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# Mentoring impact on the transversal competence's development. An experience of educational accompaniment in the integral formation of the university student

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**Introduction:** The adaptation of universities to the new guidelines set by the European Higher Education Area implies relevant changes. Among them, a teaching model more focused on the student and his or her learning than on the teacher and the subject, new active teaching-learning methodologies and the development of competences through the acquisition of learning outcomes; all with the aim of contributing to the integral formation of the university student. The integral formation, enabling each student to discover and realize their own life project, is nourished by educational accompaniment and the development of competences. A concrete form of educational accompaniment is mentoring. The objective of this study is to evaluate the formative effectiveness of an innovative mentoring program in the development of transversal competences as a means to achieve the ultimate mission of the university: to provide a comprehensive education to students.

**Methods:** The design of this research is quasi-experimental (pretest-posttest). The sample consists of more than 300 first-year students of the Universidad Francisco de Vitoria who participated in the mentoring program. A questionnaire on transversal competences and group interviews were used as measurement instruments.

**Results:** The results showed significant differences in the level of acquisition of intrapersonal competences between the pre-treatment and post-treatment periods, in favor of the latter. This fact suggests that students improved their level of intrapersonal competences thanks to the mentoring program. These results are subsequently supported by the analysis of the group interviews.

**Discussion:** Therefore, it can be concluded that this type of mentoring program is a valid example for the development of intrapersonal competences, which in turn contributes to the integral formation of the student.

#### KEYWORDS

mentoring program, higher education, personal development, transversal competences, educational accompaniment, comprehensive training, integral formation

#### 1. Introduction

For many universities, implementing a student-centred approach to learning continues to be an important objective; another is to orient university programs towards the acquisition of key competences. These goals that reflects the directives of the European Higher Education Area are shared and expressed through the final report of the Tuning Project (González and Wagenaar, 2003). In this context, the model known as "Student Centred Learning" (SCL) appears. The focus is on what students learn, rather than what professors teach. The aim is for students to take the reins and responsibility for their own learning. The goal is to encourage students to be active, to be the protagonists and responsible for their own learning process, participating, questioning, researching and exploring in depth the subjects dealt with by the teacher (Todorovski et al., 2015; Mendoza and Rodríguez, 2020; Zairul, 2020). The SCL model place the student at the center of the learning experience, adapted to their individual pace and form of learning, fostering participation, individualizing lessons as far as possible to promote motivation, and facilitating the development and acquisition of key competences beyond mere technical knowledge (Trinidad, 2020). In any case, this is not to suggest that the teacher and subject matter are not important, they are: equally or even more important. Students must not play a passive role in the classroom, waiting, in many cases almost indifferently, for the teacher to instruct them. Moreover, "as a consequence, different methods have been appearing and being applied to the teaching and learning process that emphasize student participation and involvement in the construction of their own knowledge" (Gil-Galván et al., 2021, p. 273).

Additionally, the Competency-Based Learning (CBL) methodology focusses precisely on making learning valuable and transferable, matching with some objectives of SCL. This is logical in that personal competences are understood as a dynamic set of knowledge, skills, attitudes and values that are simultaneously manifested in our behavior (Crespí and García-Ramos, 2021). Among the various types of competences, there is an increasing emphasis on the development of transversal or generic competences, also referred as soft skills. This makes sense given that transversal competences, those necessary for any area of life, are more associated with personal values and virtues than technical competences, those associated with a specific field, such as a study or profession. Transversal competences include intrapersonal competences like self-awareness or selfknowledge, self-acceptance, self-reliance, search for meaning in life, proactivity, resilience, orientation to excellence, personal development; and interpersonal competences like active listening, communication, conflict-resolution, leadership, cooperative work; and cognitive competences like creativity, time management, critical thinking and decision making.

Thus, since McClelland (1973) originally proposed the notion of competences, companies, followed by educational institutions, have embraced transversal competences as an essential aspect of an integral education. Companies have discovered the value of transversal competences as a key factor in work excellence. A recent study (Succi and Canovi, 2020) shows how employers increasingly value these competences. Precisely this makes them seek to hire graduates with personal competences developed. The same study points out that, among the most demanded competences are commitment to work, communication, teamwork

and innovative thinking. On the other hand, employers themselves point out that recent graduates are lacking in the development of both inter- and intra-personal competences (Noah and Abdul Aziz, 2020). In this regard, they comment that they lack self-awareness, that they do not know themselves well and find it difficult to identify their areas of strength and areas for improvement (Kipper et al., 2021). In any case, the importance of education in these competences that employers value and look for in recent graduates is highlighted (Noah and Abdul Aziz, 2020). A particularly suitable methodology for education in these transversal personal competences is mentoring (Queiruga-Dios et al., 2023).

This paper presents a study on the impact of an innovative university mentoring program on the development of transversal competences as a means to achieve the ultimate mission of the university: to provide an integral formation to students. Firstly, it will be described the relation between educational accompaniment and integral formation, to then develop mentoring as a specific form of accompaniment that favors the development of personal competences linked to integral training. Then it will be presented an empirical study of the impact of the mentoring program of the Universidad Francisco de Vitoria (UFV) on the development of intrapersonal competences, followed by a discussion of the results and a conclusion. The study provides evidence that mentoring is a valuable methodology for education in transversal competences, which are a key element to integral formation and job performance.

# 1.1. Integral formation and educational accompaniment

Since its origins, the university has been understood as a community of seekers of goodness, truth and beauty, oriented towards the integral formation of students and the improvement of society and culture (Jaspers, 2013; Rumayor, 2019).

Integral formation refers to the education and development of the whole person; that is, in all their human dimensions: physical, intellectual, affective, volitional, relational, communal, spiritual and biographical (García Hoz, 1997; Domínguez et al., 2006). Thus, the role of the university goes far beyond the intellectual sphere, it means, mere academic training in certain fields of knowledge. The university, since its origins, has been dedicated to "making the human being more human, in the true sense of the word; that is, to become an individual striving for perfection, fulfilling all their possibilities and aptitudes" (García-Ramos, 1991, p. 329). The goal, therefore, of an integral formation is for each student to fulfil themselves by developing their own aptitudes and project in life.

Accompaniment is an appropriate method for this type of formation. This method is essential for any personal development process (Hsieh, 2015; Puerta-Gil, 2016; Yana and Adco, 2018). Accompaniment can be understood as an intentional pedagogical action that aims to help and support people in their effort to know themselves and take decisions that favors their personal growth and development, with the necessary support in its implementation. The companion contributes to the itinerary of personal and social growth of the person and groups accompanied in the educational process. "It is a process in which education takes place through the quality of the relationship: transmitting interest, enthusiasm and motivation for the

shared project; living together and communicating in an environment of respect and freedom; giving the leading role to those who are living from within their educational process so that they feel valued, capable and in possession of a relevant and transforming social role" (García-Pérez and Mendía, 2015, p. 44).

The purpose of educational accompaniment is to favor the full development of the student or learner, without being limited to academic achievement and without supplanting the learner himself as the subject of the action, with a non-directive and personcentered guidance model (Ghouali, 2007; García-Pérez and Mendía, 2015). In descriptive terms, accompaniment implies taking the side of the other on a shared journey in the search for truth, personal growth and personal fulfilment (Armstrong and Spears, 2018; Chestnutt et al., 2023); a journey of discovery in which both the accompanied (disciple) and the accompanying (teacher) experience mutual growth. The model is integral, aimed at "the whole individual in all their dimensions" (Domínguez Prieto, 2017, p. 13). Thus, both disciple and teacher work towards a better version of themselves, responding to their true vocation. Accompaniment implies a journey of encounter (as well as disencounter) oriented towards achieving personal fulfilment. It is within the experience of encounter that life is shared: joy and sadness, success and failure, and where participation in the lives of the other leads to reciprocal enrichment (Domínguez Prieto, 2017; González-Iglesias and De la Calle Maldonado, 2020). Thus, accompaniment involves "a relation of encounter between two persons, dissymmetric, continuous and partially structured, in which one helps the other, empowering and orienting the other on their journey towards personal growth and fulfilment" (Domínguez Prieto, 2017, p. 11).

Educational accompaniment has links with psychosocial and spiritual accompaniment (Watkins, 2015) but differs from other types of accompaniment because it is aimed at members of the educational community to support them in order to develop or improve their competences, including teachers or leaders (Paul, 2009; Chestnutt et al., 2023), students (De la Herrán and Cortina, 2008; Puerta-Gil, 2016) or new teachers in their initial training (Manso and Garrido, 2021). Although the concept transcends linguistic boundaries, the term accompaniment is mainly used in Spanish and French.

#### 1.2. University mentoring and mentors

There is no single common definition for the concept of mentoring. After reviewing the definitions provided in different international studies on this construct (Andersen and West, 2020; Law et al., 2020), this study defines mentoring as a mode of accompaniment in which one person with experience and competence, the mentor, serves as a guide to another in their personal growth, the mentee, which in turn enable their competences development. Between mentor and mentee there is an experience of encounter that fosters the integral formation. The mentor must be an educator with demonstrable maturity and experience in educational accompaniment. The mentee is a student with vital questions, concerns, longings and fears that need to awake, discover and begin to answer. In this sense, mentoring no happens in isolation (Ziegler et al., 2021).

There are different types of mentoring depending on the theoretical model on which it is based; the aim (academic, psychosocial, research, career development); who does the mentoring (faculty, alumni, peers...); whether the program is curricular or extracurricular; whether the program is structured or not; whether it is targeted at all pupils or only at a group with special needs; whether it is for undergraduate students, graduate students or junior teachers; whether it is online, in-person, or blended (Johnson, 2015; Andersen and West, 2020; Law et al., 2020).

Mentoring is designed and implemented by educational authorities in response to institutional needs and culture. Hence the variety of forms but also the difficulty in comparing results. Furthermore, there is little research in non-English-speaking countries, which makes comparison more difficult. In addition, there is often no methodologically rigorous evaluation of mentoring programs. This difficulty is pointed out in the systematic reviews that have been carried out on mentoring (Crisp and Cruz, 2009; Gershenfeld, 2014; Lunsford et al., 2017).

Despite the methodological limitations of many of the published studies, it is possible to conclude that mentoring has a positive impact. Effective mentors have a positive impact on learning, student persistence and retention, and long-term benefits beyond their time in higher education (Campbell and Campbell, 2007; Crisp and Cruz, 2009; Andersen and West, 2020). Some competences and attitudes such as responsible leadership, social skills, self-esteem, sense of belonging and behavioral competence are related to mentoring (Karcher, 2005; Campbell et al., 2012; Lunsford et al., 2017). In nursing, studies show that mentoring has a positive effect on competences such as ethical practices, communication, collaboration, decision-making, and critical thinking (Immonen et al., 2019).

More structured programs with frequent mentoring sessions (once a month or every 2 months) have better outcomes (Law et al., 2020). Mentoring enhances personal growth of students and faculty; furthermore, a good interpersonal relationship between mentor and mentee is also a factor for successful mentoring (Ragins and Kram, 2007; Dolan and Johnson, 2009; Jackevicius et al., 2014).

#### 1.3. Mentoring in Spanish universities

The first university mentoring programs emerged in Spain almost 40 years ago. The first known mentoring program was called "Compañero-tutor" at the University of Valencia in 1984. Subsequently, many Spanish universities have gradually implemented mentoring programs until the last few years. A recent study analyzes Spanish universities and their provision or non-provision of mentoring programs. This study indicates that, of the 60 Spanish universities analyzed, 43 universities offer mentoring programs (García-Cardo et al., 2023). Many of these universities have diverse mentoring programs. Among them and, according to the figure of the mentee: (a) most of the programs are aimed at first year students; (b) many of the programs are aimed at all years students; (c) some of the programs are aimed at foreign students; (d) others are aimed at incoming students; (e) others are aimed at senior students and, (f) very few programs are aimed at second year or graduate students. On the other hand, regarding the figure of the mentor: (a) most of the programs have students as mentors; (b) many of the programs have faculty as mentors; (c) some of the programs have alumni as mentors and, (d) others have professional staff of a work sector as mentors.

This study, after an in-depth review of the Spanish mentoring programs, makes the following general observations: (1) their objective is to facilitate the academic and social integration of students into university life (case of first year students, incoming or foreign students and students in general). However, as can also be seen, there are cases of mentoring programs for professional development and access to the workplace (case of senior and recent graduate students or 3rd and 4th year students). (2) Mentors are mostly students. Also called peer mentoring; that is, both the mentor and the mentee are students. Older students (in the last years of their career) act as mentors to younger students (in their first years). Although there are also cases, less than half of them, in which the mentors are faculty. And as a residual data, there are also alumni or workers with professional expertise as mentors. (3) Mentoring is generally done in groups; a single mentor works with several students, in some cases in groups of 4 or 10 students, or with an entire class. There are few cases of individual mentoring. (4) These are voluntary attendance programs. Students are not required to participate or attend. (5) The mentoring sessions are not curricular; that is, they are not associated with any specific subject and are not evaluated. (6) They do not address a specific itinerary of personal development that favors the acquisition of transversal competences. (7) The number and duration of mentoring sessions is varied, sometimes at the request of the mentee. (8) In some cases, the mentor receives specific training. The content of this training varies between programs and universities. This initial training to become a mentor is usually between 4 and 15 h.

# 1.4. Mentoring at the UFV (Universidad Francisco de Vitoria)

The UFV offers a very different form of mentoring in concept and methodology. At the UFV, mentoring is oriented towards the integral formation of the student through the development of personal competences. In this sense, the UFV mentoring program was created with the aim of accompanying all year students throughout their academic career, in their integral development and personal maturity. The mentoring program was initiated in the 2008–2009 academic year for first year students and has since been consolidated and extended to the rest years. Currently, the mentoring program is fully implemented for first and second year students, and for majority all third and fourth year students. The objectives of the program are the same for all students, from first to fourth year: to accompany the student in his integral development and vital maturity, through the development of personal competences; these are different in each course. In this way, the student progressively acquires all the competences that needs to be able to face life with wisdom, maturity and determination.

Specifically, the UFV mentoring program for first-year students differs from those that have been previously analysed in that: (1) the principal goal of the program is to accompany young university students in their integral formation, including their personal, academic and professional development; (2) the program addresses a specific itinerary of personal development that favors the acquisition of transversal competences; (3) the mentor is an expert and professional in educational accompaniment; (4) the professional mentor has been recruited through a rigorous selection process and receives continuous, obligatory training courses throughout the academic year (around 30 h per year); (5) the mentoring sessions are

individual, one-to-one with the mentor; (6) attendance at the mentoring program is obligatory; (7) the mentoring program is curricular, that is, associated with a specific subject and, therefore, its activities are evaluated.

The UFV mentoring program for first-year students consists of a process of accompaniment which includes six individual mentoring sessions of one hour. Three of these six sessions are imparted in the first semester and the remaining three in the second semester, each dealing with a series of key competences, as indicated in Table 1.

The first mentoring session deals with the competences of a deep look at reality, at others and at oneself (360° view), proactivity and self-reliance. The objective is for students to recognise how these competences enable their own development and maturity. Deep look at reality, at others and at oneself (from now on, deep look), that requires capacity for wonder, refers on going beyond what is perceptible merely at first sight; implies discovers the true value of that being viewed. So, this competence implies the capacity to truly perceive reality, others, and at oneself, with all their value and meaning (López Quintás, 2003). Proactivity refers to the ability of a person to take responsibility for their own life, taking decisions and making things happen (Frankl, 1979). Specifically, this implies the capacity to undertake actions to achieve goals and dreams, decide what to do and how to do it. Self-reliance or self-dependence refers to the capacity of the person to assume the consequences of their own decisions and actions. Understanding that circumstances do not determine me but could condition my life; it can be said that human beings always have the power of decision and action.

The second mentoring session deals with the competence of selfawareness or self-knowledge. This mentoring aims the student to develop their knowledge of themselves from different perspectives. Self-awareness is understood as the capacity to know and understand oneself, enabling the person to begin to respond to the questions: how am I? What is my temperament? How is my personality? These necessarily lead to the ultimate question: Who am I? Personality is forged of temperament and character. According to Lucas (2010), character is the set of traits of a human being, based on their temperament along with the educational, social and cultural conditions they have experienced. While temperament remains, character changes throughout one's life, becoming better or worse. As Lucas (2010) clearly states, character "is the set of qualities of each person based on their temperament received by nature and its development, for better or worse, through education. It consists of congenital elements received by nature and elements acquired through the environment and education. Character can be educated [...]" (p. 142).

The third mentoring session addresses the competences of acceptance and personal development. Self-acceptance implies that the person recognises and accepts themselves as they are: with their strengths and weakness and their personality (product of their temperament and character). This competence builds on the previous mentoring session on self-awareness. Personal development refers to the capacity to place oneself on the continuous path towards excellence. That is, the capacity to take decisions and act appropriately in each moment, which, in turn, permits to grow and develop more fully. In this way, what perfects the human being and leads him to his personal growth and fulfilment is the practice of good habits (virtues), and, by contrast, what diverts the person from the path to fulfilment is the practice of bad habits (vices).

The fourth mentoring session again deals with the competence of self-awareness, but in this case from a deeper, more profound

TABLE 1 Summary of the first-year mentoring program at the UFV.

The motto is: "Know yo	urself, accept yourself, better yourself	f, with the help of others"			
First semester		Second semester			
1° Mentoring:	2° Mentoring:	3° Mentoring:	<b>4° Mentoring:</b>	5° Mentoring:	6° Mentoring:
September-October	October-November	December-January	January-February	February–March	March-April
Competences	Competences	Competences	Competences	Competences	Competences
Deep look Proactivity Self-reliance	Self-awareness: (know yourself, personality: temperament + character)	Personal acceptance + personal development (good habits)	Self-awareness II. (person as a gift to the world)	Search for meaning in life (vocation, mission, and vision for life)	Submission of portfolio

- Time management: making the mentee aware of the importance of time, being punctual and submitting assignments on time.
- Intellectual work: teaching the mentee to perform an academic assignment with rigour and excellence, focussing on the use of bibliographical sources.
- Communication: helping the mentee develop their oral and written communication skills.
- Excellence: foster in the mentee an appreciation of a task well done.

Díaz-López et al. (2013).

perspective. The aim here is for the student to consider each human being as unique, with an irreplaceable personal value, and in doing so, recognise itself as a true gift to be of service to others.

The fifth mentoring session addresses the search for meaning in life, referring to the capacity and desire to find meaning in human existence, the desire to engage with the great questions of life and the meaning of life itself. Search for meaning in life "refers to the idea that individuals are strongly motivated to find meaning in their lives, that is, to be able to understand the nature of their personal existence, and feel it is significant and purposeful" (Baumeister and Vohs, 2007, p. 783). Here the session deals with the concepts of vocation, vision and mission.

The sixth and final mentoring session aims to sum up and review the path taken throughout the mentoring program towards personal development and maturity. The goal is to make the student more aware of the steps they have taken and their progress in their integral formation through the development of specific intrapersonal competences.

#### 1.5. Objectives

The purpose of this study is to demonstrate the impact of the mentoring program on the development of intrapersonal competences among first-year university students at the UFV. The proposed methodology was to test a number of hypotheses regarding the mentoring program and its relation to the development of these intrapersonal competences. The three hypotheses were: first, there is a significant difference in the level of intrapersonal competences due to the mentoring program; second, there are no significant differences among faculties in the level of competences due to the mentoring program; and third, there are no significant differences according to gender in the level of competences due to the mentoring program.

# 2. Methodology

#### 2.1. Design and sample

This research used a pre-test / post-test quasi-experimental design with a single group; a mixed study in which the quantitative results,

collected through a questionnaire using a Likert-type scale (1–6), were complemented with qualitative data drawn from a series of semi-structured interviews with students for a deeper understanding of the studied phenomenon.

The sample consisted of 309 first-year students at the Universidad Francisco de Vitoria (Table 2).

#### 2.2. Measurement instruments

The measurement instruments for the study consisted of a questionnaire and a personal interview. The questionnaire on transversal competences was examined by a panel of experts and statistically analysed for reliability and validity. The results indicated that the questionnaire is reliable and valid for the purposes of the study. Furthermore, the exploratory factor analysis (EFA) showed a correct fit between the theoretical and empirical structures (Crespí, 2019). The questionnaire measures two broad intrapersonal dimensions with three associated competences for each. For the dimension deep look, the questionnaire measures the competences of self-awareness, self-acceptance and self-reliance; for the dimension personal development, it measures orientation to excellence, search for meaning in life and proactivity.

Additionally, a semi-structured interview was designed to evaluate the perception and opinions of students, by faculty, about the UFV mentoring program and the development of intrapersonal competences as a fundamental element of their integral formation. The interview was structured into two broad areas: (1) questions regarding the level of development or acquisition of intrapersonal competences; and (2) questions on the strengths and areas for improvement of the mentoring program.

#### 2.3. Statistical analysis

Descriptive analyses (mean, standard deviation) were carried out. Inferential analyses were performed using paired-samples

TABLE 2 Sample by faculty.

Faculty	Minimum sample program Jan 3.0	Sample questionnaire	Sample interview
Education	18	48	56
Law-business	50	50	54
Health sciences	77	88	80
Experimental sciences	25	44	34
Advanced polytechnical school	12	33	18
Communication	45	46	27
Total	227	309	269

TABLE 3 Pre/post-test differences in the development of intrapersonal competences.

Competences	Mean (pre-test)	Mean (post-test)	Mean diff.	Student's t	Sig. (bilateral)	Cohen's d
Intrapersonal competences (total score)	19.74	30.17	10.43	66.66	< 0.001	3.79
Deep look dimension	9.65	15.02	5.37	63.73	<0.001	3.63
Self-awareness	2.91	5.00	2.09	51.73	<0.001	2.94
Self-reliance	3.56	5.06	1.50	40.44	<0.001	2.30
Self-acceptance	3.17	4.95	1.78	38.54	<0.001	2.19
Personal development	10.09	15.16	5.07	46.96	<0.001	2.67
Orientation to excellence	3.36	4.97	1.61	35.03	<0.001	1.99
Search for meaning in life	3.34	5.14	1.80	33.04	<0.001	1.88
Proactivity	3.39	5.05	1.66	39.49	<0.001	2.25

t-test to evaluate the effect (Cohen's d was used to estimate the size effect) of the mentoring program. Moreover, a one-way ANOVA was used to evaluate the differences among faculties (partial eta squared was calculated to estimate the size effect). For multiple comparisons between faculties Scheffé or Games Howell test were calculated. In all the analysis 95% confidence level was assumed. The analyses were conducted using IBM SPSS Statistics v29.

#### 3. Results

#### 3.1. Analysis of the hypotheses

The first hypothesis proposes there is a significant difference in the level of intrapersonal competences due to the mentoring program. As shown in Table 3, the difference in mean scores indicates that students improved their level of intrapersonal competences overall, in each dimension and in each of the associated competences. Student's t test, the significance and effect size show significant differences in the acquisition of the measured intrapersonal competences. Specifically, students improved their scores in all measured competences: self-awareness, self-reliance, self-acceptance, orientation to excellence, search for meaning in life and proactivity. The results also show slightly greater development of the competence self-awareness than the rest, although there is never more than a point of difference in mean scores. Thus, the differences between mean scores vary from a minimum of 0.29 points to a maximum of 0.59 points and can be ordered as follows: self-awareness (2.09), search for meaning in life (1.80), self-acceptance (1.78), proactivity (1.66), orientation to excellence (1.61) and self-reliance (1.50).

The second hypothesis proposes there are no significant differences among faculties in the level of competences developed due to the mentoring program. First, an initial analysis was made to identify any prior, pre-test differences in the level of competences prior to the mentoring program. The analysis showed no significant pre-test differences in any specific competences, dimensions or in the total scores. However, the post-test results showed significant differences between faculties in certain competences. Table 4 shows the average scores and significant differences in the level of acquisition of intrapersonal competences by faculty. The F-statistic and critical value do not show significant differences for self-awareness, selfreliance or self-acceptance; however, differences are found for total scores in the dimensions of deep look and personal development, and in the competences of search for meaning in life, orientation to excellence and proactivity. However, the effect size is between low and moderate. Thus, despite the statistically significant differences found between faculties, the low effect size suggests that these are not particularly large or acute.

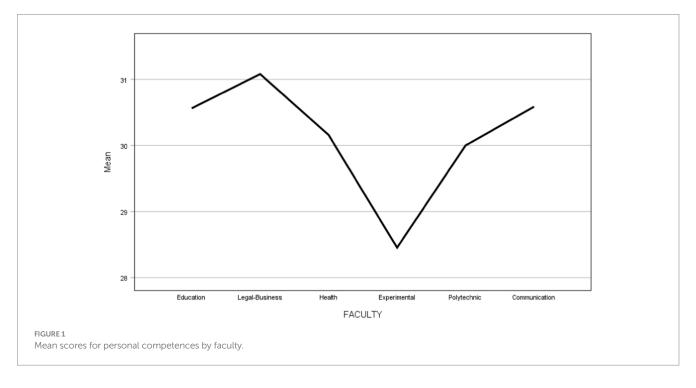
Analyzing differences between faculties, results indicate that:

- a) For the total scores for intrapersonal competences (Figure 1), the faculty of Experimental Sciences (CE) scored slightly lower (28.45) than the rest of the faculties with the exception of the Advanced Polytechnical School (30.00). There were no significant differences between the rest of the faculties.
- b) Regarding the scores for the dimensions deep look and personal development (Figure 2), the faculty of Experimental Sciences (CE) scored somewhat lower (14.34 and 14.11

TABLE 4 Differences in the level of intrapersonal competences by faculty.

Competences	Mean EDU (post-test)	Mean JE (post-test)	Mean CS (post-test)	Mean CE (post-test)	Mean EPS (post-test)	Mean CC (post-test)	F	Sig. (bilateral)	ES (η² partial)
Intrapersonal competences (total score)	30.56	31.08	30.16	28.45	30.00	30.59	5.30*	<0.001	0.05
Deep look dimension	15.42	15.36	14.89	14.34	15.39	14.87	3.44*	0.006	0.04
Self-awareness	5.19	5.10	4.97	4.80	5.12	4.87	2.28*	0.051	-
Self-reliance	5.10	5.16	5.11	4.75	5.15	5.07	1.83	0.107	-
Self-acceptance	5.13	5.1	4.81	4.80	5.12	4.93	1.67	0.141	-
Personal development dimension	15.15	15.72	15.27	14.11	14.61	15.72	5.35*	<0.001	0.07
Orientation to excellence	5.02	5.12	5.02	4.52	4.85	5.15	3.37	0.006	0.05
Search for meaning in life	4.92	5.42	5.22	4.84	4.94	5.37	3.53	0.004	0.06
Proactivity	5.21	5.18	5.03	4.75	4.82	5.20	2.60	0.025	0.04

EDU, Education; JE, Law-Business; CS, Health Sciences; CE, Experimental Sciences; EPS, Advanced Polytechnical School; CC, Communication. \*Welch's F statistic is reported given the lack of homoscedasticity.



respectively) compared to the Faculty of Law-Business (15.36 and 15.72 respectively). Furthermore, for the dimension deep look, the faculty of Experimental Sciences (CE) showed significant differences compared to the faculty of Education (15.42); and in the dimension personal development, compared to the faculties of Communication (15.72) and Health Sciences (15.27).

c) For intrapersonal competences (Figure 3), the faculty of Experimental Sciences (CE) scored slightly lower for orientation to excellence and search for meaning in life (4.52 and 4.84, respectively) compared to the faculty of Law-Business (5.12 and 5.42, respectively). Furthermore, for orientation to excellence, the faculty of Experimental Sciences (CE) showed a significant difference compared to the faculty of Communication (CC) of 5.15 points.

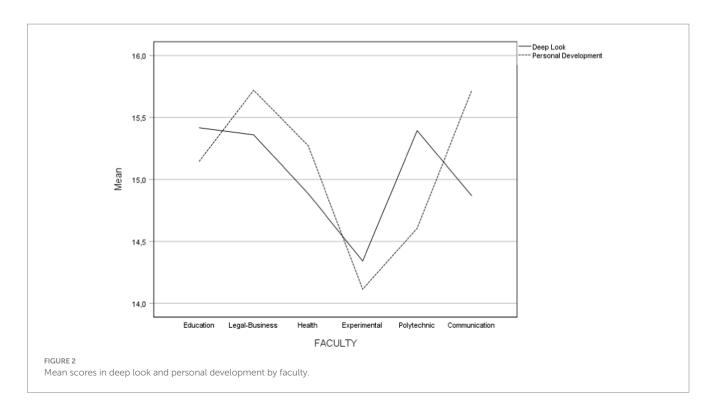
In any case, the pre-test/post-test analysis of each faculty indicates a significant increase (F: 5.20, Sig: > 0.001 and Eta: 0.079) in all faculties

in the development of intrapersonal competences, ranging between 9 and 12 points. The greatest differences between faculties are less than 3 points (Figure 4). Additionally, it is recalled that in cases where differences were found the effect size was low or moderate.

Regarding the third hypothesis, there are no significant differences according to gender in the level of competences due to the mentoring program (post-test), as shown in Table 5, minimal differences in mean scores were found between men and women (0.22). This was confirmed by the Student's t test and significance level. This confirms the hypothesis that there are no gender differences in the mentoring program.

#### 3.2. Analysis of the interviews

The group interviews were conducted with different groups from representative degree programs from each faculty in order to complete the quantitative analysis described above.



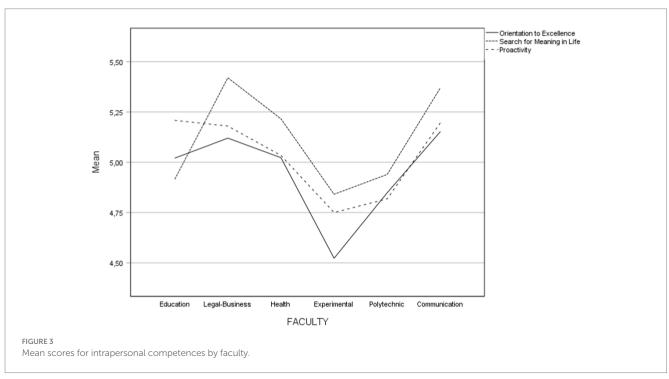


Table 6 provides some of the words and opinions of students regarding the development of their intrapersonal competences through the mentoring program. Firstly, students particularly valued the program as a key element in their integral formation and development of key competences (both personally and professionally). Secondly, among the competences developed by the program, students reported they had particularly progressed in self-awareness, self-acceptance and personal development, deep look, proactivity, search for meaning in life and decision-making. Finally,

some 84.85% of students reported that the program had a significant impact ("Very much": 29.85% and "A lot": 55%) on their development and integral formation.

Students were also asked about the strengths of the program and areas for improvement and were invited to make specific suggestions for changes (Table 7). What students most valued about the program was, without a doubt, the continuous accompaniment, followed by personalised attention and the accessibility of the mentors; they also remarked on the figure of

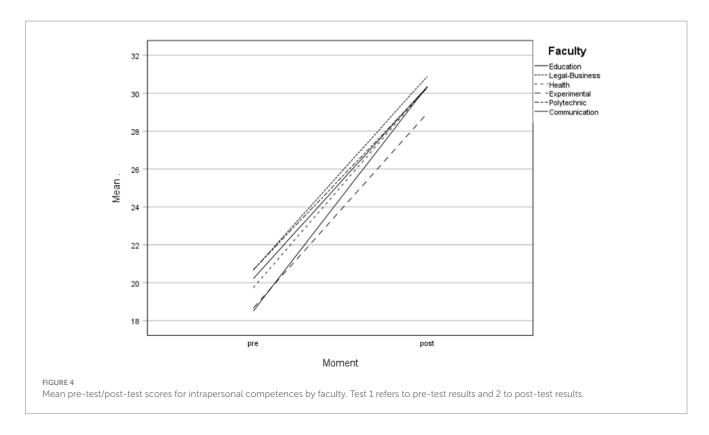


TABLE 5 Significant differences in the development of intrapersonal competences by gender.

Competences	Mean scores women	Mean scores men	Mean diff.	t	Sig. (bilateral)	
Intrapersonal competences	30.25	30.03	0.22	0.526	0.600	

TABLE 6 Impact of the mentoring program on the development of intrapersonal competences and integral formation.

For me, the mentoring program served to:	The competences that I most developed in the program were:	I believe this program helped me acquire and develop my intrapersonal competences:
Foster my personal development. Develop fundamental competences for life. To be a better person and work towards personal excellence. To know myself better and give the best of myself for me and for others. To discover the importance of others in my personal development. To develop personally and professionally through competences.	Self-awareness. Acceptance and personal growth.  Sacrifice and common meaning. Deep look. Proactivity, effort and perseverance. The search for meaning in life and decision-making. Creativity and assertiveness. Oral and written communication, capacity for synthesis.  Time management.	Very much: 29.85%. A lot: 55%. A little: 15.15%.

the mentor as a key element in their personal and professional development. Areas in which students suggested improvements were related to the time and effort required for their assignments for each mentoring session and the little weight of the program in their final mark. Finally, students specifically suggested reducing the number of assignments, extending deadlines for submission, explaining the assignments in more depth, increasing the weight of the program in their final mark for the course and faster feedback and evaluations on the part of the mentor.

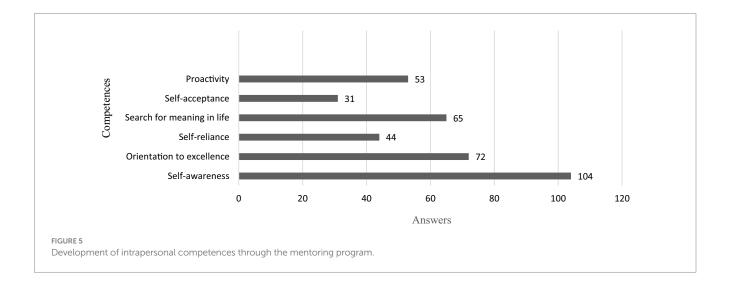
Finally, Figure 5 shows the results of an analysis of the responses to the open question in the questionnaire regarding the most developed intrapersonal competences through the mentoring program. The responses of the students can be ordered as follows: (1) self-awareness, 104 responses, (2) self-acceptance, 72 responses, (3) search for meaning in life, 65 responses, (4) proactivity, 53 responses, (5) self-reliance, 44 responses, and (6) orientation to excellence, with 31 responses.

#### 4. Discussion

In recent decades, mass access to higher education has led to mentoring programs gaining ground in educational institutions (Camacho, 2018). This may be due to mentoring programs at

TABLE 7 Strengths and areas for improvement of the mentoring program.

#### What I most valued in the mentoring Suggestions: Areas for improvement: program: Continuous accompaniment. The dedication and accessibility of the mentors. Personalised attention in the mentoring sessions: one-on-one with the mentor. Extend the deadline to complete the assignments. The written assignments take a lot of time and effort. Student centred approach. Integral formation. The Remove mentoring assignments or reduce them. Give more time and freedom in the tasks about Establish fixed hours for mentoring or schedule them at contribution to personal and professional development. reflection. Reduce the number of assignments. Explain To be accompanied in my own personal growth, in the class time. Assign greater weight to the mentoring more clearly the meaning of the assignments and how search for my best self for me, for others and for my evaluation in the final mark of the course. Faster to do them. Mentoring sessions count for little in the future profession. The help received to know oneself feedback on the assignments. Clearer explanation of the final mark for the course. (strengths and weaknesses), discover talents and how to assignments in general. develop them. Help to face the first year of university and dealing with life.



universities shows a benefit to student perseverance and retention (Law et al., 2020).

As various studies show, one of the difficulties in providing a common definition of mentoring is the variety of existing programs in higher education and their diverse forms of application. In this sense, some programs have an organized structure, others have an informal structure or are part of a higher educational action plan (Andersen and West, 2020). Despite of the structure, the primary and underlying goal of the majority programs of mentoring is to increase persistence of the student as a measurement of their success (Law et al., 2020).

In Spain, most of mentoring programs, as shown above, aim to facilitate the academic and social integration of students into university life, which is in line with the objectives of most international mentoring programs. In this sense, it can be said that mentoring programs help university students in their emotional and academic well-being, allowing them to achieve their educational goals (Andersen and West, 2020).

However, mentoring should aspire to something more: "mentoring can be alife-altering relationship that inspires mutual growth, learning and development. Its effects can be remarkable, profound and enduring; mentoring relationships have the capacity to transform individuals, groups, organizations, and communities" (Ragins and Kram, 2007, p. 3). Mentoring has great potential for transformative

growing in persons and this makes it a significant study field (Andersen and West, 2020). In order to address this challenge, it is important that mentoring is applied with a methodology that has an impact on the integral formation of students during the university stage.

This paper presents a mentoring program in a comprehensive manner: a model of educational accompaniment designed to develop the intrapersonal competences of students, thus favouring their integral formation. The goal of this personalised approach is to encourage each student, unique and irreplaceable, to discover their vocation and project in life. This model, aiming to accompany the student in their process of personal growth and maturity, is formalised at the UFV in a mentoring program for first-year students, working to develop the intrapersonal competences of proactivity, self-reliance, self-awareness, self-acceptance, search for meaning in life and orientation to excellence. Competences also demanded by companies and whose lack of development is marked (Noah and Abdul Aziz, 2020; Succi and Canovi, 2020).

The mentoring program for first-year students at the UFV consists of six individual sessions in which the mentor encourages deep look, leading the student to reflect on their own experience of university and their integral formation. This method may explain the significant impact of mentoring in the development of intrapersonal competences and the direct correlation between the mentoring program and the development of intrapersonal competences among students. Significant progress was

observed in the acquisition and development of all the competences included in the program: proactivity, self-reliance, self-awareness, selfacceptance, search for meaning in life and orientation to excellence. Thus, it can be deduced that the program is positive and effective. Specifically, the competences self-awareness (mean difference of 2.09), search for meaning in life (1.80) and self-acceptance (1.78) showed a greater degree of development than others. These results are in line with the analysis of the responses from the open question in the survey regarding the most developed intrapersonal competences. The analysis indicates that the most developed competences in the opinion of students were: self-awareness (104 responses), self-acceptance (72 responses) and search for meaning in life (with 65 responses). This may be due to the type of intervention associated with mentoring: the all-important participation and support provided by the mentor (DuBois and Karcher, 2005; Ragins and Kram, 2007; Clayton et al., 2013), especially in the development of these key competences. In this sense, as stated by Mullen and Klimaitis: "trust, values, respect, empathy, and control are all essential aspects for mentoring programs, in addition to a feeling of belonging and connectedness; and the relationship between a mentor and a mentee is unique" (Mullen and Klimaitis, 2021, p. 21).

In any case, it can be concluded that students improved their level of intrapersonal competences due to the mentoring program. These results were confirmed by the interviews with students, in which 84.85% recognised important progress in these competences thanks to the mentoring program, thus confirming that the mentoring is an effective method in fostering the acquisition of key competences (Velasco-Quintana and Benito-Capa, 2011; Aguilar et al., 2020). In this sense, mentoring is considered an effective method for positively influencing university students (Livingstone and Naismith, 2018; Law et al., 2020).

The study also confirmed that the mentoring program is effective for all students, regardless of faculty or gender. The results of the study in this regard were as follows:

First, for the hypothesis that there are no significant differences in acquired competence levels (post-test) by faculty: (1) on one hand, no significant differences were found for the competences of self-awareness, self-reliance or self-acceptance; (2) on the other hand, significant differences were found for the competences search for meaning in life, orientation to excellence and proactivity. However, the effect size was found to be between low and moderate. Thus, although certain differences were found between faculties, the low effect size suggests these differences are not acute. In any case, the faculties which proved to be most receptive to the mentoring program were: Law-Business, followed by Communication and Education while students of the faculty of Experimental Sciences were the least receptive (Figure 1). This may be due to the fact that students of Experimental Sciences have greater expectations or interest in specific technical competences related to their degree, while our study focussed on measuring transversal competences (Albanaes et al., 2015; Cuéllar Becerra et al., 2019). In any case, the differences found between the faculties is so slight (less than 3 points) that the program can be considered valid and effective for any student regardless of faculty or area of study (Figure 4).

Second, no significant differences were found in the development of competences (post-test) according to gender. This indicates that the program is valid and effective for any student regardless of gender.

Thus, it can affirmed that the sessions offer a place of encounter where students can speak to someone about their questions and interests, their fears and desires; that is, of themselves while receiving in return

care, respect, understanding and support (Camacho, 2018). This vision of mentoring is reflected in the results of the interviews with participants who especially valued certain aspects of the program, particularly the dedication and availability of mentors, the continuous support they receive and the individual accompaniment in the development of their intrapersonal competences as an essential part of their integral formation.

In any case, no empirical relevant studies have been found on the impact of mentoring programs on the development of transversal competences in students. What is frequent is to find studies that report the benefits of mentoring programs, among which are: "improved student retention, student persistence, and long-term benefits that reach beyond the college experience" (Andersen and West, 2020, p. 10). For this reason, this study presents an innovative work both in the concept of mentoring and in the research design since it offers an empirical study on the validity of the program in the development of transversal competences.

Law et al. (2020) point out the need for mentoring programs to have a clear impact on student success by: being designed and based on a sound theoretical framework, being carefully structured, planned and evaluated.

Finally, the best practices of this mentoring program for firstyear students are shown, which in turn distinguish it, to a large extent, from other national and international programs: (1) The main purpose or objective of the mentoring program is to facilitate the growth and integral development of the student. (2) The mentoring program works on a specific itinerary of contents, which are the intrapersonal competences of proactivity, self-reliance, selfawareness, self-acceptance, search for meaning in life and orientation to excellence. This competences program is worked with the experiential learning methodology. (3) The mentoring program is linked to a curricular subject (Skills and Competences of the Person) in all university degrees. (4) It is mandatory to take the mentoring program. (5) The mentoring program is gradable and evaluable. In the UFV model, students have to make deliveries and demonstrate the acquisition and development of competences. These deliverables are graded and evaluated by their mentor and account for 25% of the final grade of the course. (6) The UFV mentor is a professional expert in educational accompaniment, who also receives ongoing annual training (between 25 and 35 h). (7) Mentorships are individual (one to one). (8) The number and duration of mentoring sessions for first year students are six sessions of one hour each.

## 5. Conclusion

The value of the present study lies in offering the university community a model of mentoring for first-year students shown to be effective in contributing to the integral formation of students through the development of intrapersonal competences. It therefore constitutes an innovative proposal compared to other mentoring models for first-year students which generally focus on providing support and orientation to the new university environment but do not promote the development of transversal competences so necessary for their life (personal and professional). Furthermore, the UFV offers an individual and formal accompaniment program (associated with a subject) delivered by mentors who are experts in the field. Finally, it should be emphasised that this mentoring model is especially effective

in developing intrapersonal competences, an essential component of an integral formation.

In this sense, this research invites the educational community to reflect on a broader sense of the concept of mentoring. Mentoring understood as a true relationship of encounters between mentor and mentee that favours their personal development. Thus, this concrete proposal is a possible evolution of the already existing programs, which allows the development of intrapersonal competences of the mentee, key competences in the personal development and integral formation of the mentee.

# Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

## **Author contributions**

PC, (first author and corresponding author) carried out: the direction of the research, the aspects of the methodology: research

design, population, sample, application of the questionnaire on transversal competencies in the sample and the analysis of results. The theoretical framework of the research, the research questions/ hypotheses, the discussion, the conclusion and the prospective was carried out between the two authors of the article, i.e., PC and JL. All authors contributed to the article and approved the submitted version.

#### Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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