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Students' Perception of their Level of Competence in the Practicum Subjects. Longitudinal Study in the Degree of Pedagogy at the University of Barcelona

Percepción del alumnado sobre su nivel de competencia en las asignaturas del Prácticum. Estudio longitudinal en el grado en Pedagogía de la Universidad de Barcelona

Ruth Vilà Baños¹, Assumpta Aneas Álvarez* and Núria Rajadell Puiggrós*, Assumpta Aneas Álvarez* and Núria Rajadell Puiggrós*.

*Department of Methods of Research and Diagnosis in Education
University of Barcelona (Spain)

Abstract

The degree in Pedagogy incorporates the Practicum as a compulsory module consisting of three subjects, which aims to apply and complement the knowledge acquired in the academic training, and to promote the development of skills that prepare students for the exercise of professional activities. This article presents the evolution of the self-perception of students in the Pedagogy Practicum at the University of Barcelona on the extent to which the learning outcomes achieved throughout the degree provide evidence of the level of development of the competencies established in the degree. A descriptive study has been developed, based on a survey research with

¹ **Correspondence:** Ruth Vilà Baños, ruth_vila@ub.edu, Barcelona, Spain.

the cohort of students who started the degree of Pedagogy during the academic year 2016-2017 and finished their studies in 2019-2020, in a longitudinal design in which 128 students have participated. The instrument used is the CADC, Competence Performance Appreciation Questionnaire, which also includes evaluations on the external practices, the final score in the self-evaluation of the subject and its link with the Final Degree Project. The main results obtained indicate that, throughout the pedagogy degree, significant improvements are observed in both general and specific competencies. However, it is the specific competencies that are perceived to be more developed, especially after having completed the external internships. The methodological difficulties of having a valid and reliable competency evaluation instrument and a desirable gender-specific analysis stand out as limitations. The study has led to conclude the positive perception of the students on the level of competence development, which increases significantly throughout the course, especially in the subject of External Practices and the goodness of the educational design of the three subject curricula involved in the Practicum of the degree of Pedagogy.

Keywords: Professional experience; longitudinal study; competency assessment; higher education; college student.

Resumen

El grado en Pedagogía incorpora el Prácticum como una materia obligatoria configurada por tres asignaturas, que pretende aplicar y complementar los conocimientos adquiridos en la formación académica, y favorecer el desarrollo de competencias que preparen a los y las estudiantes para el ejercicio de actividades profesionales. Este artículo presenta un análisis de la evolución de la autopercepción que tiene el alumnado del Prácticum de Pedagogía de la Universidad de Barcelona sobre en qué medida los resultados de aprendizaje logrados a lo largo del grado aportan evidencias sobre el nivel de desarrollo de las competencias establecido en la carrera. Para ello, se lleva a cabo un estudio descriptivo, basado en una investigación por encuesta con la cohorte de alumnos que empezaron dicho grado el curso 2016-2017 y finalizaron sus estudios en 2019-2020, a través de un diseño longitudinal en el que participan 128 estudiantes. El instrumento utilizado es el Cuestionario de Apreciación de Desempeño de Competencias (CADC), que también incluye valoraciones sobre las prácticas externas, la puntuación correspondiente a la autoevaluación de dicha asignatura, y su vinculación con el Trabajo Final de Grado. Los resultados obtenidos apuntan que a lo largo de dicho grado se observan mejoras significativas tanto en las competencias generales como en las específicas; destacando que estas últimas se perciben con un desarrollo superior, especialmente, después de haber realizado las prácticas externas. Como límites destacan las dificultades metodológicas de disponer de un instrumento de evaluación de competencias válido y fiable, así como un deseable análisis específico sobre el género. El estudio concluye con una percepción positiva del alumnado sobre su nivel de desarrollo competencial, que se incrementa significativamente a lo largo de la carrera, resaltando de manera específica la asignatura de Prácticas Externas, así como la bondad del diseño educativo de los planes de estudio de las tres asignaturas implicadas en el Prácticum del grado en Pedagogía.

Palabras clave: Experiencia profesional; estudio longitudinal; evaluación de competencias; educación superior; estudiante universitario.

Introduction and objectives

This contribution reflects the situation experienced by many of the teaching staff and those responsible for university degrees when they appreciate the fear expressed by students in their final year about their professional competence. These young people often experience their process of professional transition to the world of work with great insecurity, expressing doubts about their qualifications and professional soundness at this time close to graduation (Peralta 2020; Freixa, Figuera, Dorio et al., 2020). For this reason, the team coordinating the Practicum for the Bachelor's Degree in Education has, for some years now, been aware of the need to incorporate a system for collecting information on the level of development of competences that can provide students with evidence of their own learning process throughout their degree course. The situation of the Practicum, with its inherent relationship with the professional context, represents a privileged observatory to be able to respond to students. To this end, an evaluative design has been proposed that integrates reagents that encourage students to reflect on the results of their learning and provide them with evidence of their progress.

At the curricular level, the subject of the Practicum and, specifically, the subject of External Placements facilitates the development of the degree competences in a more evident way. In this sense, if we recall the key role of the performance context in the concept of professional competences (Gil, 2013; García-San Pedro, 2009; Zabalza, 2011 or Martínez, Manzano, Lema and Andrade, 2019), the deployment of the functions inherent to the profile is facilitated by the work placement centres as they are equivalent to scenarios in which students integrate and apply the knowledge, skills and attitudes necessary to meet the requirements of each position, according to the specific criteria of each organisation. Thus, the Practicum reflects this great context to design and deploy didactic innovations or to develop research projects that maximise this learning potential in professional scenarios, as well as to obtain evidence of the impacts that their creative and curricular skills can generate (Rajadell, Aneas, Méndez and Farré, 2021).

In the case of the Bachelor's Degree in Education at the University of Barcelona, two lines of interest have been addressed in particular: a) research into the assessment of the various curricular learning outcomes provided by the three subjects that make up the Practicum and b) research into how to assess, in a sustainable and valid way, the competences applied in the practice centres. This article fits in with both lines of research, as it develops a longitudinal study, based on the application of an instrument for the perception of competences, from the three subjects that make up the Practicum, with the 2016-2020 promotion. The aim of this project is to find out whether students have perceived objective and significant changes in the progressive development of their competences as they have progressed in their qualification process in the degree.

The interest and relevance of the project is also supported by the scientific literature that sustains the influence of the attribution of efficacy and the positive self-concept of the student body on the success of professional performance and the professional insertion of graduates, considering them as variables linked to these results (Bandalos,

Yates and Thorndike-Christ, 1995; Gallardo, López and Carter, 2018; Fuentes, Pastor and Thuillier, 2020).

The background to the project is to be found at the time of the incorporation into the European Higher Education Area (EHEA) of undergraduate studies at Spanish universities. In the case of the pedagogical studies at the University of Barcelona, the change from bachelor's to bachelor's degree involved a reduction from five to four years and, consequently, an in-depth reform of the curriculum. The new plan established the Practicum as a compulsory subject, made up of three subjects, the purpose of which was to apply the learning outcomes acquired in academic training in professional environments, to shape professional identity and to contribute to the acquisition of competences that prepare students for their academic-professional transition (Martínez-Clares and González-Lorente, 2021). The consolidated teaching innovation group PRAXIS of the University of Barcelona developed in those years a profound reflection on the professional profile of the graduate in Pedagogy in Barcelona, as well as the most appropriate model of practices for the student's approach to the professional reality; contributing to the configuration of an own identity in accordance with the professional and social reality of our global, complex, diverse and informational time (Rajadell, Aneas, Méndez and Farré, 2021).

The professional profile of the graduate in Pedagogy in the Barcelona Metropolitan Area was defined based on the analysis of the legal and professional frameworks that led to a process of redesigning the profession (Millan, Burguet, Vilà et al., 2014; Gairín and Rodríguez, 2012), culminating in the definition of the pedagogue as a multipurpose education professional who can act in various areas in which, directly or indirectly, an educational and training event is found. The action of this professional is characterised by being able to: a) Intervene with different groups (children, adolescents, young people, people in vulnerable situations, professionals, adults, etc.) b) Intervene in different organisations (private companies, public administration, third sector entities, etc.) and c) Specialise in specific subjects (digital learning environments, mediation, vocational guidance and integration, cultural dynamisation, training of trainers, etc.). This graduate can work and develop professionally in any of the following three areas: a) Formal education, providing regulated programmes or also offering support and advice; b) Social, promoting socio-labour integration, boosting social cohesion or perhaps promoting the well-being of people and c) Business, designing and/or developing actions related to the management of people, cultural proposals or activities, or also developing educational and training resources.

When this new degree in Pedagogy was conceived, it clearly reflected the need to carry out, over four academic years, a very well selected and planned holistic training.

The educational foundations that underpinned the design of the Practicum subject were synthesised in the following principles: a) Complex learning environments, in which diverse conceptual frameworks converge (Fabricatore and López, 2014 and Muskat, 2015). B) Relationships with diverse professional agents, leaving room for uncertainty as well as error (Rolfe, 2003; Le Fevre, 2014 and Lemoine et al, 2017); and, finally, c) Development of an identity model characterised by professionalism, innovation and a sense of ethics (Weinberg, 2015; Taggart, 2016; and Martínez, Esteban and Oraison, 2023).

All of this developed from three important learning environments: a) Individual professional experience by the student (López and Zuluaga, 2016; and, Mamaqi and Miguel, 2014); b) Reflective Practice Seminars (Domingo, 2013; and, Vilà and Aneas, 2013), and c) Accompanying tutoring with the university tutor and lecturer (López, 2016 and Gómez, Sánchez, García and Hernández, 2017).

The Prácticum proposed and continues to propose an educational itinerary in three phases, which correspond to the three correlative subjects offered in the degree, and which are shown below:

Professionalisation and Work Placements I is a compulsory on-site course covering 6 ECTS credits. It is carried out with a small group of students -about 25- and has a curricular value of 6 credits. This subject, taken by around 240 students each year, has a teaching team of 8 lecturers from the three departments of the Faculty of Education. The aim of this subject is for students to explore the map of the teaching profession and to initiate a process of self-knowledge in order to begin the construction of their professional identity. To this end, an exploratory, descriptive and analytical methodology is applied to the different professional profiles of the pedagogue, and their application in the different fields of action (Vilà, Burguet, Aneas et al, 2014).

Professionalisation and Work Placements II takes place in the second semester of the third year, and is compulsory and face-to-face. The grouping of students is also reduced -approximately 25 students-. Through this 6-credit course, students develop skills and research tools related to the labour market, based on the simulation of professional reality and the development of a group project on professional entrepreneurship.

Finally, the 18 credits covered by the *External Work Placement* course, which is carried out throughout the last year of the degree, on an annual basis, are structured around three key aspects:

- The immersion of the students in a work organisation where the educational/training process is worked on from a holistic perspective (it progressively allows the global integration of the different knowledge that the student possesses and a systemic one (the organisation reflects the complexity and continuous interaction of a complex system).
- Individual support from the university tutor. The role played by this tutor is very important as a guiding thread to encourage interrelationships with their counterpart - tutor - at the placement institution - from the incorporation of the specific student, through monitoring and ending with the academic-professional experience that is the placement and as a companion in the student's professional growth and learning.
- The Seminars of Reflective Practice (SPR), which are set up around a community of practice configured by the university tutor and the small group of students assigned to it, depending on the credits dedicated to the subject (Vilà and Aneas, 2013).

This design aims to ensure that, throughout the degree, students gradually acquire the necessary competences to carry out the profession of pedagogue (Table 1).

Table 1.

Competences of the Bachelor's Degree in Education at the University of Barcelona. Source: Faculty of Education. University of Barcelona (2023).

Cross-cutting competences	Specific competences
Ethical commitment	13. Conveying educational knowledge to different audiences
2. Learn and be responsible	14. Diagnose educational needs and conduct educational assessments.
3. Working as a team	15. Operate with educational data and information
4. Creativity and initiative	16. Dynamising groups and educational relationships
5. Sustainability	17. Design, develop and evaluate programmes
6. Communicate	18. Design and apply didactic strategies in different educational and training contexts.
7. Apply pedagogical knowledge	19. Understand the teaching-learning processes.
8. Self-knowledge for personal and professional development	20. Research in education
9. Complex consciousness.	21. Educational analysis
10. Educational problem solving from a multicultural and complex perspective.	22. Addressing diversity
11. Innovative attitude	Mediating and advising
12. Adapting to change in the knowledge society	24. Design, development, assessment and evaluation of programmes, projects, actions and products adapted to training in organisations.
	25. Analysis, design, management, use and evaluation of ICT in environments associated with educational and training processes, whether virtual or not.
	26. Manage and lead
	27. Train the trainers

This set of competences enables the comprehensive training of students, combining theoretical and practical learning, facilitating a working methodology in line with the reality of work, favouring the development of technical, methodological, personal and participative competences, as well as stimulating such necessary values as creativity, innovation and entrepreneurship. All of this oriented towards obtaining practical experience that facilitates their insertion in the labour market.

The research we present in this article analyses the evolution of the self-perception of the students, from the Pedagogy Practicum at the University of Barcelona, on the development of the degree competences throughout the degree course. The following specific objectives are set out below:

- To find out the students' perceptions of their competences on the first day they join the first-year course *Professionalisation and Work Placements-I*.
- To identify the students' perceptions of their competences in the third year, on the first day of the *Professionalisation and Work Placements-II* course.
- To compile the students' perceptions of their competences at the end of the last year of the Degree in Pedagogy, having just completed the *External Placement* course.
- To analyse the progress of student perceptions in the three subjects that make up the Practicum of the Degree in Pedagogy.
- Analyse the influence on perceptions based on other assessments carried out within the framework of the *External Placement* (linking of the PEX with the *Final Degree Project* (TFG), self-assessment marks and assessments of the *External Placement* itself).

Method

In order to respond to these objectives, a longitudinal study has been carried out using the survey method with the cohort of students who started the Bachelor's Degree in Education in the 2016-2017 academic year and finished their studies in the 2019-2020 academic year; through which we tried to analyse the evolution of their self-perception related to the development of the degree competences throughout the degree course.

Population and Sample

The population corresponds to the student body of the Bachelor's Degree in Education at the University of Barcelona, specifically the cohort formed by a total of 298 students who started the degree in the academic year 2016-2017, the vast majority of them finishing in 2019-2020. Data were obtained for 128 students. The sampling error is 0.052, with a 95% confidence interval in finite populations (p and $q = 0.5$). The sample is mostly female (89%), following the historical trend of female predominance in this grade.

Instrument

The instrument used is the Competence Performance Assessment Questionnaire (CADC) (Vilà and Aneas, 2013). It also includes assessments of the external placements, the final score in the self-assessment, and the link between the placements

and the Final Degree Project (Table 2). The instrument has been applied to students for training purposes, the completion of which requires in-depth reflection on the learning achieved from the point of view of competences - general and specific competences - of the degree. This instrument, designed specifically for the Practicum, provides evidence of the level of performance applied by the students, from the point of view of the three agents involved in the development of the subject: student, tutor from the placement institution, and tutor from the university.

Table 2.

Scale specifications and reliability.

Scale	Items	Cronbach's Alpha		
		PSL1	PSL2	PEX
Scale of specific competences	14	0,938	0,917	0,917
Scale of general competences	13	0,788	0,854	0,827
Identification questions	2		-	
Self-evaluation of External Internships	1		-	
PEX-TFG linkage	1		-	
Assessment of External Internships	10		0,785	

The scale of general competences has 12 items with a 6-point continuity scale, which measures the degree of application of the competences of the degree; the scale of specific competences is made up of 15 Likert-6 items according to the degree of application of these competences. The items are based on the competences of the degree in Education (general competences of the University of Barcelona, and general and specific competences of the degree itself). The categories of the instruments are inspired by the *European Qualifications Framework* (EQF-EQF) of the European Communities (2008). The indicators are based on aspects of autonomy and transfer. The CADC, in addition to providing indicators related to the application of a given competence, also aims to provide information on its degree of qualification; therefore, the scale of general competences has six levels of development. Several peer reviews and pilot applications have validated its content and comprehension (Vilà and Aneas, 2018). The scales have obtained Cronbach's alpha coefficients of acceptable reliability (Table 1). The instrument has the necessary scientific rigour for its use.

Data collection and analysis procedure

The data collection procedure was by means of online forms. The data from the survey study were statistically analysed using SPSS, version 26. An initial descriptive analysis was carried out and parametric (t Student) and parametric (Pearson) and non-parametric (χ^2) tests were used to contrast means and correlations.

Results

External Internships

If we focus on the 2019-2020 academic year, only 32% of the participants state that they have linked the *External Work Placement (PEX)* with the *Final Degree Project (TFM)*; it should be noted that the team that coordinates the TFM is not very keen on combining these two subjects, while the team that coordinates the PEX considers that it would be much more comfortable and stimulating for the students and would benefit the work placement institution with its contribution, although it should be noted that there are two completely separate subjects on some specific occasions. When they are at the end of the degree, they self-assess themselves in this subject with high scores, obtaining an average as a group of notable (with 8.6 points out of 10), being the students who assess themselves with the lowest score -with a pass mark of 6 points- and the ones who give the highest score, equivalent to a 10.

After completing the *placements*, the students' evaluations of the placements are also positive (Figure 1), with particular emphasis on the professional quality of the tutor and the welcome and integration into the placement organisation, as well as the relationship and support provided by the university tutor.



Figure 1. Student evaluations of the External Placement.

The aspect with the lowest score (although it scored more than 3.5 points out of 5) is the application used for *the Integral Management of External Placements* (GIPE), through which students select seven placement organisations in which they would like to be involved during the academic year, prioritising them in order of interest.

General competences in the Bachelor's Degree in Pedagogy

Participants' perceptions of their overall competences throughout the degree are high, considering that the theoretical scale scores range from 13 to 78 points (Table 3).

Table 3.

Descriptive statistics on general competences in the different courses.

General Competencies	Media	Standard deviation
Professionalisation and Work Placements-1 (academic year 2016-2017)	54,75	6,69
Professionalisation and Work Placements-2 (academic year 2018-2019)	61,62	6,63
External Internships (academic year 2019-2020)	63,82	6,70

As shown in Table 3, students start from a not very high perception (55 out of 78) of their performance in general competences when they begin the Bachelor's Degree in Education. In the third year, their perception increases slightly, and it is at the end of the fourth year, especially after completing their External Placements, that they perceive a considerable increase in their general competences, with an increase of almost 10 points more. These differences are statistically significant ($X^2 = 87.762$, $p=0.000$), showing the improvement in students' perceptions over time and, especially, after the experience of joining a real work scenario.

The design of the Bachelor's Degree in Education syllabus allows students to choose whether or not to link their Final Degree Project with the External Work Placement subject.

Those students who state that they have linked the internship with their TFG increase their perceptions considerably, by more than 10 points, from the 2016-2017 academic year to the 2019-2020 academic year. However, the differences with respect to students who have not linked them are not statistically significant ($t=1.042$, $p=0.300$); nor has it been shown that this improvement in perceptions is related to any of the assessments made in the External Work Placement. It is thus evident that these improved perceptions are not related to these elements. On the other hand, the perceptions in their evaluations of the final assessment of this subject correlate significantly and positively, although with little intensity, with the general competences of the degree ($r=0.361$, $p=0.000$). There is slight evidence of consistency in the students' perceptions of their competence development and their self-assessments,

with the students who perceive the greatest change in competence being those who self-assess themselves with a higher score.

Specific competences in the Bachelor's Degree in Pedagogy

Participants' perceptions of their degree-specific competences throughout the degree are high considering that the theoretical scale scores range from 14 to 84 points (Table 4).

Table 4.

Descriptive statistics on the specific competences in the different courses.

Specific Competences	Media	Standard deviation
Professionalisation and Work Placements-1 (academic year 2016-2017).	50,23	11,86
Professionalisation and Work Placements-2 (academic year 2018-2019).	59,04	9,68
External Internships (academic year 2019-2020).	65,81	11,37

As shown in Table 4, students start from a not very high perception (50 points out of 84) of their performance in the specific competences when they begin the degree. Perceptions of specific competences are slightly lower than general competences, as described in the previous section. This fact is positively valued because the general competences are being worked on in the curriculum of primary, secondary and baccalaureate studies. On the other hand, it should be pointed out that the first-year subject is located in the second semester, which explains why students have not rated their level of specific competences worse, having worked on core subjects of the degree during the first semester.

With regard to the third year, their perception of specific competences also increases slightly, as is the case with general competences. Similarly, at the end of the degree and especially after completing the *External Placement*, students perceive a considerable increase in their specific competences, with an increase of more than 15 points. These differences are statistically significant ($X^2 = 71.003$, $p = 0.000$), showing the improvement in the students' perceptions over time and especially after the EXP experience, with this change being much greater in specific competences than in general competences.

Students who have linked the internship with their TFG increase their perceptions throughout the study, with more than 18 points. However, the differences with respect to students who have not linked them to the TFG are not statistically significant ($t = 1.052$, $p = 0.295$). It is thus evident that these better perceptions are not related to this element.

The final self-assessment of the PEX subject correlates significantly and positively, although with low intensity, with this increase in perceptions of the specific competences of the degree ($r=0.377$, $p=0.000$). The consistency in the students' perceptions of their competence development and their self-assessments is also evident, corroborating that the students who most perceive this competence change correspond to those who self-assess themselves with a higher score in the External Work Placement subject.

The development of general and specific competences during the Bachelor's Degree in Education.

Figure 2 summarises the data obtained in the three subjects of the Prácticum, in the longitudinal design, for both general and specific competences.

It is evident that students start from a perception of greater development in general competences than in specific competences at the beginning of the Bachelor's Degree in Education.

Throughout the degree, significant improvements are observed in both general and specific competences, according to the view of the participating students; however, the specific competences are the ones that are perceived to have developed the most, especially after having completed the External Work Placement.

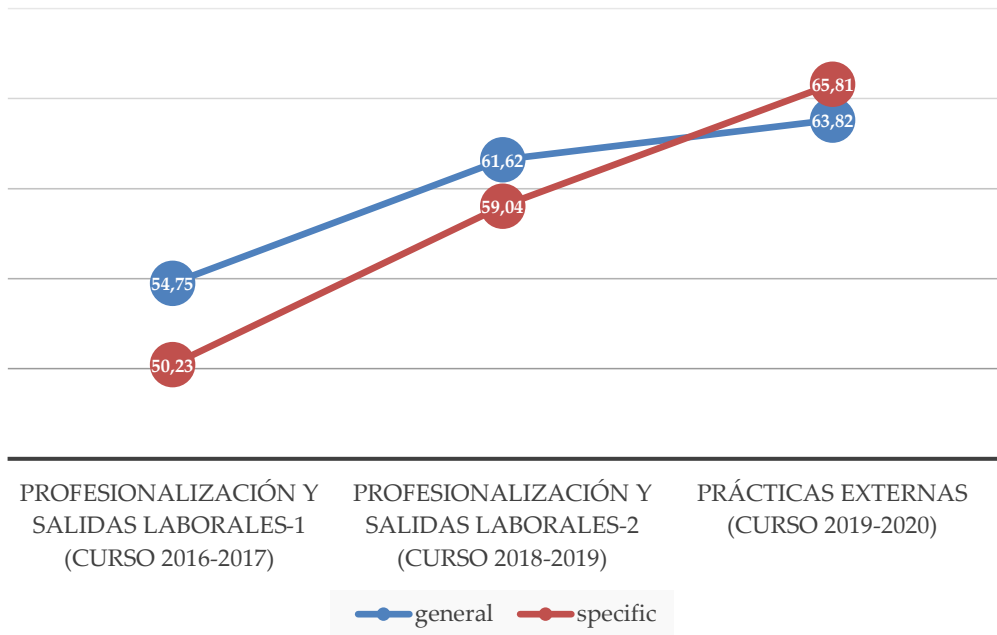


Figure 2. General and specific competences in the three subjects of the Practicum.

In other words, the initial trend is reversed, where scores were higher in general competences than in specific competences, identifying that students start the Bachelor's Degree in Education with a perception of their general competences with a greater degree of commitment than their specific competences, whereas, on completing the degree, they perceive a development of all of them, although the specific competences stand out, with scores higher than the general competences.

Conclusions and discussion

This article has addressed the problem of students' perceptions of their competence development over the four years of the degree course. Specifically, a longitudinal study has been presented based on the application of an instrument for the perception of competences in the three subjects that make up the Practicum of the Bachelor's Degree in Education at the University of Barcelona, during the period from 2016 to 2020. The aim was to find out whether students perceive objective and significant changes in the development of the generic and specific competences of the syllabus as they progress in their qualification process on the degree during these years.

From the design perspective, the project has posed various challenges in terms of the application of an instrument that meets the guarantees of validity and reliability, as well as ensuring a useful and sustainable application for the various agents involved in the assessment process (teaching staff, tutors from the placement organisations, the students themselves, and even the Practicum coordination team, which continues to be a challenge to this day (Iglesias, Martín and Hernández, 2003; Chan and Chen, 2022; and, Boud, 2020)). With regard to the challenge of assessing competences, the scales, despite their good psychometric results, show some weaknesses. Castro (2011) argues that assessing competencies poses serious challenges from the measurement point of view. Another challenge has been to obtain a complete series of data over the four-year academic period that could provide evidence of the evolution of the perceptions of each of the students who made up the study sample and which have already been collected in other studies (Panadero, Fraile and García, 2022; Isla-Díaz, Marrero-Hernández, Hess-Medler et al., 2018; and, Gogolin, Klinger, Schnoor and Usanova, 2021). One limitation we consider to be the lack of specific studies on gender or other variables that could make more concrete contributions to advancing an inclusive higher education educational model (Donoso-Vázquez, Montané and de Carvalho, 2014; and, Attardo, Bernárdez, López et al., 2020).

Regarding the results, the positive opinions of the internship organisations stand out, which are in line with the proposals of Freixa, Novella and Pérez (2012), when considering the relevance of internships in the manifestation of competences by students. The quality of internships is also in line with the quality of the organisations (Vilà and Aneas, 2013).

In particular, we would like to highlight the fact that the students have considered that they have competences linked to human relations and professional ethics.

In relation to creativity, the literature shows differences depending on the centres and educational plans; while Mareque and De Prada (2017) show high scores in the

competences assessed, with the exception of creativity, Rodicio, Iglesias and Martín (2011) state that Pedagogy students show a considerably high perception of creativity. However, from the University of Barcelona, it is considered that the polyvalent profile that emanates from Pedagogy demands this type of skills (Vilà and Aneas, 2013).

Another conclusion to be highlighted from our study corroborates that students' perceptions of their competences, both general and specific, increase progressively throughout the degree course. Porto, Mosteiro, Castro and Rodríguez (2013), in their longitudinal study of the teaching degree, obtained similar results, observing that students perceived a greater degree of development in specific competences than in transversal competences.

The positive progression in students' evaluations throughout their academic career has been demonstrated in other research (Cabezas, Serrate and Casillas, 2017). Adequate development of skills depends on opportunities to put them into action, proving to be a great challenge for conceptual and methodological change (Berdrow and Evers, 2009; Díaz Barriga, 2006 and Fernández, 2011).

The Practicum represents an optimal opportunity for immersion in a workplace, favouring the development and application of the competences of the academic degree. Indeed, internships have a strong impact on student employability (Rodríguez Espinar, Prades Nebot, Bernáldez Arjona and Sánchez Castiñeira, 2010; and Ruiz-Corbella, Ruiz and García-Blanco, 2019). Along these lines, it should be noted that the business projects defined and the immersion in professional contexts that are developed in the Practicum give students the opportunity to use their competences in a context very similar to the one they will find once they graduate, facilitating their employability (Mendoza, Drouilly and Covarrubias, 2020). All of this justifies why the External Work Placement subject is considered by students to be the one that incorporates the highest level of application and development of competences of the entire degree course.

In relation to the linking of the External Work Placement subject with the Final Degree Project, a widely debated topic in most universities (Aneas et al., 2018), the results have shown statistically significant differences between students who had linked them and those who had not. Linking the PEX with the TFG means connecting the world of work with academia, and this interaction nurtures students in the development of competences before completing the degree, as explicitly illustrated by Rekalde (2011), who points out that it is in the workplace where students encounter real problems, having to mobilise what they have learned in the various areas of knowledge to apply it, knowing beforehand that their decisions entail social involvement and impact. Thus, this experience of academically linking the TFG with the PEX, as with other disciplines (López, Lledó, Aramburu and García, 2018), has very positive evaluations for student training.

Prospectively, it would be necessary to plan a follow-up study of the integration of these graduates with specific data, as well as to study their experience in greater depth using other data collection techniques. This project presents major difficulties due to data protection regulations, which limit access to graduates, as they officially cease to belong to the university community. The results obtained in this longitudinal study have provided positive feedback for the Practicum of the Bachelor's Degree in

Education and, as Aneas and Vilà (2018) point out, the dialogical articulation between academic and experiential reflection makes sense given the value of the contents of the subject and in the development of specific competences in higher education.

As a final conclusion, the fact that students reflect on the level of development of their learning and become aware, from objective approaches, of the progress in their professional qualification, has a clear impact on the students themselves and on their satisfaction with the educational centre where they are studying at university (Martínez-Clares and González-Lorente, 2021).

References

- Attardo, C., Bernárdez, M., y López, M. P. (2020). Apuntes sobre género en currículas e investigación. UNR editora [MA1]. <http://rephip.unr.edu.ar/xmlui/handle/2133/20830>
- Aneas, A. y Vilà R. (2018). Entornos de desarrollo y aplicación de las competencias en el Prácticum de grado en Pedagogía de la Universidad de Barcelona. *Revista Practicum*, 3(1), 1-19. <https://doi.org/10.24310/RevPracticumrep.v3i1.8271>
- Aneas, A., Vilà, R., y Alós, M. (2015). La vinculació de les pràctiques externes i el treball final de grau, percepcions de l'alumnat sobre el seu desenvolupament competencial. *Institut de Ciències de l'Educació Josep Pallach. Universitat de Girona, UNIVEST*, 402-408. <http://univest.udg.edu>
- Bandalos, D. L., Yates, K., y Thorndike-Christ, T. (1995). Effects of math self-concept, perceived self-efficacy, and attributions for failure and success on test anxiety. *Journal of Educational Psychology*, 87(4), 611. <https://doi.org/10.1037/0022-0663.87.4.611>
- Berdrow, I. y Evers, F. (2009). Bases of competence: an instrument for self and institutional assessment. *Assessment & Evaluation in Higher Education*, 35(4), 419-434. <https://doi.org/10.1080/02602930902862842>
- Boud, D. (2020). Retos en la reforma de la evaluación en educación superior: una mirada desde la lejanía. *RELIEVE - Revista Electrónica De Investigación y Evaluación Educativa*, 26(1). <https://doi.org/10.7203/relieve.26.1.17088>
- Cabezas, M., Serrate, S., y Casillas, S. (2017). Valoración de los alumnos de la adquisición de competencias generales y específicas de las prácticas externas. Factores determinantes. *Revista Mexicana de Investigación Educativa*, 22(74), 685-704.
- Castro, M. (2011). ¿Qué sabemos de la medida de las competencias? Características y problemas psicométricos en la evaluación de competencias. *Bordón*, 63(1), 109-123.
- Chan, C. K. y Chen, S. W. (2022). Students' perceptions on the recognition of holistic competency achievement: A systematic mixed studies review. *Educational Research Review*, 35, 100431. <https://doi.org/10.1016/j.edurev.2021.100431>

- Díaz Barriga, A. (2006). El enfoque de competencias en la educación. ¿Una alternativa o un disfraz de cambio? *Perfiles educativos*, XXVIII(111), 7-36. <http://scielo.unam.mx/pdf/peredu/v28n111/n111a2.pdf>.
- Domingo, A. (2013). Práctica reflexiva para docentes. De la reflexión ocasional a la reflexión metodológica. Publicia.
- Donoso-Vázquez, T., Montané, A., y de Carvalho, M. E. P. (2014). Género y calidad en Educación Superior. *Revista Electrónica Interuniversitaria de Formación del Profesorado*, 17(3), 157-171. <https://doi.org/10.6018/reifop.17.3.204121>
- Fabricatore, C. y López, M. X. (2014). Complexity-based learning and teaching: a case study in higher education. *Innovations in Education and Teaching International*, 51(6), 618-630. <https://doi.org/10.1080/14703297.2013.829408>
- Fernández, Y. O. (2011). Variables académicas que influyen en el rendimiento académico de los estudiantes universitarios. *Investigación educativa*, 15(27), 165-180.
- Freixa, M., Novella, A., y Pérez, N. (2012). Elements per a una bona experiència de pràctiques externes que afavoreixi l'aprenentatge. ICE UB-Octaedro.
- Freixa, M., Figuera, P., Dorio, I., Llanes, J., Torrado, M., Valls, R., Venceslao, M., y Isus, S. (2020). La universidad como promotora de la equidad: la importancia de las transiciones. *Educación 2020-2022: retos, tendencias y compromisos* (pp. 99-104). Universitat de Barcelona.
- Fuentes, F. J. G., Pastor, V. M. L., y Thuillier, B. C. (2020). Ventajas e inconvenientes de la evaluación formativa, y su influencia en la autopercepción de competencias en alumnado de Formación Inicial del Profesorado en Educación Física. *Retos: nuevas tendencias en Educación Física, Deporte y Recreación*, 38, 417-424. <https://doi.org/10.47197/retos.v38i38.75540>
- Gairín, J. y Rodríguez, D. (2012). La pràctica professional i la seva vinculació amb la creació coneixement col·lectiu. *Temps d'Educació*, 42, 269-286.
- García-San Pedro, M. J. (2009). El concepto de competencias y su adopción en el contexto universitario. *Revista Alternativas; Cuadernos de Trabajo Social*, 16, 11-28.
- Gil, M. R. (2013). El perfil competencial del alumnado en las Prácticas académicas del máster universitario en profesorado de ESO, bachiller, formación profesional y enseñanza de idiomas. En P. César Muñoz (coord.), *XII Symposium internacional sobre el Pràcticum y las prácticas en empresas en la formación universitaria*. Poio.
- Gallardo Fuentes, F., López Pastor, V. M., y Carter Tuhillier, B. (2018). Efectos de la aplicación de un sistema de evaluación formativa en la autopercepción de competencias adquiridas en formación inicial del profesorado. *Estudios Pedagógicos (Valdivia)*, 44(2), 55-77. <http://doi.org/10.4067/S0718-07052018000200055>

- Gogolin, I., Klinger, T., Schnoor, B., y Usanova, I. (2021). Multilingual development - a longitudinal study. *Revista de Investigación Educativa*, 39(1), 15-29. <https://doi.org/10.6018/rie.454271>
- Gómez, E. M., Sánchez, M. R., García, J. L. A., y Hernández, S. G. (2017). Adquisición de competencias transversales a través de la tutoría en la universidad. *La Cuestión Universitaria*, 9, 88-107.
- González Sanmamed, M. (2005). Desafíos de la Convergencia Europea: la formación del profesorado universitario. <http://campus.usal.es/~ofeees/ARTICULOS/lin4glez%5B1%5D.pdf>
- Iglesias Rodríguez, A., Martín González, Y., y Hernández Martín, A. (2023). Evaluación de la competencia digital del alumnado de Educación Primaria. *Revista de Investigación Educativa*, 41(1), 33-50. <https://doi.org/10.6018/rie.520091>
- Isla-Díaz, R., Marrero-Hernández, H., Hess-Medler, S., et al. (2018). Una mirada longitudinal: ¿Es el "Docentia" útil para la evaluación del profesorado universitario? *RELIEVE - Revista Electrónica de Investigación y Evaluación Educativa*, 24(2). <https://doi.org/10.7203/relieve.24.2.12142>
- Le Fevre, D. M. (2014). Barriers to implementing pedagogical change: The role of teachers' perceptions of risk. *Teaching and teacher education*, 38, 56-64. <https://doi.org/10.1016/j.tate.2013.11.007>
- Lemoine, P. A., Hackett, P. T., y Richardson, M. D. (2017). Global higher education and VUCA-Volatility, uncertainty, complexity, ambiguity. En *Handbook of research on administration, policy, and leadership in higher education* (pp. 549-568). <https://doi.org/10.2089/jed.v3i2.613>
- López, A., Lledó, M., Aramburu, M. J., y García, P. (2018). Integración de las Prácticas Externas y el Trabajo Fin de Grado en Ingeniería Informática. *ReVisión*, 11(1), 73-83.
- López, E. (2016). La tutoría universitaria como relación de ayuda. *Revista de Ciencias Humanas y Sociales*, 9, 1007-1024.
- López, H. G. y Zuluaga, C. L. G. (2016). El modelo de aprendizaje experiencial como alternativa para mejorar el proceso de aprendizaje en el aula. *Ánfora*, 23(41), 37-54. <https://www.redalyc.org/articulo.oa?id=357848839002>
- Mamaqi, X. y Miguel, J. A. (2014). El perfil profesional de los formadores de formación continua en España. *RELIEVE - Revista Electrónica De Investigación Y Evaluación Educativa*, 17(1). <https://doi.org/10.7203/relieve.17.1.4121>
- Marco Europeo de Cualificaciones Profesionales (EQF-MEC), de las Comunidades Europeas (2008). <https://europa.eu/europass/es/herramientas-de-europass/el-marco-europeo-de-cualificaciones>.

- Martínez-Clares, P. y González-Lorente, C. (2021). Satisfacción del universitario en su camino hacia la inserción socio-laboral: Un estudio de caso. *RELIEVE - Revista Electrónica de Investigación y Evaluación Educativa*, 27(2). <https://doi.org/10.30827/relieve.v27i2.20998>
- Mareque Álvarez-Santullano, M. y De Prada Creo, E. (2017). Evaluación de las competencias profesionales a través de las prácticas externas: incidencia de la creatividad. *Revista de Investigación Educativa*, 36(1), 203–219. <https://doi.org/10.6018/rie.36.1.275651>
- Martínez, M. C., Manzano, M. J. R., Lema, L. E. C., y Andrade, L. C. V. (2019). Formación por competencias: Reto de la educación superior. *Revista de Ciencias Sociales*, 25(1), 94-101. <https://www.redalyc.org/articulo.oa?id=28059678009>
- Martínez, M., Esteban Tortajada, M. B., y Oraison, M. (2023). Educación, esferas de participación y ciudadanía. *Bordón*, 75(2), 11–25. <https://doi.org/10.13042/Bordon.2023.100507>
- Mendoza, M.; Drouilly, N., y Covarrubias, C.G. (2020). Dimensiones formativas del Prácticum de Pedagogía en Educación General Básica. *Estudios pedagógicos*, 46(2), 139-157. <http://dx.doi.org/10.4067/S0718-07052020000200139>.
- Millan, D., Burguet, M., Vilà, R. et al. (2014). Praxis: el Prácticum al Grau de Pedagogia de la Universitat de Barcelona. *Revista d'Innovació Docent Universitària RIDU*, 6, 32-52 <https://doi.org/10.1344/RIDU2014.6.4>
- Muskat, L. R. (2015). El respeto por la complejidad del aprendizaje: una propuesta para un nuevo modelo de aprendizaje del profesorado. *RELIEVE - Revista Electrónica de Investigación y Evaluación Educativa*, 4(1). <https://doi.org/10.7203/relieve.4.1.6417>
- Rolfe, H. (2003). University strategy in an age of uncertainty: the effect of higher education funding on old and new universities. *Higher Education Quarterly*, 57(1), 24-47.
- Panadero, E., Fraile, J. y García Pérez, D. (2022). Transición a la educación superior y evaluación: un estudio longitudinal. *Educación XX1*, 25(2), 15-37. <https://doi.org/10.5944/educxx1.29870>
- Peralta, F. J. A. (2020). La transición del paradigma educativo hacia nuevos escenarios: COVID-19. *CienciaAmérica: Revista de divulgación científica de la Universidad Tecnológica Indoamérica*, 9(2), 115-119. <http://doi.org/10.33210/ca.v9i2.285>
- Porto, A. M., Mosteiro, M. J., Castro, D., y Rodríguez, M. S. (2013). Valoración de las competencias del Prácticum I del alumnado del grado en maestro/a de Educación Infantil de la Universidad de Santiago de Compostela, en P. César Muñoz (coord.), *XII Symposium internacional sobre el Prácticum y las prácticas en empresas en la formación universitaria*. Poio.

- Rajadell, N., Aneas, A., Méndez, J. y Farré, M. (2021). Des de Bolonya fins la Covid-19. Balanç de 10 anys del Pràcticum de Pedagogia a la Universitat de Barcelona. *Revista Catalana de Pedagogia*, 19, 3-23. <https://doi.org/10.2436/20.3007.01.155>
- Rekalde, I. (2011). ¿Cómo afrontar el trabajo fin de grado? Un problema o una oportunidad para culminar con el desarrollo de las competencias. *Revista Complutense de Educación* 189, 22(2), 179-193.
- Rodicio, M.L.; Iglesias, M.J. y Martín, L. (2011) El acoso escolar. Diagnóstico y prevención. Biblioteca Nueva.
- Rodríguez Espinar, S., Prades Nebot, A., Bernáldez Arjona, L., y Sánchez Castiñeira, S. (2010). Sobre la empleabilidad de los graduados universitarios en Catalunya: del diagnóstico a la acción. *Revista de Educación*, 351, 107-137.
- Ruiz-Corbellà, M., Ruiz, M. J. B. C., y García-Blanco, M. (2019). Prácticas profesionales y la formación en competencias para la empleabilidad. *Contextos Educativos*, 23, 65-82. <https://doi.org/10.18172/con.3560>
- Taggart, G. (2016). Compassionate pedagogy: The ethics of care in early childhood professionalism. *European Early Childhood Education Research Journal*, 24(2), 173-185. <https://doi.org/10.1080/1350293X.2014.970847>
- Vilà, R. y Aneas, A. (2013). Los seminarios de práctica reflexiva en el Prácticum de Pedagogía de la Universidad de Barcelona. *Bordón*, 65(3), 165-181. <https://doi.org/10.13042/23171>
- Weinberg, M. (2015). Professional privilege, ethics and pedagogy. *Ethics and social welfare*, 9(3), 225-239. <https://doi.org/10.1080/17496535.2015.1024152>
- Zabalza, M.A. (2011). El Prácticum en la formación universitaria: Estado de la cuestión. *Revista de Educación*, 354, 21-43.

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