





Exploring Student Teacher Perceptions on the Benefits of the Teaching Practicum

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ABSTRACT

This article examines student teacher perceptions regarding the benefits of the teacher education practicum. For this purpose, a cross-sectional study was performed using a questionnaire. Participants consisted of 455 students from the Early Childhood and Primary Education Degrees studying at a university in the Madrid community. The questionnaire was administered between the academic years of 2017/2018 and 2021/2022 (2019/2020 was excluded due to the pandemic), at the end of each practicum period of the 2nd, 3rd, and 4th year courses of the distinct teaching student cohorts. Results were analyzed based on a quantitative perspective, revealing relevant benefit and utility profiles, confirming that the variable that most modulates student perception is the Practicum period (finding lower scores for the intermediate practicum), followed by the gender variable, and finally, the Degree variable, which has the most stable results. These findings are discussed, highlighting certain proposals to improve teaching practicum programs, and to encourage a better knowledge of the teaching practicum in terms of its benefits and usefulness, considering the teacher candidate perspective.



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1 INTRODUCTION

Practicums are fundamental components of initial teacher training, providing contact with real-life education contexts. Practicums carried out in school institutions are especially relevant. Research on teacher education practicums (in this case, early education and primary education teachers) is extensive, given the considerable and ongoing literature available in this area (Bretones, 2013; Lawson, Çakmak, Gündüz, & Busher, 2015; Tejada, 2020)

This research includes diverse perspectives, based on distinct methodologies (Barceló, Ruiz-Corbella, Zabalza-Cerdeirina, Martínez-Figueira, & Pérez-Abellás, 2015; Egidio & López, 2016; Gallardo, Guillén-Gámez, Mayorga-Fernández, & Sepúlveda, 2020; Gallego-Arrufat & Cebrián-De-La-Serna, 2018; Giner-Gomis, González-Fernández,

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Iglesias-Martínez, López-Gómez, & Lozano-Cabezas, 2023; Poveda, Barceló, Gómez, & López-Gómez, 2021; Rodríguez, Barceló, Poveda, & López-Gómez, 2022; Zabalza, 2011). This Spanish context may be replicated in an international scope, applying descriptors such as practicum, teacher education, pre-service teacher training, etc. (Grudnoff, Haigh, & Mackisack, 2017; Lawson et al., 2015; Li & Huang, 2023; Mai Nguyen & Hang Ngo, 2018; Misdi, Rachmawaty, Hartini, Nurhadi, & Hendriwanto, 2021; Soleas & Hong, 2020). These contributions concur with the relevance of the practicum as a preferential place of educational learning, given the interaction between teaching theory and practice, typically through educational models that alternate between the university and the school setting (Egido & López, 2016; Mesa, 2018; Orús, 2009; Vidal, 2019). In this sense, it is believed that the practicum is not theoretical, “but rather, through them the content from the areas of knowledge making up the basic university curriculum is assimilated, and they are the starting point for the learning undertaken by future teachers” (Silva, Bravo, and Alarcia., 2018, p. 363).

Within the context of Spain, Zabalza’s work (2016; 2017) is of considerable interest. This outstanding and prolific author presents a retrospective view that illustrates the evolution of the practicum in Spain, considering five core axes: terminological –with varied names or labels–, conceptual –with multiple theoretical referents–, didactic –focused on what is learned and how–, institutional and administrative. In this way, the concept of practicum has evolved, from being initially considered as a theory-based action and application, to a broader view, permitting the student teacher to reflect in, on, and about the practice. It is a practice that is ultimately considered as a source of knowledge creation by which it is possible to return to the theory and even improve it (Hendriwanto, 2021). As Loughran (2002) suggested, in order for the reflection to be a stimulus for practice, we must question the assumptions that are taken for granted and encourage future teachers to understand their practice through other contextual frameworks and from other roles (in the transition from student to teacher). Thus, the practicum is not only considered a scenario for technical learning, but its scope is also extended to educating the soon-to-be teachers on how to be, how to relate, and how to act (Giner-Gomis et al., 2023).

Given these coordinates, it is not unusual that the practicum has increasingly become the focus of initial teacher training programs. In fact, it has received special consideration within the framework of the European Higher Education Area (EHEA). If the competencies are educational pretensions of university degrees, and this is also the case with the Early Childhood and Primary Education degrees, then the alternating between practice periods and academic education is fundamental to advance the education and development of skills forming the graduation profile (García-Vila & Sepúlveda-Ruiz, 2022; Mendoza Lira & Covarrubias Apablaza, 2014; Moral-Santaella, Ritacco-Real, & Morales-Cabezas, 2021; Poveda et al., 2021). Indeed, the practicum offers a sort of intersection between space, time, and agents, favoring the development of teaching competencies in its activities (Matengu, Ylitapio-Mäntylä, & Puroila, 2021).

Therefore, given the central focus of the practicum in initial teacher training, it is necessary to explore the student’s perception regarding the educational utility of the distinct

practicum periods, an issue which tends to lie within the parameters related to satisfaction (Bernardo, Sánchez-Tarazaga, & Ribés, 2022; Gallardo et al., 2020; Olid, Andreu, Vall-Llovera, & Mejías, 2022; Ruiz-Gutiérrez, Basilotta Gómez-Pablos, & González Elices, 2021). While it is certain that the analysis of these areas may generate controversy, given that they are multi-faceted variables (Shwu-Yong & Waxman, 2009), their study has become quite commonplace, due to the relevance of this collective in determining the level of transfer existing between what is learned in the university and what happens in school classrooms (García, Sánchez, & Ribés, 2020; Giner-Gomis et al., 2023; Poveda et al., 2021; Zapatero, Ruiz, Avilés, & Miraflores, 2021). Furthermore, research on student perception of the usefulness of the practicum allows us to learn more about the distance or proximity existing between their ideal of the teaching profession and the reality experienced during the initial training period. Inasmuch as students advance in their university studies and experience the teaching profession during the immersion in the practice, they enrich, modify and adjust this perception regarding the practicum's benefits to their education. They acquire a greater awareness of professional and personal growth since they have a better understanding of the need to responsibly commit to those tasks that are required by the profession. The fact that this takes place during the initial period of the training favors a theoretical-practical convergence at an early time, at a training level, and encourages an expected utilization of the learning. Therefore, learning about the perception of student teachers on the usefulness of the practicum serves as an important point of reference to highlight the educational nature of this period, in combination with other studies considering the teacher group that provides guidance in the schools (Bernárdez-Gómez, 2021; Bernardo et al., 2022; Grudnoff et al., 2017; Rodríguez et al., 2022).

2 METHODOLOGY

The study was performed using a non-experimental design, with descriptive and inferential methodology of a cross-cutting nature (Bourque, 2004).

2.1 Context and participants

The research was contextualized within the three practicum periods of the Early Childhood and Primary Education degrees at a university in the Madrid community (Table 1). Study participants consisted of 455 students from the cited degree programs.

The students, who completed the instrument after finishing each practicum period (n=1149), were mainly from the Primary Education degree program (65.89%), with a balance of participants per course, ranging from 39.6% to 28.46%. Female participation was higher (87.03%), in line with the general trend in education studies (Table 2). Finally, it should be mentioned that the students carried out their practicums in public and charter (58.05%) or private (41.95%) schools.

Table 1 General data from the practicum study context

Practicum and Course	Period (duration)	Training objectives
Prácticum I (P-I) 2nd course	5 weeks	(1.1) To determine the general characteristics of the center (1.2) To analyze the organization and functioning of the classroom through participative observation.
Prácticum II (P-II) 3rd course	5 weeks	(1.3) To participate in the teaching activity and learn how to behave, act and reflect according to the practice. (1.4) To analyze the classroom reality and know how to implement distinct methodologies.
Prácticum III (P-III) 4th course	12 weeks	(1.5) To acquire practical knowledge of the classroom, the center, and the management of the same. (1.6) To dominate the social skills and competencies to promote a classroom climate that favors learning. (1.7) To reflect on the distinct events of school life and know how to act according to the characteristics of each circumstance.

Table 2 Distribution of participation of students completing the questionnaire

	Degree		Course/Practicum Period			Gender	
	Early Childhood Education	Primary Education	2º (P-I)	3º (P-II)	4º (P-III)	Female	Male
n=1149	392	757	455	367	327	1000	149
%	34.11	65.89	39.60	31.94	28.46	87.03	12.97

*Note: *n* is understood as the number of applications of the questionnaire to students after each internship period.

2.2 Instruments

An ad hoc questionnaire was used, having the following sections: (I) Introduction, with the study details and purpose, and the indications for filling out the instrument; (II) Classification variables (age, course, gender, degree); Likert scale to estimate the level of agreement, with a five-point response option (1 = not at all agree, 5 = strongly agree), including 11 items that express aspects related to the benefits and usefulness of the practicum, its contextual and organizational aspects, and the general satisfaction perceived. These elements have been considered in prior studies (Álvarez Arregui, Iglesias García, & García Rodríguez, 2008; Mendoza Lira & Covarrubias Apablaza, 2014; Tejada, 2009).

The reliability coefficient (Cronbach's alpha), for the internal consistency of the questionnaire, is satisfactory ($\alpha=.895$), as is the Guttman L4 test (.808 / .862) and the Spearman-Brown coefficient (.841). As for the internal validity, the results suggest that the mean scores for each item are close to one another (means between 4.49 and 4.89) as well as the standard deviation (SD between .47 and .86), revealing homogeneity in the responses. As for the analysis of the items, none of these result in decreased reliability. The analysis performed has not suggested a reduction in items, given that all of them had an acceptable level of discrimination with values $\geq .5$ (Juste, García, Gil, & Galán, 2009). Finally, the item-total correlation reveals high values.

As for the validity of the construct, an Exploratory Factor Analysis (multivariate technique) was applied, allowing us to verify the measurement of sampling adequacy (KMO .922), data interpreted as adequate (Table 3); and Bartlett's test of sphericity indicated sig-

nificance ($\chi^2=6097,472$; gl. =55; $p= .000 < .05$). These data allow us to reject the null hypothesis that the correlations matrix is a matrix of identity, confirming the existence of underlying factors in the matrix of data, due to the level of significance obtained, justifying the use of the factorial analysis.

Table 3 Data from the Exploratory Factorial Analysis (EFA)

Measure of sampling adequacy	Kaiser-Meyer-Olkin	.922
Bartlett's test of sphericity	Apro. Chi-cuadrado	6097.427
	df	6097.427
	Sig.	.000
Cumulative percentage of variance	%	62% of factors
Reliability	Cronbach's alpha	Total: .895 F1: .840 F2: .854
Factors		2 F1 (6,7,8,9,10) F2 (1,2,3,4,5,11)
Items		11

To obtain the factors, an extraction method of principal component analysis with Varimax rotation and Kaiser normalization was used (eigenvalues greater than 1), obtaining two factors that explained 62% of the variance from the analysis (Table 3).

Dimension 1: benefits and usefulness of the practicum, with a Cronbach's alpha value of .840, explains 50.46% of the overall variance and is made up of five items (6,7,8,9, and 10) which refer to the educational function of the practicum for: "verifying and applying my knowledge" (.712); "understanding and solving practical problems" (.788); "learning and applying work methodologies" (.822); "developing important competencies and skills" (.740); and "learning and practicing important teacher/educator skills" (.616).

Dimension 2: contextual framework and general satisfaction ($\alpha=.854$) explains 11.54% of the overall variance and is made up of six items, which may be considered from two dimensions. The first refers to the context of the practicum, including the items: "requirements of the practice center" (.697); "orientations received from the teacher" (.713); "access to necessary materials, information, and documents" (.723). The second dimension refers to the overall satisfaction and assessment of the practicum, with the following items: "general satisfaction with the teacher in the center" (.827); "the practicum has contributed to my education" (.613); "level of overall satisfaction" (.648). It is observed that the saturations of both factors have acceptable values, indicating a certain robustness of the factors (saturations above .60).

2.3 Procedure

The coordinators extended an invitation to the students in the Early Childhood and Primary Education degrees to complete the questionnaire electronically at the end of each of the three practicum periods (PI, PII, and PIII) taking place during the second, third, and fourth year, respectively. At the start of the process, participants were informed of the study objective, being offered the necessary instructions, and stressing the confidentiality and anonymity of the study. This research received a favorable report from the University's Ethics Committee. The study was carried out during the academic years of 17/18 to 21/22

except for the 19/20 course year, which was excluded due to the pandemic.

2.4 Data analysis

First, descriptive analysis was carried out using measures of central tendency and dispersion of the variables to determine the perception of the items referring to satisfaction, benefits, and contextual framework of the practicum. Second, to analyze potential differences in the valuation of the variables, non-parametric approximations such as the Kruskal-Wallis H test for k samples of independent measures and the Mann-Whitney U for pairwise contrasts were used, given the lack of normality. Each item was used as a dependent variable, considering the sociodemographic variables and course years as grouping variables. The significance level used was $p < .05$ (95%) and $p < .01$ (99%), completing the analysis with the estimation of effect size using eta-squared (Lenhard & Lenhard, 2016; López-Martín & Ardura, 2023), up to 0.003 for no effect, 0.01-0.039 for small effect, 0.06-0.11 intermediate effect, and 0.14-0.2 for large effect. The data were organized, coded, and analyzed with SPSS v.24.0

2.5 Results

2.5.1 Descriptive analysis regarding the perception of benefits and utility, according to practicum periods, degree, and course year

In order to determine student perceptions of practicum benefits and utility, the mean values obtained from the scores were used, considering the practicum periods, degree, and gender (Table 4).

The results reveal differences in the three analyzed practicum periods, with the values reported for the student after completing Practicum III (4th year) being the highest. The following items were of special relevance: “the practicum has helped me to develop important skills and capabilities” (item 9, $M=4.84$, $SD=.42$); “the practicum has allowed me to learn and practice the interpersonal skills of a teacher/educator” (item 10, $M=4.83$, $SD=.46$); “the practicum has helped me to understand and solve practical problems” (item 7, $M=4.80$, $SD=.50$); “the practicum has helped me to learn and apply work methodologies” (item 8, $M=4.75$, $SD=.57$).

As for context, once again, the highest scores were those from students completing the last practicum period (4th year) for “the guidance received from the teacher at the practice center has contributed to the usefulness of the same” (item 2, $M=4.72$, $SD=.69$) and the requirements of the practice center (item 1, $M=4.75$, $SD=.62$). The same occurred for satisfaction for this period of practicum III, where items referring to the following were of special relevance: “in general, I am satisfied with the attention received from the teacher at the practice center” (item 4, $M=4.83$, $SD=.50$); and “my degree of overall satisfaction with the practicum carried out is high” (item 11, $M=4.78$, $SD=.57$).

The broken-down analysis, considering the practicum period, reveals that, for the first dimension, there was a progressive increase in the means as the student course advanced, always being lower in the first period and higher in the last. Thus, it is interesting to appreciate the stability of the trend (Figure 1). In the case of PI, the highest value was obtained

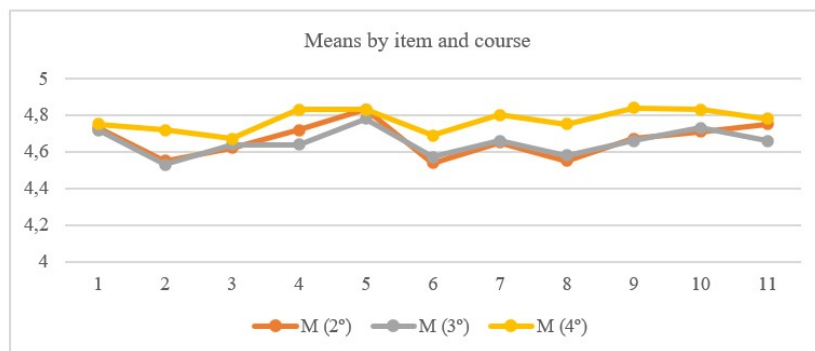
Table 4 Descriptive statistics based on the practicum period, degree, and gender

Dimensions	Item	Course/Practicum Period						Degree				Gender			
		2nd course P-I n=455		3rd course P-II n=367		4th course P-III n=327		Early Childhood Education n=392		Primary Education n=757		Female n=1000		Male n=149	
		M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
BENEFITS AND UTILITY OF THE PRACTICUM	(6) The practicum has helped me to verify and apply my theoretical knowledge.	4.54	.68	4.57	.75	4.69	.65	4.66	.63	4.55	.72	4.49	.76	4.70	.57
	(7) The practicum has helped me to understand and solve practical problems.	4.65	.59	4.66	.61	4.80	.50	4.68	.61	4.70	.55	4.67	.56	4.62	.67
	(8) The practicum has helped me to learn and apply work methodologies.	4.55	.68	4.58	.72	4.75	.57	4.61	.71	4.61	.65	4.59	.70	4.71	.56
	(9) The practicum has helped me to develop important skills and capabilities.	4.67	.57	4.66	.63	4.84	.42	4.68	.62	4.73	.53	4.73	.55	4.74	.54
	(10) The practicum has allowed me to learn and practice the interpersonal skills of a teacher/educator.	4.71	.57	4.73	.56	4.83	.46	4.74	.55	4.76	.54	4.81	.50	4.72	.65
CONTEXTUAL FRAMEWORK AND GENERAL EVALUATION	(1) Do you believe that the practice center complies with the requirements as a practice center?	4.73	.54	4.72	.67	4.75	.62	4.75	.55	4.72	.64	4.84	.47	4.57	.80
	(2) The guidance received from the teacher at the practice center has contributed to the usefulness of the same..	4.55	.75	4.53	.86	4.72	.69	4.62	.73	4.58	.80	4.72	.56	4.62	.74
	(3) The practice center professionals have provided me with access to the necessary materials, information, and documents.	4.62	.65	4.64	.71	4.67	.81	4.61	.79	4.66	.68	4.76	.54	4.71	.65
	(4) In general, I am satisfied with the attention received from the teacher at the practice center.	4.72	.60	4.64	.74	4.83	.50	4.74	.60	4.72	.64	4.86	.41	4.80	.54
	(5) In general, the practicum has contributed to my education.	4.83	.48	4.78	.55	4.83	.55	4.79	.56	4.83	.50	4.89	.37	4.61	.68
	(11) My level of general satisfaction with the practicum carried out is high.	4.75	.64	4.66	.70	4.78	.57	4.74	.63	4.72	.65	4.78	.57	4.84	.47

for item 10: “the practicum has allowed me to learn and practice the interpersonal skills of a teacher/educator” (M=4.71), whereas for PIII, item 9 received the highest mean score: “practicum has helped me to develop important skills and capabilities” (M=4.84).

In the values of the second dimension, it may also be observed that in the last period, the practicum had the highest means. However, the period with the lowest score took place in practicum II (3rd year), in item 2 (context): “the guidance received from the teacher at the practice center has contributed to the usefulness of the same”, where PI (M=4.55)>PII (M=4.53) < PIII(M=4.72). The same occurred in item 4 (satisfaction): “in general, I am satisfied with the attention received from the teacher at the practice center”, where PI (M=4.72)>PII (M=4.64) < PIII (M=4.83). Likewise, in item 11 (satisfaction): “my level of overall satisfaction with the practicum carried out is high”, where PI (M=4.75)>PII (M=4.66) < PIII (M=4.78).

Figure 1
Benefits, utility, and satisfaction perceived based on the practicum course /period



Note: 2°=PI; 3°=PII; 4°=PIII. The x-axis shows the numbered items of the questionnaire; the y-axis shows the means obtained for each item.

Figure 1 Benefits, utility, and satisfaction perceived based on the practicum course /period

Considering the degree variable, the results reveal more stability between the scores at distinct items, except for item 6: “the practicum has helped me to verify and apply my theoretical knowledge”, with higher scores for the students from the Early Childhood Education degree (M=4.66; SD=.63) (Table 4, Figure 2).

Upon analyzing the gender variable, we find a more heterogenous perception profile as compared to the practicum period or degree variables. The item having the greatest distance between mean values of scores for men and women is the number 5, “in general, the practicum has contributed to my education” with women giving higher scores (M=4.89; SD=.37) than men (M=4.61; SD=.68). We find differences in the same direction in item 1: “do you believe that the practice center complies with the requirements as a practice center?” (women: M=4.84; SD=.76; men: M=4.57; SD=.57). Moreover, for item 6: “the practicum has helped me to verify and apply my theoretical knowledge”, the differences appeared in the other direction (men: M=4.70; SD=.57; women: M=4.49; SD=.76) (Table 4;Figure 3).

Figure 2
Benefits, utility, and satisfaction perceived based on the degree

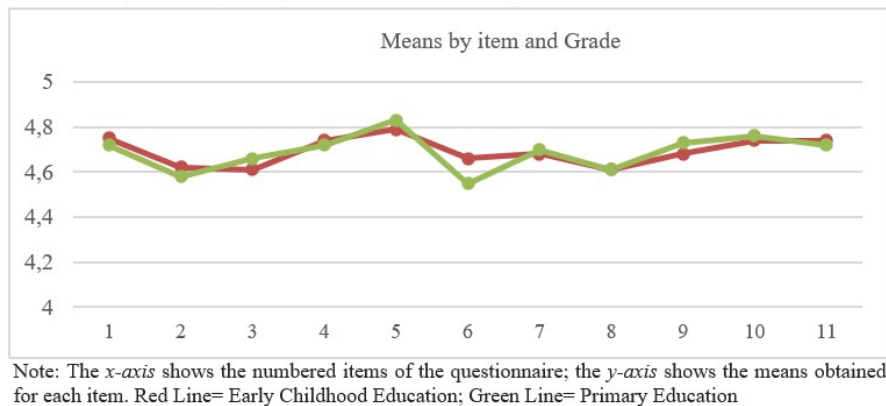


Figure 2 Benefits, utility, and satisfaction perceived based on the degree

Figure 3
Benefits, utility, and satisfaction perceived based on gender.



Figure 3 Benefits, utility, and satisfaction perceived based on gender.

The descriptive results presented in this section reveal a general panorama, based on global profiles, which may be contrasted with inferential study.

2.5.2 Inferential analysis regarding the perception of benefits and utility according to practicum periods, degree, and gender

For the second research question, inferential analysis was performed to explore the significant differences based on the period when the students carried out their practicums. A Kruskal-Wallis H test was conducted for independent samples, obtaining significant values for almost all of the questionnaire items (Table 5), more so in benefits and utility. It was observed that students from the 4th year (PIII) scored the highest on this dimension, as compared to the other groups, up to a significance level of $p < .01$. The effect size is small according to the reference values proposed by Lenhard and Lenhard (2016) and by López-Martín and Ardura (2023).

Table 5 Differential studies on benefits, utility, and overall valuation according to practicum periods

Dimension	Item	Practicum Period	Average Range	H	df	p	Eta2
BENEFITS AND UTILITY OF THE PRACTICUM	6	P-I	542.52	15.946	2	.000**	.012
		P-II	574.33				
		P-III	620.95				
	7	P-I	548.16	20.671	2	.000**	.016
		P-II	560.75				
		P-III	628.34				
	8	P-I	539.06	26.038	2	.000**	.021
		P-II	564.67				
		P-III	636.60				
	9	P-I	548.34	25.744	2	.000**	.021
		P-II	555.71				
		P-III	633.74				
CONTEXTUAL FRAMEWORK AND GENERAL EVALUATION	10	P-I	553.33	12.721	2	.002**	.009
		P-II	568.29				
		P-III	612.69				
	2	P-I	548.11	21.422	2	.003**	.017
		P-II	557.98				
		P-III	631.52				
3	P-I	551.12	11.319	2	.003**	.008	
	P-II	570.99					
	P-III	612.73					
4	P-I	565.30	16.123	2	.000*	.012	
	P-II	549.73					
	P-III	616,86					
5	P-I	573.39	7.250	2	.027*	.005	
	P-II	556.73					
	P-III	597.74					
11	P-I	578.95	8.411	2	.015*	.006	
	P-II	549.16					
	P-III	598.51					

* $p < .05$; ** $p < .01$; n (P-I=455), n (P-II=367), n (P-III=327)

For the comparative analysis of two independent samples, grouping the students according to degree, the Mann-Whitney U test was applied, obtaining significant values for item 6: “the practicum has helped me verify and apply my theoretical knowledge” (Table 6). The results reveal significant differences between the degrees in the mean ranges ($z=-2521$, $p=.012$), with Primary Education reaching a mean range of 560.50, as compared to Early Childhood Education, which obtained 603.00, with an intermediate effect size ($r=.074$), according to Lenhard and Lenhard (2016).

As for the scores of the students, with regard to the gender variable, significant values were obtained for three items related to the benefits and utility of the practicum and to context and valuation (Table 7). As for the first dimension, in item 6, the average range of the female students was greater than that of the male students. However, in the second dimension, men scored higher on two of the items (1 and 4). In all of these, an intermediate effect size was found (Lenhard & Lenhard, 2016).

3 DISCUSSION

The objective of this article was to examine the perception of university education students regarding the utility of the teaching practicum, in response to the two research questions underlying the work. This, in an attempt to expand on the results from prior works (Grudnoff et al., 2017; Mai Nguyen & Hang Ngo, 2018; Misdi et al., 2021; Soleas & Hong, 2020), which suggested the need to analyze distinct student cohorts to offer a better understanding of practical teacher education.

A questionnaire was designed and applied, having suitable psychometric properties in terms of validity and reliability (Table 3). Two factors arose explaining a combined 62%

Table 6 Items with significant differences according to degree

Dimension	Item	Degree	n	Average Range	U	Z	p	Eta2
Benefits and utility of the practicum	6	Early Childhood Education	392	603.00	137.395	-2521	.012*	.074
		Primary Education	756	560.50				

* $p<.05$

Table 7 Items with significant differences in benefits, utility, context, and overall valuation, according to gender

Dimension	Item	Gender	n	Average Range	U	Z	p	Eta2
Benefits and utility	6	Female	1000	581.56	67.944	-2.125	.034*	.062
		Male	149	531.00				
Contextual framework and general evaluation	1	Female	1000	568.83	80.669	2.322	.020*	.068
		Male	149	61640				
	4	Female	1000	568.16	81.343	2.617	.009**	.077
		Male	149	620.93				

* $p<.05$; ** $p<.01$

of the variance (F1: 50.46%, F2: 11.54%), and directing the data analysis. Participant perception was differentiated between the practicum periods, with the highest values of utility being perceived after the end of practicum III. It is interesting to observe that the mean of the indicators increased progressively as the students advanced in the course and engaged in more classroom experiences, with lower scores being found in the first period and higher ones occurring in the last period. Thus, participants emphasized the help that this last practicum period offered to their development of competencies for their professional future. This result is in line with past studies in which both the mentors and students revealed their perception of more competence as the course advanced and they were more immersed in their curricular practicums (Poveda et al., 2021; Rodríguez et al., 2022). In fact, while the last practicum immersion had the highest acquired competence level, when students engaged in their first practicum period, they valued aspects related to the development of interpersonal skills the most positively, as occurred in the studies of Molina (2019) and Pascual-Arias and Soria (2020). Student valuations were also high for the indicator of attention received from the mentors, an issue which, in this study, received a higher valuation than in other previous works (Gallardo et al., 2020).

Several of the items revealed a decline after practicum II of the 3rd degree year, with the students being less satisfied and giving a lower score to the utility as compared to the scores given by students for practicum I (2nd degree year) and practicum III (4th degree year), especially when assessing the teacher's guidance and attention received from teachers in general, for an improved guidance to the practicum. This is in line with the findings of Gallardo et al. (2020). We should ask whether this second practicum period has a unique identity, since the first period is highly anticipated and serves as a decisive starting point and the last period is crucial due to its duration, more autonomous nature, and its resulting development of competencies studied throughout the degree. Thus, we should ask: How can we strengthen this intermediary practicum period? How can we move from the initial observation of the first practicum to the supervised autonomy of the final practicum?

With respect to the degree program, no generalized differences were found, although there were certain specific differences appearing with regard to item 6: "the practicum has helped me to verify and apply my theoretical knowledge", similar to the findings of the study by Pantoja, Cámara, Molero, and Perceived student satisfaction and professional relevance in the Practicum (2019). Therefore, students in the Early Childhood Education degree program gave higher scores when assessing the practicum as helping them to be more aware of the theoretical knowledge that they had and putting it into practice. This, precisely, is one of the questionnaire items obtaining a lower average score after carrying out each of the three practicum periods, like in the Primary Education degree program. This finding coincides with those of other studies that have highlighted the weak link between school and university and between the theoretical content taught in the university and the reality of the school classroom (Arcos, Cortés-González, & Alba, 2020; Martín-González & García-Gómez, 2022; Poveda et al., 2021; Rodríguez et al., 2022). Therefore, this is a challenge that should be tackled and a practical recommendation of this study. So, we propose the inclusion of activities in the intermediary practicum that will orient and guide reflection, in order

to strengthen the theoretical-practical interaction.

Regarding the results in terms of gender, positive differences were revealed for females when assessing how the practices helped them to verify and apply their theoretical knowledge. On the other hand, men scored higher in terms of satisfaction with the practice center and whether it complied with the requirements to carry out this educational period, as well as with the attention received from the teachers at the practice center.

4 CONCLUSION

This work has demonstrated that, although this topic has been the subject of diverse studies from distinct perspectives, the issue of the practicum and its educational benefits requires further examination. The results presented are relevant as they reveal that the variable that modulates student perception the most is the practicum period, followed by gender, while the variable revealing the least significance is that of the degree. For the practicum period, a linear profile is observed, in which the differences are maintained. In the case of the gender variable, heterogeneity is observed, with no stability observed in the profiles. As for degree, the profile is stable, most likely due to the fact that there is a common organizational core, that is, there is a unique practicum coordination for the two degrees and the objectives pursued in both are similar. Therefore, the results are especially useful for the research context, as they identify profiles with positive utility values that are clearly stable between practicum periods. This may provide guidance in terms of decision-making to reinforce the lesser-valued indicators. This study allows us to consider issues that should continue to be consolidated, such as the educational potential of the intermediary practicum, the need to reinforce mechanisms of coordination and interaction between the university-school (Grudnoff et al., 2017; Zapatero et al., 2021), the central role of scholastic mentors to orient and supervise learning (Rodríguez et al., 2022), and finally, the importance of the educational centers within the context of the student teacher practicum, as authentic frameworks of learning (Pantoja et al., 2019). All of these issues, which are clearly decisive, require further study.

5 AUTHOR'S CONTRIBUTIONS

Conceptualization, M-L.B-C, I.R-G, B.P and E.L-G; methodology and data collection, M-L.B-C and I.R-G; formal analysis, B.P and M-L.B-C; writing—original draft preparation, E.L-G and I.R-G.; review and editing, B.P and E.L-G. All authors have read and agreed to the published version of the manuscript.

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