

Barriers and opportunities of the Teaching Degree Practicum during the pandemic

El prácticum de magisterio en tiempos de pandemia: identificando barreras y oportunidades

Практика подготовки учителей во время пандемии: выявление барьеров и возможностей

疫情期间的教学实践:对障碍和机遇的识别

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Abstract

Introduction: The consequences of the pandemic on initial teacher training are well known. These have been decisive in very diverse areas, among which the practical training that takes place in educational centers stands out. From this framework, this paper aims to identify the barriers and opportunities of the teaching practicum in the context of the pandemic.

Method: A qualitative study was carried out based on a questionnaire with open questions. A total of 140 students from the second, third and fourth year of the Degrees in Early Childhood Education and Primary Education from a university in the Community of Madrid participated in the study.

Results: Despite a general positive consideration of the practicum experience, in the context of the pandemic, and to identify learning opportunities that these circumstances have enhanced, the participants highlight barriers to their learning, which are a consequence of contingent limitations due to the prevention actions against Covid-19 that were adopted. The participants highlighted as positive the development of skills to adapt to change (flexibility, creativity, problem solving and teamwork). They pointed out as the main disadvantages the use of the mask (because of its impact on communication and language development) and the lack of spaces for interaction in the educational community.

Conclusions: The results are discussed with the literature converging on conclusions that allow a better understanding of the reality of schools during the pandemic, through the lens of student teachers in the context of teaching practicum.

Keywords: teaching practicum, initial teacher education, pandemic, qualitative study, barriers, opportunities.

Resumen

Introducción: Son bien conocidas las consecuencias de la pandemia en la formación inicial del profesorado, que han afectado a ámbitos muy diversos entre los que destaca la formación práctica que sucede en los centros educativos. Desde este marco, el objetivo de este estudio es identificar las barreras y las oportunidades del prácticum de magisterio en el contexto de la pandemia.

Método: Se llevó a cabo un estudio cualitativo con cuestionario con preguntas abiertas. Participaron en este estudio 140 estudiantes de segundo, tercero y cuarto curso de los Grados de Educación Infantil y Primaria de una universidad de la Comunidad de Madrid.

Resultados: A pesar de una valoración general positiva del prácticum, en el contexto de pandemia, y de identificar oportunidades de aprendizaje que estas circunstancias han potenciado, los participantes ponen de manifiesto barreras para su aprendizaje, que son el reflejo de limitaciones contingentes a causa de las medidas que se adoptaron. Los participantes destacaron como beneficios el desarrollo de habilidades de adaptación al cambio (flexibilidad, la creatividad, la resolución de problemas y el trabajo en equipo) y como principales inconvenientes el uso de la mascarilla (por su incidencia en la comunicación y el desarrollo del lenguaje) y la falta de espacios de interacción en la comunidad educativa.

Conclusiones: Los resultados se discuten con la literatura aportando conclusiones que permiten una mejor comprensión de la realidad de la vida de las escuelas durante la pandemia a través de la lente de los estudiantes de magisterio en el contexto de prácticas.

Palabras clave: prácticum, formación inicial del profesorado, pandemia, estudio cualitativo, barreras, oportunidades.

Аннотация

Введение: Последствия пандемии для начальной подготовки учителей хорошо известны и затронули широкий спектр областей, включая практическую подготовку, которая проводится в школах. В связи с этим целью данного исследования является выявление барьеров и возможностей для прохождения педагогической практики в условиях пандемии.

Метод: Было проведено качественное исследование с использованием анкеты с открытыми вопросами. В исследовании приняли участие 140 студентов второго, третьего и четвертого курсов бакалавриата по дошкольному и начальному образованию в одном из университетов Мадридского сообщества.

Результаты: несмотря на общую положительную оценку практики в условиях пандемии и выявление возможностей для обучения, которые расширили эти обстоятельства, участники выделяют препятствия на пути обучения, которые являются отражением условных ограничений, связанных с принятыми мерами. В качестве преимуществ участники выделили развитие навыков адаптации к изменениям (гибкость, креативность, решение проблем и работа в команде), а в качестве основных недостатков - использование маски (из-за ее влияния на коммуникацию и развитие языка) и отсутствие пространства для взаимодействия в образовательном сообществе.

Выводы: Полученные результаты сравниваются с материалами научной литературы и позволяют сделать выводы, позволяющие лучше понять реальность школьной жизни во время пандемии через призму деятельности студентов-учителей в контексте практики.

Ключевые слова: практика, начальное педагогическое образование, пандемия, качественное исследование, барьеры, возможности.

概要

简介:众所周知,疫情对教师初级培训在不同方面有着很大的影响,其中对在学校进行的 实践培训的影响尤为突出。在此背景下,本研究的目的是确定疫情背景下教学实践的障碍 和机遇。

研究方法:我们通过开放式问题问卷进行定性研究。一所马德里大区大学幼儿教育和小学 教育学位二年级、三年级和四年级的140名学生参与了这项研究。

结果:尽管在疫情的背景下对实习进行了普遍积极的评估,并确定了这些情况增加了学习 机会,但参与者仍显示了学习障碍,这反映了由于采取的措施而造成的偶然限制。参与者 强调了适应变化的技能发展(灵活性、创造力、解决问题和团队合作)的好处,以及使用口 罩的主要缺点(由于它对沟通和语言发展的影响)和缺乏用于教育界互动的空间。

结论:研究将结果与文献结合讨论,可以通过师范学生实习的角度更好了解疫情期间学校 生活的现实。

关键词:实习、初始教师培训、疫情、定性研究、障碍、机会。

Introduction

The teaching practicum has been the subject of numerous investigations over recent decades, especially from an international perspective and taking diverse approaches to the same (Lawson et al., 2015; Nesje & Lejonberg, 2022). Past studies have found that, generally speaking, the main objective of the practicum is to provide future teachers with an in-school training experience, under the supervision of an experienced mentor. To be effective, the practicum experience should be supported by a collaborative partnership between school and university, through the well-known teaching triad, which integrates the school mentor, the intern teacher and the university supervisor (Ben-Harush & Orland-Barak, 2019; Lozano-Cabezas et al., 2022; Pascual-Arias & Soria, 2020; Rodríguez et al., 2022). According to this perspective, the practicum has the potential to connect contexts. Therefore, it should be conceived based on its transformative capacity, offering direct benefits to the student teacher and the school mentor as well as the institution as a whole, through the exchange of innovative perspectives during participant interactions (El Kadri & Roth, 2015).

The practicum involves both observation and participation in an authentic teaching-learning environment where practical knowledge is acquired on teaching work, to be applied to what has been learned in the university and, ultimately, to become familiar with the teaching profession in a real-life context (Matengu et al., 2021). It is a training activity that permits the observation of what practicing teachers do while stimulating reflection from, during and on the teaching practice. In fact, in addition to observing good practices and getting started on relevant elements of teaching, it also encourages future teachers to engage in reflective action (Allen & Wright, 2014; Fuentes-Abeledo et al., 2020), helps them with the theory-practical connection and offers realism to avoid the frequent idealization of the profession (González-Fernández et al., 2021; Poveda et al., 2021). Therefore, the practicum is not only a means of acquiring technical knowledge, it also permits the acquisition of knowledge of what to do and how to do it from specific contextual coordinates, from a competency development approach (Domínguez et al., 2021; Rodríguez et al., 2022; Poveda et al., 2023). Ultimately, the practicum is conceived as a favorable framework to initially learn how to implement the functions of the teacher's professional profile within a real-life teaching context.

But this necessary real-life teaching context could not be offered to student teachers in 2020, due to the global closure of schools caused by the COVID-19 pandemic, making it impossible to perform internships in real classrooms and educational environments, with no possible alternatives given the difficulty of organizing an online solution (Kidd & Murray, 2020). And with differences in the various contexts and countries, this complex situation has continued. However, during 2021 and 2022, some of the past dynamics have been recovered, in what has been referred to as the *new normality*, characterized by the implementation of health and safety protocols in schools along with various restrictions (Carrillo & Flores, 2020; Giner-Gomis et al., 2023).

Therefore, this study aims to contribute to a line of relevant research considering the teaching practicum during the COVID-19 pandemic (Giner-Gomis et al., 2023; Hand-ford et al., 2022; Loizou & Theodosiou, 2022; Hogan et al., 2022). The specific objective of this study is to identify the barriers and opportunities of the teaching practicum during the pandemic within the context of Early Childhood and Primary Education teaching degrees carried out in universities of the Madrid (Spain) community. This study has two main purposes: to improve the understanding of the challenges faced

during a time of crisis and uncertainty while exploring the learning opportunities that this complex situation has provided to student teachers.

Methods

A non-experimental descriptive design has been chosen for this study, using a qualitative approach based on a questionnaire with open questions (Fowler, 2014). This section details the study participants, the information collection instrument, specific aspects of the procedure and the data analysis approach carried out.

Participants

The study has been developed within the context of initial teacher training, specifically in the Bachelor's degrees in Early Childhood Education and Primary School Education at a university in the Community of Madrid. The study population consists of 198 students, corresponding to the total number of students enrolled in the Practicum of the 2nd, 3rd and 4th-year courses of the aforementioned degrees, during the 2021/2022 academic year.

The main criterion for participation in the study was having completed the 2nd, 3rd or 4th year Practicum during the 2021/2022 academic year. Participant selection was carried out using non-probabilistic, intentional and convenience sampling. Access to informants was based on availability, with the research group ensuring heterogeneity in their characteristics (degree and course).

The final sample consisted of 140 students (70.7% of the total population), studying Primary Education (68.6%) and Early Childhood Education (31.4%), distributed by course year as follows: 25.7% (n=36) of the participants were in their second year, 30% (n= 42) were in their third year and 44.3% (n=62) were in their fourth year.

Data collection instrument

An ad hoc questionnaire was designed, validated and applied (Fink, 2003; Jansen, 2010). The questionnaire's design was supervised by four researchers, who suggested changes to the preliminary version in terms of format and wording. To ensure understanding of the questions, it was applied to three potential informants, who evaluated it satisfactorily. The final version of the questionnaire includes classification data and three open questions, organized in two blocks (Table 1).

Table 1

Questions of the open questionnaire which address the study objectives

Groups	Questions
I: Classification variables	Degree Course
II: General assessment of the experience	1. Describe your experience in the school during the practicum

Groups	Questions
III: Assessment related to the pandemic situation	 Identify which positive aspects (learning opportunities) you would highlight from your practicum, considering the pandemic context.
	3. Identify which negative aspects (barriers to learning) you would highlight from your practicum, considering the pandemic context.

Procedure

This study received a favorable report from the university's Ethics Commission. At the end of the Practicum period, the students were informed about the objective of the study. Their participation was voluntary, and all of their responses were anonymous and confidential.

The instrument was administered online during May 2022, once the practicum periods had ended, in two rounds. In the first round, 98 questionnaires were collected and after sending a second reminder, 42 were collected, thus resulting in a total of 140 questionnaires in the study database.

Data analysis

The database for this study consisted of 12,728 words, 38.3% expressed by 4th year students and 69.5% by students in the Primary Education degree (Table 2). The process of organization, management, analysis and interpretation of data was carried out using Atlas ti 6.0 software.

Table 2

Group	Questions	Words	Course year			Score	
			2 nd	3 rd	4 th	PE	ECE
G - II	1	4027	1112	1289	1626	2725	1302
G - III	2	3936	1366	1034	1536	2788	1148
	3	4765	1619	1425	1721	3327	1438
	Total	12728	4097	3748	4883	8840	3888
	%	100%	32.2%	29.5%	38.3%	69.5%	30.5%
	<i>,</i> ,,	10070	52.270	25.570	33.370	05.570	55.570

Distribution of the number of words from the textual database

Note. Primary Education (PE) and Early Childhood Education (ECE).

A systematic study of the responses was carried out using content analysis (Piñuel, 2002). For the deductive-inductive categorization, proposals by Rodriguez et al. (2005) and de Tójar (2006) were considered, combining the use of expected response categories with open data coding. In accordance with Gibbs (2012), the reliability of the process was ensured through the participation of two pairs of researchers, who discussed and agreed on the analytical framework.

From this analytical process, 14 categories emerged, revealing how the student teachers perceived the barriers and opportunities of the practicum during the pandemic (Tables 4 and 5), as well as two additional categories referring to their general assessment of the experience (Table 3).

In order to present the results, the research team selected the most significant quotes from the different categories to illustrate the variety of perceptions of the participating students, without attempting to establish comparative analyses based on the degree or course year. The quotes were tagged with identifiers consisting of the participant's number (1-140), degree program (PE, Primary Education; ECE, Early Childhood Education) and course year (2: second, 3: third, 4: fourth).

Results

Overall assessment of the experience

Overall, the participants offered a positive assessment of the practicum experience in the pandemic context (95%, n=133). Reasons behind negative assessments made by the participants (5%, n=7) were based on specific experiences at the school or with tutors. The following narratives are examples of these negative assessments:

"My degree of satisfaction with this year's internship has been low. I feel that my choice of school has not been successful" (123_EI4)

"Unsatisfactory. Given the school's possibilities, it has settled for the mediocre and common. It does not seek to highlight or individualize learning. A shame " (54_EP3)

Expressions of positive assessments highlight the use of terms such as *enriching*, *satisfactory* and *positive*:

"It has been an enriching experience..." (5_EP3), "My experience has been very good and positive..." (6_EP3), "I am very satisfied..." (7_EI3), "It has been an enriching experience for my training as a future teacher..." (8_EI3), "A great experience..." (121_EI4), "It has been a unique experience..." (3_EP3), "It has been a marvelous experience..." (18_EI3)

This positive assessment is the consequence of acquired *learning* during the practicum (70.4%), the warm *welcome* provided by the schools (15.1%) and the utility of the experience to reaffirm the *teaching vocation* (9.5%).

Table 3

Emerging categories in the assessment of the experience

CATEGORY	Ν	%
Positive assessment	133	95%
Acquired learning	99	70.7%
Welcome	21	15%

CATEGORY	Ν	%
Teaching vocation	13	9.3%
Negative assessment	7	5%
Total	140	100%

Of the acquired learning, those related to the teaching profession and the theory-practice nexus are especially noteworthy, especially for the 3rd and 4th-year students:

"I had the opportunity to see distinct scenarios (TP classrooms) participate and get to know a lot of children" (3_EP3)

"This time has offered me the opportunity to get to know the teaching profession more closely" (48_EP2)

"I have had the opportunity to get to know another educational system since it was in another country, in which I have learned distinct methodologies, resources and activities which, in the future, I can use in my own classroom" (69_EP3)

"It is where one truly learns what is important and necessary to be a good teacher" (65_EI3)

"I have learned different methodologies for working with students and I have really enjoyed it" (119_EP4)

" A great experience where you can discover and learn new methods, ideas and many resources" (121_EI4)

"It has helped me to learn the latest in how to be a better professional" (132_EP4)

"It has been a unique experience since I have been able to put into practice all of the learning and theoretical knowledge that I learned at university" (138_EP4)

"The application of knowledge in a practical manner has allowed me to discover all that I have learned, and it has encouraged me to broaden my education" (5_EP3)

"Experience allowing me to apply the theoretical knowledge" (10_EP3)

"I have learned a lot and have been able to put into practice the concepts from the TP course. Furthermore, my tutor has helped me to learn to carry out very didactic activities for the teaching of the theoretical contents" (133_EP3)

On the other hand, this professional learning had been completed by narratives referring to a *more personal dimension* of the learning acquired during the practicum, described as follows:

"It has been a unique experience, where I have had the opportunity to see distinct scenarios (TP, classrooms) to participate in activities and get to know a lot of children. I have felt like one of the teachers and have learned not only on an academic level but also on a personal one" (3_EP3)

"My experience in school has been unforgettable; on a personal level, it has been a very satisfactory period of learning" (80_EI4)

"It has been a very enriching experience since I have learned a lot and have discovered a new teaching-learning project" (83_EI4)

"Very good, it has been a very enriching experience on both a personal and a professional level" (137_EP4)

The participants also indicated as the reason for their positive assessment the warm "welcome" (17.1%) received in the educational centers where they carried out the internships:

"I have been able to feel like one of the teachers and the treatment has been quite good" (8_EI3)

"The teachers helped me from the get-go, and they included me, relying on me more and more" (9_EI2)

"The teachers have supported us in both the academic and the personal" (18_EI3)

"Welcomed from the first moment" (30_EP3)

"They treated me like any other teacher working at the school" (47_EP2)

"From the first moment I felt very welcomed by the teachers" (77_EI4)

Other responses justify the positive assessment based on the experience's usefulness in terms of reaffirming their "teaching vocation" (10.5%), especially for second-year students. The following quotes are representative:

"I was slightly insecure without knowing if this really was for me, thanks to the experience I have discovered that yes, it is" (1_EP2)

"It has reaffirmed my vocation as a teacher" (20_EI3)

"It has made it even clearer that this is the work that I want to do for the rest of my life" (23_EI2)

"To verify my vocation as a teacher" (62_EP2)

"It has been a very good experience from the first contact with what will be my profession, and I feel that my vocation has been reinforced after having carried out this month of practicum" (27_EP2)

"I have verified that it is my vocation to be a teacher ..." (38_EP2)

Learning opportunities from the practicum during the pandemic

Participants highlight learning opportunities and positive aspects of the practicum experience with regard to how the pandemic has been reflected in the school context and in their practical training (Table 4).

Thus, the participants highlight the important role of the practicum in developing specific "skills" (n=79) in the entire educational community (teachers, students, families and themselves), such as greater adaptation to change (n =46) and more flexibility (n=25). Other acquired skills also emerge and are referred to as relevant to creativity, problem-solving and teamwork: "Learn to adapt to changes" (67_EI4), "Adaptation, both by staff and students, in a situation of confinement" (70_EI4), "The ability of the teachers to adapt to different situations" (85_EP2), "I have learned to work in unexpected situations, especially to handle uncertainty and improvisation and to adapt to the circumstances" (93_EP4)

"Flexibility" (13_EP3), "The ability to improvise and flexibility" (26_EP3), "The teachers' flexibility to help sick students" (53_EP3), "To understand students, to know digital resources and to be flexible" (117_EP4)

"To be creative when seeking alternatives to the normal or usual" (66_EP3), "To learn to resolve conflicts between children" (8_EI3), "Teamwork amongst the teachers" (3_EP3)

Table 4

Emerging categories of positive aspects (learning opportunities)

CATEGORIES	N*	%**
Development of specific skills (ability to adapt to change, flexibility, problem-solving and teamwork)		56%
Improved teaching personalization	46	32.60%
Technological and communication resources	41	29.10%
Health and hygiene habits	33	23.40%
Methodological adaptation: programming, resources, spaces	30	21.30%
Organization of space and time	24	17%

Note. *The sum of the number of codes is different from the number of participants, since the same narrative may be segmented into several codes. **The percentages are established against the reference of participants, namely, n=140.

Second, 46 participants reflected, in their responses, how the pandemic has led to their *improved teaching personalization*. In this sense, it is noted that they refer to a greater knowledge of each family, of each student, of the sickness and health situations, as well as of the better attention to students having special educational needs. They have mentioned the following:

"Better attention to individual abilities" (11_EP3)

"When a student gets sick or ill, it is much easier and faster to tell them what was done in class and what they should do for the next day, thanks to the use of platforms such as classroom, which have taken off since the pandemic" (15_EP3)

" Individualized support of each student and family" (16_EI2)

"Personalized education" (25_EP3)

"You learn to listen to each child in a more personalized manner" (37_EP2)

"Teachers are working hard for all students, including those who are at home" (43_EP2)

"The treatment of students with special needs" (58_EP3)

"In the case in which a student cannot attend school, they will not miss class thanks to the online methodology" (61_EP2)

One of the positive aspects of the practicum that was highlighted by the participants, which has turned out to be a decisive learning opportunity during this pandemic time, is the active presence of *technological* and *communication resources*. It was mentioned by 41 students, who highlighted that the health emergency resulted in the rapid technological immersion of schools, whereby it has been necessary to ensure the training and learning of these tools and digital skills, both by teachers and students. They affirm that this has been a great help in terms of communication with them, offering better follow-up of those unable to attend class and improved updating of the teaching resources:

"We have learned to communicate with the children without needing for them to be in class" (2_EP2)"

"I have learned to maintain the children's attention over the screen" (5_EP3)

"The possibility that students will not miss class due to confinement" (6_EP3)

"Thanks to the pandemic, adaptation of technology to the classroom has been faster and teachers now perform much better with it" (15_EP3)

"ICTs are essential" (21_EP3)

"The quantity of digital resources that exist so that a child is not disconnected in the case in which they are infected" (24_EP3)

"The implementation of technology in the classroom as part of the learning" (33_EI3)

"Taking advantage of technology" (81_EP2)

"The use of technological resources" (82_EI4)

"Great technological advances" (85_EP2)

The participants also mention that the issues of *hygiene* and *health* have become inherent learning experiences during this pandemic (n=33). They feel that these issues have been covered with rigor and responsibility both at school and in the family environment, and also autonomously by the students.

"More importance is given to hygiene and this is important for children" (9_EI2)

"Better personal hygiene" (21_EP3)

"By following strict rules of cleanliness and hygiene, they strengthen the virtue of order and routines" (23_EI2)

"A positive aspect is that with COVID, students are more responsible about wearing masks, and they also understand the importance of hygiene, washing their hands with gel" (29_EP2)

"We have improved our hygiene" (36_EP2)

"Children have acquired quite good hygiene habits" (60_EI3)

"I would also highlight that due to the pandemic, there is improved hygiene in the school" (71_EI2)

"I would highlight the responsibility that should develop in the students given the health warnings" (110_EP4)

Another positive aspect highlighted by the participants is related to the change at the methodological level that this pandemic period has brought about. In general, they value very positively the great capacity for adaptation of the school and the teachers towards a teaching-learning methodology (n=30) that is more adjusted to the pandemic situation. In this sense, perceptions were found about the relevance of learning related to changes in programming, resources, and spaces, among others.

"The ability to adapt programming to confined children, the teacher's organization" (48_EP2)

"Learning about the material resources used: well-adapted to the circumstances" (66_ EP3)

"Creating new resources to adapt to this situation" (69_EP3)

"Creativity to adapt the content to each personal situation" (70_EI4)

"Learning to adapt classes both for students in the classroom as well as those confined at home" (90_EP3)

"The use of new methodologies, the adaptation carried out by teachers and the increased creativity in terms of seeking out appropriate activities" (113_EP4)

Finally, other positive aspects refer to the change caused by the "organization of time and space" at a school level. In this sense, questions emerge regarding better spatial organization, especially in terms of classrooms and the teacher-student ratio; also, the organization of student rest times and order in terms of materials and the classroom:

"At my school, after the pandemic, the school areas have been divided according to the cycles or courses, so as there were 3 stairways and 3 patios; they have been organized so that that they do not interrupt each other's movement and so that it is easier to move students around the school" (15_EP3)

"Teachers give students more time for recreation throughout the day so that they can take a break from the mask-wearing" (22_EP3)

"Student schedules are very well organized so that they do not mix with others and in order to avoid more spread" (40_EP2)

"Since the students had to enter the school building sequentially, I tried to greet each one and they reciprocated" (42_EP2)

"Order in the classroom, of its materials..." (51_EI2)

"Lower ratios" (92_EI4)

"The reduced number of students per class" (98_EI4)

In short, the pandemic experienced by students during their practical training (for some their first training experience) allowed them to value how problems may actually serve to create opportunities for growth, training and professional and personal improvement. Obviously, however, the pandemic also resulted in certain barriers to learning, as discussed below.

Barriers to learning (or negative aspects) resulting from the pandemic with regard to the teaching practicum

93% of the participants described certain negative aspects with regard to their learning during the pandemic period, although they did not tend to focus only on themselves, but rather, most of them referred to the learning situation experienced by the students in Early Childhood and Primary education, the learning stages in which they carried out their practical training. It should be highlighted that 7% of the participants declared no negative aspects with regard to their learning experiences during this period.

From their responses, a set of categories emerge (Table 5), which are the most pronounced in the pandemic situation. Thus, one of the main difficulties highlighted by the participants as a negative aspect affecting learning is "the use of masks and its impact on language and communication" (53.4%). The following statements were made in this regard:

"They were punished for not wearing masks and this created anxiety" (2_EP2)

"The presence of masks for teaching" (3_EP3)

"The use of masks hindered communication between students and teachers and many aspects of non-verbal language were lost" (15_EP3)

"Having to wear masks since this prevented us from seeing the students' faces" (42_EP2)

"Difficulties caused by the masks. I haven't found more difficulties related to the pandemic" (49_EP3)

"Masks covering facial expressions"(136_EI4)

"It was hard to transmit messages and explanations to the children due to the masks"(138_EP4)

"Not knowing the faces of others"(140_EP4)

Table 5

Emerging categories of barriers to learning (negative aspects)

CATEGORY	Ν	%
Mask and language	70	53.4%
Interaction spaces	54	41.22%
Loss of learning	54	41.22%
Methodological changes	39	29.8%
Confinement and absence	20	15.3%
Relationships and feelings	17	13%
Fatigue, concern and insecurity	15	11.5%
Organizational aspects	12	9.2%

Secondly, students gave special relevance to the negative aspects related to "the loss of interaction spaces" (41.22%) and "the loss of learning" (41.22%).

In the first case, they consider that the measures that have had to be taken, such as social distancing, separation by grades in the playgrounds, or bubble groups, among others, have resulted in the worsening of social interaction. They describe it as follows:

"The children have to be separated by grades. It is a shame because at school they are all friends" (34_EP3)

"Schoolyards seem to be very small for children to get a break" (37_EP2)

"The limited activity during recreation time due to COVID-19 and nothing else" (39_EP2)

"Smaller classes" (41_EP3)

"As a negative aspect, I highlight the separation between 5^{th} and 6^{th} graders in primary school from the younger classes since they are situated in another school and have to share buildings and installations with students from the mandatory secondary education, despite the large age difference" (44_EP2)

"As a precautionary measure, safe distance was maintained, hindering interpersonal relationships" (57_EP2)

"Since there were bubble groups, children could only relate with those from their class, and not with their other peers in their same age range" (60_EI3)

"Oftentimes, personal treatment with students and teachers could not be carried out normally" (66_EP3)

Regarding "learning loss", we saw that the responses mainly refer to learning in general, reading and writing, communication and language skills, psychomotor skills, difficulties in following subjects, confined students and especially, children with learning difficulties. The following quotes are examples of this:

"Due to the COVID protocol, it has been necessary to suspend numerous activities and programs that were proposed during the school year, one of which is the programming of psychomotor classes. This reduces the number of workshops and activities performed outside of the classroom" (17_EI2)

"Having to connect with confined students and its influence on learning, since it distracts the others who are present" (42_EP2)

"Children do not work the same at home as they do in school, so if they miss a lot of days when starting school, it can be very difficult for them to assimilate some of the knowledge" (46_EP2)

"The difficulty of caring for children who are at home, how to compensate for the resulting delay when they are confined for long periods of time. It also requires a constant organization of classes" (48_EP2)

"Limited participation of students in the TP classroom" (58_EP3)

"Poor learning for students" (59_EP2)"

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"In the case of reading and writing, it is a major impediment that will surely have consequences" (65_EI3) To a lesser extent, another negative issue is related to "the methodological changes" resulting from this situation, including the following: the excessive use of screens; being unable to participate in cooperative or group activities; other types of activities that cannot be carried out due to social distancing; the difficulty of managing two groups simultaneously (in person and online); and the limited manipulative material.

"It is difficult for teachers to be simultaneously attentive to the in-person class and the at-home students" (84_EP3)

"Surely there are activities that could have been carried out without the pandemic and have not been able to be implemented" (87_EP2)

"Limited materials" (99_EP4)

"The Chromebook" (106_EP4)

"Being able to work in a more manipulative manner as a team, sharing materials without problems" (120_EP4)

"More attention difficulties are related to the excessive use of screens during the pandemic in the families" (122_EI4)

Other perceived problems caused by the pandemic refer to:

• The "organizational aspects" of the schools:

"Cafeteria schedules are not well organized due to this situation" (9_EI2)"

"A lack of teachers causing changes in schedules" (33_EI3)

"Poor class organization" (59_EP2)

"The lack of control with its effects on both teachers and students, in all aspects" (64_ EP3)

• Student "confinements and absences":

"The confinement of certain children" (2_EP2)

"Due to whole class confinement, it has been impossible for them to do certain activities in person" (5_EP3)

• "Relationships and feelings":

"The inability to hug and kiss them" (23_EI2)

"Lack of physical contact and affection" (55_EP2)

"Sometimes the physical affection that children give you (kisses, hugs) are negatively perceived" (76_EI4)

"social and emotional distancing between children" (121_EI4) • The "fatigue, concern and insecurity":

"Fatigue on some occasions, insecurity when correcting a child" (4_EI3)

"Precaution and constant ""alert"" due to fear of contracting COVID" (31_EP2)

"Also the teachers' exhaustion and the fact that sometimes, students were not fully aware of the situation" (102_EP4)

Discussion and conclusions

The pandemic's consequences on initial teacher training are well known, having affected this training in diverse areas, with special emphasis being seen on the practical training carried out in schools. This study contributes to this line of research (Giner-Gomis et al., 2023; Handford et al., 2022; Loizou & Theodosiou, 2022; Hogan et al., 2022; Poveda et al., 2023). It has the objective of identifying barriers and opportunities of the teaching practicum within the pandemic context. To do so, key informants were students from the 2nd, 3rd and 4th years of Early Childhood Education and Primary Education degree programs, who filled out an open-ended question survey after completing their practicum in the school.

First, it was confirmed that the participants positively valued the practicum experience. They focused mainly on the considerable learning acquired during the internship, in line with past works (Poveda et al., 2021; Magaña & Méndez, 2021), which have highlighted the benefits of the practicum for the practical application of the content of university education degree programs. Another source of satisfaction was the warm *welcome received* by both the school administration as well as teachers and students. This satisfaction factor coincides with the findings of the study by Ponz et al. (2019), which reported that one of the aspects that was the most valued by students during their practical studies was the attention received from the tutors, which should promote a "harmonious and argumentative" interaction (Ben-Harush & Orland-Barak, 2019) and with the findings of Rodríguez-Gómez et al. (2017), who noted that the key is the quality of the "education centers". And finally, it has been found to serve as a fundamental training period to *reaffirm the teaching vocation*, an aspect coinciding with past studies (Pérez & Quijano, 2018; Romero-Sánchez et al., 2020).

When specifically questioned about the pandemic and how it has positively impacted their learning during this period, in more than half of the cases, students report that the pandemic has led to the development of a series of skills. These skills are not limited to the student teachers; they have also been perceived by teachers and students. They include the ability to adapt to change, resulting in enhanced flexibility, creativity, problem-solving and teamwork. These results are coherent with those from past studies such as that of Giner-Gomis et al. (2023), within the context of the Universidad de Alicante. It is revealed how a difficult situation may lead to the generation of coping strategies, an issue that coincides with the findings of Zayas et al. (2022), who noted that the attitudes of acceptance and an active coping position are highly effective in stressful contexts such as confinement and the pandemic.

It is also evident that the health crisis has resulted in a teaching perspective that has been more focused on the learners. Thus, it has shown that education has focused more on learning than on methodological updating or changes, moving towards a person-centered education that highlights the importance of the encounter in education (Handford et al., 2022; Pérez Guerrero & Ahedo, 2020; Vélez, 2003). This has been confirmed by the extensive references to how this situation has permitted an improved personalization of the teaching. An interesting reflection of the students refers to the need that they perceived prior to the pandemic to improve the training and implementation of technological and communication resources. This issue has been addressed in studies prior to the health crisis, as evidenced by the works of Moreno et

al. (2018) or the review of García-Ruiz et al. (2023), which suggested the need to consider this training in education degree curricula given the existing lack of knowledge of the current teaching professionals in this area. The participants note that during the health crisis, in which confinement and online teaching have been imposed, there has been an increased development of online communication tools (Kim, 2020), as well as a greater need for teacher training to effectively apply them within the educational context.

Without a doubt, the participants have highlighted other relevant beneficial issues, such as increased attention to hygiene and health habits. Indeed, the situation has fostered greater awareness of the importance of personal hygiene as one of the main measures to prevent the spread of the illness, which must be specifically carried out in both the school environment and at home (Núñez-Sánchez, 2022). They also mentioned the need to find means of *adapting teaching methodologies*: programming, resources and materials. Without a doubt, this has been an important impetus for the emergence of methodological transformation actions that are key to promoting change and innovation in the school environment (Rocha, 2020; Sanz-Ponce et al., 2022; Giner-Gomis et al., 2023). It is important to mention that, since 2020, when the pandemic health crisis began, educational organizations have been forced to reconsider their operation and utilize new mechanisms to adjust the training scenario to the specific situation (León & Sánchez, 2022). So, it is not surprising that participants highlighted the agility with which spaces and times have been reorganized to allow people to return to school safely.

Despite this overall positive participant assessment of the practicum experience within the context of the pandemic and the identification of learning opportunities enhanced by these circumstances, barriers to their learning were also mentioned, serving as clear contingent limitations resulting from the pandemic and the adopted measures. Thus, students described what was potentially the greatest inconvenience: the mask and its impact on communication and language development. Children have undoubtedly been immersed in an era where communication limitations have been imposed, profoundly affecting communication. The use of masks has been the main cause of this, hiding a large part of the face and thus limiting fundamental aspects of non-verbal language (Poyatos, 2021; Giner-Gomis et al., 2023). In addition, it has also posed a difficulty for student language development, especially during the initial stages of oral language development (Bueno, 2021).

The lack of interaction spaces, as well as confinement, absence from class and methodological changes, are important barriers to children's development and to the quality of the practical learning carried out by student teachers. Studies such as those by Sanchez-Bozo et al. (2021) and Loizou and Theodosiou (2022) have suggested that during this time, the work of teachers was focused on basic interactions, limiting the use of strategies and the development of relationship skills, so fundamental to education.

Finally, as barriers, participants highlighted *difficulties in showing expressions of affection and closeness*, as well as other emotional aspects linked to *fatigue, worry and insecurity*. Without a doubt, the uncertainty experienced was a trigger for anxiety in students, at various educational stages, and a predictor of teacher burnout (Linne, 2021). Although in general, the participants valued the great capacity of the schools where they performed their internships to reorganize and adapt to the new situation, some of them also noted certain difficulties or imbalances arising, since some organizational aspects, spaces, times, materials, connectivity and equipment were not always optimal. It should be mentioned that this study has allowed for an improved understanding of the challenges faced during a time of crisis and uncertainty, while simultaneously identifying opportunities for learning perceived by the student teachers. Clearly, this study has certain limitations, given its qualitative and descriptive design. However, it benefits from a large number of participants. Due to the specific study context, it may be reasonable to consider a high transferability of the findings, which may be similar to those found in other school practicum contexts and initial teacher training groups. In any case, further research is necessary to confirm the relevance of consolidating practices and strategies improvised by schools as a result of the pandemic and which have proven to be valuable to the student teacher practicum.

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