demand for labor. This is particularly alarming as Spain, with an 11.6% unemployment rate according to the latest Labor Force Survey (EPA) published by the National Institute of Statistics (INE), has one of the highest unemployment rates in the European Union alongside Greece. According to data from the National Institute of Statistics, Spain currently has over 150,000 registered job vacancies. This mismatch is due to a combination of demographic, cultural, social, and educational factors. The lack of population in large areas of the country and the family support that reduces the urgency for young people to seek employment, along with inadequate education in technological and technical profiles and a lack of continuous training, exacerbate the situation.

Because they cannot find suitable profiles for the offered positions, companies are seeking other solutions, such as changing processes, automation, outsourcing, or not performing certain tasks, which may result in vacancies disappearing without being filled. This directly harms the capacity for development and growth of companies, hindering the growth of business size. Among other reasons, the report has identified several factors explaining the persistence of vacancies, such as the delay in advertising the availability of a job position by companies, barriers to geographic mobility of potential workers, the disparity between the necessary skills and those possessed by candidates, and candidate expectations that do not align with economic reality.

This lack of correspondence between the supply and demand for labor has serious consequences, such as a decrease in production and productivity, difficulties in generational succession in family businesses (many of which are at risk of closing in the next five years), obstacles to the growth of SMEs, and the potential migration of the productive fabric and workers from depopulated areas to more dynamic ones. The issue also affects the modernization of the labor market.

The aging population, combined with a low birth rate and a significantly increased average age of workers, from 39.5 years in 2008 to 43.7 years currently, makes it difficult to incorporate new technologies and the need for continuous training, as there is less availability of young workers. Additionally, immigration is not rejuvenating the Spanish workforce as expected, since the average age of immigrant workers has also increased considerably.

In the last 20 years, the total population has grown by 13.4%, but the population aged 16 to 24 has decreased by 10%. Spain has fewer young people, and the proportion of young people who want to work has fallen by 11.5 percentage points since 2003. This is due to various factors, such as changes in social habits and the extension of years dedicated to study, linked to a modification of family traditions.

La edad media de los ocupados aumenta en todas las ramas de actividad

	2023	2008
AA.PP.	47,5	
Serv. Doméstico	46,9	
Ind. Extractivas	46,8	
Inmobiliarias	46,3	
Agua y saneamiento	46,2	
Agro y ganad.	45,3	
Act. Administrativas	45,1	
Construcción	44,8	
Transporte	44,6	
Finanzas	44,5	
Educación	44,2	
Salud	44,1	
Total	43,7	
Manufacturas	43,5	
Electricidad y gas	43,2	
Comercio	42,9	
Act. Profesionales	42,5	
Otros servicios	42,3	
Hostelería	40,4	
Info y comunicaciones	39,7	
Arte y ocio	39,5	

Fuente: CEPYME sobre la base de INE

Graphic 1: The average age of the employed is increasing in all branches of activity. Source: CEPYME (2023)

The report also indicates that the Spanish education system is disconnected from the needs of the labor market, resulting in a lack of qualified workers in technological areas and over-qualification in others. A greater preference for studies in arts and humanities has been detected. Despite recent reforms in Vocational Training, their effects will not be felt in the short term. Additionally, the State Public Employment Service (SEPE) barely manages to place a small fraction of job seekers (5%), highlighting the lack of resources and efficiency in labor mediation.

Addressing these challenges requires multilateral collaboration and a review of educational and employment policies to improve training and labor mediation. (CEPYME, 2023)

In recent years, numerous studies and reports have shed light on the current major challenge in the labor market, the shortage of skilled workers. According to ManPower Group's 2012 *Talent Shortage Survey*, nearly 20% of employers cited a deficiency in soft skills as a key reason for their inability to hire needed employees. (Group, 2016) Likewise, the American Career Builder survey conducted by Harris Poll with a sample of more than 2100 Human Resources professionals in 2014, showed that most

employers (77%) think soft skills are as valuable to hard skills when it comes to hiring. Attributes such as work ethic, reliability, and a positive attitude were the most prominent among employers. (Vectec, 2014)

Similarly, the McKinsey research, involving more than 8,000 respondents from eight European countries, revealed that one-third of employers felt that most of the problems that arose in their companies (affecting costs, quality, and time) were due to a lack of skills among their employees. Countries that were particularly affected in the investigation by this shortage of qualified personnel and high rates of youth unemployment were, among others, Italy, Greece, and Spain. It is emphasized that this is mainly due to the lack of communication between students, employers, and educators, as it is shown that they do not speak the same figurative language. The vast majority of educators, 74%, are convinced that their students leave for the job market prepared to meet their challenges. However, only 35% of employers share this opinion. In addition, a significant percentage of young people (58%) consider that they have not received adequate job training, and only 30% find temporary employment after graduation. (McKinsey & Company, 2016)

Microsoft, in collaboration with IDC, released a white paper in October 2013 highlighting the essential skills required for both current and future jobs. The study examined 14.6 million job postings from high-growth, high-wage occupations and identified 20 common skills necessary for these positions. Key findings revealed that while technical skills are important, knowledge and cognitive skills are equally vital.

Among the top skills identified were oral and written communication, attention to detail, and proficiency in Microsoft Office applications. Soft skills such as communication, integration, and presentation were found to be crucial for approximately 40% of all positions and constituted 11 of the top 20 skills required by high-growth, high-paying occupations (REDMOND, 2013).
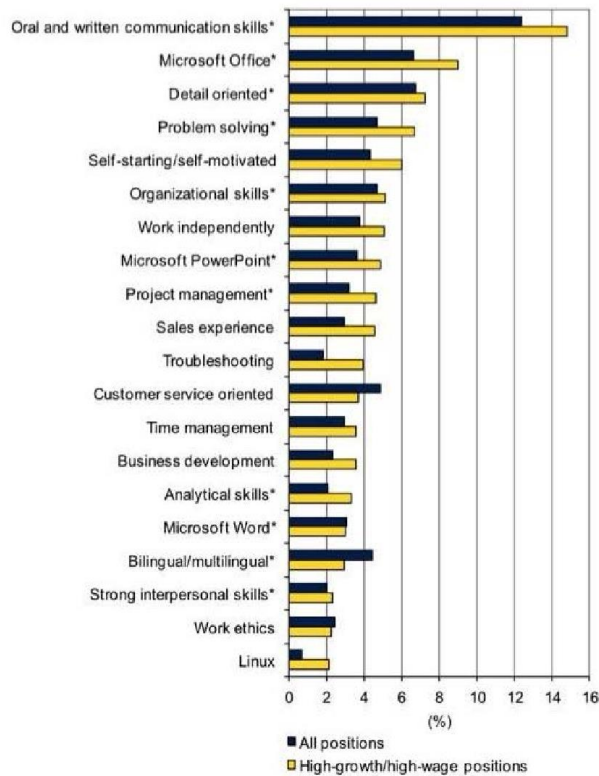
Graphic 2: IDC Study: Top Skills Comparison 2013 Source: Indicates Communication, Integration, or Presentation skill; Source: IDC, based on Wanted Analytics and U.S. Bureau of Labor Statistics Data, October 2013 (REDMOND, 2013)

In addition to Microsoft's findings, the British e-learning platform SkillsYouNeed (SkillsYouNeed) emphasized the importance of personal skills, including time management, self-development, emotional management, as well as physical well-being aspects like nutrition, body care, and sports training. Interpersonal skills such as communication, teamwork, negotiation, and conflict management were also highlighted.

Moreover, Forbes, a leading business publication, conducted a study titled *The 11 Essential Soft Skills in 2024*, which sheds light on the soft skills most valued by employers in contemporary workplaces.

Among all, also highlights the importance of interpersonal skills, which occupy a prominent place in the ranking. (Forbes, 2023) In subsequent publications delving into them, it points out that employers prioritize candidates with strong interpersonal skills because they enable the development of positive and fruitful relationships. They foster

strong workplace relationships, ensure effective communication through active listening and clear expression, facilitate collaboration and teamwork essential for achieving collective goals, appropriately resolve conflicts that naturally arise, demonstrate leadership qualities conducive to influencing and motivating peers, and maintain a positive attitude indicative of enthusiasm and commitment. (Forbes, 2023)

In conclusion, it is evident that there is a significant gap between the skills possessed by recent graduates and those sought by employers. While technical skills are valuable and provide a necessary foundation for any job role, studies overwhelmingly demonstrate the crucial importance of interpersonal skills in the labor market. Employers prioritize good communication, teamwork, and interpersonal skills, highlighting the need to improve communication and collaboration between educators, students, and employers to bridge this critical skills gap and align educational systems accordingly.

2.3. The Sello 1+5 Unizar project.

After contextualizing the importance of transversal skills and their relevance in the current labor market, the project Sello 1+5 UNIZAR is explained from the official document of the University of Zaragoza. (Universidad de Zaragoza, 2021)

Royal Decree 822/2021, issued on September 28, outlines the structure of university education and the process for maintaining its quality. This decree introduces the concept of Learning Outcomes (LOs) for the design of official degrees within the Spanish University System (SUS). LOs describe what a student should know, understand, or be able to do upon completing a learning process. These outcomes can be specific to a particular field or more general, always considering the disciplinary context.

The Conference of Rectors of Spanish Universities (CRUE) acknowledges the right to education in transversal competences, and Royal Decree 822/2021, in article 4, mandates the inclusion of democratic principles, values, and **Sustainable Development Goals** as transversal competencies in official curricula, in a format chosen by each university.

Within this framework, the University of Zaragoza has initiated the Sello 1+5 UNIZAR project, which delineates the transversal competences defining the graduate profile of

the university. This initiative plans for the thorough integration and assessment of six transversal skills in all official degrees, both undergraduate and master's, including the one mandated by Royal Decree 822/2021.

The project first highlights the importance, within the UNIZAR context, of incorporating democratic values and sustainability into official degree programs. Alongside this primary transversal competence, five additional competences crucial for the optimal graduate profile of any university student are included. The project remains flexible, allowing degree programs to adjust the wording to suit their specific needs. These five transversal competences were identified by a multidisciplinary team through the study and discussion of previous national and international proposals and an analysis of current societal characteristics and labor market demands.

The competencies included in the Sello 1+5 UNIZAR are: Democratic values and sustainability (RD1); Teamwork (UZ1); Critical thinking (UZ2); Emotional intelligence (UZ3); Innovation and creativity (UZ4) and Lifelong self-learning (UZ5).

2.3.1. Democratic values and sustainability (RD1)

The commitment to society and its prosperity is developed through the dimensions of democratic values and sustainability. The core idea is to cultivate individuals who are aware of their potential to contribute to a better world by fostering respect for democratic values and contributing to the planet's sustainability. These values encompass respect for human and fundamental rights, freedom of thought and teaching, diversity, equity, a culture of peace and participation, the principle of equal treatment, non-discrimination for any reason, and universal accessibility.

Global challenges such as rising inequality, climate change, increased exposure to natural hazards, rapid urbanization, new migration patterns, and the excessive consumption of energy and resources pose significant risks, potentially raising disaster risk to dangerous levels with systemic global effects that threaten planetary sustainability. The 2030 Agenda, with its 17 Sustainable Development Goals (SDGs), provides a universal call to action to eradicate poverty, protect the planet, and improve lives and prospects worldwide.

Graduates from the University of Zaragoza's official programs must demonstrate the following competencies:

At the undergraduate level (MECES 2), they should have a systemic understanding of our society, particularly the democratic system and its fundamental rights, treat all individuals with respect and equality, identify and evaluate current global challenges, and recognize the SDGs that can be addressed through various professional and academic actions. At the master's level (MECES 3), they should be able to undertake individual or collective actions to promote societal progress and enhance the planet's well-being.

2.3.2. Teamwork (UZ1)

To effectively collaborate with a group of individuals to achieve a common goal by combining diverse talents, the University of Zaragoza emphasizes the development of this competence for its graduates. This involves an active approach to several key aspects.

First, structuring the team involves carefully considering its composition and establishing appropriate roles. It is crucial to address both individual and collective commitment to the team's mission, clearly defining the level of responsibility each member can assume. Second, organizing the team focuses on establishing conduct and operational norms, such as defining coexistence guidelines, decision-making processes, and protocols for membership changes. It is also important to set up common resources, both physical and online, for meetings, communication, and documentation, ensuring that the work is organized into tasks and milestones with an appropriate workflow.

Human interaction within the team should foster a positive work environment and proactive behavior. This includes learning negotiation techniques and acquiring interpersonal and social skills to handle conflicts effectively.

Graduates of the University of Zaragoza's official programs should demonstrate their ability to collaboratively define team objectives, cooperate towards a common goal, assume shared responsibility, and identify possible roles within the team. At the master's level, they should empathize with team members on both task-related and

interpersonal matters and assertively address and anticipate potential issues in team functioning.

2.3.3. Critical thinking (UZ2)

The University of Zaragoza emphasizes the importance of critical thinking as a core competence for its graduates. This skill enables individuals to reflect thoughtfully on a topic, deliberating its validity by debating both personal and external convictions. Critical thinking involves distinguishing valuable arguments from inapplicable ones, discerning essential information, dismantling prejudices, drawing well-founded conclusions, generating alternatives, and improving communication. It helps individuals understand the limits of their knowledge and measure the effectiveness and validity of their conclusions. This involves questioning not only the causes of something but also its correlations, the functioning of different thought systems, and the tendencies of thinking patterns inherent in each academic discipline or system of thought.

Graduates of the University of Zaragoza are expected to demonstrate the ability to delve deeply into topics involving various logics, recognizing the limitations of directly extrapolating familiar concepts and methodologies. They should be able to identify differences between facts, opinions, interpretations, and evaluations, and to assess potential consequences of decisions while proposing reasoned alternatives. At the master's level, graduates should exhibit a critical attitude towards multiple viewpoints and disciplines, and be capable of shifting their thinking logic, evaluating its validity, and judging its appropriateness in different contexts.

2.3.4. Emotional intelligence (UZ3)

Understanding and regulating one's own emotions, as well as those of others, is essential for effective and constructive participation in social and professional life. This involves the ability to recognize personal and others' emotions, differentiate between various feelings, appropriately label them, use emotional information to guide thought and behavior, and manage or adjust emotions to adapt to the environment or achieve goals. Effective communication with others, both affective and effective, is a critical aspect of this competency.

Graduates of official programs at the University of Zaragoza must demonstrate specific learning outcomes. At the bachelor's level (MECES Level 2), they should be able to identify internal emotions to manage them properly, handling stress and frustration effectively, communicate efficiently and empathetically with individuals or groups, and maintain a positive and constructive attitude in different situations. At the master's level (MECES Level 3), they should recognize the emotions of those around them to anticipate possible behaviors and situations and mediate proactively in conflicts by seeking common ground and valuing differing opinions.

2.3.5. Innovation and creativity (UZ4)

The ability to design and execute a new task or project differently, using creativity and curiosity to add value with an entrepreneurial attitude, is crucial. This competency encompasses responding effectively to personal, organizational, and societal needs by altering processes or outcomes to create new value. Developing this skill involves thinking differently to offer diverse perspectives (creativity) and committing resources on one's initiative to explore opportunities, taking on the associated risks (entrepreneurship). It involves change management, process improvement, idea enhancement, and value addition, all within a structured plan of action.

Graduates from official programs at the University of Zaragoza should demonstrate their capability in several specific learning outcomes. At the bachelor's level (MECES Level 2), they need to propose new projects driven by creativity and curiosity, introduce original ideas into established tasks, and show initiative by creating an action plan. At the master's level (MECES Level 3), they should enhance processes to add value and take risks using strategies that allow for anticipating and evaluating outcomes.

2.3.6. Lifelong self-learning (UZ5)

Lifelong learning involves continuously updating knowledge and developing autonomous and flexible learning strategies throughout one's life, fostering active, motivated, and integrated citizenship, which in turn enhances employability and personal development. This ongoing education caters to individuals of all ages and backgrounds, occurring in various learning environments, including digital contexts. It spans a wide range of educational goals, improving skills for the benefit of individuals, communities, and the planet. Lifelong learning reflects a commitment to continuous

education made possible through flexible learning pathways, encouraged by individual curiosity, community-based learning initiatives, multi-sectoral policy development, and government program implementation. This approach aims to reduce the risk of exclusion in a rapidly changing, globalized, and digital society, a challenge acknowledged by the European Union.

Graduates of official programs at the University of Zaragoza are expected to demonstrate specific competencies. At the bachelor's level (MECES Level 2), they should be able to access various information sources and resources critically, initiate and persist in learning to manage time and information effectively, use information society technologies safely and critically for work, leisure, and communication, and design and develop their learning strategies to expand their knowledge according to personal and professional needs. At the master's level (MECES Level 3), they should efficiently select multidisciplinary learning resources to improve employability or personal development.

2.3.7. Implementation Of Transversal Competences

The evaluation of these transversal competencies at the University of Zaragoza will be conducted in a comprehensive manner throughout official degrees, both bachelor's and master's degrees. Defined as skills or attributes transcending specific disciplinary boundaries, these competencies are integrated into the curriculum through two distinct models. The first, known as the **Base Model**, entails the development of TC within the subjects that each degree program considers appropriate, integrating them into the planning of the teaching-learning process and the evaluation system. The second model, known as the **CT Model**, focuses on the visualization and specific certification of these competencies, establishing subjects designated as Control Points (CP) where each competency is worked on and evaluated individually. These CP subjects allow the assignment of a qualitative grade and subsequent certification by the institution for each student.

Additionally, the possibility of certifying these cross-cutting competencies through complementary external activities is considered. In order to implement this approach, a specific program is being developed within the Annual Teacher Training Program, designed and funded by the Vice-Rectorate for Academic Policy and executed by

CIFICE, with courses planned for this academic year 2023-2024. This comprehensive approach seeks not only to promote the development of essential competencies in students, but also to effectively certify them for their insertion in today's labor market.

3. Methodology

In order to methodologically approach the study, a survey designed in close alignment with the previously established theoretical framework was implemented. This theoretical framework not only provides a detailed understanding of the Sello 1+5 UNIZAR project, but also of the transversal competencies that its implementation is intended to promote.

By conducting this mixed study, both quantitative and qualitative, we sought to deepen the students' perception of the project, as well as to assess their knowledge and level of development of the transversal competencies. By aligning with the objectives of the Sello 1+5 project, the survey allows for the collection of valuable data reflecting how students value these competencies and the extent to which they feel they have been developed during their academic training. Included are questions on demographics, professional experiences and perceptions of the importance and development of transversal competencies, as well as the implementation of the Sello 1+5 UNIZAR project.

3.1. Survey Administration

After considering all the available options for collecting information, it was decided to conduct a self-administered survey on the Google Forms website.

The survey design (see Annex 1.1) was based on the general and specific objectives of the study, which were described at the beginning of the previous section. It was divided into five sections with a total of 28 questions. Closed or multiple questions, open questions and 7-point Likert scales were combined to measure students' perception, knowledge, assessment, and attitudes about the cross-cutting competencies and the Sello 1+5 UNIZAR project.

Before the first section, there was a brief presentation in which the theme of the questionnaire was explained, as well as its purpose. It was emphasized that the

responses, completely anonymous, would be used solely for academic purposes for the completion of the present undergraduate thesis. Following this, the 5 sections were presented. The objective of the first was the collection of demographic data. The second section conceptually addressed the topic of transversal competencies, asking the students for their opinion on the matter. In the third section, the six transversal competencies to be implemented by the Sello 1+5 UNIZAR were defined, evaluating their level of development in the surveyed students. The fourth section aimed to collect data on the perception of university assistance in the development of these competencies. Lastly, in the fifth and final section, students were asked about their perception regarding the implementation of the Sello 1+5 UNIZAR project.

The choice of the Google Forms platform is based on its versatility, accessibility, and ability to adapt to both qualitative and quantitative studies. Google Forms offers a wide range of customization options, allowing the survey to be adjusted according to the specific needs of the study. The main drawback is the lack of control of the respondents: the responses obtained may be biased.

Microsoft Excel was used for data analysis, employing tools such as pivot tables, graphs and descriptive statistics.

3.2. Data Collection

For the distribution of the survey, the snowball method, also known as snowball sampling was applied, a non-probability sampling technique used to disseminate the survey through word of mouth. This strategy allows us to gradually expand the sample by inviting new participants who meet the characteristics of interest to complete the survey. After the survey, the respondent is asked to disseminate the survey to reach a larger number of people. Although its cost is lower, reason that also justifies the use of this sampling, the results of the sample cannot be extrapolated to the population under study.

This survey was disseminated through WhatsApp, Instagram, and email during the months of April and May 2024. Thanks to this, it reached different types of students from all macro-areas, ages, and courses, guaranteeing confidentiality and anonymity for all participants.

21

3.3. Target Population and Sample

The target population is students from all undergraduate and master's degree courses at the University of Zaragoza. Despite the wide dissemination of the survey by various media, the final sample consisted of only 63 students of which, as shown in the graph, the percentage of female respondents slightly exceeds the percentage of masculine respondents by 4 percentage points. The sample is confined to the region of Aragon, where the University of Zaragoza is located.
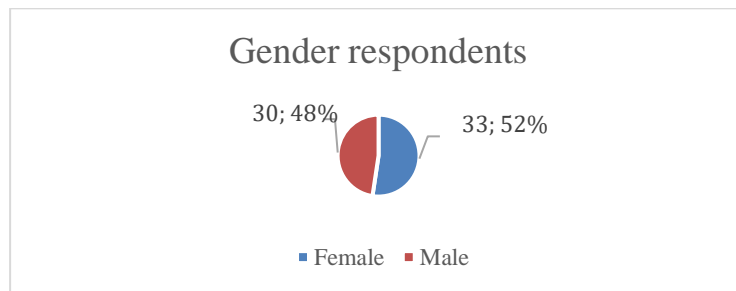
Graph 3: Gender of Respondents. Source: Own elaboration.

Table 1 below shows the number of respondents by gender and course. The first column is divided into three sections: "Women", "Men" and "Total". The "Women" and "Men" sections are disaggregated into the different years of study in which the surveyed students are currently enrolled. The second column, titled "Nº of Respondents" counts students by gender and course they are enrolled. The third column shows the percentage of each option. Each section has the total number of respondents and at the end they are all added up in the last row of the table. In other words, it shows the complete sample, 63.

Gender and Course	N.º of students	Percentage
Women	**33**	**52,38%**
First course	3	4,76%
Second course	5	7,94%
Thrid course	9	14,29%
Fourth course	11	17,46%
Fifth course	1	1,59%
Sixth course	4	6,35%
Men	**30**	**47,62%**
First course	3	4,76%
Second course	4	6,35%
Thrid course	5	7,94%
Fourth course	16	25,40%
Sixth course	2	3,17%

Total	**63**	100%

Graph 4 shows the percentage of students surveyed according to the macro areas of study in which they are enrolled. The macro areas in question are Arts and Humanities, Sciences, Health Sciences, Social and Legal Sciences, and Engineering and Architecture.

Social and Legal Sciences covers fields such as sociology, psychology, economics, political science, and law, and is the macro-area where most students responded to the survey, with 53.13%.

Health Sciences, with disciplines such as medicine, nursing, dentistry, pharmacy... followed with 22.22%. Engineering and Architecture, which includes all types of engineering and architecture, is the next best represented, with 12.50%. Arts and Humanities, which includes literature, history, philosophy, languages and art, among others, follows with 9.52%, and finally, the macro area of Science, the least represented and which includes degrees such as physics, chemistry, mathematics and computer science, has only 1.59% representation among the students in this survey.
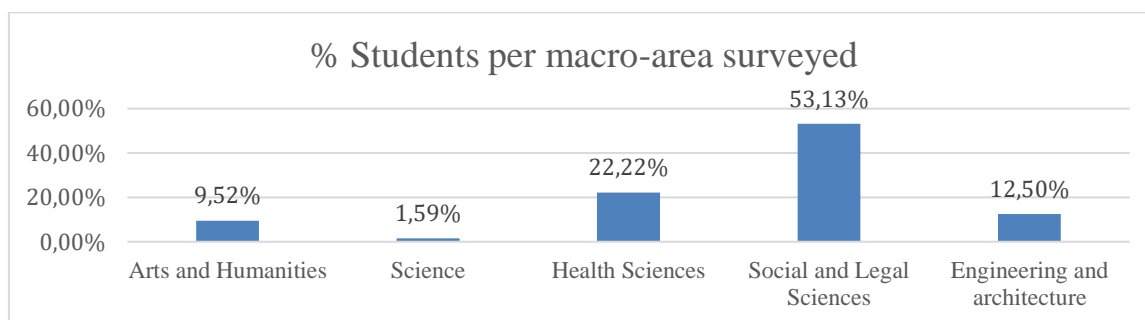
The following three tables are crucial for later analysis of the data collected from respondents. The first table shows whether respondents participate in extracurricular activities during their free time. The second table focuses on curricular practices carried out throughout your university degree. Finally, the third table analyses the current employment situation of respondents.

N. º of students involved in extracurricular professional activities. (e.g., teaching, coaching teams, etc.)	**%**

No	23	36,51%
Yes, frequently	23	36,51%
Yes, occasionally	17	26,98%
Total	63	100%

Table 2: N. º of students involved in extracurricular professional activities. Source: Own elaboration.

After questioning whether they had participated in extracurricular activities, respondents were asked to provide examples. Among the most mentioned were taking the children to school in the morning, actively participating in internal university bodies on behalf of the students, training different sports, giving private tutoring classes, teaching English or other subjects such as music, work as arbitrators, stewardesses, leisure monitors or dining hall supervisors in schools, and finally, giving talks or volunteering with organizations such as the Red Cross.

N.º of students that completed any internships or work experience during university education.		**%**
No	30	47,62%
Yes	33	52,38%
Total	63	100%

Table 3: N. º of students that completed any internship or job experience during university education. Source: Own elaboration.

Student's current employment status.		**%**
I am currently not working, but I have held a job/internship position related to what I study.	6	9,52%
I currently hold an internship/job unrelated to my studies.	6	9,52%
I currently hold an internship/job related to my studies.	25	39,68%
I currently hold a job related to what I study.	1	1,59%
I am not currently working, but I have held an internship/internship not related to what I am studying.	7	11,11%
I am not currently working.	18	28,57%
Total	63	100%

Table 4:Student's current employment status. Source: Own elaboration.

As shown in Table 3, approximately 47.62% of respondents have not participated in curricular or extracurricular internships related to their field of study. In other words, they have not applied the technical knowledge acquired during their university studies in the labor market. From Table 4, we can see that 50.79% of respondents have engaged in curricular or extracurricular internships and/or work related to their studies. Of this

50.79%, 41.27% are actively working or interning in their field of study. The remaining respondents are involved in internships or jobs unrelated to their field of study.

In the academic year 2022/2023, the University of Zaragoza registered 27,045 students enrolled in undergraduate studies, 2,674 in Official Master's and 2,393 in doctoral studies, in addition to the enrolment in own degrees and other forms of training offered. The number of registrations is lower than 2021/22 but higher than 2021/2022. (Universidad de Zaragoza, 2022)

Evolución del alumnado matriculado en estudios de grado. Universidad de Zaragoza
Número alumnos. Cursos 2014/2015 a 2022/2023

Fuente: Universidad de Zaragoza. Elaboración propia
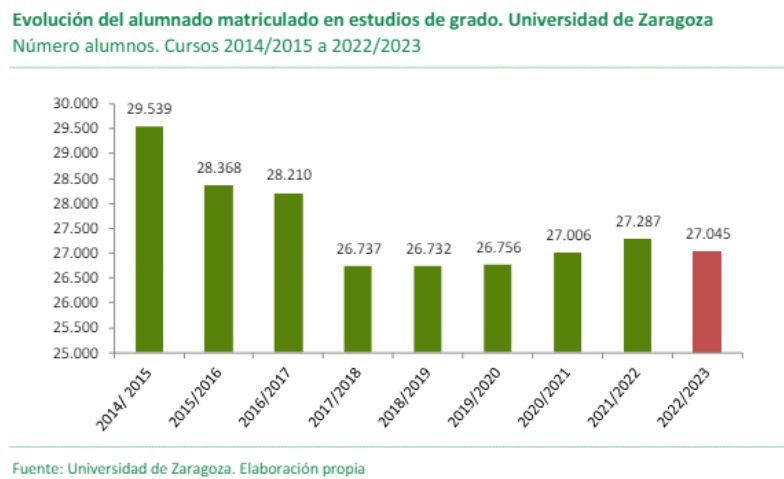
Graphic 5: Evolution of students enrolled in undergraduate studies. Source: University of Zaragoza. (2023)

Once the survey is completed and the final sample is determined, it is essential to utilize the formula for calculating sample size in finite populations, derived from the normal distribution, also known as the Gaussian distribution, to assess whether this sample is representative or not. If not, determining the size of a representative sample becomes necessary. This distribution is chosen because, for large samples, the distributions of numerous statistics tend to approximate a normal distribution owing to the central limit theorem. The formula is adjusted to accommodate the effect of the total population size and is an adaptation of the general formula for sample size.

$$n = \frac{N * Z^2 * p * (1 - p)}{(N - 1) * E^2 + Z^2 * p * (1 - p)}$$

If we breakdown the formula:

N: Represents the total population. By considering N, the sample size is adjusted because, in finite (not infinite) populations, the population size influences the precision of the estimate.

Z: This is the value from the standard normal distribution corresponding to the desired confidence level. For example:

- 1.96 for a 95% confidence level
- 2.58 for a 99% confidence level

This value is obtained from the normal distribution tables.

p: This is the expected proportion of the population with the characteristic of interest. If unknown, 0.5 is used because it maximizes the product p(1-p), yielding the most conservative (largest) sample size.

E: This is the acceptable margin of error, that is, the amount of error that can be tolerated in the estimation of the population proportion.

To determine if a sample of 63 students is representative of the University of Zaragoza, including both degrees and master's degrees, in addition to doctorates, we will perform the calculation of the necessary sample size considering the total population of students. In the year 2022/2023, the University of Zaragoza has the following enrolment figures: 27045 (degree) and 2,674 (Official Master) and 2,393 (doctorate).

As we are interested in undergraduate and master students, adding these figures we get the total population (N):

$$N = 27{,}045 + 2{,}674 = 29{,}719$$

Now, we use the formula to calculate the sample size for finite populations, with a 95% confidence level (Z = 1.96) and a 5% error margin (E = 0.05). We assume an expected ratio (p) of 0.5 as it maximizes the sample size:

$$n = \frac{N * Z^2 * p * (1 - p)}{(N - 1) * E^2 + Z^2 * p * (1 - p)}$$

By substituting the values:

$$n = \frac{29{,}719 * 1.96^2 * 0{,}5 * (1 - 0.5)}{(29{,}718) * 0.05^2 + 1.96^2 * 0.5 * (1 - 0.5)}$$

We calculate each part:

$$Z^2 = 1{,}96^2 = 3.8416$$

$$p * (1 - p) = 0.5 * 0.5 = 0.25$$

$$N - 1 = 29{,}718$$

$$E^2 = 0.05^2 = 0.0025$$

$$n = \frac{29{,}719 * 3.8416 * 0.25}{(29{,}718) * 0.0025 + 3.8416 * 0.25} \approx 379{,}27$$
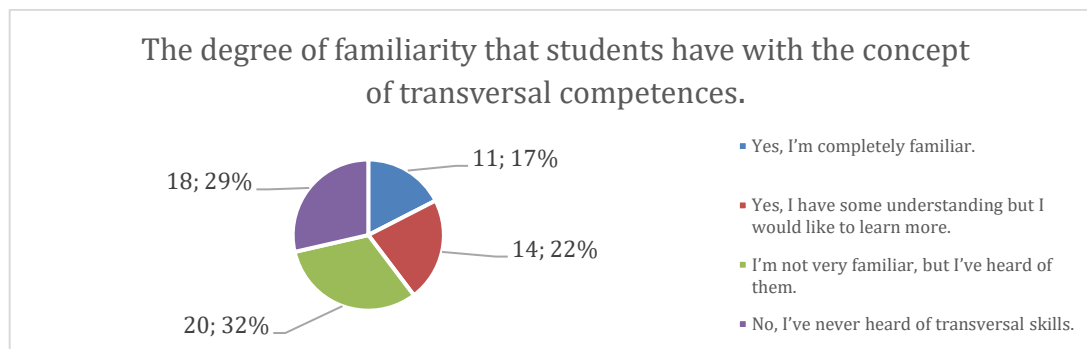
Rounding to the nearest whole number, the required sample size is approximately 379. In other words, a sample of 63 students is not representative of the entire University of Zaragoza, as the calculation indicates that approximately 379 students are needed to obtain a representative sample with a 5% margin of error and a 95% confidence level. It is recommended that if the research is carried out again or resumed, the sample size should be increased and include a variety of students from different undergraduate, master's, and doctoral programs to obtain more representative results.

3.4. Results of the survey.

In this section, we proceed to analyze the data obtained based on the objectives of the work.

In order to contextualize the research and gain a better understanding of the knowledge that these students have about Transversal Competences and their importance for academic and professional success, a series of questions were formulated to the respondents.

Firstly, Graph 7 shows us that 32% of the students, although they have heard about these skills, are not very familiar with them. The next highest figure, 29%, represents all students who had not heard of these skills. 22% of the respondents have some knowledge about them and only 17% are fully familiar with them.

The degree of familiarity that students have with the concept of transversal competences.

- 11; 17%
- 18; 29%
- 14; 22%
- 20; 32%

■ Yes, I'm completely familiar.

■ Yes, I have some understanding but I would like to learn more.

■ I'm not very familiar, but I've heard of them.

■ No, I've never heard of transversal skills.

Graphic 6: The degree of familiarity that students have with the concept of transversal competences. Source: Own elaboration.

Next, the respondents were presented with two statements and asked to rate them on a scale from 1 to 7, where 1 = Completely disagree and 7 = Completely agree, indicating how well each statement described them. The first statement, shown in Graph 7, is: "To become a skilled professional, it is necessary to acquire certain transversal competences." The second statement, shown in Graph 8, is: "Developing transversal skills during my university training period will help me find work in the future and will influence my academic and professional success."

"To become a skilled professional, it is necessary to acquire certain transversal competences. "

0%	0%	0%	8%	27%	27%	38%
1	2	3	4	5	6	7
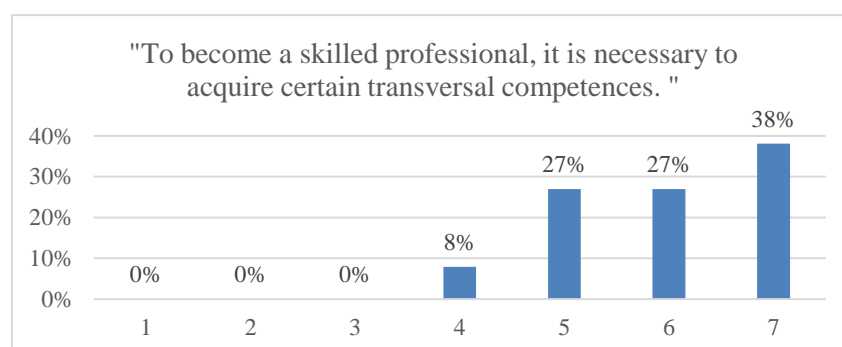
Graphic 7: Statement score "To become a skilled professional, it is necessary to acquire certain transversal competences." Source: Own elaboration.

As shown in Graph 7, the majority of respondents, 38%, completely agree with this statement, followed by 27% who rated it as 6 and those who voted with 5, which also represent 27% of the sample. The lowest scores on the scale are not represented. The average score is 5.95, and the mode is 7.
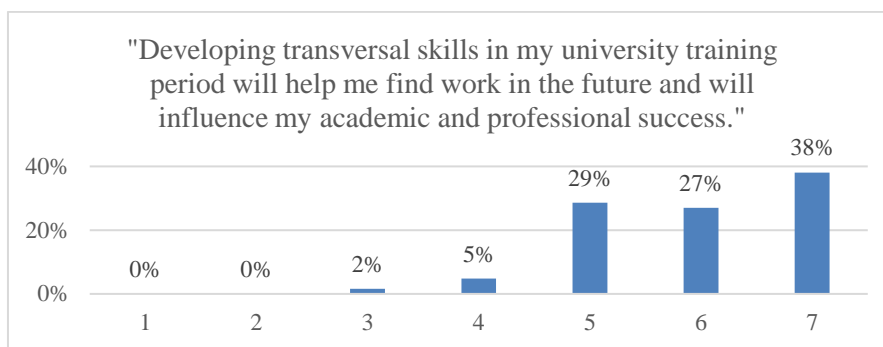
Graphic 8: Statement score "Developing transversal skills in my university training period will help me find work in the future and will influence my academic and professional success." Source: Own elaboration.

Graph 8 presents results similar to Graph 7. The highest score, 7, received the most votes at 38%, followed by 29% of students who rated it a 5, a slight increase from the previous statement. The score of 6 remains the same, with 27% of respondents. For this statement, the lowest score represented is now 3, with 2%. The average score and mode remain the same.

Afterwords, the six transversal competences to be implemented in the Sello 1+5 Unizar project were explained, and respondents were asked to indicate which ones they considered most relevant for their future professional careers. They were also asked to rate to what extent they believed each of these competences had been developed during their higher education at the University of Zaragoza, to what extent they believed it was pertinent for each competence to be evaluated throughout their higher education, to assess the importance of each for their professional future, and to indicate their level of proficiency in each competence. Additionally, there were two open-ended questions where respondents were asked to suggest possible measures to develop competences they felt were poorly developed (those rated below 3) and to identify the factors they considered hinder the full development of their transversal competences (e.g., time, environment, educational system).
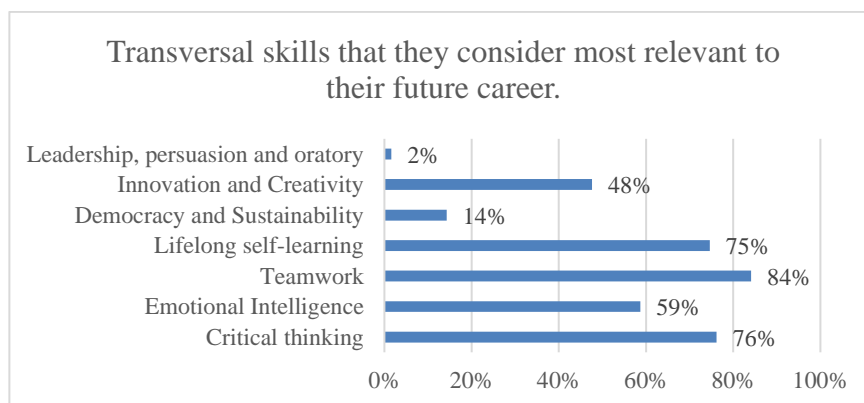
Graphic 9: Transversal skills that they consider most relevant to their future career. Source: Own elaboration.

Graph 9 shows how the three competencies most frequently voted by students as important for their future careers were: Teamwork (84%), Critical Thinking (76%), and Lifelong Self-learning (75%). These were followed by Emotional Intelligence (59%), Innovation and Creativity (48%), and lastly, among the proposed competencies for the Sello 1+5 Unizar project, Democracy and Sustainability received the least importance. One person added Leadership, Persuasion, and Oratory as an option.

In Tables 5, 6, and 7, the results are presented regarding the development level of these competences in undergraduate and master's programs at the University of Zaragoza, the importance of evaluating transversal competences during university studies, and finally, the significance of these transversal competences for the students' professional futures. Included in each table is the total average score according to TC and the mode.

Extent of Development of Transversal Competences During Higher Education at the University of Zaragoza (1 = Not at all, 7 = Very much)

p=63	1	2	3	4	5	6	7	Average	Mode
Critical thinking	5	9	8	8	14	9	10	4,333333	5
Emotional Intelligence	19	11	5	8	9	7	4	3,222222	1
Teamwork	0	11	9	7	13	10	13	4,650794	5;7
Lifelong self-learning	3	9	11	9	13	9	9	4,31746	6;7
Democracy and Sustainability	7	16	9	8	9	9	5	3,68254	2
Innovation and Creativity	4	14	9	15	6	9	6	3,888889	4

Table 5:Extent of Development of Transversal Competences During Higher Education at the University of Zaragoza. Source: Own elaboration.

Relevance of Evaluating Transversal Competences During Higher Education (1 = Not at all, 7 = Very much)

p=63	1	2	3	4	5	6	7	Average	Mode
Critical thinking	2	2	6	4	8	12	28	5,52381	7
Emotional Intelligence	3	7	4	6	7	7	28	5,174603	7
Teamwork	1	2	8	5	8	15	23	5,396825	7
Lifelong self-learning	0	4	7	5	11	9	26	5,396825	7
Democracy and Sustainability	6	11	8	6	13	11	7	4,063492	5
Innovation and Creativity	2	4	7	6	14	11	18	5,031746	7

Table 6:Relevance of Evaluating Transversal Competences During Higher Education. Source: Own elaboration.

Importance of Transversal Competences for Future Professional Career (1 = Not important, 7 = Very important)

p=63	1	2	3	4	5	6	7	Average	Mode
Critical thinking	0	2	5	2	7	12	35	6,015873	7
Emotional Intelligence	0	2	5	6	12	9	29	5,714286	7
Teamwork	0	0	9	2	6	12	34	5,952381	7
Lifelong self-learning	0	4	3	2	9	12	33	5,920635	7
Democracy and Sustainability	3	6	12	9	16	11	6	4,365079	5
Innovation and Creativity	0	1	7	5	12	16	22	5,603175	7

Table 7:Importance of Transversal Competences for Future Professional Career. Source: Own elaboration.

Respondents were also asked for suggestions for the improvement of their less developed CTs. From the suggestions provided, the most frequently mentioned ways to improve transversal competencies are:

- Conducting additional courses, workshops and training sessions to develop these competencies.

- Several suggestions highlighted the value of hands-on experiences and collaborative activities to develop these competencies.
- Greater emphasis and integration in the curriculum. Respondents mentioned integrating these competencies more thoroughly into the academic curriculum and giving them more importance.
- Self-development and independent learning. Personal growth and independent study were also frequently mentioned.
- Increase knowledge and understanding of the competencies.

These suggestions underscore the importance of a multi-faceted approach to developing cross-cutting competencies, incorporating formal education, practical experience and personal development.

To complete the results of this first objective, based on the survey responses, several key factors were repeatedly mentioned by participants as obstacles to fully developing their TC. These factors include the following:

- **Educational System:**

The secondary and university education systems were frequently cited as major hindrances. Many respondents felt that the current educational approach, which heavily relies on memorization and static, non-interactive classes, does not support the development of TC. They mentioned that the education system often lacks emphasis on practical professional experience, leaving students unprepared for real-world challenges. Moreover, some participants noted that the curriculum does not include subjects that encourage reflection on these essential skills, indicating a significant gap in the system.

- **Time Constraints:**

A common complaint was lack of time. The heavy workload and long class schedules at universities leave little room for students to focus on developing transversal skills.

Moreover, respondents mentioned that by focusing so much on studying to pass exams they do not have time or opportunity to cultivate these skills.

- **Environment:**

Many felt that their current environments do not foster the necessary conditions for these skills to flourish. A lack of motivation and personal drive within the environment was also seen as a significant barrier.

- **Lack of Awareness and Application:**

There is a considerable lack of knowledge about transversal skills and how to apply them in daily life. Many respondents pointed out that these skills are often taken for granted and not explicitly taught or encouraged. The educational system does not sufficiently highlight the importance of these skills, leading to a general unawareness among students and educators alike.

- **Societal Attitudes:**

A significant portion of respondents highlighted the societal mentality of minimal effort, which affects the development of certain skills. This pervasive attitude undermines the importance of striving for excellence in both hard and soft skills.

The following section inquires whether the University offers sufficient opportunities to develop transversal competences during their academic training, examples of activities they have participated in that are provided by the university to foster and develop these competences, the percentage of program courses that they believe currently promote the development of their TC, and whether they feel that professors provide support and guidance to improve them, or if they believe the university should implement more initiatives or specific programs for the development of TC.

Figure 13 shows that the majority of students vote between 3 and 5 on whether there are enough activities for the development of these competences.
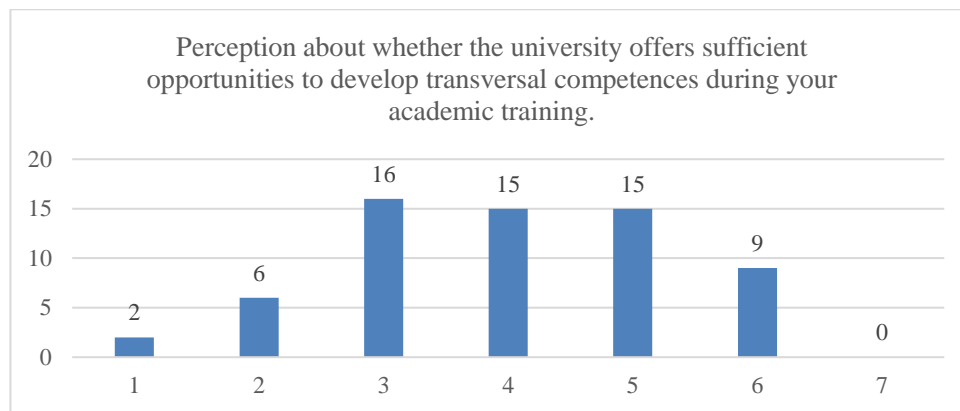

Graphic 10: Perception about whether the university offers sufficient opportunities to develop transversal competences during your academic training. Source: Own elaboration.

Regarding the opportunities that the university offers and that students consider most useful for the development of TC, students mentioned several activities and resources such as activities that add up credits, as well as group work and talks. Universa, with its complementary and academic activities, was also highlighted as an important resource. Other resources often mentioned include additional courses, especially office automation and LinkedIn, and free workshops and courses offered by the university. Extracurricular internships were also mentioned several times. In addition, complementary academic activities such as debates, excavations and congresses were also highlighted for enriching the student.
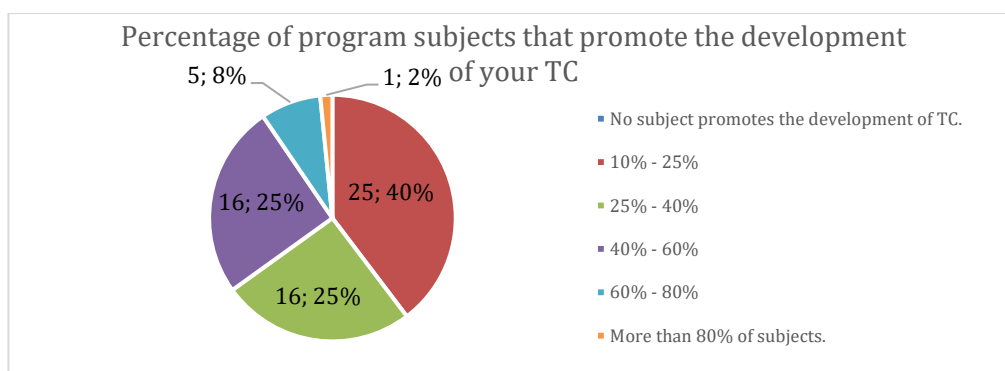
Graphic 11: Percentage of program subjects that promote the development of your TC. Source: Own elaboration.

As can be seen in figure 14, 40% of respondents believe that only 10-25% of their subjects promote the development of these skills. They follow, with 16 students in each rank, 25%-40% and 40%-60%. Only one student considers that more than 80% of their subjects promote the development of TC and none of the respondents believes that any subject in their program promotes them.
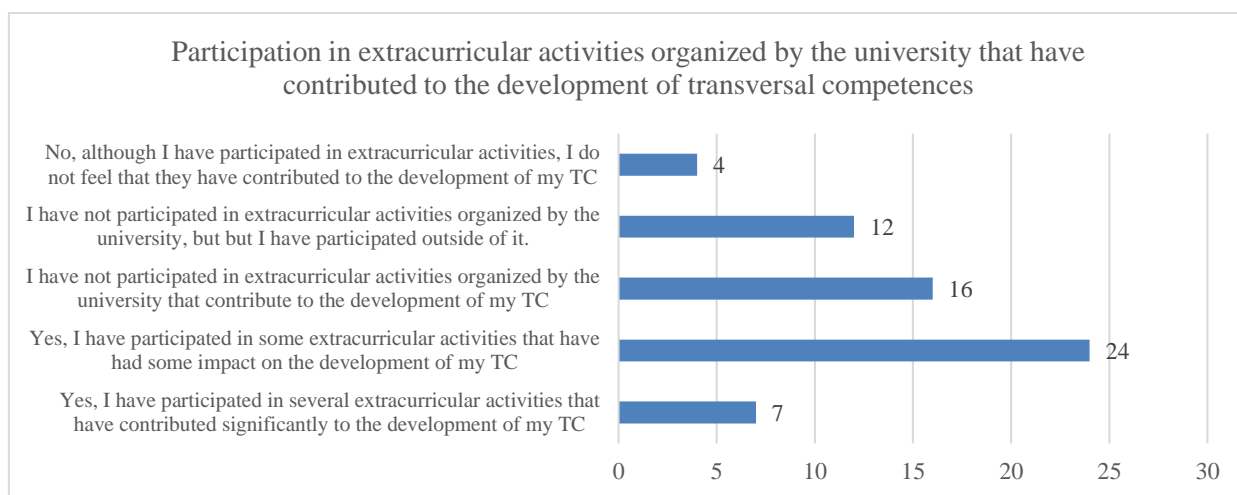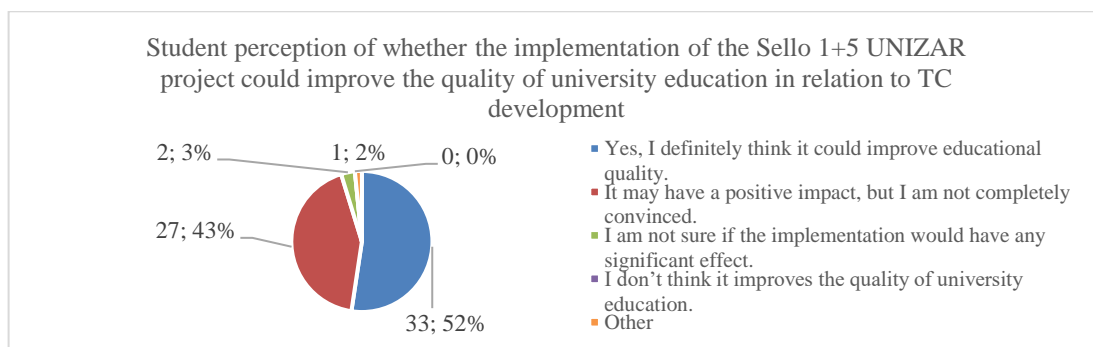

Graphic 12: Participation in extracurricular activities organized by the university that have contributed to the development of transversal competences. Source: Own elaboration.

Among the results obtained on participation in extracurricular activities related to TC, it is revealed that 38.10% of students have participated in some extracurricular activities and found them somewhat impactful for their TC development. The 19.05% participate in external extracurricular activities that contributed to their TC development. The 11.11% participated in various activities organized by the university and found them significantly beneficial. 25.40% of them did not participate in any extracurricular activities organized by the university related to TC and the 6.35% participated in extracurricular activities but did not feel that they contributed to their TC development.

Finally, this section shows that 76.2% of the surveyed students score below 4, on a scale of 1 to 7, the support and guidance given by their teachers to improve their TC. In addition, 96.8% of respondents believe that the university should implement more specific initiatives or programs for the development of transversal competences among students. (See graphs in Annex 1, 1.2)

Finally, in the last section, respondents are informed about Sello 1+5 Unizar and asked about their perception of the project.

Student perception of whether the implementation of the Sello 1+5 UNIZAR project could improve the quality of university education in relation to TC development

2; 3%   1; 2%   0; 0%

27; 43%

33; 52%

- Yes, I definitely think it could improve educational quality.
- It may have a positive impact, but I am not completely convinced.
- I am not sure if the implementation would have any significant effect.
- I don't think it improves the quality of university education.
- Other

Graphic 13: Student perception of whether the implementation of the Sello 1+5 UNIZAR project could improve the quality of university education in relation to TC development. Source: Own elaboration.

In Graph 15, the results regarding whether respondents believed the implementation of the Sello 1+5 UNIZAR would improve the quality of university education in relation to the development of transversal competencies (TC) are presented. As shown, 52% of the students (33 respondents) think that its implementation would definitely enhance the quality of university education. Another 43% believe it will have a positive effect on the system but are not completely convinced of its overall impact. Only 2% are unsure if its implementation could have any effect on the educational system. None of the respondents believe that its application would not improve the quality of the educational system. Only one person mentioned that in today's society, not everyone gives importance or priority to this type of skill.

The most repeated suggestions among students for the successful implementation of the Sello 1+5 UNIZAR project include having clear guidelines for subjects and checkpoints, explaining the future relevance of developing these competencies, and redesigning the teaching model, including grading systems and classroom activities. Additionally, students emphasized the importance of participation from both students and faculty, fostering extracurricular practices, and ensuring professors are more committed and adapting classes to current trends and technology.

Students also highlighted the need to emphasize subjects that teach these competencies and provide practical opportunities to develop them. There were calls for greater collectivity, volunteer opportunities, and trips, as well as better communication to

introduce and present the program to motivate student participation. It was suggested that the project should not be seen as an obligation but as something dynamic and engaging.

Students also suggested implementing policies for neurodivergent individuals, improving communication and incentives, and promoting the mental development of students. They emphasized the importance of dynamic activities, involving professionals from various fields, incorporating practical elements in all subjects, and maintaining smaller groups for personalized attention.

The final question of the survey was, "Would you be willing to actively participate in initiatives related to the Sello 1+5 UNIZAR project to improve your transversal competencies?" (Graph 16). The responses indicated that 12.70% (8 respondents) would definitely like to participate actively. A significant majority, 69.84% (44 respondents), were unsure and stated that they would need more information on specific initiatives. Another 12.70% (8 respondents) expressed conditional willingness, depending on the proposed activities. Lastly, 4.76% (3 respondents) were not interested in participating in initiatives related to the project.
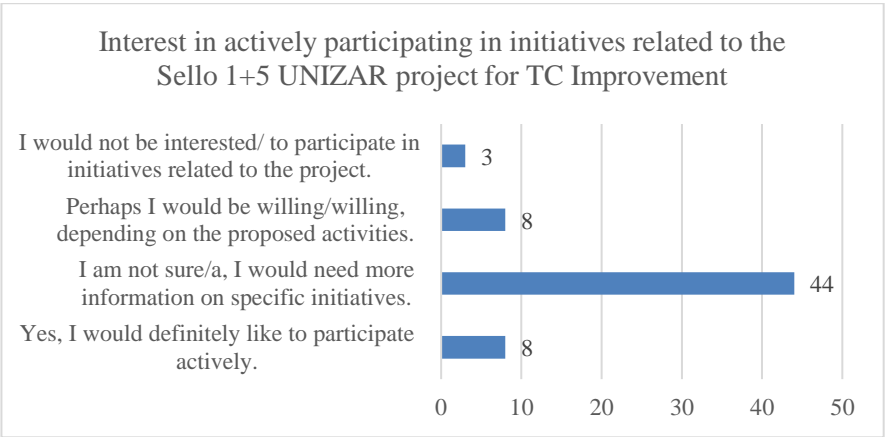
Graphic 14: Interest in actively participating in initiatives related to the Sello 1+5 UNIZAR project for TC Improvement. Source: Own elaboration.

The limitations of this study include the small sample size, which makes generalization difficult (with only 63 participants, the margin of error is high, and the statistical confidence of the results is low), the potential bias in survey responses due to possible lack of representativeness inherent in using the snowball sampling method, and the

temporal limitation of the collected data. Nonetheless, the results are expected to provide valuable insights into the importance of TC and offer useful recommendations for future improvements in educational programs.

4. Conclusions

Finally, in this point we should highlight the main conclusions drawn, which have been developed throughout this TFG work in relation to the objectives set at the beginning. Thanks to the literature review and the selected study technique, the survey, has been able to analyze the transversal competences framework and their great importance in the current educational landscape and in the labor market.

First, and before presenting the conclusions that respond to the proposed objectives, remember that the sample studied through the mixed technique distributed through the non-probabilistic snowball sampling, reached 63 students from various areas of study. It is important to note that the sample is not representative of the total population of students at the University of Zaragoza. For the results to be representative, the sample should be approximately 379 students, considering a confidence level of 95% and a margin of error of 5%. If the number of respondents had been higher in this study, the results might have been different.

Regarding the Project Sello 1+5 Unizar, to understand the need to implement this project at the University of Zaragoza it was first essential to understand the key competences mentioned therein. These skills, present in numerous European educational reforms and research, are crucial in responding to the growing demands of the global economy and the labor market, underlining their importance for employability, especially among recent university graduates.

Despite the significant importance of these competencies for the professional and academic future of the students, it was revealed that 29% of the respondents had never heard of them. Of this 29%, 67% are students of social and legal sciences, 17% are engineering and architecture students, 11% are health science students, and 6% are arts and humanities students. (See Table 8: Respondents had never heard of Transversal Competences in Annex 1, 1,3)

When analyzing the percentage of students who consider that less than 40% of the subjects in their university degree promote the development of their transversal competencies, it is found that 65% of the respondents hold this view. Of this 65%, 51% (of 41) belong to the area of social and legal sciences, followed by 27% in the area of health sciences, 12% in engineering, 7% in arts and humanities, and 2% in sciences. (See Table 9: Students who consider that less than 40% of the subjects in their university degree promote the development of their transversal competencies in Annex 1, 1,3).

These results clearly manifest the significant gap that exists in the knowledge and promotion of transversal competencies among students at the University of Zaragoza. The results suggest that a considerable portion of students, especially those in the social sciences and law, are unfamiliar with these critical skills, which are increasingly important for employability in the global marketplace. These results may be unreliable as the proportion of respondents from the social sciences and legal area is higher than that of the other macro areas.

Furthermore, as can be seen in the last table, many students, 65% of respondents, feel that their current curriculum does not sufficiently encourage the development of these competencies, indicating the importance of initiatives such as the Sello 1+5 Unizar Project to fill these gaps and better prepare students for the demands of the modern workforce.

It is now paramount to promote and boost this project among the population in question, the students at the University of Zaragoza, to ensure that they are fully aware of the importance of transversal competencies and that they have the necessary opportunities to develop them throughout their academic training, thus ensuring their future employability and their ability to face the challenges of the global labor market.

Bibliografía

Salganik, L. H., & Rychen, D. S. (2003). *Key Competencies for a Successful Life and a Well-functioning Society.*

Avila, M. K., & Santiesteban, E. (2018). Dicotomía entre habilidad y competencia. *Universidad de las Tunas*, Vol. 9.

Birt, J. (8 de September de 2023). *Hard Skills vs. Soft Skills: What's the Difference?* Obtenido de Indeed Career Guide: https://www.indeed.com/career-advice/resumes-cover-letters/hard-skills-vs-soft-skills

CEPYME. (Septiembre de 2023). *CEPYME.-Informe-El-Reto-de-las-Vacantes-en-Espana-def.pdf.* Obtenido de https://cepyme.es/storage/2023/09/CEPYME.-Informe-El-Reto-de-las-Vacantes-en-Espana-def.pdf

Cinque, M. (2016). "Lost in translation". Soft skills development in European countries. *Tuning Journal for Higher Education, 3(2)*, 389-427.

Corominas, E. (2001). Competencias genéricas en la formación universitaria. *Revista de Educación, 325*, 299-321.

European Commission, Directorate-General for Education, Youth, Sport and Culture . (2019). *Key competences for lifelong learning.* Obtenido de : https://data.europa.eu/doi/10.2766/569540

Forbes. (20 de abril de 2023). *11 Essential Soft Skills In 2024 .* Obtenido de https://www.forbes.com/advisor/business/soft-skills-examples/

Forbes. (22 de Agosto de 2023). *Interpersonal Skills: What They Are And Why They're Important To Getting Hired.* Obtenido de https://www.forbes.com/sites/tracybrower/2023/08/22/interpersonal-skills-what-they-are-and-why-theyre-important-to-getting-hired/?sh=17b7383c4995

González Morga. (15 de may de 2017). *Un estudio de competencias transversales en la Universidad de Murcia.* Obtenido de https://digitum.um.es/digitum/handle/10201/52943

González, N. (2017). *Un estudio de competencias tranversales en la Universidad de Murcia. UNIVERSIDAD DE MURCIA.*

Group, M. (31 de March de 2016). *Talent Shortage Survey, 2012.* Obtenido de http://www.manpowergroup.us/campaigns/talent-shortage-2012/pdf/2012_Talent_Shortage_Survey_Results_US_FINALFINAL.pdf.

Haug, G., Luigi, R., & Dalle , D. (2013). Programme Profiles and the Reform of Higher Education in Europe: The Role of Tuning Europe. Tuning Journal for Higher Education.

Lasnier, F. (2000). *Réussir la formation par compétences.* Montreal: Guerin.

McKinsey & Company. (31 de March de 2016). *Education to Employment: Getting Europe's Youth into Work.* Obtenido de http://www.mckinsey.com/industries/social-sector/our-insights/converting-education-to-employmentin-europe.

REDMOND, W. (15 de Oct. de 2013). *New study reveals most important skills for students.* . Obtenido de https://news.microsoft.com/2013/10/15/new-study-reveals-most-important-skills-for-students/

Rodríguez, Cortés & Val. (2019). Análisis de la mejora del nivel de empleabilidad de los universitarios mediante la mejora de competencias transversales y habilidades. *REOP, 30(3)*, 102-109.

Rodríguez, R. M. (2015). *Competencias genéricas en la enseñanza superior a través de los programa de internacionalización. Revista Complutense de Educacion, 26(1), 81–100.* Obtenido de https://doi.org/10.5209/rev_RCED.2015.v26.n1.42598

SkillsYouNeed. (s.f.). Obtenido de https://www.skillsyouneed.com/personal-skills.html

Tolochko, S., Bordiug, N., & Knysh, I. (2020). TRANSVERSAL COMPETENCIES OF INNOVATIVE ENTREPRENEURSHIP PROFESSIONALS IN LIFELONG EDUCATION. *Baltic Journal of Economic Studies 6, 3, 8*, 156-165.

Universidad de Zaragoza. (28 de Septiembre de 2021). *LAS COMPETENCIAS TRANSVERSALES EN LA UNIVERSIDAD DE ZARAGOZA Sello 1+5 UNIZAR.* Obtenido de https://academico.unizar.es/sites/academico.unizar.es/files/archivos/ofiplan/Normativa/ct_unizar.pdf

Universidad de Zaragoza. (2022). *3.2. EDUCACIÓN UNIVERSITARIA. Universidad de Zaragoza.* Obtenido de CESA Informe 2022: https://www.aragon.es/documents/20127/115884919/Informe-2022-panorama-social-3-2-Educacion-universitaria-CESA.pdf/de89e12f-63e9-6341-f75e-

885b68548f93?t=1695291987889#:~:text=En%20el%20curso%202022%2F202
3,otras%20modalidades%20de%20formaci%C3%B3n%20oferta

Vectec. (14 de Abril de 2014). *Working solutions, the staffing people*. Obtenido de
https://www.workingsolutionsusa.com/hard-skills-vs-soft-skills-which-is-more-
important/#:~:text=A%20recent%20Career%20Builder%20survey,as%20import
ant%20as%20hard%20skills.

Voitovska, Tolochko & Bordyug. (2018). Lifelong Learning in Modern Strategies of
Sustainable Development. *Studia warmińskie*, no. 55, pp. 343–353.