



# TEACHING HISTORY IN THE ERA OF GLOBALIZATION: EPISTEMOLOGICAL AND METHODOLOGICAL CHALLENGES

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# TEACHING HISTORY IN THE ERA OF GLOBALIZATION: EPISTEMOLOGICAL AND METHODOLOGICAL CHALLENGES

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# Editorial: Teaching history in the era of globalization: Epistemological and methodological challenges

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## KEYWORDS

history education, preservice history teachers, digital resources, active-learning methods, historical consciousness

## Editorial on the Research Topic

Teaching history in the era of globalization: Epistemological and methodological challenges

The COVID-19 pandemic has highlighted the need of several changes within the field of History Education. Firstly, the need of a methodological change that integrates active learning methods, digital resources, and emerging technologies in order to attend the non-presential lessons for the students. Secondly, the need of a multicultural approach on teaching history, social, and gender equality moving away from supremacists' dogma. It is necessary for teachers to change their conception of why and for what reasons they teach history. This need has become more acute with the COVID-19 pandemic: fighting vs. hate speeches through argumentation and critical analysis of sources to avoid fake news and to develop a learning perception evidences. This Research Topic is focused both on Primary and Secondary Education, but also on Higher Education, considering History teachers training courses. Particularly, this book focuses to know the development of the skills of active and future History teachers who are trained at programs at universities to bring a profound methodological and content change in the way History is taught.

Abril-López et al. presents the research results in relation to an interdisciplinary teaching innovation project with Early Childhood Preservice Teachers (ECPT). The main goal was to improve the learning to learn competence, during a virtual tour at the Community of Madrid Regional Archaeological Museum (MAR, Spain). The results show an improvement in this competence in Early Childhood Preservice Teachers. They highlight the importance of carrying out virtual museum tours from a challenge-based learning for the development of big ideas, essential questions, challenges, and activities on socioeconomic, environmental and emotional knowledge. This experience shows the insufficient educational adaptation of the virtual museum tour to the Early Childhood Education stage from a technological and didactic point of view.

In his article, [Alven](#) points out that in Sweden, immigrant students with a non-European background perform worse in school than students from the majority group. By analyzing the items in the national test in history relative to how the immigrant students perform, this study investigates whether there are certain types of items that, on the one hand, discriminate against them and, on the other hand, work to their advantage. This is important knowledge if we want to be able to make fair and just assessments.

[Chaparro-Sainz et al.](#) analyze in this article the opinions of teachers in initial training about the use of heritage in the classrooms and to inquire about their relationship with their own teaching approaches. The most significant results show a broad interest in heritage although there is a preference for heritage resources more linked to their undergraduate studies (History, History of Art, Archeology) compared with heritage resources of a technological nature. Regarding teaching approaches, it has been observed that those who present a student-based approach (CCSF) value heritage more highly.

[Castro-Fernández et al.](#) present the results of an intervention proposal about cultural heritage and carried out during initial teacher training. The social theme taken as a reference was the pilgrim route of the Way of St. James. These results show that the future teachers learned to value the emotional dimensions of heritage; highlighted active methodological strategies in order to discover and understand the social reality; emphasized the value of a reflexive and critical model of teaching to develop a committed attitude toward the environment and identified the fact that controversial issues are a useful tool to civic education and the development of critical thinking.

[José Farrujia-de la Rosa et al.](#) present a research that had two main aims: to familiarize students with heritage itineraries as key tools for the teaching of Social Sciences and to develop professional competencies related to the coordination of teachers among educational levels, teaching, and learning strategies when using historical heritage and improving digital competencies. The main results of the research highlight three aspects: the need to apply pedagogical, technological, and educational resources to promote active and meaningful learning in future teachers; the need to use virtual environments as learning and communication spaces in inter-university contexts and the importance of using local environments as scenarios for teaching Social Sciences.

[Díez-Bedmar](#) inquires, in her article, how introducing the gender category, feminism theories, and intersectionality into social sciences education could be key for the construction of a more critical and egalitarian future. The main goal is to analyze the historical thinking development in pre-service Spanish teacher students and their capacity for constructing critical discourses with a gender perspective. The results show that pre-service teachers are not able to identify their own gender roles and prejudiced attitudes when they attempt to explain a social problem and they propose solutions.

[Guerrero-Romera et al.](#) analyze the validity of a questionnaire designed to identify the perceptions of in-service teachers about the teaching approaches they believe to be most appropriate for teaching history in primary and secondary education in Spain. The results show that the teachers surveyed identify three teaching approaches: a traditional approach based on the memorization of content; an intermediate model in which there is interaction between teachers and students and a third focused on students and the development of historical and critical thinking.

[Ciriza-Mendivil et al.](#) point out that the teacher training in digital competence has been pushed into the background, especially in social sciences education, in which the use of ICTs is an opportunity for improvement and educational innovation. The primary aim of this study was for preservice teachers to develop digital competence in teaching social sciences by integrating the technological, pedagogical and content knowledge types using the TPACK model. The results of this research show that implementing specific didactic proposals based on the TPACK model to develop DCE in preservice teachers opens a field of analysis that is innovative and beneficial.

[Paricio et al.](#) investigate the difficulties of pre-service history teachers face in understanding and implementing a history curriculum focused on historical reasoning. Consequently, the main contribution is observation of a twofold threshold that pre-service teachers must cross to understand and accept an interpretive history curriculum: they must overcome the identification between past and history and instead immerse themselves in the necessarily interpretive nature of any history; and they must stop viewing learning as knowledge internalization and reproduction and, instead, embrace a conception of learning as inquiry and reasoning.

[Muñoz et al.](#) purposes a study to identify the level of knowledge that teachers in training have on globalization and the world health situation in recent years and to understand the perceptions that teachers in training have on the foundations and purposes of history teaching in this context. The results show that teachers in training recognize the importance of teaching history for people to know their culture and their past. This enables them to conduct historical analyses that highlight the existence of skills associated with the development of historical thinking.

[López-Martínez and Jiménez-Martínez](#) point out in their article that the teaching of History in primary school must integrate education for active global citizenship in the face of inequalities and social injustices caused by the constant violation of human rights today. The results show what the students know and feel about human rights, social problems and injustices, and the role of children throughout history. The research has allowed, in the first place, to know the ethical keys to design professional teacher training experiences according to the current times and, secondly, to guide us in the configuration of

training spaces to cover the weaknesses caused by the democratic deficit.

Trigueros-Cano et al. present a study that aims to identify the most suitable activities and exercises for the development of historical knowledge and skills and their later evaluation. The results show that exercises involving the interpretation of texts and images which require students to think about and apply the historical knowledge acquired are particularly useful, as are questions which seek historical explanation and causal reasoning. However, objective tests or brief questions about historical events are not considered to be very suitable for the adequate development of historical knowledge and, therefore, of historical competences.

González-Valencia et al. describe a study, conducted in Catalonia (Spain), that examines the dimensions of global citizenship education (GCE) that appear when secondary school students analyse images taken from the digital platforms of the mainstream media. The results show that students in the final year of compulsory secondary education (aged 15–16) have great difficulty with analyzing the information and images contained in media from a global citizenship perspective. The students do not have the tools necessary for critical interpretation of social facts and problems and they are not able to formulate arguments or make decisions relating to actions within the parameters of social justice.

Finally, Guerrero-Romera and Perez-Ortiz present a study that aims to contrast a theoretical model with a questionnaire designed to identify the training needs of secondary and baccalaureate teachers about the teaching of the historical thinking skills. The results will make it possible to detect and identify needs and deficiencies in ongoing teacher training. Furthermore, it will become possible to discover new elements to improve training processes from the point of view of in-service teachers.

## Author contributions

AC-S was the primary author of the manuscript. CG-C conceived and designed the project of which this study was part. PR wrote the first draft of the manuscript and contributed to revisions. All authors contributed to the article and approved the submitted version.

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# How to Use Challenge-Based Learning for the Acquisition of Learning to Learn Competence in Early Childhood Preservice Teachers: A Virtual Archaeological Museum Tour in Spain

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This article presents the research results in relation to an interdisciplinary teaching innovation project—Teaching and Learning of Social Sciences and Teaching and Learning of Natural Sciences—with Early Childhood Preservice Teachers (ECPT) at the University of Alcalá (Spain) in the pandemic context by COVID-19 during 2020–2021 (N = 55): 52 women (94.55%) and 3 men (5.45%) from 20 to 22 years of age. The main research problem is to know if the ECPT improves the learning to learn competence after a challenge-based learning (CBL) linked to virtual tour in a museum. The main objective was to improve the learning to learn competence, during a virtual tour at the Community of Madrid Regional Archaeological Museum (MAR) (Alcalá de Henares, Spain) for a reflective training of students to understand problems of the past and present and future global challenges, promote collaborative and multidisciplinary work, and defend ethics and leadership. In order to ascertain the level of acquisition of this competence in those teachers who were being trained, their self-perception—pretest–posttest—of the experience was assessed through a system of categories adapted from the European Commission. ECPT worked, in small groups and using e/m-learning tools, ten challenges and one storytelling cooperatively with university teachers to solve prehistoric questions related to current situations and problems. Subsequently, two Early Childhood Education teachers from a school in Alcalá de Henares reviewed the proposals and adapted them for application in the classroom of 5-year-old boys and girls. The results show an improvement in this competence in Early Childhood Preservice Teachers: total score pre-post comparison paired-samples Wilcoxon test result shows a statistically significant difference ( $p > 0.001$ ); an evaluation rubric verified the results of self-perception. Second, we highlight the importance of carrying out virtual museum tours from a challenge-based learning for the development of big ideas, essential questions, challenges, and activities on socioeconomic, environmental, and emotional knowledge, skills, and attitudes. Third, this

experience shows the insufficient educational adaptation of the virtual museum tour to the Early Childhood Education stage from a technological and didactic workshops point of view, but there is a diversity of paleontological and archaeological materials and a significant sociocritical discourse.

**Keywords:** challenge-based learning, learning to learn competence, Early Childhood Preservice Teachers, museum education, virtual tour, e/m-learning, prehistory

## INTRODUCTION

Teaching can be considered as a meaningful process where knowledge is constructed, negotiated, and learned collaboratively (Adell, 2004). In relation to this, an article based on challenge-based learning is proposed under the recent global health crisis caused by COVID-19. This type of learning (hereinafter CBL) is an experience where participants develop solutions that require an interdisciplinary and creative approach for the development of competences (Olivares et al., 2018).

The CBL actively engages the student in a global and real problem situation related to the environment which implies not only the definition of a challenge but also the implementation of a solution (Johnson et al., 2009). The CBL, therefore, is constituted as a different learning opportunity through the experience and collaboration of the students to respond to a challenge of motivational involvement.

One of the most widely demanded competences today is the ability of learning to learn (Romero Ariza, 2010). International reports call for competency-based teaching, such as the Programme for International Student Assessment (PISA) report (Organisation For Economic Co-Operation and Development (OECD), 2020). We think that it is a key competence for building societal knowledge (Publications Office of the European Union, 2006) and indispensable for university students (Pérez-Pérez et al., 2020).

This interdisciplinary project has been carried out with the students of two subjects of the Bachelor's Degree in Early Childhood Education (third year; first semester) of the University of Alcalá (Spain) during the academic year 2020–2021: Teaching and Learning of Social Sciences and Teaching and Learning of Natural Sciences. Contents of the two subjects connected to a virtual tour at the Community of Madrid Regional Archaeological Museum (MAR) (Alcalá de Henares, Spain) have been considered. Finally, the challenges for 5-year-old students of the Santa María de la Providencia School (Alcalá de Henares) are elaborated.

The contribution of this study to the field of teacher training is double. First, the Early Childhood Preservice Teachers (hereinafter ECPT) conduct an innovative and educational virtual museum tour using e/m-learning tools from a CBL approach. Second, the ECPT's self-perception of their learning to learn competence was assessed at two moments of the teaching and learning process (pretest and posttest). To achieve this, our ECPT collected data and analyzed the results to solve research questions related to the teaching opportunities offered by the museum as an educational resource for children.

In short, the CBL, the work in the visit museum tour, and the acquisition of the learning to learn competence were valued, adapting to the two educational levels, ECPT and children of Early Childhood Education, although in this work we focus on university students. Regarding this, the contribution of schoolteachers and their experience is highlighted since they participated as advisers to the ECPT.

## LITERATURE REVIEW

### Challenge-Based Learning and Competences: Learning to Learn

According to Tecnológico Tecnológico de Monterrey (2016), challenge-based learning has its roots in experiential learning, which states that students learn better when they actively participate in open learning experiences, facilitates self-discovery, and offers opportunities to apply what they have learned in real and problem situations and test solutions and interact with other students in different contexts. Therefore, challenge-based learning is an integrative holistic approach to learning, which combines experience, cognition, and behavior (Akella, 2010) for the acquisition of long-term educational competences.

The concept of competence is a recent insertion in the educational curriculum. Its conceptual complexity and the different conceptualizations in the legislation of each country and European and international reports make this an imprecise and undefined concept (Loynes et al., 1997; Lee et al., 2020). The Organization for Economic Co-operation and Development provides the following definition (Organisation For Economic Co-Operation and Development (OECD), 2007, p. 8): “Key competences involve a mobilization of cognitive and practical skills, creative abilities and other psychosocial resources such as attitudes, motivation and values.” In Spain, according to current educational legislation, the competences are relevant in terms of personal fulfillment, active citizenship, adult life, and work (Ministry of the Presidency, 2006, 2015; 2020).

Learning to learn competence is understood as the basis of learning (Jornet Meliá et al., 2012). Hautamäki et al. (2002, p. 39) define the learning to learn competence as “the ability and willingness to adapt to new tasks, by activating the commitment to think and a perspective of hope through the maintenance of cognitive and affective self-regulation in the learning activity.” According to *Recommendation 2006/962/EC* (Publications Office of the European Union, 2006, p. 16), “Learning to learn is the ability to pursue and persist in learning, to organize one's own learning, including through



effective management of time and information, both individually and in groups.” This competence addresses three educational dimensions (Drăghicescu et al., 2015): affective, cognitive, and metacognition.

As teacher trainers, a deep analysis of what we understand as learning is required to teach how to learn. This means, from a practical level, the exhaustive and detailed design of activities aimed to achieve this competence from any area of knowledge (Vázquez, 2009). Therefore, it is necessary to attend to different educational aspects involved in the teaching–learning processes, such as previous ideas, protagonism and autonomy, planning and realism, knowledge, skills and strategies, reflection and supervision, and evaluation.

Many authors defend the value of experiential learning for promoting the ability of learning to learn (Department for Education and Skills, 2006). In this sense, outdoor education in Social and Natural Sciences encourages this type of experiential learning (Dillon et al., 2006), including its relevance in the field of teacher training. The acquisition of skills has been achieved, for example, through qualitative analyses linked to the interpretation of landscapes (Morales et al., 2014), archaeological sites (Morón Monge et al., 2018), or visits to museums (Achurra and Morentin, 2017), with students of the Master’s Degree, Primary Education Bachelor’s Degree, and Early Childhood Education Bachelor’s Degree, respectively.

In the Early Childhood Education stage, experiential learning takes on special importance, since the child explores and builds their world based on the direct interaction between their senses and the environment (Wilson, 1994; Cañal, 2006). The teaching situation under which this research is carried out is a museum education aimed at developing the learning to learn competence.

## Museum Education

The CBL associated with the resources offered by museums is positive for bringing together aspects of school, society, and science. Therefore, the relations between museums, heritage, and education must maintain an interdisciplinary, holistic, constructivist, and sociocritical vision (Cuenca et al., 2013; Martín Cáceres et al., 2014) for the promotion of competences. Museums are important educational environments and offer a considerable learning potential: multifaceted experiential learning and as living environments during lifelong learning (Akamca et al., 2017).

Field trips in the teaching of social and natural sciences have been developed for a long time (Anderson et al., 2008). Their educational importance appears in the educational curricula of Spain, from the stage of Early Childhood Education to university education (Delgado and Alario, 1994; Romero Ariza, 2010; Cantó et al., 2013). Despite these circumstances, field trips in Spanish schools are usually carried out as nonscheduled activities, decontextualized from the educational program and from a traditional perspective of science (Costillo et al., 2014; Mateo, 2019).

The museums of the 21st century face the great challenge of attending to competency teaching by adapting their way of communicating to new technologies (Morales Agudo, 2015).

The educational proposals of schools have been complemented with outdoor activities such as visits to museums or settlements/sites and colonies and Prehistory workshops (Boj, 2001). The learning scenarios can be numerous if the teacher knows how to use them. Each space (museums, parks, aquariums, botanical gardens, etc.) offers a multitude of educational opportunities where outdoor experiences can be developed (Morón-Monge et al., 2020).

Some educational experiences during the early childhood stage are developed in museums to work on specific knowledge, although without statistical analysis, such as that described by De los Reyes, (2009), through a proposal called the “children’s classroom museum,” aimed at children from 5 to 8 years of age, focused on children learning about the past from their relationships with the present. The daily objects used were turned into historical objects. Therefore, an inductive research method was employed for observation, description, documentation, classification, and interpretation, and it facilitated the valuation of cultural heritage (family and social).

Bardavio et al. (2013) undertook workshops and activities on the understanding and preservation of archaeological heritage. The results contributed to the modification of previous ideas (stereotypes), historical knowledge, active participation, and the rights and duties of citizens, through a didactic strategy of guided discovery.

Escribano-Miralles and Molina (2015) conducted a tour of the Ramón Gaya Museum (Murcia, Spain) from an inquiring perspective, with 5-year-old children. The qualitative and quantitative results confirmed the high degree of satisfaction and motivation of the students and their greater relationship with the artistic heritage. This was possible thanks to the development of four phases (questions, new information, structuring, and learning).

Domínguez Castro and Pineda Alfonso, (2019) developed an experience based on art and creativity, in fine arts centers of Seville (Spain), through activities and drawings for 5-year-olds, to overcome the traditional educational cards. The results of various activities contributed to an improvement in the originality and creativity of the students, through the use of a category system and a progression hypothesis.

At the international level, and from a nonformal education perspective, museums are increasing their services for very young children, offering a greater number of educational proposals adapted to infants (Bowers, 2012; Munley, 2012). However, there are still few outdoor experiences dedicated to Early Childhood Education (Monti et al., 2019) and fewer educational proposals developed for formal education in museums.

There are not many trips to museums with Social Sciences content in the training of Early Childhood Education teachers. Muñoz García and Jiménez Pablo, (2020) developed an experience in two museums in the Community of Madrid: National Museum of Anthropology (MNA) and Museum of America (MAM). Through a qualitative methodology, the development of social and civic competences and cultural expressions was promoted, revaluing the cultural heritage through dioramas and reproductions of houses typical of American indigenous cultures. The results made it possible to

detect, in undergraduate students, high levels of significance on training around cultural diversity.

We selected the Community of Madrid Regional Archaeological Museum, very close to the Santa María de la Providencia Early Childhood School. This educative institution is interdisciplinary, exhibits contents that cover areas of social and natural sciences, and shows the society and environment of the past. This museum can also work on other educational areas from a global approach, as recommended for the Early Childhood Education stage.

Due to COVID-19, we opted for the virtual tour. Although virtual exhibition spaces lack the contextual space of the physical visit (Orellana and Andreu, 2014), they present the following advantages: planning from home; facilities against geographical, physical, and economic impediments; and the display of numerous materials from other museums or located in warehouses (Arambarri and Baeza, 2012).

## Education in COVID-19 times: e/m-Learning

In today's world, e/m-learning has a very important role, especially among the younger population born in the digital era of new information technologies. E-learning or electronic learning involves a multimedia system (text, audio, video, and imagery) for carrying out virtual training over the Internet (Bates, 2005), characterized by its simplicity of use and lack of distance between the transmitter and receiver, as well as the fact that it is economical for students, interactive, and accessible.

M-learning or mobile learning is a branch of m-learning with the following purpose: "Promote information collection and exchange, improve communication and collaborative interaction, encourage active learning, and enhance the learner's feedback process, and acquire content quickly" (Lan et al., 2012, p. 1124).

For our experience, CBL and an e/m-learning approach were integrated. This proposal is interesting for developing skills such as learning to learn, and it can act as a benchmark in times of pandemic. This approach is characterized by focusing on the student, who establishes their own work plan and formulates real, close, and observable problems that connect with their interest and that can be raised with the help of the teacher (Fernández-Ferrer and González-García, 2017). Likewise, virtual teaching entails a lower probability of contagion.

## MATERIALS AND METHODS

### Participants

This educational experience was carried out with a nonrandom group of 55 Early Childhood Preservice Teachers (third academic year, University of Alcalá, Spain), as part of the subjects Teaching and Learning of Social Sciences and Teaching and Learning of Natural Sciences, during 2020–2021 academic course. There were 52 women (94.55%) and 3 men (5.45%). The age of the participating sample is between 20 and 22 years. They were proposed to take part in the study voluntarily, and all participants responded. All ECPT were native Spanish speakers and born and raised in Spain, although two of them

had an Ecuadorian background. The study was conducted according to the guidelines of the Declaration of Helsinki: informed consent, right to information, protection of personal data, guarantees of confidentiality, nondiscrimination, free of charge, and the possibility of abandoning the study on any phase.

## Methodology

This research focuses on a quasiexperimental design according to a quantitative methodology. In general terms, quasiexperimental design aims to test a causal hypothesis by manipulating (at least) one independent variable where for logistical or ethical reasons it cannot be randomly assigned to the groups (Fernández et al., 2014). This research involves an analysis of the results of the implementation of an innovative didactic proposal regarding competence acquisition. From this perspective, we use an instrument shaped by different complex levels (Bisquerra, 2009; Krippendorff, 2013). The main evaluation instrument for this research is the ECPT's self-perception of their level of competence acquisition, and it was designed in Google Forms according to the Likert-type scale (scale 1–4). **Figure 1** synthetically presents the study.

Taking into account that a challenge is an activity, task or situation that involves the student a stimulus and a challenge to carry out, in this study the research question is *How do the ECPT improve the learning to learn competence after to the CBL and their experience in the virtual museum tour?* To approach this question, we designed a category system-like data collection and analysis instrument based on the European Commission (2012) about the learning to learn competence.

With this instrument, the ECPT's self-perception was assessed at two moments of the teaching and learning process (pretest and posttest). This experience is based on a CBL and e/m-learning approach. These educational proposals were evaluated with an evaluation rubric that complemented the results of self-perception. Although this study focuses on the self-perception of competence, assessing the process followed by the experience gives a holistic vision of the teaching–learning process developed.

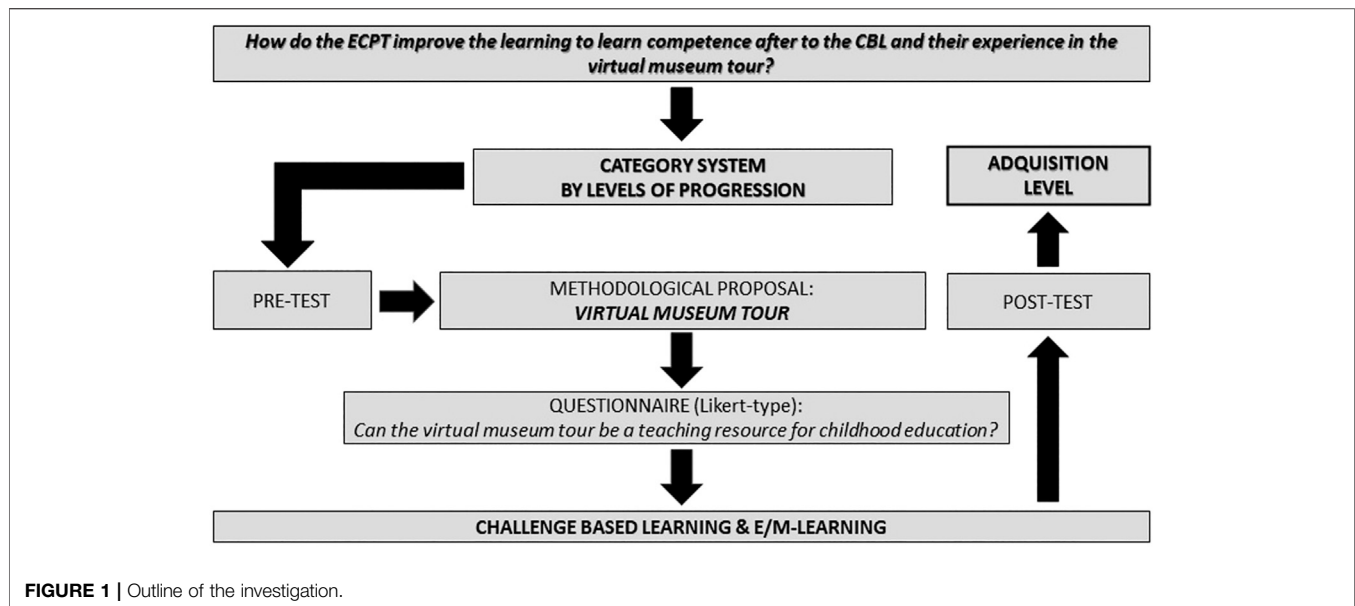
## Category System

We present a category system with four levels of progression for the evaluation of the acquisition of learning to learn competence (European Commission (2012, p. 15): "1. *Why I learn* (attitude towards learning and willingness to learn). 2. *What I learn* (setting objectives and planning activities), 3. *How I learn* (organized and targeted learning activities) and finally 4. *I reflect on my process* (reflection on learning activities and outcomes and self-assessment).” The Likert-type scale answers were as follows: (1) *first steps*, (2) *going in the right direction*, (3) *close to the target*, and (4) *competence acquired*.

Levels of learning progression are levels of complexity of knowledge from reductive to holistic thought (Morin, 1990; Alonzo and Steedle, 2009; Jin and Anderson, 2012). The category system justifies and structures the whole research (Cuenca et al., 2017; Abril-López et al., 2020).

The students accessed “Blackboard Learn” to fill in the questionnaire by levels of progression, which were disordered to avoid distortions. This system was implemented in the





**FIGURE 2 |** QR code of the category system by progression levels (pretest–posttest). Own elaboration based on the European Commission (2012).

Lithuanian educational system, which “demonstrates how the ‘learning to learn’ competence can be described as levels that help learners and their teachers to assess progress” (European Commission, 2012, p. 16).

This questionnaire was designed in Google Forms, which the students accessed from a QR code (Figure 2). The use of these open-access digital tools, through mobile devices, provides students with a positive, innovative, and current image of education (García-Tormo, 2018) and allows information to be

collected in an efficient and effective manner (Pérez-Sanagustín et al., 2016).

The questionnaires were completed at two moments—before (pretest) and after the experience (posttest)—like other similar studies (Dugard and Todman, 1995; Solís-Espallargas and Morón-Monge, 2020).

## PROCEDURE

The university degree students were proposed to take part in this study in the beginning of October 2020. Due to mobility restrictions due to COVID-19 affected Spanish schools, the students were not able to go to school to work with the infants or visit the Community of Madrid Regional Archaeological Museum with the children. Taking these circumstances into account, different challenges and materials were proposed on the three Prehistory rooms and their environmental context, thanks to e/m-learning, to bring MAR to the school environment.

### Phase 1: Before the Virtual Tour

The teacher worked in the classroom, through Blackboard Learn, with the ECPT before the virtual tour. First, a debate was held to obtain prior knowledge on three main pillars, including competences, museums, and e/m-learning, through different questions: What are competences? What is the learning to learn competence? Why is it important? Are museums suitable spaces for acquiring skills and why? How can we work, in these institutions, on challenges for Early Childhood Education and applied e/m-learning? The responses manifested, mainly, substantive deficiencies: confusion in the meaning of the competences, stereotypes about museums, and few links between museums and e/m-learning.



**FIGURE 3 |** Community of Madrid Regional Archaeological Museum. **(A)** Facade of the museum. **(B)** Archaeological/paleontological excavation. **(C)** Prehistory (room "Before the time of Man"). **(D)** Paleoenvironment (palynology). **(E)** Paleoenvironment (fauna). **(F)** Hunting (arrowheads). **(G)** Domestication (cheese and container). **(H)** Harvesting and agriculture. **(I)** Lithic artifacts for everyday life. **(J)** Interior of a house. **(K)** Individual burial (social complexity).

Afterward, the general characteristics of the teaching experience were explained, including the e/m-learning tools (Blackboard Learn and websites) and information related to the Community of Madrid Regional Archaeological Museum (Márquez and Baquedano, 2004; Mendoza and Liso, 2011; Community of Madrid Regional Archaeological Museum, 2021a).

Finally, the students organized themselves into working groups of five members. Each group ( $N = 11$ ) selected one of the ten interdisciplinary challenges (Social and Natural Sciences), plus one storytelling, to investigate in the virtual tour of the museum based on data collection and collaborative and autonomous work.

## Phase 2: Virtual Tour

The Community of Madrid Regional Archaeological Museum was opened in May 1999. Access to the museum is free. Within the building, there is a comfortable and clear, perfectly demarcated tour around the permanent exposition regarding different settlers' past lives and cultures since the Paleolithic (Márquez and Baquedano, 2004).

The virtual tour can be viewed through PCs, tablets, and smartphones. It includes photos, videos, descriptions of materials (stone, ceramic objects, bronze, iron, etc.), and 360° panoramic views of the nine rooms of the permanent exposition. The objects reveal center Iberian Peninsula inhabitants' way of living: houses, clothing, work, leisure, food, etc. (Community of Madrid Regional Archaeological Museum, 2021b).

We consider the Community of Madrid Regional Archaeological Museum to be very important for the Early Childhood Education stage (3–6 years). It contains very diverse and appropriate materials to explain socioeconomic relations, the environmental context, and differences and similarities with the present time. The museum also incorporates a virtual tour.

During the virtual tour, the ECPT freely observed the exhibition, collecting data on the museum that they believed were relevant to answering the research question posed (Figure 3). To complement this observation, the ECPT was offered a questionnaire designed by the teachers and accessed by a QR code (Figure 4). The Likert-type questionnaire, with values ranging from 1 to 5 (from least agreement to most agreement), allowed various questions about the museum, in terms of both form and content (virtual tour, adaptations, Information and Communication Technology (ICT)/Learning and Knowledge Technologies (LKT), didactic workshops, sociocritical discourse, complete and diverse contents, interdisciplinary contents, attitudinal contents, didactic documentation, and the relationship between activities and the museum), to be assessed.

## Phase 3: After the Virtual Tour

After, in the classroom, the ECPT shared their experience with the whole class. The data collected were shared, in addition to the evaluations made from the questionnaire about the virtual tour (Likert-type). In relation to the challenges/storytelling (10 + 1)



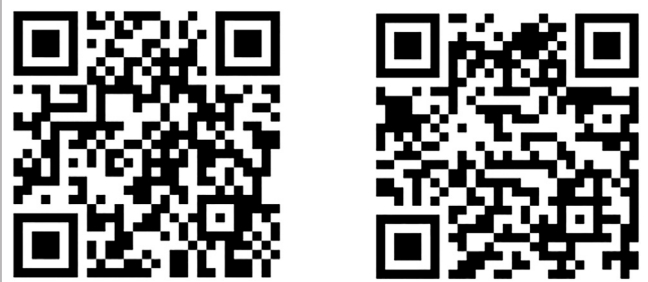
**FIGURE 4 |** QR code for accessing the questionnaire about the virtual tour.

discussed, different issues, potentialities, and weaknesses of each topic were assessed as an educational resource for Early Childhood Education.

First, a team from ECPT created storytelling so that children could easily internalize the content. In other words, each challenge began with an oral, emotional, motivating story, and a quick and effective connection (Robin, 2006; Sánchez-Vera et al., 2019). In addition, the storytelling is associated with a didactic guide that helped the Early Childhood Education teachers to carry out the manipulative activities associated with the ten challenges.

After the exposition of the storytelling, the ten challenges were exhibited by each team with e-learning, and there were interactions with the rest of the students (feedback). The essential questions associated with the challenges were the following: (1) What does an archaeologist/paleontologist study do? (2) What tools does he use? (3) What is Prehistory/Paleontology? (4) What fauna and flora coexisted with humans in Prehistory? (5) Was the fauna hunted or domesticated? (6) Was the flora collected or cultivated? (7) How did they hunt, gather, or fish? (8) Where did prehistoric people live? (9) What was the clothing of these settlers? (10) Were there inequalities in society? The challenges/storytelling incorporated big ideas related to current affairs (climate change, sustainability, conflicts, and economy), and they allowed the realization of activities with different objectives, competences, contents, methodology, assessment, etc.

The established teams made videos of the challenges/storytelling adapted to 5-year-old students. QR codes linked to YouTube were created. Later, the Early Childhood Education teachers shared it with their students (Figure 5).



**FIGURE 5 |** QR code to view videos related to the MAR (virtual tour): challenge 1 (left) and challenge 6 (right).

Teaching challenges/storytelling was evaluated with a rubric organized into four complexity levels and seven variables based on the main educational elements for the teaching-learning process (Table 1). This modified rubric was validated during the experience of the Guadalajara Museum (Spain) (Abril-López et al., 2021). As we have justified, our main data analysis involved the ECPT's self-perception, but we also considered analyses on the teaching activities designed by the ECPT, to obtain a more holistic view of the teaching and learning process.

## RESULTS

The results shown here correspond to the pre- and posttest questionnaires. The four levels of complexity, based on the European Commission (2012), appear in the QR code (see Figure 2): (I) first steps; (II) going in the right direction; (III) close to the target; and (IV) full competence acquired. The results do not show percentage differences based on the different challenges/storytelling.

As we can see in Figure 6 (pretest), the ECPT considers that they exhibit level III and level IV for the four assessed dimensions: 1, 39 = 70.91% (level IV); 2, 33 = 60.00% (level III); 3, 32 = 58.18% (level III); and 4, 36 = 65.45% (level IV). Dimension 2 (What I learn) was the lower level IV chosen by the ECPT: 14 = 25.45%.

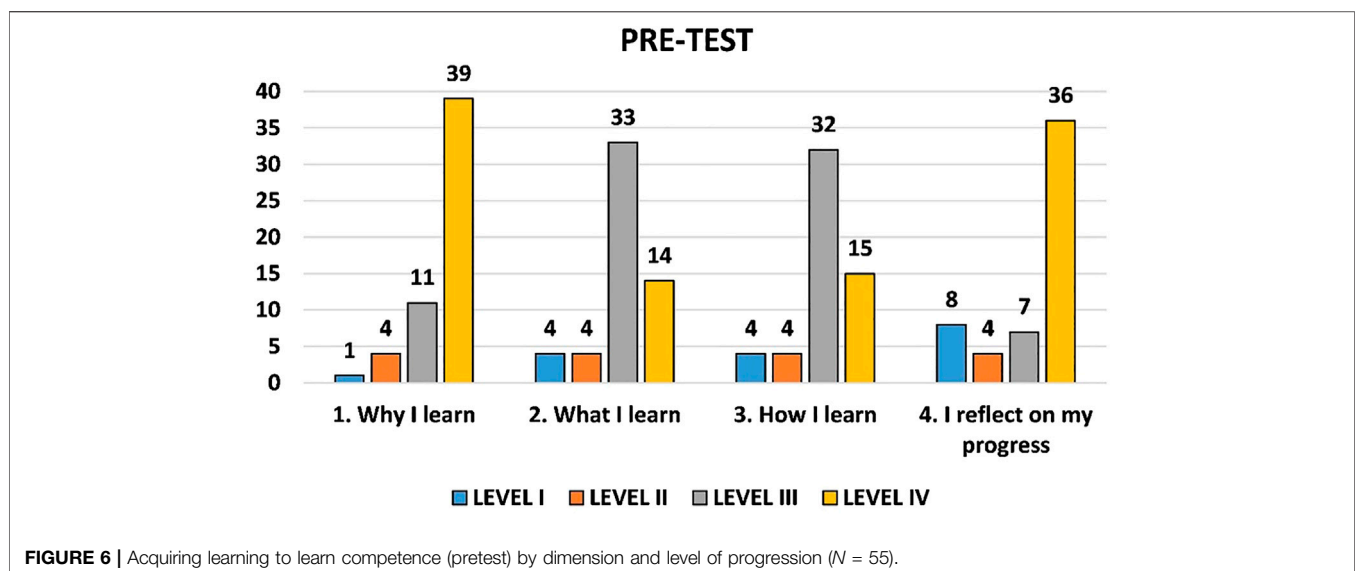
In relation to the lower levels of I and II, their sum is below 25% of the total for the four levels. The maximum value of level I corresponds to the fourth dimension (8 = 14.55%), while in level II, it corresponds to the four dimensions (I reflect on my progress), with a value of 4 = 7.27%.

The results of the posttest are presented in Figure 7. The highest results of the four dimensions can be observed for level IV or the reference level. Level I is nonexistent in the first dimension; the other three variables do not reach 11% of the total responses. Level II also shows a large decrease (below 8%), being between 0.00% ( $N = 0$ ) and 7.27% ( $N = 4$ ) for the first/second and third variables, respectively.

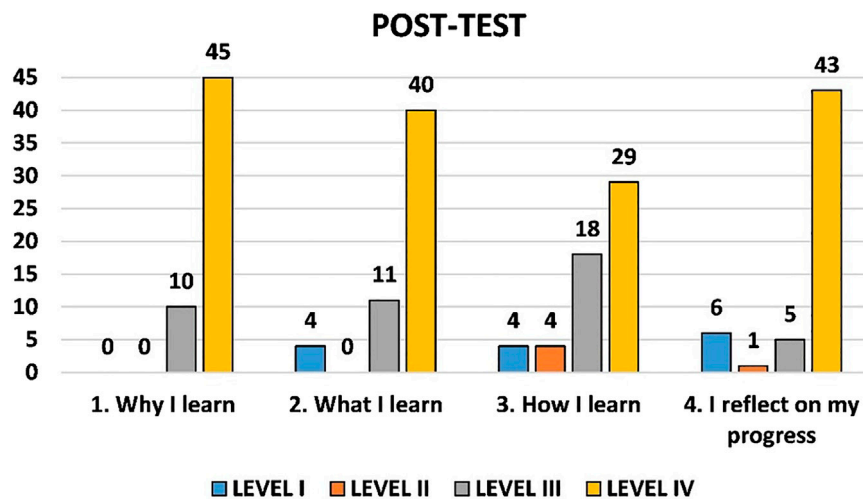
Level III (close to the target) was the second most chosen by the students for the four variables: 1, 10 = 18.18%; 2, 11 = 20.00%; 3, 18 = 32.73%; and 4, 5 = 9.09%. It surpassed the data of the previous levels (I and II). Finally, level IV obtained the best scores, since the evolution with respect to the pretest is noticeable for the

**TABLE 1 |** Rubric for evaluating ECPT's challenge-based learning.

Variables	Level	Descriptors
Title, sections, and internal structure	I	The title does not correspond to the content of the challenge/storytelling, the internal structure is incoherent, and the information is not balanced.
	II	There is some coherence, but there is a lack of balance in the development of the sections. There is irrelevant information.
	III	There are coherence problems (inappropriate title, some underdeveloped section), but a logical structure is maintained.
	IV	The title is didactic and meaningful, it includes the required sections, and they are developed in a coherent and balanced way.
Justification, objectives and competences	I	The challenge/storytelling has no justification. There are neither objectives nor they are they formulated based on the visit museum. There are no competences.
	II	Justification is inadequate. Many goals are inconsistent. Competences are not related to objectives.
	III	There is justification. Most of the objectives are properly planned. Competences are related to objectives.
	IV	Strong justification. Challenge/storytelling with related objectives and competences, and adapted for Early Childhood Education students.
Contents	I	Mainly conceptual content. There is no adaptation for Early Childhood Education students.
	II	Procedural and attitudinal contents are included.
	III	Consistent information: from simplicity to complexity.
	IV	Contents with problems, both past (Prehistory) and current (real world). Idea of global importance.
Methodology	I	Methodology is not consistent with the challenge/storytelling and does not allow the transmission and assimilation of content observed in the virtual tour.
	II	Methodology shows important weaknesses for the transmission of content.
	III	Methodology is coherent, although it contains some weaknesses for the assimilation of the contents.
	IV	Methodology has been correctly selected for the transmission and assimilation of the contents to the students of Infant Education.
Conclusions	I	There are no conclusions, or they are not consistent. There are no proposals for improvement based on the knowledge acquired and the conclusions reached.
	II	Conclusions are not adequate for lack of reflection and synthesis. There are inconsistent improvement proposals.
	III	Conclusions are generally consistent in accordance with the objectives. There are some suggestions for improvement.
	IV	Conclusions are accurate and consistent with the objectives, providing data with a critical sense. There are excellent proposals for improvement: solution—action.
References	I	Virtually all sources are unreliable or out of date. Most of them are incorrectly referenced.
	II	More than 30% of references come from unspecialized or outdated sources. There is confusion about the authorship of some citations.
	III	Some references come from unspecialized sources. Most of the references are well used and correctly attributed.
	IV	Sources come from specialized publications and are diverse and up-to-date. All references are well used and attributed.
Spelling and syntax	I	There are serious problems with spelling, syntax, and grammar.
	II	There are more than 30% of problems with spelling, syntactic, or grammatical rules.
	III	There are few spelling, syntactic, or grammatical errors.
	IV	The text does not contain any spelling, syntactic, or grammatical problems.







**FIGURE 7 |** Acquiring learning to learn competence (posttest) by dimension and level of progression ( $N = 55$ ).

**TABLE 2 |** Skewness, kurtosis, and  $p$  values for normality Shapiro test.

Score	Skewness	Kurtosis	Shapiro test's $p$ values
Item 1-Pre	-1.77	5.53	$p < 0.001$
Item 2-Pre	-0.96	4.08	$p = 0.003$
Item 3-Pre	-0.96	4.00	$p = 0.002$
Item 4-Pre	-1.24	2.92	$p < 0.001$
Total score-pre	-1.35	4.45	$p < 0.001$
Item 1-Post	-1.77	5.24	$p < 0.001$
Item 2-Post	-2.21	7.09	$p < 0.001$
Item 3-Post	-1.26	3.80	$p < 0.001$
Item 4-Post	-1.99	5.36	$p < 0.001$
Total score-post	-1.30	3.98	$p < 0.001$

four variables: 1, 45 = 81.82%; 2, 40 = 72.73%; 3, 29 = 52.73%; and 4, 43 = 78.18%. The most prominent dimensions are 1 (“Why I learn”) and 4 (“I reflect on my progress”).

If we compare the pre- and posttest results, for levels I and II of the four dimensions, percentage variation is observed, especially for dimensions 1 and 2 of level II: 7.27% versus 0.00%. At level IV, an increase can be observed for all dimensions: 1, 70.91% versus 81.82% = +10.91%; 2, 25.45% versus 72.73% = +47.45%; 3, 27.27% versus 52.73% = +25.46%; and 4, 65.45% versus 78.18% = +12.73%. In short, these self-perception data show the progress of the acquisition of competence after the experience carried out.

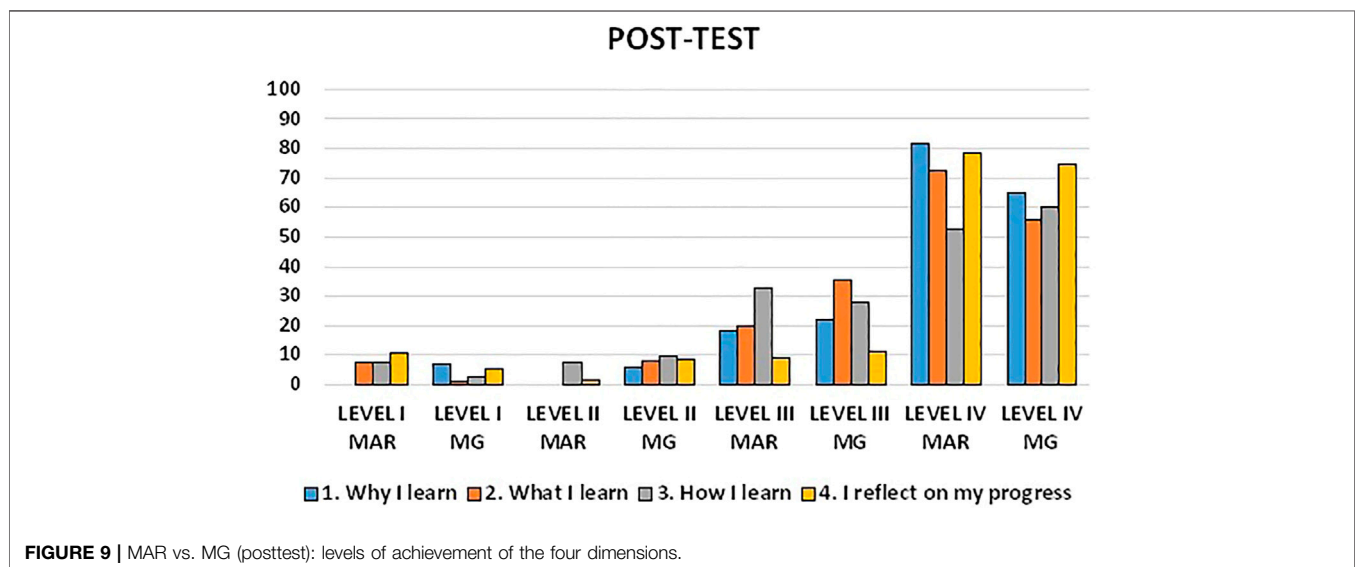
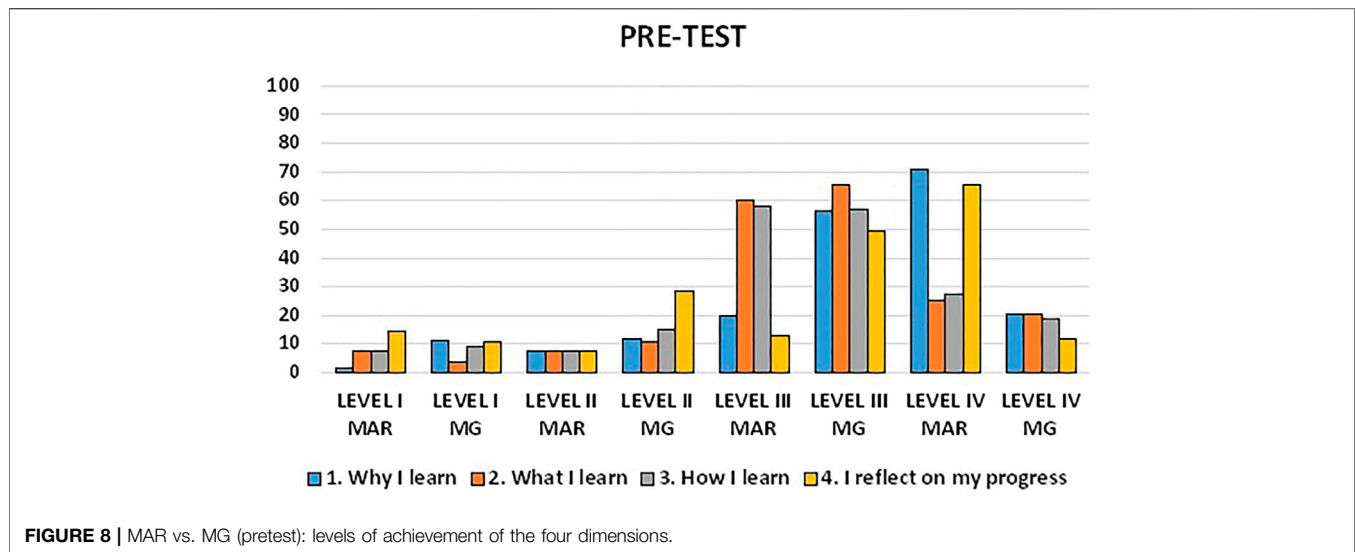
With the contrast of all previous data, a total score for each of the two questionnaire administrations was calculated. As a result, we accounted for 10 quantitative scores for each of the 55 participants, namely, four scores and one total score from each of the two pre-post questionnaires administrations. Although the sample size criteria for big sample is met (sample size >50) and consequently we could have well used a paired Student test for pre-post comparison for the intrasubject 5 scores available, we firstly checked kurtosis and skewness, and

Shapiro tests for each of the scores were performed. As **Table 2** shows, none of the scores have a normality distribution, namely, skewness = 0 and kurtosis = 3. Additionally, Shapiro tests for normality are statistically significant for all scores calculated. These data show considerable deviance from normal distribution; therefore, we decided to use the nonparametric paired-samples Wilcoxon test to compare each of the four pre-post and the pre-post total scores.

In relation to Item 1, pre-post comparison paired-samples Wilcoxon test result shows a statistically significant difference ( $p = 0.008$ ). Item 2 pre-post comparison paired-samples Wilcoxon test result shows a statistically significant difference ( $p > 0.001$ ). Item 3 pre-post comparison paired-samples Wilcoxon test result shows a statistically significant difference ( $p = 0.003$ ). Item 4 pre-post comparison paired-samples Wilcoxon test result shows a statistically significant difference ( $p = 0.006$ ). Finally, total score pre-post comparison paired-samples Wilcoxon test result shows a statistically significant difference ( $p > 0.001$ ).

## DISCUSSION

In Spain, there are not many educational experiences in childhood teacher training like the one described herein. Studies on competence acquisition and outdoor experiences (Achurra and Morentin, 2017; Morales et al., 2014; Morón Monge et al., 2018; Muñoz García and Jiménez Calvo, 2020), and others (Codes, 2017; Sanz and Zuzuarregui, 2017; Morón-Monge et al., 2020), show a qualitative methodology based on three major phases: initial (students' previous ideas), development (direct and systematized observation), and evaluation (research and didactic proposals). The use of instruments for the collection of information and data analysis provides results that are mainly the product of description, interpretation, and reflection.



In our case, together with the category system (see **Figure 2**), questionnaire about the virtual tour (see **Figure 4**), and evaluation rubric (see **Table 1**), we developed a quantitative methodology (quasiexperimental design) pretest–posttest with statistical analysis. On the other hand, we work on an innovative triple didactic link: the acquisition of the learning to learn competence thanks to the development of 10 + 1 challenges/storytelling (CBL) related to the virtual museum tour (e/m-learning).

In this sense, we can obtain some reflections after the comparative analysis between two very similar studies on competence acquisition, related to the Community of Madrid Regional Archaeological Museum (MAR) and the Museum of Guadalajara (MG) (Abril-López et al., 2021). The system of categories by level of progression on the competence learning to learn showed visible differences

between the pretest phase and the posttest phase for the four dimensions.

**Figure 8** shows the results of the pretest. Levels I and II are not very relevant in both cases. In the MAR experience, we highlight higher values in dimension 1 (“Why I learn”) in levels III and IV. It seems that, from an educational perspective, students attribute the greatest importance to reflection and search for solutions to different problems, past and current, for the benefit of the social majorities, as we evaluate in their challenges. Johnson et al. (2009) expressed these conclusions after a study on the CBL in six schools in the United States. The experience in the MG yielded more traditional previous knowledge, since dimension 2 (“What I learn”) predominates in levels III and IV; Maynard and Waters (2007) also observed this vision of teaching in practicing Early Childhood Education teachers in South Wales, giving greater importance to content-based learning.

**TABLE 3 |** MAR (Community of Madrid Regional Archaeological Museum) vs. MG (Museum of Guadalajara), acquiring learning to learn competence (pretest–posttest)—descriptive statistics.

Learning to learn	$\mu$		$\sigma$		Coefficient of variation (%)	
	Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
1. Why I learn	3.6/2.9	3.8/3.5	0.3/0.9	0.2/0.9	9/30	5/26
2. What I learn	3.0/3.0	3.6/3.5	0.4/0.7	0.4/0.7	12/22	11/20
3. How I learn	3.1/2.9	3.3/3.5	0.4/0.8	0.4/0.8	12/29	12/22
4. I reflect on my progress	3.3/2.6	3.5/3.6	0.5/0.8	0.4/0.9	16/31	13/24

After the educational experience (**Figure 9**), levels I and II are not significant in the two cases. In the MAR experience, dimension 3 (“How I learn”), related to the use of different learning methods and various information sources, most of them are at level III; and dimension 1 was again the most numerous in level IV. In the experience at MG, dimension 2 prevailed again at level III; dimension 4 (“I reflect on my progress”), in level IV, increased from 18.99% (pretest) to 74.81% (posttest). The ECPT, in the posttest of the two experiences, attaches greater importance to changes attitudes and behaviors, reflecting on their own learning process in an autonomous way: it is related to metacognition and is considered a transversal competence of the curriculum (Hoskins and Fredriksson, 2008).

Statistically (**Table 3**), in relation to the four dimensions that were analyzed, after the two experiences, the ECPT practically reached level IV in the posttest. However, there are some differences, partly linked to the sample number: MAR ( $N = 55$ ) versus MG ( $N = 258$ ). First, the mean or average ( $\mu$ ) pretest–posttest progresses at a lower rate than the MG experience; that is, there is greater self-perception in the initial acquisition of the learning to learn competence. Second, the standard deviation ( $\sigma$ ) and coefficient of variation (CV) of the MAR experience show less dispersion of the data or greater homogeneity.

This translates—along with the results of the rubrics for the evaluation of the students—into an improvement in self-confidence, autonomous and cooperative work, enthusiasm, responsibility, planning, new challenges, completion of tasks on time, successful goals, and, finally, an evident increase in the acquisition of the learning to learn competence. In this experience, the rubric results were high: 65% for levels III–IV, 25% for levels II–III, and just 10% for level II.

This study is based on an approach of the level of achievement of the learning to learn competence from ECPT’s perception and complemented these results with their teaching activities. The study could be enhanced by the implementation of other improvements:

- We must increase the sample size and add control groups.
- We need to replicate this research with other challenge-based learning projects/contents.
- COVID-19 pandemic limited our initial research design as it was planned to do an actual visit to the Museum. Results obtained would have probably been even more telling.

- Other measures/questionnaires apart from the one used are desirable so we can double-check the learning to learn competence.

In short, this work should be understood as an approximation to the phenomenon that has served to validate both the category system and the rubric described here and that will be used and improved in future experiences.

## CONCLUSION

As teacher educators, based on the results obtained in this experience, we highlight three important educational teaching implications. First, the interdisciplinary CBL has involved the adequate design of strategies to allow the acquisition of learning to learn competence, as reflected in the state educational curriculum, and the reflective and decisive training of students (Muñoz, 2009; Vieites, 2009; Ureña, 2013) in the face of past, present, and future problems. In addition, other transversal competences were developed, such as collaborative and multidisciplinary work, ethics, and leadership, as well as in a multitude of challenges (Tecnológico de Monterrey, 2016). In this sense, we achieved results where there is a progression in the teaching and learning processes, evidenced in both the category system and the rubric.

Second is the importance of museum education and the use of e/m-learning tools for the acquisition of competences in the ECPT. Not all museum education has the same implication in the teaching–learning processes, since, in many cases, they are a reproduction of the indoor lesson (Maynard and Waters, 2007). The virtual tour has led to a different context of the classroom that allows the proximity of the ECPT to other didactic environments. The students from the virtual museum tour improved the learning to learn competence, as a basis of learning for life (Akamca et al., 2017). We highlight the need to design virtual tour with a challenge-based learning, in order to improve the scientific knowledge and skills required to solve social and natural problems. But virtual tours must include adequate technologies—satisfactory design of the webpages, three-dimensional (3D) environments, and worldwide web technologies—and supplementary contents which could be of use for learning purposes (Kabassi et al., 2019). During the COVID-19 pandemic, museums should take up the challenge of spreading knowledge in virtual space and treat it as a mission in which the reward is to build economic diversification, new jobs

and revenues through the development of cultural and creative quarters, diffusion of creativity, and identity and education to worldwide communities (Gutowski and Klos-Adamkiewicz, 2020).

Third, and connected with the above, it is necessary that the museums be adapted to Early Childhood Education (Bowers, 2012; Munley, 2012). We obtained this observation from the analysis carried out in the Community of Madrid Regional Archaeological Museum as an educational resource for early childhood education. The virtual museum tour is an optimal didactic alternative under the COVID-19 pandemic, according to the result of the questionnaire (see **Figure 4**). This virtual tour, on the other hand, presents deficiencies for the Early Childhood Education student. There are questions that did not exceed 50% if we only included the scores 4 (agree) and 5 (strongly agree): the adaptation for the 5-year-old students; the technological resources; and the didactic workshops. However, the Museum of Guadalajara provided worse results (Abril-López et al., 2021): it does not present resources that favor manipulation or interaction with the visitor, or that invite the exhibition, all of which are relevant issues for learning in the Early Childhood Education stage. Despite this, the two experiences present other interesting educational possibilities for children in early childhood education, such as diversity of the material register, that benefits past-present (and future) comparatives and complete—conceptual, procedural, attitudinal—and interdisciplinary contents.

The adaptation of the challenges/storytelling, due to the COVID-19 situation and the contribution of the Early Childhood Education teachers, resulted in the design and development of different activities, carried out both inside and outside the classroom. Thanks to the virtual tour and the analysis and interpretation of the material record of the rooms of Prehistory, teaching-learning processes for the knowledge of the environment were developed. The evaluation of the 5-year-old students was quite satisfactory and was based on the analysis of previous knowledge, direct observation,

the development of activities with questions to verify the objectives achieved, and a final self-evaluation rubric.

## DATA AVAILABILITY STATEMENT

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

## AUTHOR CONTRIBUTIONS

DA was the primary author of the manuscript. DA and DL conceived and designed the project of which this study is part. DA and DL wrote the first draft of the manuscript. ED and PG both contributed to revisions and read and approved the submitted manuscript.

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# Immigrant Students and the Swedish National Test in History

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In Sweden, immigrant students with a non-European background perform worse in school than students from the majority group. Research has so far focused on language problems, and political investments have been concentrated around developing immigrant student's language because it is hard to manage school without a functional language. However, social science in school also rests on cultural understanding, which is difficult if you are not a part of the culture. This is certainly true for the subject of history, which has a strong tradition of fostering a historical nationalistic canon. By analyzing the items in the national test in history relative to how the immigrant students perform, this study investigates whether there are certain types of items that, on the one hand, discriminate against them and, on the other hand, work to their advantage. This is important knowledge if we want to be able to make fair and just assessments.

**Keywords:** history teaching, national test, assessment, grading, multicultural teaching

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## INTRODUCTION

2020 about two millions in Sweden were born in another country or both of their parents were born in another country, that is 19,7 per cent of the total population (SCB 2020a). From these about 600,000 are educated in compulsory education (SCB 2020b). Sweden has also for many decades received adolescents from countries outside Europe, and the biggest groups of migrants today come from Syria and Iraq. Migrant students are those students that are born outside Sweden or students with both their parents born outside Sweden (SCB 2020c). This means that students from neighbouring countries as Denmark and Norway counts as well. Nonetheless, knowledge of how to best educate migrant students in school is limited (Bunar, 2015). Consequently, Swedish research has shown that immigrant students feel excluded in regular education (Wigg, 2008; Skowronski, 2013; Nilsson, 2017; Sharif, 2017). At the same time, language difficulties make it hard for immigrant students to assimilate Swedish teaching (Cederberg, 2006; Gruber, 2007; Nilsson, 2017). Developing a functional language is of course an important factor for overall academic achievement (Collier and Thomas 2001; Clifford et al., 2013; Rhodes and Paxton 2013). Accordingly, teachers have low expectations of what immigrant students can learn and develop in school, and this, by extension, leads to a decreased motivation to do school work among immigrant students (Bunar, 2010). Meanwhile, their school results are getting worse (Grönqvist and Niknami, 2020).

Language difficulties play a major role in obstructing immigrant students from doing well in school (Hakuta et al., 2000). 1995 the course Swedish as a second language (SvA) was introduced in the curriculum for the compulsory school. Swedish as a second language is today the main way to integrate and give migrant students in Sweden equal opportunities in school. Swedish as a second language was introduced to give migrant students a Swedish language that were functional both in everyday life and to manage school and university studies. Students that have been in Sweden shorter

than 4 years and that are born outside Europe are in majority in the group that follow the course Swedish as a second language. That said, some of the students are born in Sweden (Sahlée, 2017).

Nevertheless, except language problems, hegemonic cultural norms and expectations also make it difficult for migrant students to succeed in the Swedish school system (Hagström, 2018). Accordingly, immigrant student's former experiences and knowledge should be considered as an asset in the teaching (Bouakaz and Taha, 2016; Lund and Lund, 2016). History didactic researchers have developed concepts that can help the history teacher to do this. Concepts such as historical culture, use of history, and historical consciousness can shed light on these processes (Alvén, 2021).

In this study, I analyze the type of items in the Swedish national test in history to investigate whether immigrant students perform better or worse on a certain type of items and, by extension, whether immigrant students have the same opportunity to show their historical knowledge as students from the majority group. To explain and define the problem, I use theories and results from the field of history didactics.

## History Teaching in the Global Classroom

Rüsen (1988) claims that the experience of pluralism and multiculturalism in Europe has challenged the teaching of history in school in three ways. The first challenge is a crisis in national identity caused by the nation state no longer being the obvious starting point to identity as the EU-project continues to intensify and immigration from outside Europe continues to grow. The second challenge concerns cultural pluralism in the West due to globalism and long-distance immigration. Namely, the Other can today be your next door neighbor or your best friend in the class, and having alternative lifestyles so close may inspire or give you more choices of how to live your life and how to form your identity. Finally, a critique from other cultures and postmodern theories challenges what was earlier understood as Western ideals and held as truths and knowledge.

Altogether, these developments have presented a challenge to history teaching in the Western school because the subject has been used as a powerful instrument to shape patriotism and identification with the nation since the end of the 19th century (Berger and Lorenz, 2010; Carretero, 2011). From generation to generation, national narratives, legends, and myths have been transferred in school through history teaching. This has built up a cultural canon of important national themes, heroes, values, and expected behaviors (Barton and Levstik, 2004; Kessler and WongMing-Ji, 2009; Carretero, 2011). Via processes of justification and unjustification, this canon has legitimized the majority group's identity and power. The Other has been described as alien to the nation and an illegitimate agent of nation-building (Korostelina, 2017). Thus, history has a strong tradition of constructing Us and Them.

When the nation-state is under question, as it often is today, the way history has usually been taught also becomes questioned (Rosa and Brescó, 2017). Seixas (2007) describes three different types of history teaching that can meet this challenge in the history classroom. The first is the collective memory approach, which transmits one national narrative without any competing

perspectives. This is a strong way of forming a common identity; it corresponds with the traditional way of teaching history, even though the narrative's message can be something other than nationalism, for example, democracy and solidarity. Another way of meeting the pluralistic history classroom is the disciplinary approach. In this approach, the students learn the historical method from the discipline of history and how to criticize history narratives; they also work with sources and evidence and are prepared to build their own historical accounts. The third approach is the postmodern one. This approach also contains different perspectives and narratives, but it goes one step further than just examining the trustworthiness for different narratives: it views and teaches history as something that serves different needs and purposes in the contemporary. Therefore, this approach brings a contemporary perspective in to the history classroom.

The postmodern approach can be fruitful in a pluralistic classroom where young people from minorities or with migrant backgrounds have experiences from both other historical cultures than the majority and other contemporary issues that are important to them (Virta, 2017). Moreover, substantial research indicates that student's cultural background affects their understanding of history and what they perceive as important historical events. For example, Epstein (2000) shows that students with an African American background do not find school's history teaching important to them, for they have other opinions about which historical events are relevant to them and their community. King (2019) even describes a certain black historical consciousness in the United States, with an ontology starting in black suffering and slavery. Barton and McCully (2005) report differences in how Protestant and Catholic students perceive the history of Northern Ireland. Another comparative study makes evident that students from minority groups in the United Kingdom, the Netherlands, and Belgium find the history of religions more important than students from the majority groups (Grever et al., 2011). Nordgren (2006) and Lozic (2010) describe how students with immigrant backgrounds in Sweden sometimes feel excluded in history teaching and historical culture. Instead, minority students sometimes cultivate counter stories that break with the school's narrative (Wertsch, 2000; Nordgren, 2006). Today, many researchers consider that a nationalist approach to teaching history belongs to the past—to a time when ethnically homogeneous nations were built with the help of a collective national master narrative (Carretero, 2017). In particular, this approach is criticized because it lacks cultural consciousness and multiple perspectives to understanding history, something that has led immigrant youth to experience difficulties fitting their own perspectives and experiences with those presented in the classroom (Gay, 2004). Metanarratives about a shared past can be strong among both majority and minority communities, but constructing narratives that can be shared by all is hard in a globalized and postmodern world (Grever, 2012).

## History, Assessment, and Immigrant Students

The discipline of history evidently has its own problems when it comes to teaching pluralistic classrooms with a lot of immigrant



students or students from minority groups. This complicates the process of assessing historical knowledge in the multicultural classroom. However, as Gay (2002) argues, to be effective and fair, assessment in such an environment should be based on the student's ethnic identities, cultural orientations, and background experiences as much as possible. At the same time, (Stobart 2005, p. 282) states, 'There is no cultural neutrality in assessment or in the selection of what is to be assessed. This applies as much to mathematics as it does to history, and attempts to portray any assessment as acultural are a mistake.'

I think Stobart is right; nevertheless, I argue that we cannot lean back and give up on striving for a fair and just assessment in pluralistic environments. If we believe history is closely connected to our identity and at the same time do not approve some historical perspectives because of another cultural starting point, by extension, this means that we deny certain identities. This is a much more severe problem than denying certain knowledge (in mathematics, for example), and it contradicts the effort to achieve a well-functioning pluralistic society.

Nonetheless, the problem of biased assessment is not isolated to history teaching. Malouff and Thorsteinsson (2016) meta-analysis, representing 20 studies and a total of 1,935 graders, reveals certain categories of students that are exposed to biased grading to a high degree. These categories mostly comprise students labeled with negative a negative behaviour, students who are already known to perform poorly, and students who are perceived as physically less attractive by the graders; however, students belonging to specific ethnic groups are also exposed to biased grading in a high degree. On the other hand, Fajardo (1985) shows that students from minorities may get both higher and lower grades than other students due to bias. Malouff and Thorsteinsson (2016) suggest that keeping students anonymous during grading may be a way to counteract bias in grading (see also Brennan, 2008; Kahneman, 2011). This can help when the bias stems from the student's characteristics; however, it will not help if the bias is located in the student's responses rather than in the students themselves.

Some researchers have investigated grading bias regarding content that impugns cultural values or cultural ontological starting points. For example, Davidson et al. (2000) present statistically significant results indicating that graders gave nonviolent content in essays higher grades than violent content, although neither were criteria for grading. Researchers using verbal protocol methodology and anonymous student responses have identified that graders show strong emotions while assessing student's responses (Crisp, 2008, 2012; Alvén, 2017). Graders expressed feelings of pleasure, dislike, and sympathy, and in some cases, they talked to an imagined stereotyped student congruent to the student response. Further, research has been conducted that analyzes how historical content and values in student responses affects grading. This research indicates that responses containing perspectives and values that are not common in the majority historical culture both perplex the graders and are graded lower (Alvén, 2017; Alvén, 2019).

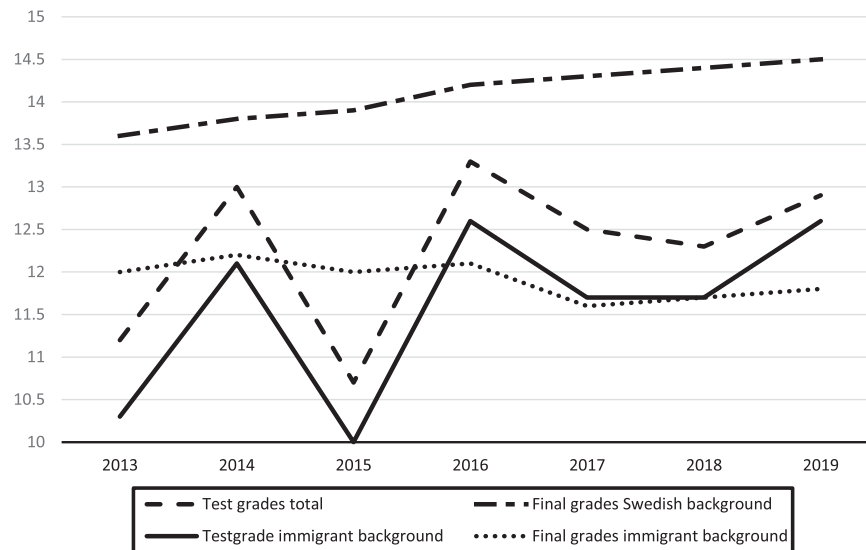
How do immigrant students manage the subject of history in the Swedish school then? The statistical data base SiRiS at The National Agency for Education in Sweden has been used to construct **Figure 1**. Each grade renders points in the data base: A is 20, B is 17.5, C is 15, D is 12.5, E is 10, and F (not approved) is 0. The value for each year, 2013–2019, is the mean for the final grades and the results of the national test in history for students with an immigrant background and students with a Swedish background. The national test in history is written during the last term of the compulsory school and is supposed to support the final grade. **Figure 1** shows a striking picture. When it comes to history in the compulsory school in Sweden, students with a Swedish background have received better final grades than immigrant students in the examined period. This confirms previous research. The results for the national test in history show the same tendency. However, for the immigrant students, the difference between the results of the national test in history and the final grades is much less than for the other group. Students with a Swedish background have much higher final grades than national test results for the whole period, 2013–2019. This is congruent with other national tests in Sweden. However, this is not the case for students with an immigrant background. From 2016 onward, immigrant students have had better national test grades than final grades. Nonetheless, they perform worse in the national test in history than the students with a Swedish background. This study investigates whether there is something in the national test items themselves that can help us understand the connection between assessment, bias, and immigrant student's performances in history. The findings may also give us clues about how to assess history knowledge with less bias against students with an immigrant background.

There is solid research showing that language difficulties impede students with an immigrant background from performing well in school generally and in history specifically (Schlepppegrell, 2001; Bernhardt, 2003; Coffin, 2006). Some research about school performance in history nuances this picture. For instance, De La Paz' (2005) research shows small differences between first and second language students in the ability to construct texts in the subject of history. In a Swedish context, Olvegård (2014) had a similar result when studying the students' reading abilities. Meanwhile, Alvén (2011) shows possible ways of assessing historical knowledge true to the curriculum, where students with an immigrant background perform on the same level as students with a Swedish background, or even better in some cases. Such results call for research that tries to find other explanations than language difficulties for why immigrant students perform much worse in school in the subject of history.

## Study and Methods

The empirical material in the study is the Swedish national test in history. The test is performed during the last term in compulsory school, when the students are 15–16 years old. The test is constructed with the syllabus in history for the compulsory school as a starting point. According to the syllabus four abilities are supposed to be developed in the history classes. These are the students' ability to:

**Figure 1.** Means for the final grades total and for students with an immigrant background, and means for test grades for students with a Swedish background and for students with an immigrant background.



**FIGURE 1 |** Means for the final grades total and for students with an immigrant background, and means for test grades for students with a Swedish background and for students with an immigrant background.

- use a historical frame of reference that incorporates different interpretations of time periods, events, notable figures, cultural meetings and development trends,
- critically examine, interpret and evaluate sources as a basis for creating historical knowledge,
- reflect over their own and other's use of history in different contexts and from different perspectives, and
- use historical concepts to analyse how historical knowledge is organised, created and used.

For each ability there is knowledge requirements in three qualitative steps as a help to grade the student's knowledge. The progression to assess the ability for source criticism for example looks as follows in ninth grade:

- Pupils can use historical source material to draw simple and to some extent informed reasoning about people's living conditions, and apply simple and to some extent informed reasoning about the credibility and relevance of sources.
- Pupils can use historical source material to draw developed and relatively well informed conclusions about people's living conditions, and apply developed and relatively well informed reasoning about the credibility and relevance of their sources.
- Pupils can use historical source material to draw well developed and well informed conclusions about people's living conditions, and apply well developed and well informed reasoning about the credibility and relevance of various sources.

In the syllabus there is also a core content. For the students aged 13–16 the headlines in the core content are these:

- Ancient civilisations, from prehistory to around 1700
- Industrialisation, social change and leading ideas about 1700–1900
- Imperialism and world wars about 1800–1950
- Democratisation, the post-war period and globalisation, from around 1900 to the present
- How history and historical concepts are used (Skolverket, 2011)

Each year, Malmö University, where the test also is constructed, collects data from the test results on a platform. The sample contains the results of every student born on a certain date. Approximately 25,000 students take the test in history every year. The sample collected each year comprises the results of about 1,500–2,000 students, about six to eight percent of the total population (see **Table 1**). The sample is also randomized and considered representative. The statistical data collected with the sample show the student's results for each item in the test, their test grade, their gender, and whether they take the standard Swedish course or the course for Swedish as a second language. Students that have a language other than Swedish as their first language can take the course Swedish as a Second Language, SvA. The principal at each school decides whether a student should

**TABLE 1 |** Number of collected results and the distribution between students taking the course Swedish and Swedish A, SvA.

Test year	2013	2014	2015	2016	2017	2018	2019
Swedish (n)	1,597	1,625	1,874	1,455	1,545	1,597	1,656
Swedish A (n)	119	135	133	120	219	167	174

**TABLE 2 |** Model to categorize the items.

Content	Level	Trigger	Format	Perspective	Room
Political/ideological	Macro	Actor	Multiple Choice	Majority	Sweden
Military	Meso	Structure	Constructed Response	Not majority	Europe
Epochs	Micro	Actor and Structure			World

take this course or not. The principal can also decide whether the student has a language level that allows him or her to take the national test. Accordingly, new arrivals are not likely to take the test. Students who take the course SvA and have taken the national test in history have thus been assessed as having a language level good enough to take the test.

There is no information about who is taking the course Swedish as a Second Language, SvA. There are indications however that the majority of students taking the course have a non-European background, including those born both in and outside Sweden (Sahlée, 2017).

In the national test in history, students do not collect points but proof of quality for each item. There are knowledge requirements in the Swedish curriculum for compulsory school to help teachers assess the students. The knowledge requirements comprise three levels describing different qualities; these levels correspond to the grades E, C, and A, where A is the best grade. In the statistical material collected for this study, the proof of quality for each item receives zero points if not approved, one point for the first level, two points for the second, and three for the best level. This means a student can never have more than three points on an item, which corresponds to the highest level for the knowledge requirements (i.e., grade A).

Figure 1 already shows that the students taking the course Swedish as a Second Language, SvA, perform worse on the national test in history and also have worse final grades in history from the compulsory school than the majority group. However, the difference in the national test results between the

two groups of students is smaller than the difference in the final grades. It also seems that the gap in national test results of the two groups has gotten smaller at the end of the studied period, 2013–2019. These conditions make the following research questions relevant:

- Are there types of test items that make immigrant students (those taking SvA) perform better or worse?
- If so, are there some common patterns in these items?

This study uses a differential item functioning (DIF) analysis to identify those test items for which different groups of students perform differently. It encompasses a set of approaches for comparing the performance of groups on individual items while simultaneously considering the students' potential to score well on the test. Hence, a DIF analysis is more useful than comparing total scores for identifying differences between groups taking a test (Martinková et al., 2017). It can identify differences that are not revealed when comparing total scores. However, a DIF analysis can be interpreted in different ways, and this study employs the categories that the Educational Testing Service (ETS) uses (see Zwick, 2012).

After identifying test items where immigrant students performed better, the items were analyzed. The professors in history didactics Ammert and Eliasson (2019) have evaluated the content and form of national history tests between the years 2013 and 2017 using a specific model. This study uses the categories from their model but with some additions (see Table 2). The category *Content* includes political/ideological, military, or social history and knowledge about

**TABLE 3 |** Tests and items with a DIF that favors the students taking the course Swedish as a second language, SvA.

Test 2013	Content	Level	Trigger	Format	Perspective	Room
Item A1	Political/social	Meso	Structure	Multiple Ch	Not majority	Europe
Test 2014						
Item 12	Epochs	Macro	Actor	Multiple Ch	Not majority	World
Item 14	Social	Micro	Actor	Multiple Ch	Not majority	Sweden
Item 16	Social	Micro	Actor	Multiple Ch	Not majority	Sweden
Test 2015						
Item 11	Political	Micro	Actor	Constructed	Not majority	World
Item 15	Political/Social	Macro	Actor	Multiple Ch	Majority	Sweden
Item 19	Social	Micro	Structure	Multiple Ch	Not majority	Sweden
Test 2016						
Item 3	Political/Social	Macro	Structure	Constructed	Not majority	World
Item 7	Political	Micro	Actor	Constructed	Not majority	World
Item 16	Political	Meso	Structure	Multiple Ch	Majority	Europe
Test 2017						
Test 2018						
Item 20	Military	Macro	Structure/actor	Multiple Ch	Majority	Europe
Test 2019						
Item 20	Military	Macro	Structure/actor	Constructed	Not majority	World

The Wind Is My Lover is a novel written by Viktor Rydberg, in the middle of the 19th Century. The novel takes place during the Middle Ages and tells the love story between the knight Erland Månesköld, and a Roma girl named Singoalla. The excerpt below describes when the Romas thank the village priest for letting them stay on church land for an extended period of time.

#### Excerpt from the novel

*The priest welcomed the foreign people. All monks were present. The head of the Roma group took a step forward, spoke and bowed down. The priest replied. Everything was ceremonial and pleasant. But while the priest and the head of the Roma group spoke, the other men looked around the room and feverishly eyed different objects; the valuable bowls on the oak table and the depictions of the Virgin Mary and the baby. But the men's looks did not contain any veneration for the golden crown or the expensive silver the Virgin Mary was wearing. It was probably not the heat in the room that made one man carefully unhook one of the window latches near him, because if he truly had been warm he would have opened the window itself, but he didn't.*

#### Task:

Put an x in the box that best represents a reasonable conclusion you can draw if you use the excerpt as a historical source.

<input type="checkbox"/>	In the Middle Ages, Roma people were associated with thievery.
<input type="checkbox"/>	In the 1800's, Roma people were not associated with thievery.
<input type="checkbox"/>	In the 1800's, Roma people were associated with thievery.
<input type="checkbox"/>	In the Middle Ages, Roma people were not associated with thievery.

FIGURE 2 | Item no. 14 in the test from 2014.

epochs. In the category *Level*, “macro” refers to history with consequences for several countries, “meso” for regions, and “micro” for local places. The category *Trigger* is about what forces history to become, actors or structures? *Format* is either multiple-choice questions or constructed responses. Two categories are added to Ammert’s and Eliasson’s model: *Perspective* and *Room*. Research indicates that minorities often feel that history taught in school is the history of the national majority’s canon (Epstein 2000, 2007). The category *Perspective* determines whether the item is understood as history from the majority’s canon or not; namely, does a certain item contain relevant perspectives for students not belonging to the majority group? On the other hand, it is hard to define a canon. Seixas (2007) sees it as national heroes and “a widely shared, coherent narrative, generally revolving around nation-building and social, economic and political progress” (p. 19). It is a narrative acknowledged by the majority of a community to represent its common past. However, migration, globalization,

and post-colonization today challenge the canon and history education, and the nation-state is no longer the obvious foundation for history education (Grever and Stuurman, 2007). Hence, if an item assumes a national or Western perspective that immigrant groups do not self-evidently share with the majority, the item is categorized as having a majority perspective. On the other hand, if an item addresses a history topic from a minority perspective or permits different perspectives, it is categorized as a non-majority perspective. Research has also shown that immigrant students call for history from other places than Sweden and Europe (Lozic, 2010; Johansson, 2012). The category *Room* helps identify whether the item contains history from Sweden, Europe, or somewhere else in the world.

Unfortunately, the tests are confidential for 5 years, which makes it hard to discuss the specific items in detail. However, the study can and will address items in the tests performed in 2013 and 2014.



**TABLE 4 |** Tests and items with a DIF that favors the students taking the course Swedish.

Test 2013	Content	Level	Trigger	Format	Perspective	Room
item A4	Political	Meso	Actor	Multiple Ch	Not majority	World
Item A10	Epochs t	Macro	Structure	Multiple Ch	Majority	Europe
item A12	Ideological	Meso	Structure	Constructed	Majority	Europe
Item B1	Political	Meso	Structure	Multiple Ch	Majority	Sweden
item b4	Social	Meso	Actor	Multiple Ch	Majority	Sweden
item B7	Social	Meso	Structure	Multiple Ch	Majority	Sweden
item b9	Social	Meso	Actor	Multiple Ch	Majority	Sweden
Test 2014						
Item 1	Political, Svenska	Meso	Actor	Constructed	Majority	World
Item 6	Political	Makro	Structure	Multiple Ch	Majority	Europe
item 8	Social	Micro	Actor	Constructed	Majority	Sweden
item 17	Political	Meso	Structure	Multiple Ch	Not majority	Sweden
Test 2015						
Item 6	Military	Macro	Structure	Multiple Ch	Majority	Europe
Item 14	Social	Micro	Actor	Multiple Ch	Majority	Europe
Item 18	Social	Micro	Structure	Constructed	Majority	Sweden
Test 2016						
Item 2	Political	Macro	Structure	Multiple Ch	Majority	Europe
Item 5	Social	Meso	Structure	Multiple Ch	Majority	Europe
item 15	Military	Macro	Actor	Multiple Ch	Majority	Europe
Test 2017						
Item 1	Social	Macro	Structure	Multiple Ch	Majority	Europe
item 11	Social	Macro	Structure	Multiple Ch	Majority	Sweden
item 21	Social	Macro	Structure	Constructed	Majority	Sweden
Test 2018						
Item 5	Social	Macro	Structure	Constructed	Majority	Sweden
Item 14	Political	Macro	Actor	Constructed	Majority	Europe
item 29	Social	Macro	Actor	Constructed	Majority	Sweden
Test 2019						
Item 20	Social	Macro	Structure	Multiple Ch	Majority	Europe

## RESULTS

**Table 3** shows each test item that has benefited students taking the course Swedish as a Second Language, SvA. For most of the analysis categories, there are no obvious similarities between the items. Regarding the content of the items, it differs between political, social, and military. The levels micro, meso, and macro are also all represented in the tests. What triggers historical events in these items are actors, structures, and actors acting inside structures. The format of the items is both constructed and multiple choice, but the majority are multiple-choice questions. If students with a Swedish background performed better on constructed responses, we could understand the other group's struggle as a language problem, but that is not the case. When it comes to the room category, referring to the geographical location of the history topic in the item, Sweden, Europe, and the world are all well represented. However, one of the categories, perspective, shows similarities between almost all of the items, favoring the immigrant students. Nine out of twelve of the items in this category have a perspective that is not easily understood as a natural part of the Swedish historical canon.

As mentioned before, only the items from the 2013 and 2014 tests can be presented here due to confidentiality reasons. Item A1 from the test year 2013 addresses democracy in ancient Athens. What makes the item understandable from a different perspective is the explicit emphasis that a lot of people were not included in

the Athenian democratic society, among them immigrant non-citizens. Item 12 from the test year 2014 discusses the Cold War, and the text in the item does not take a stand or present the perspective of either side of the war. Items 14 and 16 in the test from 2014 ask the students to identify stereotypes and discrimination against the Romani people in Sweden during the 19th and 20th centuries.

Let us have a closer look at item 14 from the test performed in 2014 (see **Figure 2**). The students are supposed to read an excerpt from an old Swedish novel from 1847. Using the excerpt as a historical source, they are supposed to see that the position in the public cultural debate regarding the Romani people was very different from today and that it was not strange to describe Romani people as thieves. The perspective of course shows a vulnerable minority, a commonality in many of the items that the immigrant students perform well on. Another interesting aspect is the format: the students must not only read a text from a novel, they must also be able to both handle a text genre from another field (i.e., literature) than the typical historical and interpret and see inferences in this text. It is a fairly linguistic ability that the immigrant students are able to use, so they perform better on this item than many others, which challenges the conclusion that it always is poor language that explains immigrant students' poor results in school.

**Table 4** shows every item that has benefited students taking the course Swedish in each test. For most of the categories, there are no obvious similarities between these items. When it



The picture shows what life could have been like 100 years ago.

**FIGURE 3** | Item no. 8 in the test from 2014.

comes to the content of the items, it differs between political, social, and military. The levels micro, meso, and macro are all represented. What triggers historical events in these items are both actors and structures. The format of the items is both constructed and multiple-choice questions, but with a majority of multiple-choice questions. When it comes to the room, all three sub-categories (Sweden, Europe, and the world) are well represented, but items taking place in the world are fewer than items taking place in Sweden and Europe. In the perspective category, there are similarities between almost all of the items favoring the students taking the Swedish course. Most of the items (22 out of 24) reflect a majority perspective or can be perceived as a natural part of a Swedish historical canon.

When analyzing the items that favor the majority group some categories stand out. Items A10, A12, and B7 from the test year 2013 and item 6 from the test year 2014 ask for knowledge about a topic within the traditional canon of the Western world or Sweden. Industrialization and the emergence of the Swedish

welfare society figure in these items. Items B1, B4, and B9 in the test from the year 2013 and items 1 and 8 in the test from 2014 all demand knowledge about a typical Swedish identity, today and in the past. All of them ask the students to understand that what was once considered as normal in Swedish society no longer is. Such items assume qualified knowledge about the nation's social and cultural history, a knowledge hard to acquire without having grown up or lived a long time in the country. **Figure 3** shows item 8 from the test year 2014. The picture shows a man looking at a woman flogging a child, which was a normal thing to do a hundred years ago in Sweden. The students have three alternatives of what the man is saying to the woman flogging the child, and they have to choose the most reasonable one. Two alternatives are typical of Swedish values today and one representing a value from a hundred years ago. Implicitly, the item contrasts a past opinion to the opinion that dominates in Sweden today: we do not flog children. However, this is not an opinion that dominates all cultures in the world, which of course makes the question harder to understand for

non-Swedish students. This means that the item requires the students to understand the world as a typical native Swedish student would.

## DISCUSSION

Today schools in Europe, not least in Sweden, face a big challenge when it comes to educating students with a non-European immigrant background. It is an urgent societal concern, as a big ethnic community is failing in school and cannot compete for jobs with high status and good wage. Nevertheless, our knowledge about how to educate these students is modest (Bunar, 2015). One apparent key to success is language: you must master the majority language to perform well in school (Hakuta et al., 2000). So far, much political investment has centered on language development for immigrant students. Moreover, most of the research has focused on how to develop these students' language ability.

At the same time the subject of social studies in school has been especially criticized for not dealing with knowledge differences between students from the majority group and immigrant and minority students (Ladson-Billings, 2003; Nelson and Pang, 2006). These problems are made visible in a lack of stories, perspectives, and voices from immigrant students in the teaching of social studies (Salinas et al., 2007), as well as ignorance of cultural and ethnic consciousness and differences in the curricula (Banks, 2007). This is said to drive immigrant students to perceive social studies learning as meaningless and irrelevant to their own lives (Almarza, 2001; Halagao, 2004). Social studies in school are even accused of reinforcing White and Eurocentric standpoints (Bolgatz, 2005). However, we know very little of how the immigrant background affects these students' learning and how social studies can better serve their needs (Salinas, 2006; Subedi, 2008; Bunar, 2015). According to Shulman (1986), pedagogical content knowledge is a fruitful starting point. This means more than understanding a subject from an academic discipline perspective. Instead, we must understand that a school subject is a unique construction that must take into account, on the one hand, the academic discipline that the school subject is derived from and, on the other, the learning theories and the school's mission to both develop knowledge and foster citizens.

History didactics can help us understand how the subject works in the pluralistic history classroom—in terms of both

understanding history teaching as a cultural phenomenon (Rüsen, 1988; Alvén, 2021) and learning how to deal with this fact in the multicultural classroom (Nordgren and Johansson, 2015; Nordgren 2017). Such changes in history teaching must also include how we, in a just and fair way, assess and grade history in school. If not, the problem of an excluded group of students based on ethnicity will continue. This study has shown that immigrant students perform better when they are assessed on history topics that open up for several perspectives and on a history that is not closed to a national canon. This is important knowledge if we want to include these students in history teaching. Meeting this need is not impossible if our goal is to actually develop the students' historical abilities, and not a declarative knowledge that asks them to repeat and embrace a national story. Indeed, seeing different perspectives, interpreting historical events and sources with the help of second-order concepts, and reasoning about the use of history are not bound to a Western historical canon.

## DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/Supplementary Materials, further inquiries can be directed to the corresponding author/s.

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# Corrigendum: Immigrant Students and the Swedish National Test in History

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# Teacher Training Via Debate on the Way of St. James as Controversial Heritage

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This paper presents the results of an intervention proposal regarding cultural heritage based on active learning methods and carried out during initial teacher training. The social theme taken as a reference was the pilgrim route of the Way of St. James declared to be the first Cultural Route of the Council of Europe in 1987, due to the fact that its controversial dimensions (conservation, use, management, authenticity, stereotypes and performativity) make it possible to develop critical thinking through research and debate. This study is set in the context of a prior line of research which aimed to stimulate investigative, ethical, reflexive and argumentation competences among future teachers. From the interpretive paradigm, it was attempted to verify, via questionnaires, narratives and open reflections, what effects participation in this experiment would have on the participating trainee teachers' perceptions of heritage and the educational potential thereof. The future teachers: 1) learned to value the emotional dimensions of heritage as catalysts for learning and resignification processes, particularly in relation to the Way of St. James; 2) highlighted active, student-centred, methodological strategies in order to discover and understand their social reality; 3) emphasised the value of a reflexive and critical model of teaching in order to develop a committed attitude towards the environment; 4) identified the fact that controversial issues are a useful tool with regard to civic education and the development of critical thinking.

**Keywords:** active learning methods, relevant social problems, cultural heritage education, history education, students' perceptions, critical citizenship

## INTRODUCTION

Different learning contexts can contribute to the formation of a critical and transformative citizenship. From the field of education, a model of teaching can be applied which, based on the local context and the development of social and civic skills (Santisteban, 2009), fosters the application of learning in the management of local problems. Independently of the factors which may be subject to the construction of this socio-critical attitude, schools have a great responsibility to their students from an early age in terms of "learning to know, learning to do, learning to live together, learning to be" (Delors, 1996). As Theodor Adorno (1970) stated, education should, in these times of omnipresent conformism, tend more towards reinforcing resistance than to increasing adaptation [1998: 97].

It is desirable to implement teaching proposals aimed at moving consciences in order to promote cognitive habits of reflection and social thinking among children, which enable them to take

decisions regarding their sociability guidelines and to intervene in their territorial sphere. Even more so when in recent years in Spain there has been a lack of research and experimentation published in relation to citizen education (Arroyo et al., 2020). As a starting point, initial teacher training should stress the capacity to build a well-founded opinion, particularly on socially relevant issues, as the basis for the construction of a democratic citizenship (Heimberg, 2010; McAvoy and Hess, 2013; Ho et al., 2017). This should not prejudice the fact that other issues may direct this methodological strategy. For example, heritage education, particularly in relation to its more controversial dimensions, contributes to the formation of civically competent individuals.

In accordance with a holistic conception and a symbolic-identity perspective, which are commonly employed in education (Cuenca, 2003; Cuenca, 2014), heritage does not merely consist of a set of assets, but also of the relationship that people establish with them (Fontal, 2003; Fontal, 2008). In other words, heritage is the selection of cultural points of reference in each historical context according to the perception, meaning and values which society attributes to them at that moment (Arévalo, 2004). In line with this approach, anthropology understands heritage as a performative act “that embodies acts of remembrance and commemoration while negotiating and constructing a sense of place, belonging and understanding in the present” (Smith, 2006: 3), compared to the traditional viewpoint which is normally mediated by expert criteria. This explains the fact that, in recent decades, participatory models of governance have become consolidated, which advocate the prominence of communities and individuals in their management (Aguilar, 1999; Cortés et al., 2017; Jiménez, 2020). A community which does not (re)build its heritage lacks the emotional connection which is necessary in order to manage, maintain and care for its heritage in the long term (Jiménez-Esquinas, 2021).

Heritage is a social construct which sustains the cultural identity of those who inherit, create or transmit it in any age. It gives rise to links which imply a permanent process of revision (Fontal and Marín, 2018; Fontal, 2020). Education plays a key role in strengthening this human and relational dimension of heritage and the process of identity construction created by the subject (Gómez, 2012). Through education, the learning sequence proposed by Fontal (2003) can be applied, which she defines as awareness-raising: knowing, understanding, respecting and appreciating heritage in order to care for, enjoy and transmit it. These dynamics become the heritagisation process, taken to be the symbolic appropriation of assets (Calaf and Fontal, 2004), which demands intentional and structured education in order to guide citizen behaviour (Fontal and Gómez-Redondo, 2016). People’s emotional involvement with heritage should be sought via a reflexive and critical model of teaching: “If the individual constructs her/his idea of heritage and citizenship, and, through them, identity, then there has to be an approach that gives priority to personal experience, self-directed learning that gives ownership, empowerment, self-awareness, creativity and motivation” (Copeland, 2006: 28).

UNESCO has long advocated a greater presence of heritage in all levels of education and a greater relationship with professional training Faro Convention (Council of Europe, 2005): and has

highlighted the value that heritage contributes to society (Jagielska-Burduk and Stec, 2019; Jagielska et al., 2021). In recent years in Spain, the amount of research carried out on heritage education has increased significantly (Cuenca, 2013; Fontal and Ibáñez, 2017; Cuenca et al., 2021). Tools such as the Plan Nacional de Educación y Patrimonio (National Plan for Education and Heritage) (Domingo et al., 2013) and the Spanish Heritage Education Observatory (Fontal, 2016b) support it as a discipline, both in social science education and in artistic education.

Along the same lines as proposals on heritage and territory, which foster the intercultural relationship and formation of a socially committed citizenship (Carrera Díaz, 2005; Cuenca, 2014; Cuenca and Estepa, 2017; Trabajo and Cuenca, 2017; Cuenca et al., 2020), the present study analyses to what extent an awareness-raising experiment based on the Way of St. James (declared in 1987 by the Council of Europe to be the first Cultural Route of Europe) contributes towards developing the professional skills of future primary education teachers, particularly in terms of research, ethics, reflection and argumentation.

Although the *Camino* is a heritage asset which has become consolidated in the collective imagination of the Spanish people, the coding of its monumental image as an open-air museum (Castro, 2010) and its transformation into a touristic product since the middle of the 20th century eclipse its educational potential (Castro et al., 2016; Lois et al., 2016; Lopez et al., 2017). Even more so if it is taken into account that in primary education in Spain there is a disassociation between the integration of the school curriculum (Gobierno de España: Real Decreto 126/2014, 2014) and initial teacher training (Fontal, 2016a; Fontal et al., 2017). The presence of heritage in the legal framework has increased since the 1970s, although it is still insufficient (Fontal, 2011; González, 2011; Pinto and Molina, 2015; Ponce et al., 2015). In some regions, such as Andalucía, the Canary Islands, Asturias and Navarra, heritage has a greater presence in education than in other regions as, due to the decentralisation of the education system, each region makes its own adaptation of the national law (Martínez and Fontal, 2020). In university study plans, there is a considerable lack of subjects relating to heritage and, when they do exist, they are normally optional (Fontal et al., 2017). A similar situation can be observed in Portugal (Pinto and Molina, 2015) and Turkey (Ocal, 2016), where heritage education is practically absent in relation to teacher training. This explains why the participants in this research are students of the optional subject “Historia, patrimonio y educación en Galicia” (History, heritage and education in Galicia), in the primary education degree of the University of Santiago de Compostela, during the 2020–2021 academic year. The University of Santiago de Compostela is one of 13 public universities of a total of 50 in Spain in which teacher training has a subject with the term “heritage” in its title. Indeed, in the private universities in Spain, no training is offered on this subject (Chaparro and Felices, 2019).

In a constant process of emotional re-signification, the Way of St. James can be understood as the sum of anonymous experiences which support a polysemic experiential route. Unlike other pilgrimage routes, the *Camino* offers a



**TABLE 1 |** Study dimensions on the Way of St. James.

Study dimensions	Description
Multifaceted pilgrimage route	Integrates a diversity of elements in constant use (route, monuments, traditions, infrastructures, etc.) which interfere in its systemic conservation (rubbish, lack of safety, vandalism, etc.) and in its authenticity value
Cross-border pilgrimage route	Passes through territories with different administrations which complicates its heritage management
Timeless pilgrimage route	Connects ancient aspects with modern elements (route, hostels, infrastructures, services, etc.) which respond to contemporary needs
Performative pilgrimage route	Brings together traditional cultural practices with stereotypes defined by historiography, literature and even cinema (fictionalised identity, symbols, rituals, ceremonies, etc.).
Emotional pilgrimage route	Embraces intra-personal motivations whilst offering mass tourism with a high socio-economic impact all along its route
Sustainable pilgrimage route	Tackles the impact of mobility restrictions deriving from the Covid-19 pandemic

combination of feelings of otherness to everybody who walks it. At the same time, it is a collective experience and a key element of identities and feelings of belonging to a community, be it ephemeral or long-lasting.

Given that the main subjects of education are people and that the Camino has a wealth of heritage topics and dimensions, the approach of this educational experiment advocates its relational component with those who walk, sustain, care for, maintain and transmit it. This plurality of perspectives also entails a multiplicity of interests and conflicts. It is precisely the controversial nature of the Camino, which is complex but socially accessible, which favours understanding of its immediate historical and social context and the heritage recognition involved in the construction of cultural identity (Teixeira, 2006). This controversial perspective, by way of active teaching methods, reinforces other fundamental skills, such as the access to sources, reflection and debate (Pagès and Santisteban, 2011), thus demonstrating the development of historical thinking (Domínguez, 2015; Sáiz et al., 2017). All of this serves to foster an attitude of respect for the environment and makes it possible to appreciate the heritage of the local and cultural context in question. In such a way, it is possible to build a critical citizenship based on heritage education and historical education (Pagès, 2000; Pinto, 2013; Van Boxel et al., 2015; Gosselin and Livingstone, 2016; Miralles et al., 2017).

From a constructivist and dialogical approach, the future teachers addressed some of the most socially relevant controversies around the Way of St. James (its conservation, use, management, authenticity, stereotypes, performativity) (Table 1). The aims were to stimulate interest towards the Way as a heritage asset, to reflect on its educational potential and to foster a feeling of shared responsibility which can be taken into the classroom in the future and to create learning communities outside of the classroom. In other words, heritage education is to be understood as a tool for fostering an attitude of respect which leads to social intervention (Ávila and Matozzi, 2009). Via significant and collaborative learning, based on research methodology (Gómez and Rodríguez, 2014; Gómez et al., 2018), the participants addressed real problems in order to learn to manage them (Soley, 1996), to build a reasoned opinion (Santisteban, 2012; Santisteban, 2019) and to promote a democratic citizenship (Heimberg, 2010).

Working on social thinking through controversial issues contributions towards the preparation of competent people in

the civic dimension; even more so if it is carried out via an emotional approach which promotes teaching and learning processes associated to elements of memory. This approach, which we have employed in three recent studies, makes it possible to frame and justify this research. The aforementioned studies focused on an emblematic stage of the Way of St. James situated in the town of Portomarin (Galicia, Lugo), a particularly conflictive context in terms of heritage. Portomarin is a small rural town of medieval origin which was flooded by the construction of a dam in the 1960s. A short distance away, a new town was built which was very different to the original and to which certain elements of the old site, such as its churches, were relocated. The current depopulation of the area and the ageing population lead to the fact that the memories and experiences associated to the old town and its traumatic past only persist in a few buildings (the ruins which emerge out of the reservoir when the water level decreases in summer or its decontextualised churches). As time goes by, there are fewer and fewer people who experienced the forced removal and, without them, it is complicated to keep the town's recent history alive (Castro et al., 2021).

In an initial study of this place of memory, it was shown that if a community does not foster intergenerational dialogue about its past, which, in this case, is painful, it is difficult to bring about a process of resignification and heritage identification (Ibid.). The narrative regarding the conflict experienced is interrupted, probably with the justification of not reopening old wounds. Most of the local population has developed a feeling of rootlessness towards the two towns (the old people towards the new town and the young people towards the old town) due to the fact that no strategy of restitution or reflection of the culture has been applied, making it impossible to share feelings of ownership and assign values from the present (Cruces, 1998).

Having identified the heritage conceptions of the inhabitants of Portomarin, this conflictive issue was addressed in university classes with trainee teachers (Castro and López, 2019). Two groups of students were organised in order to verify whether the immersion of one of the groups in Portomarin would modify their perception of heritage education compared with the other group, which did not have this experience. All of the students had to design a teaching proposal which, if carried out, would contribute to repairing the rootlessness felt by the community. The group which relocated to Portomarin proposed an

endogenous restitution based on their experiences with the local population. On the other hand, the other group offered impersonal discourses based on heritage stereotypes which were devoid of contextual references. This research has made it possible to prove that an experiential approach to a problematic context contributes towards the development of the capacity for empathy and argumentation on the part of future teachers.

The next study analysed the perceptions of trainee teachers regarding the inclusion of this controversial issue in their teaching practice via heritage education (Castro et al., 2021). Based on the case of Portomarín, places flooded by the construction of reservoirs and dams were studied in which other conflicts were caused between local interests and social benefit. Again, it was noted that working on controversial issues associated to elements of memory and heritage stimulates critical consciousness, promotes respect for opposing opinions and the capacity for analysis.

Based on these prior experiences, the present study broadens the theme of study to the whole of the Way of St. James in Galicia. The objective is to arouse interest in its educational use via a controversial dimension which will make it possible to carry out a study of a rational approach to knowledge via seeking and contrasting information, pondering different alternatives and taking consensus-based decisions. That is to say, the trainee teachers assume a similar methodology to that used with them in their university classes, via active learning methods from an ethical orientation of education.

In order to measure the scope of this educational approach, the following objectives have been formulated:

- 1) Specific Objective 1 (SO1). To identify the perceptions of future primary education teachers regarding the Way of St. James and its educational potential.
- 2) Specific Objective 2 (SO2). To analyse to what degree the future primary education teachers assume the usefulness of heritage education for addressing the Way of St. James in the classroom.
- 3) Specific Objective 3 (SO3). To evaluate the teaching experiment implemented in order to foster the raising of heritage awareness among future primary education teachers towards the Way of St. James.

## MATERIALS AND METHODS

### Research Hypothesis

The design and implementation of a teaching experiment in initial teacher training which deals with relevant social problems relating to the Way of St. James via active learning methods (research and debate), contributing towards the critical resignification and educational analysis of this pilgrimage route among future teachers.

### Tools

#### Five Tools Associated to the Proposed Objectives Were Used During the Teaching Experiment

Tools 1 and 2 are pre-test and post-test questionnaires which seek to measure the achievement of Specific Objective 1. These tools

were designed for a prior study carried out with a group of trainee teachers which verified the transformative capacity of heritage education from an experiential point of view. On that occasion, the traumatic past of a community which was forcibly removed to a new location due to the construction of a dam was addressed (Castro and López, 2019). Later, their validity was confirmed in another study regarding the perceptions of trainee teachers on the inclusion of relevant and socially conflictive issues in heritage education. In this case, a strategy was designed based on collaborative learning and research methodology oriented towards the development of critical thinking (Castro et al., 2021). For the present study on the Way of St. James, the two questionnaires have been adapted to the topic, both in the method of word association with the concept of “Camino” and in a section dedicated to its presence in the primary classroom by way of seven questions (one multiple choice, three open questions and three on a Likert scale).

Tools 3 and 4 have been designed to verify Specific Objective 2. The first consists of the problematisation and guided debate of the different study dimensions related with the Way of St. James (Table 1). The students collaborated to investigate the proposed issues and, subsequently, put forward opposing viewpoints on controversial issues, which made it possible to generate discussion until reaching a consensus in the classroom. This pooling of ideas was carried out over two videoconference sessions via Microsoft Teams, which were recorded for later analysis. The second tool consists of the drawing up of an educational proposal for each study dimension aimed at primary schoolchildren, in which, in addition, the dimension is identified within the primary education curriculum, along with an explanation of its social relevance, a critical selection of 4–6 representative images and a critical evaluation of its educational scope. The resulting work was presented in class by way of a video presentation of around 5 min for each dimension and was also completed in written form. The students were able to fill in an online form in order to co-evaluate the presentations.

Tool 5 is a semi-structured questionnaire for individual critical reflection, with seven questions (one multiple choice question, two open questions and four on a Likert scale) which seek to verify Specific Objective 3. In the same way as with tools 1 and 2, a partial adaptation was made of a tool employed in a previous study in which the perceptions of trainee teachers regarding conflictive heritage and its use in the classroom were analysed (Castro et al., 2021).

### Characterisation of the Sample

A non-probabilistic intentional sample (Deslauriers, 2004) was employed, consisting of 16 participants, with a majority of women (56%). The size of the sample is small because it corresponds to a group of students of an elective subject of the Degree in Primary Education. As far as age groups are concerned, three quarters of the participants were under 25 years of age, while 25% were aged between 25 and 30. Although only 25% of the participants stated that they had, at some point, walked the Way of St. James, 94% claimed that they would like to do so, or would repeat the experience.

**TABLE 2 |** Procedure of the educational research carried out.

Phase	Description
<b>1. Starting point</b>	- Pre-test questionnaire (Tool 1)
<b>2. Heritage education based on the Way of St. James</b>	- Classroom work: 1) Teaching of contents on heritage, heritage education and the emotional dimension in teacher training; 2) The Way of St. James as a heritage asset: didactic support for the work and comprehension of key concepts - Access to and consultation of different materials in order to promote personal involvement regarding the topic of the Camino
<b>3. Case study</b>	- The students are organised into six work groups, each consisting of 2 or 3 people. Each group investigates one of the dimensions of the Way of St. James - Debate and presentation of the assigned topics (Tool 3) - Educational reflection: cooperative work on the assigned dimensions (Tool 4)
<b>4. Evaluation of the project</b>	- Defence of the work created by way of a video presentation and co-evaluation - Post-test questionnaire (Tool 2) - Semi-structured questionnaire for individual critical reflection (Tool 5) - Analysis of results

**TABLE 3 |** Categories of analysis of the written work on the Way of St. James.

Category	Description
<b>Teaching on heritage</b>	Reflects the putting into practice of teaching on heritage and its application to primary education. It is identified via the presence of theoretical aspects, such as the very definition of heritage, and methodological aspects, such as the use of data sources
<b>Type of heritage</b>	Identifies the characterisation of different types of heritage, from structural categories (tangible/intangible) to others closer to the subject (personal/cultural/natural)
<b>Elements of contextualisation</b>	Evaluates and identifies the types of approach employed by students when contextualising their work dimension. This is partly dictated by the instructions of the teaching team, but an attempt has been made to characterise the depth with which students describe the situation associated to their dimension, ranging from emotional and historical aspects to economic value

Participation in this teaching experiment is as close as the group has come to studying the topic of the Way of St. James as, when asked about any courses or seminars they had done on this pilgrimage route, none of the participants claimed to have attended any courses on the issue and only one of the 16 students stated that she had carried out some work on the Camino during her university studies.

## Procedure

This research has been divided into four consecutive phases which define the procedure employed for the development of the specific objectives and the application of the tools designed in this regard (Table 2).

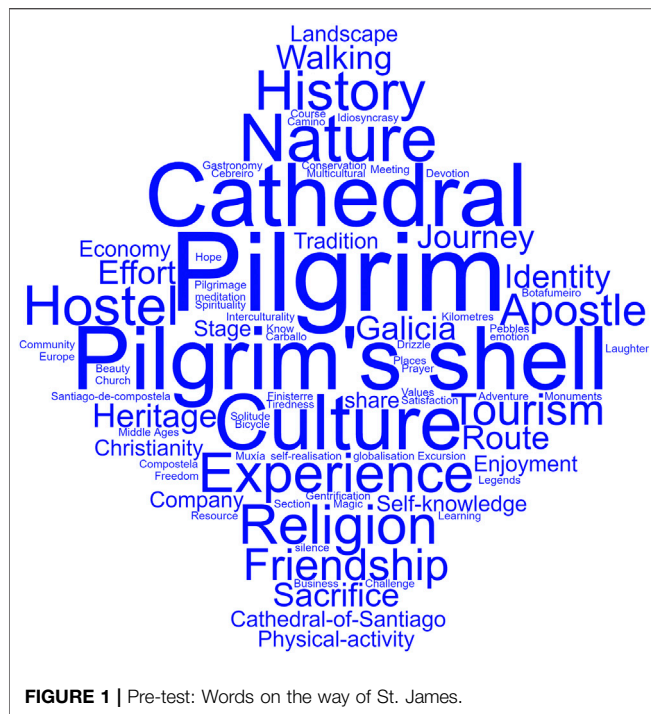
As the data collection ranges from questionnaires to narratives or open reflections of a qualitative nature (Bisquerra, 1989; Pérez, 1994; Flick, 2007), a data processing approach was proposed in order to make good use of the results obtained in each of the phases from the interpretive paradigm. The data obtained from tools 1, 2 and 5 have been included in a database. They were analysed using the SPSS statistical program. Following the recoding and recategorisation of the open questions, a comparative analysis was carried out of tools 1 and 2 in an attempt to reveal the contrast between the beginning and the end of the project, thus giving an account of its impact in terms of heritage awareness. The reduced size of the sample makes

**TABLE 4 |** Top ten words with the highest incidence related with the Way of St. James.

Pre-test		Post-test	
Pilgrim	10	Heritage	10
Cathedral	8	Culture	7
Pilgrim's scallop shell	8	Conservation	6
Culture	7	History	6
Nature	6	Symbols	6
Hostel	5	Link	6
Experience	5	Education	5
History	5	Emotions	5
Religion	5	Pilgrim	5
Friendship	4	Authenticity	3

it difficult for any comparison to be statistically reliable. A word cloud was created for the words on the Way of St. James based on a count of the contents of the responses. A representation was produced with these frequencies in which the size and shade of colour corresponds with the importance of the words in the set.

For the analysis of tools 3 and 4, the content analysis method has been employed. This makes it possible to find valid inferences for the context of the research (López, 2002). These productions show in a more detailed way the expression of achievements and are based specifically on the topic of the Way of St. James. Word clouds have been created, counting



viewing of the audio-visual presentations and the debate, a series of conclusions have been drawn.

## RESULTS

### **Objective 1: To Identify the Perceptions of Future Primary Education Teachers Regarding the Way of St. James and Its Educational Potential**

The teaching experiment contributed towards modifying the perception of the Way of St. James, which changed from a specifically touristic characterisation to one of a more heritage-based nature. “Culture” and “History” were the only words repeated among the ten with the highest incidence (**Table 4**). A total of 170 different words were collected in the pre-test and 159 in the post-test, which were represented graphically by word clouds to facilitate the comparison of these two phases of the research in semantic terms (**Figures 1, 2**).

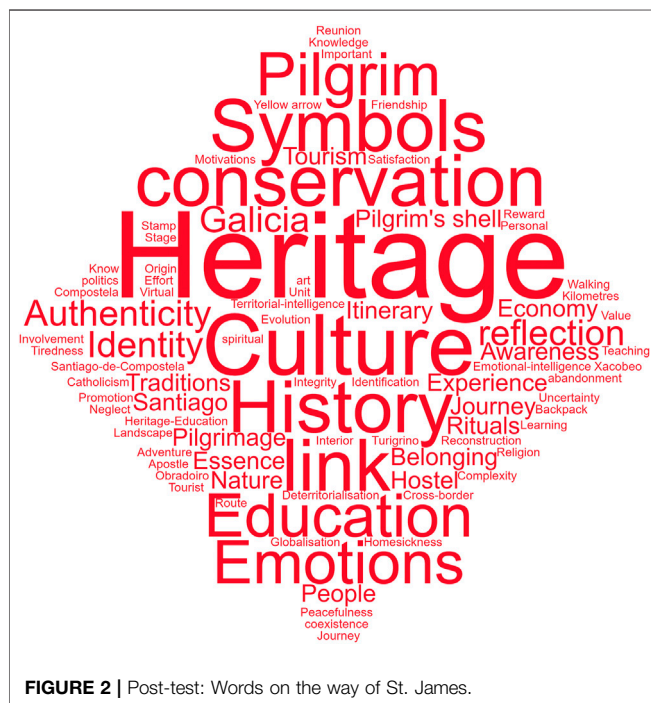
The dominant overall conception of the Camino was strengthened by the importance attributed to its elements of a natural, tangible and intangible nature. In overall terms, the most valued aspect was the habitat which constitutes its natural environment, an item which hardly experienced any variation between the stages of analysis and, in fact, improved slightly. Within tangible heritage, the category which increased its score most was that referring to the places located along the route, followed by two intangible elements (festivities and testimonies). The intangible components were those which, in general, improved their mean evaluation (**Figure 3**).

The view was held that the presence of the Way of St. James in the primary education curriculum was practically inexistent. The chance to carry out in-depth work on the route during this experiment contributed towards the fact that the teachers' consideration of the Camino as a teaching resource increased its mean value by more than double compared to the decrease in its integration in the curriculum (**Figure 4**).

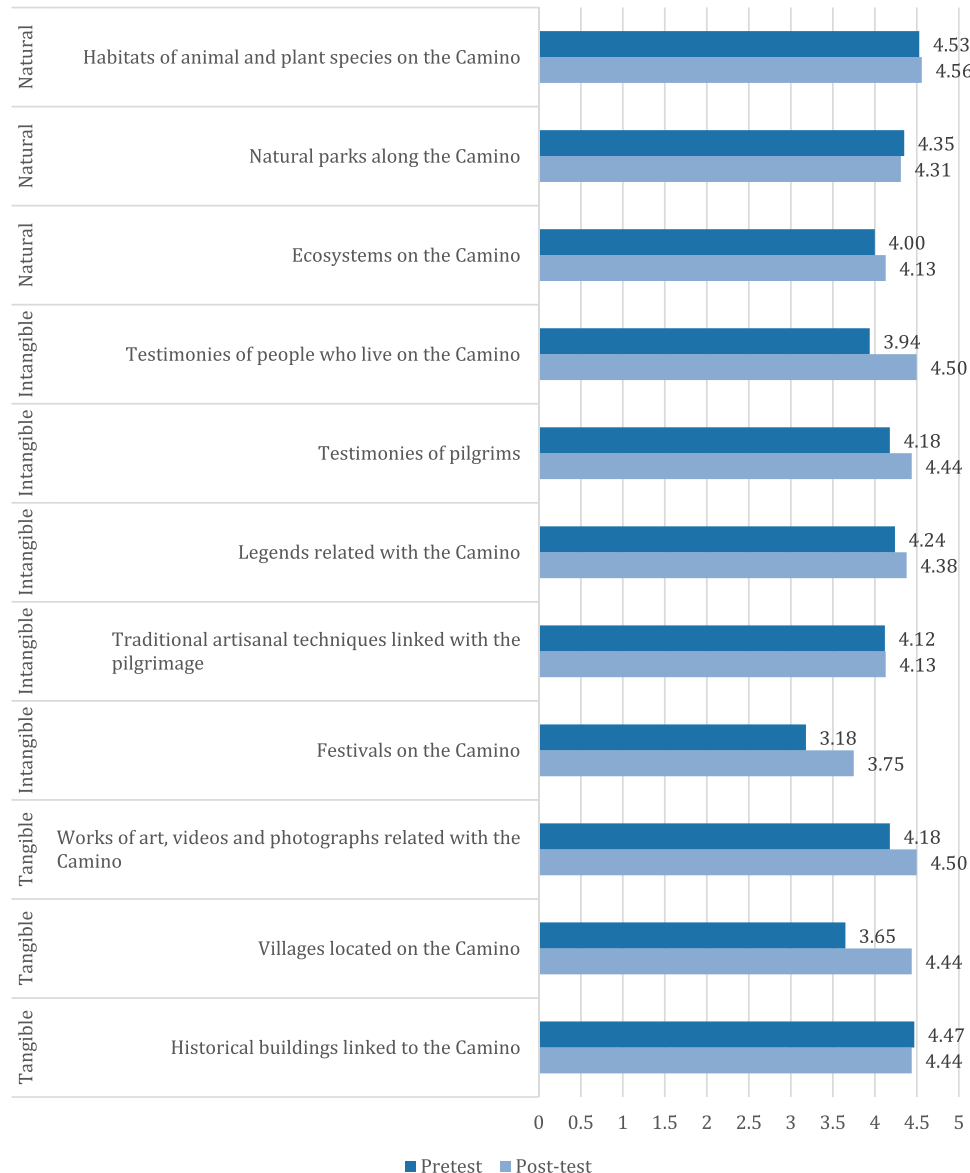
The view of the high educational potential of the Way of St. James was reinforced, particularly due to the fact that it makes it possible to gain knowledge and comprehension of the environment, as well as to acquire attitudes of defence and conservation. In fact, the latter item was that which increased its score the most (**Figure 5**).

When teaching about the Camino in the primary classroom, there was a preference for activities encouraging student participation, such as intergenerational workshops and visits to places of interest, rather than those of a more passive nature, such as talks by specialists and explanations given by the teacher. Furthermore, recovery and awareness-raising campaigns regarding the Camino underwent an increase of 0.91 points in their mean score (**Figure 6**).

As the sample was small in size, the cross-variable analysis between the study stages prevented any type of affirmation from being sustained with a sufficient degree of statistical support. The only question of interest regarding the research



the words and grouping those of the same semantic family together in order to assist in their identification. To facilitate the analysis of the written work, three categories have been defined: teaching on heritage, types of heritage identified and elements of contextualization (**Table 3**). From the critical



**FIGURE 3 |** Mean importance of the heritage components of the Way of St. James.

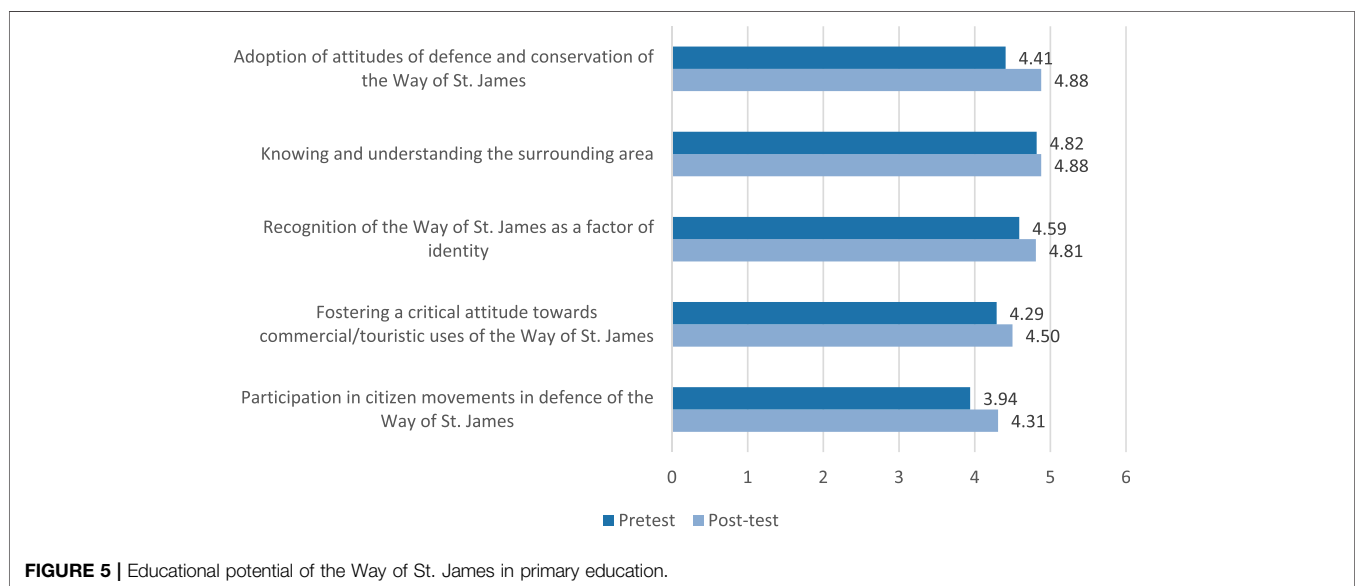
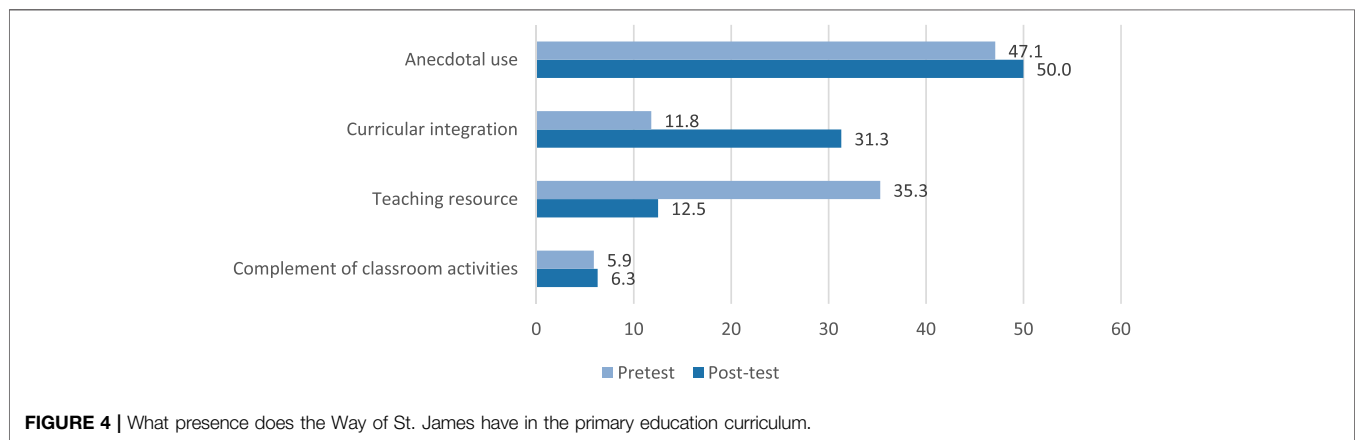
which has revealed (albeit in a restrictive way) a correlation was the experience of the students as pilgrims on the Way. In the pre-test, only 4 out of 16 students claimed to have walked the route. In relation to the presence of the Way in the primary curriculum, no differences were found. However, some elements seemed to indicate some kind of influence of the experience as pilgrims, although never against the general trend. The campaigns for the recovery of the Camino appear among the most notable differences with a mean value which increased by 2 points among those who had walked the route and only 0.4 points among those who had not had this experience. In order to support this crossing of information, a comparative table was produced with the

differences in the mean scores of each of the elements, with the most significant variations highlighted in bold (Table 5).

### **Objective 2: To Analyse to What Extent Future Primary Teachers Assume the Usefulness of Heritage Education to Teach the Topic of the Way of St. James in the Primary Classroom**

The participants applied the key concepts worked on in the subject on heritage and education, particularly for supporting arguments, although they hardly demonstrated that they knew how to handle secondary sources. The acceptance of the fact that





heritage is a cultural element, both in its tangible and intangible facets, is identified. The participants did not always bear in mind its construction, but, when this was shown, an emotional contextualisation was also made:

“Emotions play a key role in the creation of links with heritage. For this reason, children should be educated from an early age, using a methodology which promotes the development of Emotional Intelligence, thus generating feelings, in a gradual way, in children and teenagers. Positive emotions towards heritage, both tangible and intangible” (Conclusions D5).

They contextualised the dimensions of the study from the field of legislation and the interest of the proposal which they designed was socially accepted, although they did not always pay attention to aspects such as history and economics (Table 6).

The participants were in agreement with regard to the educational potential of the Way of St. James and recognised that this topic provides students with elements for a better understanding of their environment, of themselves and of the culture in which they are growing up. In this regard, when

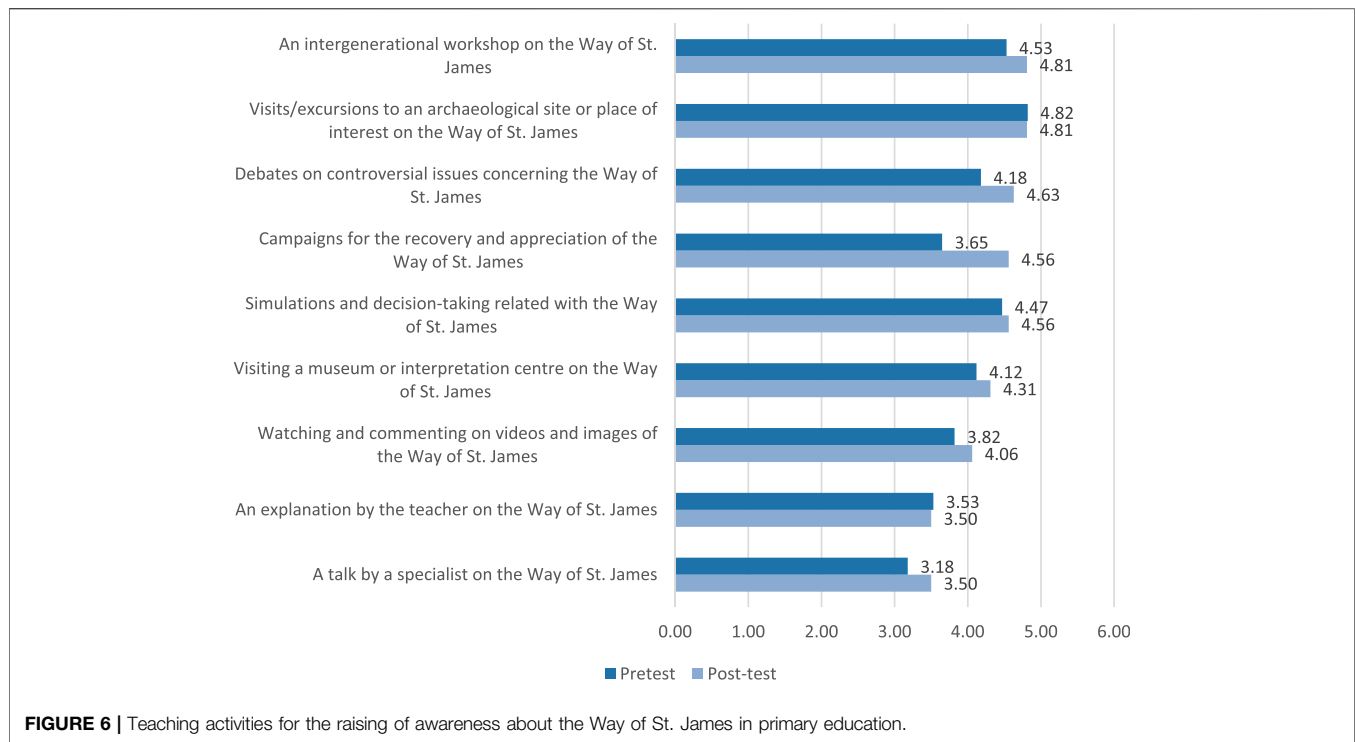
characterising the problematic issue of the heritage associated to the different dimensions of the Camino, they also identified education as the best and most effective solution to the dilemmas posed. Thus, the participants considered that, thanks to studying this topic in the classroom, the heritage evaluation of the Camino would improve, always seeking the best possible diversity in the identification of their heritage, but, above all, developing a civic consciousness which fosters conservation:

“It is our job as future teachers to change the direction of this situation towards a circumstance in which it has the importance it deserves, and to understand the educational scope it may have” (Conclusions D2).

“School also has a key role to play in instilling social responsibility in students in terms of the conservation of heritage” (Conclusions D3).

The conclusions of the written texts enable us to identify that the participants gave priority to the conception presentation of heritage and its contribution to education, while they did not necessarily dedicate themselves to the main aspect of the





dimension assigned (Figure 2). Thus, it can be observed that “students” and “heritage” are the words which stand out most, whereas the key concepts of these dimensions appeared with lower overall weight. In any case, the participants unanimously recognised the educational value and potential of the Way of St. James, which points towards an improvement in heritage knowledge and conservation. They also highlighted the inherent complexity of the task implying heritage education and agreed on the consideration of heritage in its multi-dimensionality.

The debates held during the sharing of information have been analysed and contrasted with the materials and tools reviewed up to the present time, identifying a limited relationship with teaching aspects. As the different dimensions were presented via audio-visual recordings, all of the groups included, in one way or another, their educational application, although the debates focused on the general theme of the Way of St. James and on the different controversies surrounding the dimension studied. This can be explained by the personal involvement of the students and by the fact that they are general approaches in which social debate tends to be active. In this regard, it was precisely in these sessions of debate and idea-sharing that the awareness of students with regard to heritage consciousness linked to the Camino become clearer.

“It helped us to gain more in-depth knowledge of what surrounds us in our daily lives. We live in Santiago de Compostela and thought we knew what the Camino was but after everything we have learned, both in the project and in the classes of the subject, we have discovered that it is not what we thought it was” (Conclusions D4).

The debate generally focused on the defence of aspects of ownership when faced with possible loss. The Way of St. James was defined as a heritage asset subject to different risks, ranging from the profanation of its authenticity brought about by mass tourism, to the transformation of its elements (routes, landscapes, monuments) as a consequence of giving priority to touristic or economic interests:

“Preserving heritage assets is a complex issue, above all something as complex as the Way of St. James, due to its great scope which is impossible to control as a whole and to, thus, avoid vandalism or other types of destruction due to its use” (Conclusions D1).

The principle of authenticity was put forward in a conflictive sense, in line with the review carried out from the perspective of the anthropology of heritage and tourism (Cohen, 1988; Bendix, 1997) and from the conservation and restoration of monuments (García Cuetos, 2009). On the one hand, it promotes essential historical conservation, but, on the other, it can result in an obstacle to the improvement of infrastructures and the accessibility of the experience of the Camino. With regard to the latter issue, debate was held on the experience of the Camino and the new ways in which this takes place: from cycling to new forms of tourism which simplify the pilgrimage to its minimum expression. Perhaps due to the presence of the teaching staff, the students proved to be averse to proposals for the renovation of certain heritage aspects of the Camino, such as the primitive routes, as they tended to give priority to conservation in terms of purity, rather than proposing or reflecting on a renovation which could co-exist with its authenticity.

The roles or capacities of the social agents involved in the Camino were perceived as complex and extremely difficult to

**TABLE 5 |** Comparative table of means according to experience walking the Way of St. James.

		Pre-test	Post-test	Diff.	Pre-test	Post-test	Diff.	Diff.
		Yes	Yes		No	No		Pre-post
Heritage components	Historical buildings linked to the Camino	4.0	4.5	0.5	4.7	4.4	-0.3	-0.1
	<b>Places located on the Camino</b>	3.2	4.5	<b>1.3</b>	3.8	4.4	<b>0.6</b>	<b>0.8</b>
	<b>Works of art, videos and photographs related with the Camino</b>	3.2	5.0	<b>1.8</b>	4.6	4.3	<b>-0.3</b>	<b>0.3</b>
	Legends of the Camino	4.4	4.3	-0.1	4.2	4.4	0.2	0.2
	Testimonies of pilgrims	3.8	4.3	0.5	4.3	4.5	0.2	0.2
	<b>Testimonies of people who live along the Way</b>	3.2	4.3	<b>1.1</b>	4.3	4.6	<b>0.3</b>	<b>0.6</b>
	<b>Festival events on the Camino</b>	2.8	3.8	<b>1.0</b>	3.3	3.7	<b>0.4</b>	<b>0.6</b>
	Traditional artisanal techniques linked with the pilgrimage	4.0	4.3	0.3	4.2	4.1	-0.1	0.0
	Ecosystems on the Camino	4.0	4.3	0.3	4.0	4.1	0.1	0.1
	Natural parks along the Camino	4.2	4.5	0.3	4.4	4.2	-0.2	-0.1
	Habitats of animal and plant species on the Camino	4.8	5.0	0.2	4.4	4.4	0.0	0.1
Educational activities	A talk by a specialist on the Way of St. James	3.0	2.3	-0.7	3.3	3.9	0.6	0.3
	The teacher's explanation of the Way of St. James	3.0	3.0	0.0	3.8	3.7	-0.1	0.0
	Visit to a museum or interpretation centre on the Way of St. James	3.2	3.5	0.3	4.5	4.6	0.1	0.2
	Simulations and decision-taking related with the Way of St. James	4.2	4.8	0.6	4.6	4.5	-0.1	0.1
	Visits/field trips to an archaeological site or place of interest on the Way of St. James	4.6	5.0	0.4	4.9	4.8	-0.1	0.0
	Viewing and commentary of videos and pictures on the Way of St. James	3.2	3.8	0.6	4.1	4.2	0.1	0.3
	<b>Campaigns for the recovery and appreciation of the Way of St. James</b>	2.4	4.5	<b>2.1</b>	4.2	4.6	<b>0.4</b>	<b>1.0</b>
	Debates on controversial issues concerning the Way of St. James	4.6	5.0	0.4	4.0	4.5	0.5	0.4
Educational potential	An intergenerational workshop on the Way of St. James	4.2	4.8	0.6	4.7	4.8	0.1	0.3
	Knowing and understanding the environment	4.6	4.8	0.2	4.9	4.9	0.0	0.1
	Recognition of the Way of St. James as a factor of identity	3.6	4.5	0.9	5.0	4.9	-0.1	0.2
	<b>Adopting attitudes of defence and conservation towards the Way of St. James</b>	3.6	4.8	<b>1.2</b>	4.8	4.9	<b>0.1</b>	<b>0.5</b>
	Fostering a critical attitude towards commercial/touristic uses of the Way of St. James	4.2	4.8	0.6	4.3	4.4	0.1	0.2
	Participating in popular movements in defence of the Way of St. James	3.0	3.3	0.3	4.3	4.7	0.4	0.4

coordinate and agree upon, although the objective may be clear and unanimous with regard to the conservation of heritage. In overall terms, the students linked the solution to education, as, in such a way, citizens will be able not only to know how to actively participate in social debate with regard to the conservation of the Camino, but their decisions will also be more critical, precisely due to the fact of having received an education based on interpretation, reflection and debate. This emphasis on education was accompanied by a way of understanding teaching by way of research methods and cooperative and pro-active models in which knowledge is built in a meaningful way, extending beyond the mere memorisation of contents. Overall, it has been observed that the participating students gained an awareness of the Camino and perceived it as an element with a great deal of teaching potential.

“It doesn’t make sense for learning about this key element of our identity to be based on the memorisation of data or descriptions in textbooks along with pictures of tangible objects and places.” (Conclusions D5).

“We want students to identify themselves as part of this heritage, as without people, there is no heritage. We also want them to transmit it both intergenerationally and in their daily lives, as this heritage is also an extremely important part of our identity.” (Conclusions D6).

### Objective 3: To Evaluate the Teaching Experiment Implemented in Order to Encourage Heritage Awareness Towards the Way of St. James Among Future Teachers

The participants evaluated the teaching experiment positively. They highlighted, above all, three aspects: interest in the Way of St. James as a teaching resource; awareness of the Way of St. James (the main objective of this study); and reflection on heritage education (Figure 7).

As far as the work proposed in order to address the different dimensions related with the Camino is concerned, the section referring to the design of an educational proposal unanimously obtained the highest score (Figure 8). Although, in general, the mean evaluations are high, the selection of representative images of the particular topic of analysis was the least valued aspect.

The students also unanimously manifested their intention to carry out activities related with the Way of St. James in their future teaching careers, in order to contribute towards its reasoned evaluation in a broad sense, which includes conservation, and to promote its recognition as a fundamental element in the construction of identity (Figure 9).

**TABLE 6** | Comparison of the written assignments on the Way of St. James.

		D1	D2	D3	D4	D5	D6
Teaching on heritage	Definition of heritage	Yes	Yes	Yes	No	Yes	Yes
	Characterises and distinguishes types of heritage	Yes	No	Yes	No	Yes	Yes
	Secondary sources of data	No	Yes	No	No	No	No
	Discusses educational usefulness	Yes	Yes	Yes	Yes	Yes	Yes
Type of heritage	Personal	Yes	No	No	No	Yes	Yes
	Cultural	Yes	Yes	Yes	Yes	Yes	Yes
	Tangible heritage	Yes	Yes	Yes	Yes	Yes	Yes
	Intangible heritage	Yes	Yes	Yes	Yes	Yes	Yes
	Natural	No	No	Yes	No	Yes	No
Elements of contextualisation	Historically	Yes	No	Yes	Yes	No	Yes
	Emotionally	Yes	No	No	No	Yes	Yes
	Sociologically	Yes	Yes	Yes	Yes	Yes	Yes
	Economically	No	Yes	Yes	Yes	No	No
	Legally	Yes	Yes	Yes	Yes	Yes	Yes

“They should learn the importance and relevance of the Camino on their surroundings. They should learn different stories about different villages with relevance in terms of heritage. They should be aware of the evolution of the Camino as a reflection of the different elements of heritage.” (Response from one of the students to Tool 5).

“To talk about and transmit our heritage, particularly the Way of St. James. To recognise the Camino as part of themselves, as their identity. To have an emotional link with it...” (Response from one of the students to Tool 5).

Civic-mindedness has been the most highly value educational aspect in working on the Camino in the classroom. This evaluation is coherent with the discourse expressed by the participants throughout the whole experiment (**Figure 10**).

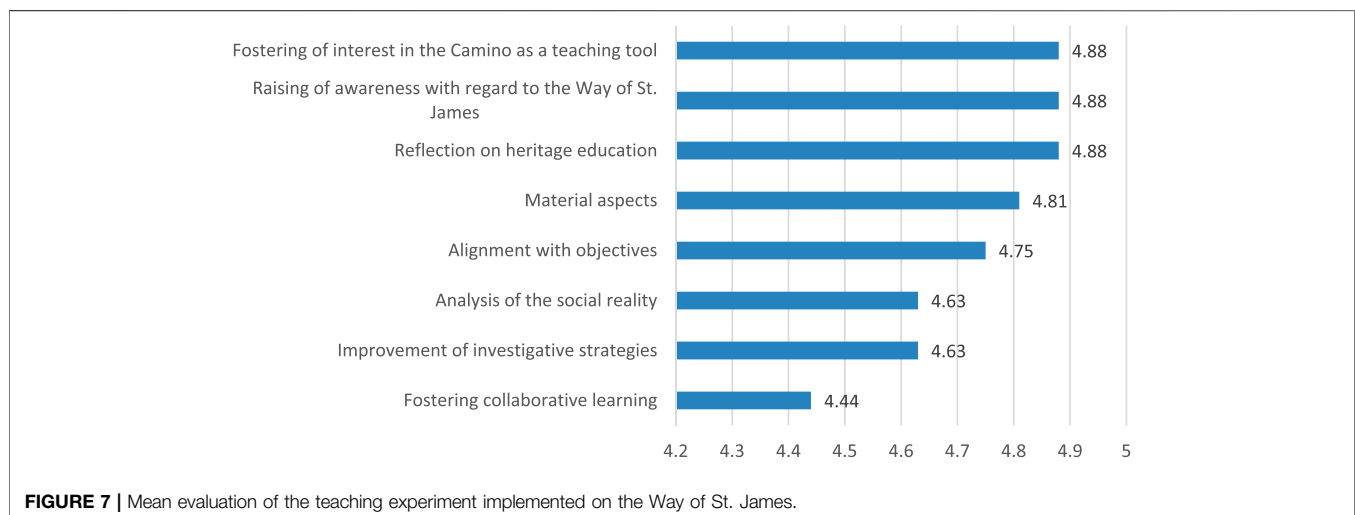
Of the learning dimensions on the Camino worked on in the classroom, its multifaceted dimension was the highest-scoring due to its teaching potential, followed by the emotional dimension (**Figure 11**). In the case of the former, although its breadth may complicate an in-depth treatment or even lead to a superficial approach to many topics, it is possible to put into practice teaching dynamics which foster curricular interchange. On the other hand, the emotional approach was generally pointed

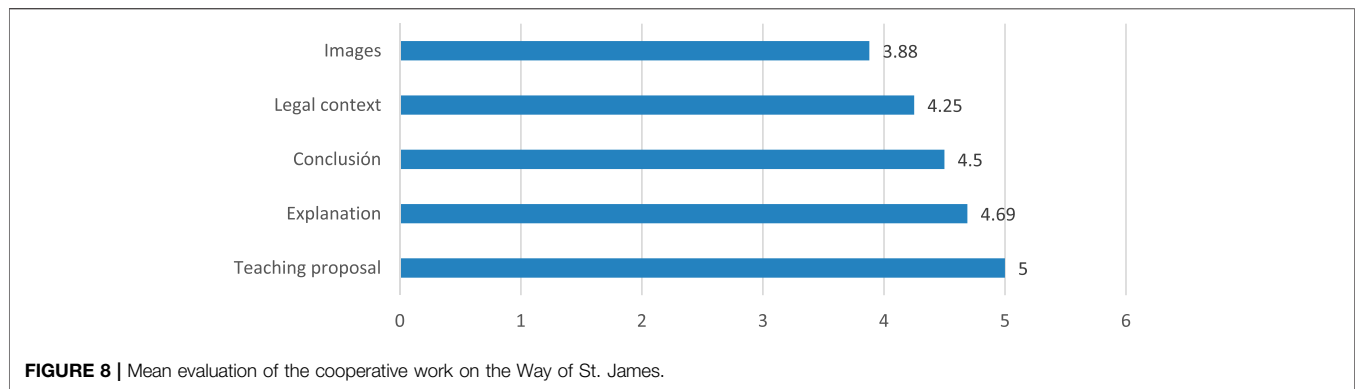
out as the most appropriate for motivating the personal involvement of children and fostering a feeling of ownership, which often leads to favourable attitudes towards heritage conservation.

## DISCUSSION

In accordance with the results presented, the initial hypothesis is confirmed. The teaching experiment carried out with future teachers on relevant social problems related with the Way of St. James has contributed towards the raising of heritage awareness. By way of active learning methods, particularly research, the participants were able to resignify this pilgrimage route via an involvement which involved identity, affective and personal aspects, in addition to contemplating a range of associated elements.

The primary objective of the study was to identify the participants’ perceptions on the Way of St. James and its educational potential. In line with other research analysing the opinions of future teachers with regard to heritage (Estepa et al., 2008; Estepa et al., 2013) and its use to promote critical teaching

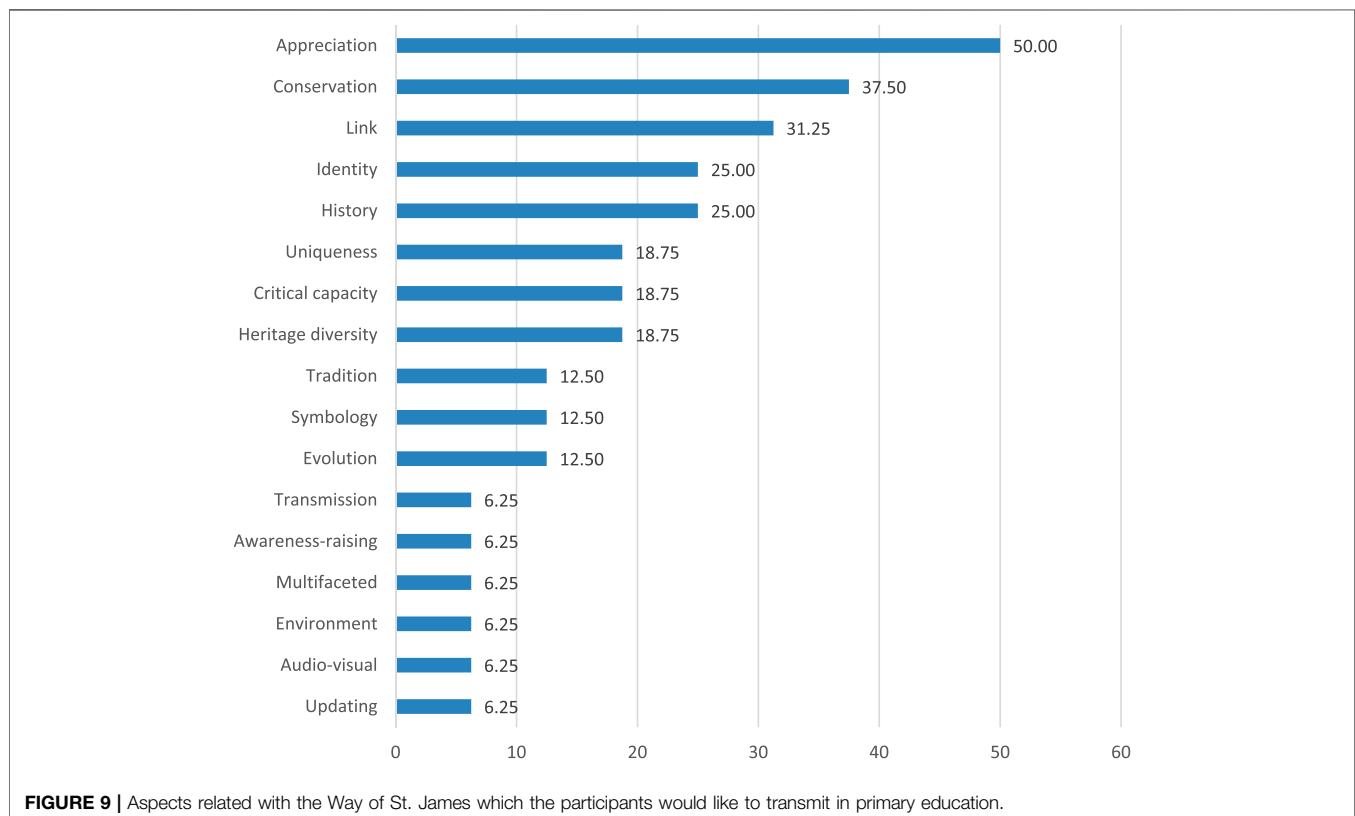
**FIGURE 7** | Mean evaluation of the teaching experiment implemented on the Way of St. James.

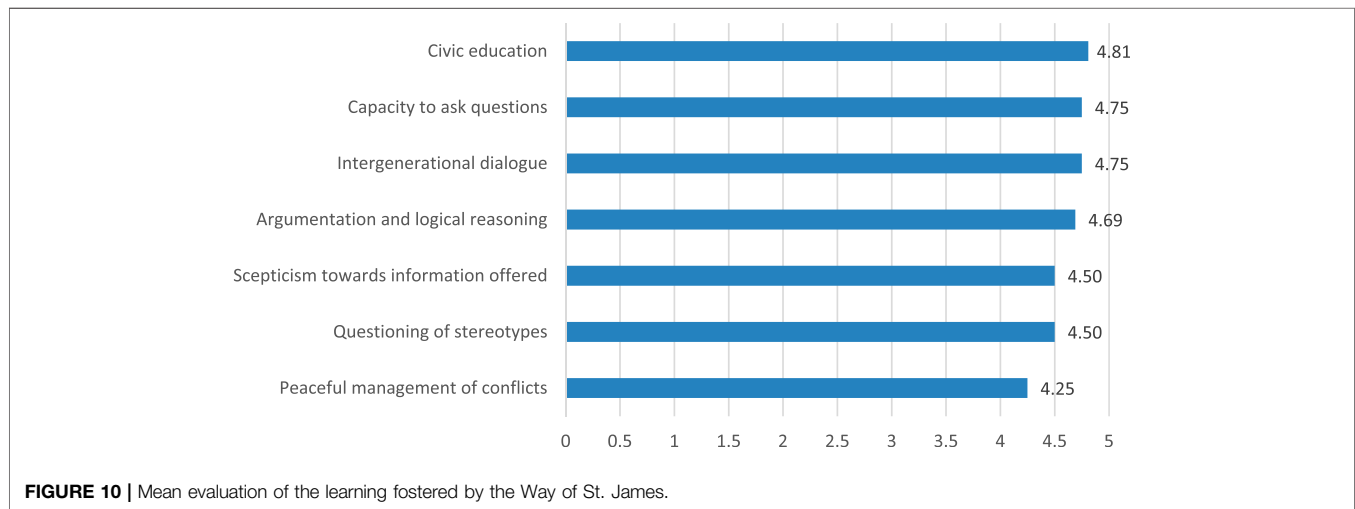


and the development of social and civic skills (Pinto, 2016; Miralles et al., 2017; Alves and Pinto, 2019; Chaparro et al., 2019; Gómez et al., 2020), our results appear to demonstrate that a large proportion of the participants learned to value emotional dimensions as triggers for learning processes associated to elements of memory and the construction of identity. By way of semantic enrichment, it has been demonstrated that the dominant touristic-commercial perspective (pilgrim, cathedral, scallop shell) has moved towards a symbolic-identity point of view (heritage, culture, conservation). This evaluation seemed to respond to a human approach to the concept of heritage which enabled the participants to understand their relational component. In other words, they recognised that it is people

who signify elements, attribute values and confer contextual points of reference. In this way, their role is decisive in converting assets into heritage and, via education, heritagising them (Fontal, 2003). As a social construct, heritage is not a given, it is devised by hegemonic sectors for certain purposes and, therefore, undergoes changes in new circumstances (Prats, 1997).

The perception, both at the beginning and end of the experiment, that heritage and the Way of St. James are represented in an incidental way within the legal framework may be due to two reasons: 1) Before the experiment: we detected a distancing on the part of future teachers with this topic as they had hardly received any teaching on the Camino and heritage. Indeed, in the primary education curriculum in Galicia (Xunta,





2014), the context of our research, the Camino is only referred to in passing in the penultimate year of the six of which this stage of education consists. This deficiency also coincides with the results of studies which have identified a residual use of heritage in schools and universities, along with epistemological and methodological difficulties for teaching it in the classroom due to a lack of training in how to teach it (Estepa, 2001; Cuenca, 2003; Molina and Muñoz, 2016). The lack of specific teaching on heritage in teacher training in Spain (Molina and Muñoz, 2016; Moreno-Vera et al., 2020), seems to be due to the temporal distance between the approval of the requisites established for teacher training degrees in primary education (de España, 2007) and the current legal framework (de España, 2013). Thus, there is a maladjustment between the knowledge of teachers and the integration of heritage in the curriculum (Fontal et al., 2017). 2) After the experiment: having worked in depth on the Way of St. James made it possible to identify its presence in the curriculum as an educational resource, albeit in an incidental way. This result may have been due to the fact that, after having recognised the wide range of teaching possibilities offered by the Camino, the future teachers considered that its recognition in the curriculum was insufficient and did not fit with the experiential perspective

(link) worked on during the experiment. Indeed, the general legal framework in Spain presents heritage from an integral perspective but still does not stress its main dimension (the relational dimension) (Martínez and Fontal, 2020), as has been called for in the European context since the Faro Convention (Council of Europe, 2005).

The rediscovery of the study of the Way of St. James as an educational content indicated that the participants succeeded in becoming fully aware of this pilgrimage route. To work on the Camino in their future teaching, the participants highlighted active methodological strategies focused on students in order to help them to be aware of and understand their surroundings, become aware of the conservation of the Camino and incorporate it into the construction of their cultural identity. This attitude is in line with the need to design projects on heritage education and the revision of identities in non-formal contexts (Fontal and Marín, 2016; Garner et al., 2016; Rivero et al., 2018) which can foster social interventions in which people participate in the review and critical selection of the elements with which they wish to characterise themselves.

The second objective of the study analysed the extent to which the future teachers assumed heritage education as a strategy for





working on the Way of St. James in the classroom. In the debate and group work sessions, they expressed their position in favour of a model of teaching which is reflexive, critical and committed with the nearest cultural points of reference (Delgado and Estepa, 2017; Lucas 2018; Felices-De la Fuente et al., 2020), as a vehicle for acquiring context, evaluation and participation tools. All of these elements are essential in heritage education and in the education of citizens who reflect on culture and are civically aware. Along these lines, teaching experiments have been carried out which analyse the connections of people with their social reality through heritage and territorial intelligence (López-Arroyo, 2017; Trabajo and Cuenca, 2020).

However, difficulties were observed in the handling of sources to support arguments in interventions in the classroom due to limited knowledge of the Way of St. James and of the defining aspects of heritage. If this were not the case, greater depth would have been sought in the scope of the educational proposals presented at the end of the training sequence. When asked about the notion of authenticity, for example, it could be observed that the participants associated it with a static conservation of heritage, tending towards its fossilisation or, in other words, its denaturalisation and decontextualization, noting the processes of renovation as a threat. In order to understand that in living contexts such as the villages through which the Way of St. James passes, relative in themselves, authenticity moves towards the notion of integrity (Luxen, 2019), the trainee teachers assumed that to enjoy heritage, education must focus on a participatory approach, in such a way that the adaptation of these enclaves to the contemporary needs identified by their communities are kept alive. At the end of the experiment, when asked to what extent the study dimensions worked on should be employed in the classroom, this debate led to the participants highlighting the dimension of authenticity, followed by those of emotion and timelessness.

The initial difficulties detected in the sample connect with other research which shows that future teachers need greater methodological and epistemological training in order to teach heritage in their future teaching careers (Chaparro and Felices, 2019; Gómez et al., 2020). The improvement in professional skills implies carrying out a review of university study plans and legal texts which make it possible to integrate heritage in a more decisive way as a cross-cutting element for education in historical thinking, the understanding of the present, democratic decision-taking and critical participation in the construction of identity.

The third objective of the study evaluated the teaching experiment in terms of the heritage awareness of trainee teachers towards the Way of St. James. Evidence of the good result obtained was the unanimous evaluation with regard to the intention of integrating the contents and proposals designed into their future teaching practice. They highlighted that the theoretical and practical development of the project awakened their interest towards the Camino as a teaching resource and it was appropriate for raising their awareness and reflecting on the role of heritage education. They also recognised that an activity of this type contributes towards the reasoned evaluation of heritage and of the

Camino to become aware of its conservation and relevance in terms of culture and identity.

Research, the active learning method chosen by the teacher (Gómez et al., 2018) for dealing with social problems relating to the Camino, contributed towards the development of the capacities to investigate, listen, reason and reach a consensus, applied, above all, in the debate sessions and in the audio-visual presentation of the group work. This strategy encourages the critical comprehension of social phenomena over traditional dynamics oriented towards memorisation (Oller, 2011) and their collaborative management from the classroom (Díaz and Felices, 2017; Jiménez and Felices, 2018). Learning based on real situations supports the social responsibility of education. If these situations are in the local context, it is possible for students to understand and analyse their own reality and to be able to apply what they have learned in their own communities.

The fact of systematising controversial issues into different analytical dimensions (multifaceted, cross-border, timeless, performative, emotional and sustainable) made it possible to work with the procedure of the case study from a constructivist viewpoint of the teaching and learning process (Stake, 1998; Prats, 2005; Coll et al., 2006; Gil and Ibáñez, 2013; Gómez and Rodríguez, 2014).

Taking as a reference the study by López-Facal and Santidrián (2011) on tackling conflictive issues in the classroom, it was considered that this teaching strategy applied to the Way of St. James, on the one hand, shapes a civic-minded citizenship with the critical capacity to argue its opinions and leads to an interest in intergenerational dialogue and, on the other, contributes towards arguing and putting forward logical reasoning, doubting information, questioning stereotypes and managing conflicts in a peaceful way. This evaluation is coherent with the discourse shown in general by the participants throughout the experiment, in which education via heritage dilemmas is defined as a tool for civic education and forms the connection between the classroom and the environment. This coincides with the results of the research conducted by Moreno-Vera et al. (2020) with future teachers of Primary Education of Andalusia and Valencia, on intangible heritage, in which an identity element is related to the tourist-commercial perspective. Although in some contexts controversial issues are still not included with normality in the initial training of history teachers and, by extension, in their classes (Toledo et al., 2015), they constitute a fundamental approach for achieving the emotional engagement of students and, via dialogue, moving towards rational thinking (López-Facal and Santidrián, 2011).

In general terms, it has been observed that the future teachers developed a greater degree of awareness towards the heritage associated with the Way of St. James, learned to situate it in its heritage context and transformed their semantic Universe towards a symbolic-identity perspective which takes into account and applies the concepts of heritage education. Through this approach, an active role of communities is advocated in the correct conservation of heritage in all of its facets.

## CONCLUSION

### Limitations of the Study

- 1) A small-scale qualitative investigation without replication and with non-generalisable results (Bisquerra, 1989).
- 2) An intentional, non-probabilistic sample (Deslauriers, 2004) with few participants (16).
- 3) The research context was an optional subject in the third year of a primary education teaching degree.
- 4) Limited duration of the research, from 1st February to May 31, 2021, in line with the indications established by the funding institution. The teaching experiment in the classroom ran over eight sessions in order to handle and interpret the results within the deadline.

### Educational Implications

- 1) An increase in heritage education in initial teacher training (Fontal et al., 2017).
- 2) The capacity for heritage socialisation in professional practice (Cuenca, 2016)
- 3) The critical resignification of heritage as a social construct (Prats, 1997) and as an emotional link (Fontal, 2003; Fontal, 2020).
- 4) The civic education of the citizenship via social problems and controversial issues (López-Facal and Santidrián, 2011) related with heritage (Castro-Fernández et al., 2021a; Castro et al., 2021b).
- 5) The educational use of heritage for the development of historical thinking (Gómez et al., 2020) and the development of critical thinking (Ross, 2017).
- 6) Active learning methods from a constructivist approach: research and case study (Gómez and Rodríguez, 2014; Gómez et al., 2018).
- 7) The raising of heritage awareness (Fontal, 2003) and cultural identity (Gómez, 2012).

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- 8) The empowerment of communities to participate in the governance of heritage (Jiménez and Sánchez, 2016; Yan and Chiou, 2021).

## DATA AVAILABILITY STATEMENT

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

## AUTHOR CONTRIBUTIONS

Conceptualisation, BC-F; methodology, BC-F and RL-F; formal analysis, BC-F; writing—original draft preparation, BC-F; writing—review and editing, RL-F and GJ-E; funding acquisition, BC-F. All authors have read and agreed to the published version of the manuscript.

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# Approaches to History Teaching According to a Structural Equation Model

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Approaches to the teaching and learning of history imply a series of changes and improvements which are adapted to the new epistemological and disciplinary contexts. This calls for a series of transformations in teaching approaches and methodological strategies in order to bring them more into line with the current model of history education. The purpose of this article is to analyse the validity of a questionnaire designed to identify the perceptions of in-service teachers regarding the teaching approaches they believe to be most appropriate for teaching history in primary and secondary/baccalaureate education in Spain. The research methodology employed was quantitative with a non-experimental design based on a Likert-type questionnaire. The sample is non-probabilistic and consists of 332 active teachers who teach history in primary and secondary/baccalaureate education in Spain. For the analysis of the data, a structural equation model was used based on exploratory and confirmatory factor analyses. The results indicate that the teachers surveyed identify three teaching approaches in accordance with the theoretical approach underlying the research. Specifically, a traditional approach based on the memorisation of content; an intermediate model in which there is interaction between teachers and students, through strategies such as discussion, and a third focused on students and the development of historical and critical thinking. These results have important implications for the initial and on-going training of teachers, especially in terms of content.

**Keywords:** teaching approaches, history, structural equations, primary education, secondary education, baccalaureate

## INTRODUCTION

The identification of teaching models is a complex but useful task as it enables the characterisation of teaching profiles and makes it possible for comparison both on a national scale and between countries. Its greatest difficulty lies in defining the different teaching approaches based on each one's characteristic features. Over recent decades, various proposals have been put forward to classify teaching models taking into account different variables, such as teachers' conceptions, students' perspectives, teaching methodology and the education curriculum (Kember and Kwan, 2000; Samuelowicz and Bain, 2001; Biggs, 2005; Postareff et al., 2008). One of the most significant lines of research on an international level has been that developed by Trigwell and Prosser (2004) based on interviews carried out with teachers and a questionnaire known as the Approaches to Teaching Inventory (ATI) (Trigwell et al., 2005). Its results have shown that there are different

**TABLE 1 |** Intentions and strategies of teaching approaches.

Intentions	Strategies		
	Teacher-centred	Teacher-student interaction	Student-centred
Transmission of information	A		
Acquisition of concepts	B	C	
Conceptual development			D
Conceptual change			E

Source: Trigwell et al. (1994), p.78).

configurations deriving from the combination of the different conceptions which teachers may have in relation to their aims and their teaching methodology. Therefore, for the first of the variables, four approaches were identified, whereas in relation to methodology three were defined. From the combination of these four different conceptions of teaching and the three methodological approaches, five different teaching approaches have been established by these authors, which can be grouped into three large models or ways of teaching. In the first model, the role of the teacher is greater, as the importance lies in the transmission of contents, that is, in the amount of knowledge that the student knows, while the methodology employed by the teacher is not so significant. In this case, students take on a passive role, restricted to receiving and memorising the knowledge transmitted by teachers, thus a one-way relationship is established. It can be said that the only learner in this model is the student, without taking into account his/her experience, prior knowledge, characteristics or context. The most commonly employed methodological strategy is the master class and the main resources used are the textbook and class notes. In addition, a final examination of the learning contents is generally set (Galvis, 2007; Castejón et al., 2009; Hernández et al., 2012).

On the other hand, there is the student-centred teaching model, which is different from the former model in that the intention of the teacher is to bring about a conceptual change and the intellectual growth of the student. Thus, the teacher acts as a guide in orienting the student in the process of the construction of his/her own knowledge, encouraging a constant change in his/her conceptions and offering him/her opportunities to interact, debate, investigate and reflect. The ultimate aim of this model is that students learn the contents by questioning and reflecting on them. The teaching strategies employed are active and are based on research. Unlike the previous model, which fosters competitiveness and individualism, this approach favours interaction and cooperation between the individuals who form part of the teaching and learning process and prioritises continuous assessment (Vermunt and Verloop, 1999; Kember and Kwan, 2000; Trigwell et al., 2005; Henze and van Driel, 2011).

Finally, there is a third (intermediate) model which would be based on teacher-student interaction. It should be noted that there is a hierarchical relationship between the different approaches, such that each includes elements of the previous one. Thus, approach B includes elements of approach A, and approach E includes elements of the preceding approaches: A, B, C and D (Table 1).

In Spain, the ATI questionnaire has been applied by the team of Hernández et al. (2012), who carried out different studies to identify the teaching approaches of Spanish university lecturers. First of all, Monroy et al. (2015) conducted a study to analyse the reliability and validity of the versions of the ATI developed in the Spanish language and to present a proposal for a questionnaire which would determine its validity and internal consistency. Based on this proposal, the study carried out by Hernández-Pina and Monroy (2015) sought to determine the perception of university lecturers regarding the skills which should be acquired by their students. To achieve this, they applied the ATI questionnaire and a list of cross-cutting skills for university degrees of five branches of knowledge. The main conclusion drawn from the results was that, until the 2009/2010 academic year, which was when the new European framework for university teaching was implemented, the prevalent teaching model employed in the classroom was a teacher-centred approach based on knowledge transmission. From the changes in the study plans, stimulated by the inclusion of skills, the need was highlighted to advance towards the creation of methodological strategies, which would flow into a teaching approach focused on the student (Soler et al., 2018). This transition towards a model which fosters more active participation on the part of the student can also be observed in some of the research carried out in Latin America, such as the studies on teaching profiles conducted by Braslavsky (2006) and, more recently, the study carried out by Yunga et al. (2016), in which the ATI questionnaire was administered to 171 university lecturers from different fields of knowledge. The main results of this study highlighted that these teachers were divided into three groups according to their teaching style. The most numerous group presented a teaching approach focused on the student (59.65%); 35.09% of the teachers preferred a teaching model centred on the teacher; and the remaining 5.26% presented an undefined teaching profile.

Quite opposite results were obtained in Malaysia following the application of the ATI questionnaire in higher education. In this case, the research determined that the model based on the transmission of information was prevalent (Goh et al., 2014). A similar circumstance has been observed in Turkey following the use of the ATI tool by 140 university teachers from 31 different faculties, where the results showed that in undergraduate degrees, the prevailing teaching approach is focused on the teacher, whereas, at postgraduate level, teachers adopt a teaching approach centred on the student (Aksoy et al., 2018). Furthermore, the results of this study demonstrated that

associate lecturers presented a teaching approach more focused on the student, in comparison with senior lecturers, and a negative and weak relationship was highlighted between seniority and the teacher-centred approach.

In Spain, the identification of teaching approaches associated to the field of social science teaching has traditionally been explained by the characteristics of the education curriculum (Carretero et al., 1989; Blanch, 1994; Prats and Santacana, 2011; Prats, 2020), pointing out the existence of three teaching models:

- The technical model based on behaviourism theory and on the teaching of conceptual knowledge mainly transmitted by way of expository strategies.
- The practical model, which arose due to the criticisms of the technical model in the middle of the 20th century on the part of a group of teachers who wanted to give a greater role to the needs of students and were influenced by Piaget's cognitive theories.
- The critical model, which seeks to teach students to be critical by problematising knowledge and introducing real situations in such a way that learners can make use of what they learn in order to look for solutions to the problems which they confront.

In the present day, the latter model is that which is aspired to in all levels of education as the guarantee of a skills-based teaching model. However, in spite of the successive education reforms carried out in Spain, the most recent (the Ley Orgánica para la Modificación de la Ley Orgánica de Educación “LOMLOE” passed in December 2020), still maintains a teaching approach for the social sciences in which the presence of skills and metaconcepts related with historical and geographical thinking is lacking.

Some of the causes that influence the predominance of a teacher-centred approach to teaching are, firstly, curricula that include very extensive minimum content. Secondly, assessment understood as the reproduction of content also favours the excessive use of memorisation as a teaching strategy. Finally, there is still an overuse of textbooks and expository strategy by teachers who teach history (Sobejano and Torres, 2009; Valls and López, 2011; López and Valls, 2012; Carretero and Van Alphen, 2014; Colomer et al., 2018).

However, an increasing number of teachers in Spain are in favour of a teaching model in which the student acquires a greater role through the implementation of innovative resources (heritage, written and oral sources, new technologies) and of educational strategies which encourage the active participation of students in the teaching and learning process (project-based learning, gamification, flipped classroom) (Olmos, 2017; Gómez et al., 2018a; Gómez et al., 2020; Sánchez et al., 2020). This methodological change is accompanied by ways of grouping students which promote peer tutoring, collaborative and cooperative work and give value to a series of skills which make it possible to work on social and civic skills. Furthermore, to this can be added the fact that the implementation of these methods requires students to carry

out more complex tasks on a cognitive level than the mere reproduction of contents, to the extent that they promote the creation of new contents based on the formulation of hypotheses, searching for and analysing information, the contrasting of sources, and debate.

The rapid growth in Spanish universities of the field of social sciences teaching, both in terms of teaching and research in the last two decades has, without a doubt, contributed to the desire for a change in educational model (Miralles et al., 2011; Rodríguez et al., 2020). Indeed, research on the teaching of historical skills has proliferated in Spain (Domínguez, 2015; Jorge and Ramón, 2015; Carretero, 2019) and other countries, such as Portugal (Pinto, 2017; Gago, 2018; Solé and Barca, 2018), the United Kingdom (Chapman, 2011; Cooper, 2018), Canada (Seixas and Morton, 2013; Ercikan and Seixas, 2015), the United States (VanSledright, 2014; Wineburg, 2018) and throughout Ibero-America (Fronza, 2019). All of this has led to the formation of critical and reflexive people, who are so necessary in facing the changing and global reality of the 21st century.

Therefore, it is important to be aware of the progress of the incorporation of a skills-based teaching of the social sciences and of a student-centred model in all levels of education. For this reason, it is necessary to analyse the teaching profiles of teachers of history, geography and the history of art.

## MATERIALS AND METHODS

### Objective

The main objective of this research is the validation, using structural equation modelling, of an instrument based on that designed by Trigwell and Prosser (2004), which makes it possible to identify the teaching approach of teachers who teach history at primary and secondary/baccalaureate education.

The items of this tool have been formulated considering the identification of three possible history teaching models. The first is a traditional teaching approach based on the transmission of knowledge *via* master classes and employing the textbook as the main resource for the learning of contents by means of memorisation (model T “teacher”). The second approach (model S “student”) is fundamentally student-centred and seeks student participation in the creation of contents and educational resources and the development of a way of thinking critically and historically. In the third pedagogical approach (model I “intermediate”), the teacher's protagonism is maintained, combined with the use of a greater variety of educational resources that encourage student participation.

### Research Design

This research is non-experimental and quantitative in approach and has been carried out *via* a questionnaire with a Likert-type scale by means of an ex post facto study (Ato et al., 2013). Designs employing questionnaires and surveys are extremely common in the field of education as they can be applied to a multitude of problems and make it possible to collect information about a large number of variables (Sapsford and Jupp, 2006).

**TABLE 2 |** Age ranges of the participants.

Age	N	Valid percentage
20–29	26	7.83
30–39	83	25
40–49	104	31.32
50–59	94	28.31
60 or above	24	7.22
NA	1	0.30
Total	332	100

## Participants

The study is based on a convenience sample consisting of 332 in-service teachers. Of these, 170 (51.2%) teach history in primary education (6–12 years of age), a total of 157 (47.3%) work in secondary/baccalaureate education (12–18 years of age) and 1.5% did not state the stage of education in which they worked. 52.7% of the teachers surveyed were women ( $n = 175$ ), 47% ( $n = 156$ ) were men and one person (0.3%) marked the box for “Other.” In spite of the fact that this is not a probabilistic study, the participants came from 10 of the 17 autonomous communities which make up the Spanish state (Andalucía, Asturias, the Canary Islands, Castilla y León, the Valencian Community, Extremadura, Galicia, Madrid, Murcia and the Basque Country). The age ranges of the participants can be observed in **Table 2**.

## Instrument

The questionnaire, designed within the framework of a national research project coordinated by three research groups from Spanish universities in the field of social sciences teaching, was called “Questionnaire on ways of approaching history teaching” and consisted of a Likert-type response scale of five values. This is an additive scale with an ordinal level (Namakforoosh, 2000), which can also be called a summative scale, given that the score of the interviewed subject constitutes the sum of the scores obtained for each item (Guil, 2005). In this case, the decision was taken to include five response options, following the recommendations of authors such as Bisquerra and Pérez-Escoda (2015) and Matas (2018). The questionnaire has an identification part and three thematic blocks.

The first part of the questionnaire deals with identification and has ten fields for data of a socio-demographic nature (sex, age, academic training in higher education, the stage of education in which the participant teaches, the administrative situation and ownership of the school in which he/she teaches, the province in which the school is located, the years of teaching experience of the participant, other levels of education in which he/she has taught, participation in teaching innovation projects and their scope).

The first thematic block is related to the identification of the teacher’s approach to teaching history. The second block is related to teachers’ perception of history as a teaching subject, its methods, sources and teaching resources. Finally, the third block relates to teachers’ perceptions of the teaching of historical competences.

This research focuses on the validation of the first thematic block through structural equation modelling. The 20 items in this block of the questionnaire have been designed with the

following the three teaching models mentioned above. The first (model T) corresponds to a more traditional model centred on the teacher. The second (model S) is essentially focused on the student and is based on strategies which promote the development of skills oriented towards the creation of contents and the development of historical thinking among students. The third pedagogical approach (model I) is related with a teaching approach guided by the teacher but in which interaction takes place between the teacher and the students in order to achieve learning (Trigwell et al., 1994; Trigwell and Prosser, 2004; Monroy et al., 2015; Gómez and Miralles, 2017).

## Procedure and Data Analysis

The questionnaire was validated by four experts, three of them from the area of Didactics of Social Sciences at three different universities, and with extensive experience in primary and secondary education. The fourth validator was a Lecturer in the area of Research Methods and Diagnosis in Education. The expert validators filled in a questionnaire with a Likert scale of 1–4. Only those items were left out of the questionnaire that were above three on average by the validators. In addition, all items were modified in a qualitative way. After the validation of the questionnaire by the experts, the questionnaire was translated into English and submitted for validation to the Ethics Committee of the University of Murcia.

The exploratory and confirmatory factor analyses were carried out with Mplus 7.0 (Muthén and Muthén, 2015). In the phase of the exploratory analysis, analyses of the reliability and validity of the construct were carried out. For the study of the reliability, three tests were performed: Cronbach’s alpha, composite reliability (CR) and McDonald’s omega.

The first test resulted in an alpha index of 0.79, thus giving an acceptable level of reliability. The composite reliability index offered a value of 0.75, above the minimum value of 0.70 (Hair, 2009), and the omega coefficient was 0.81, both of which are acceptable. In order to identify the construct validity, an exploratory factor analysis was carried out, which determined the dimensions of the questionnaire. These dimensions were then verified *via* a structural equation model (SEM). As a Likert-type scale was used, the decision was taken to make a robust estimation of the  $\chi^2$  statistic *via* Diagonal Weighted Least Squares (DWLS) (Beaujean, 2014). Last of all, following the recommendations of Hayduk et al. (2007), the different fit indices of the model were calculated, such as the TLI (Tucker-Lewis Index) and CFI (Comparative Fit Index) values and the RMSEA (Root Mean Square Error of Approximation), which measures the absolute difference between the structure of relationships between the theoretical model proposed and the data observed, taking into account the number of estimators and the sample size (Steiger, 1990). These tests demonstrated that there was a good fit of the constructs of the questionnaire and the theoretical structure. This procedure (validation, ethics committee certification, data collection and analysis) has been carried out in the last 18 mo.

**TABLE 3** | Distribution of the items in three components.

Component 1		Component 2		Component 3	
Item	Value	Item	Value	Item	Value
Item 1	0.50	Item 3	0.41	Item 16	0.59
Item 2	0.60	Item 5	0.75	Item 17	0.48
Item 4	0.61	Item 7	0.54	Item 19	0.66
Item 6	0.48	Item 8	0.79	Item 20	0.51
Item 9	0.51	Item 13	0.63		
Item 10	0.60	Item 14	0.41		
Item 11	0.60				
Item 12	0.44				
Item 15	0.53				
Item 18	0.56				

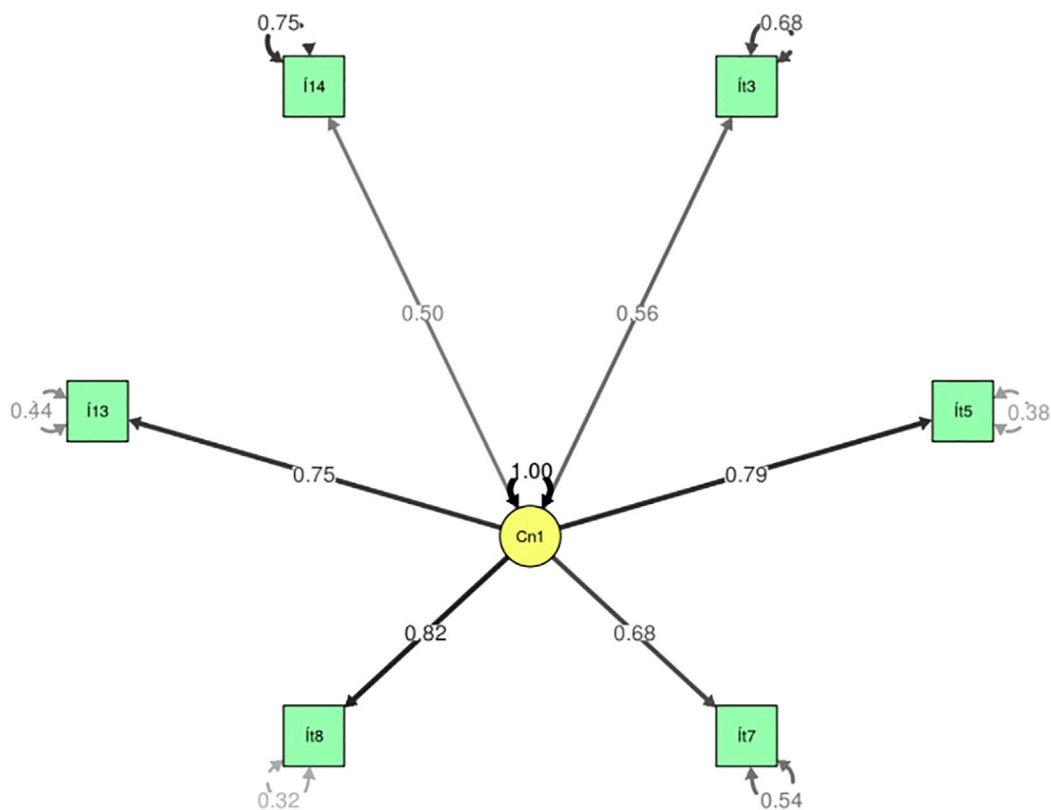
## DESCRIPTION OF THE RESULTS

First of all, an exploratory factor analysis was carried out in order to identify the validity of the construct and to identify the dimensions included in the first set of the questionnaire related with the teaching approaches. The KMO test and the Bartlett test offered a value of 0.82 and a significance of 0.000 for the extraction of three components as the optimal number. Furthermore, the variance analysis reflects that these three components explain 38% of the variance of the data. **Table 3** shows how the items were distributed based on the

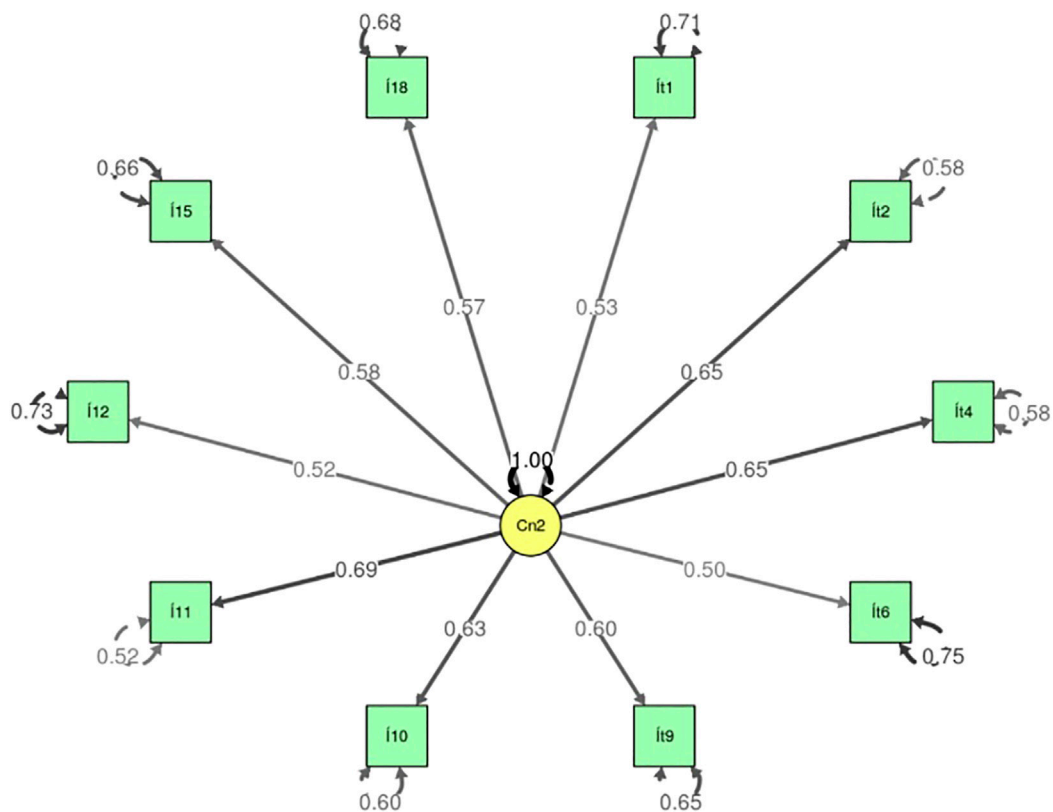
standardised loadings (pattern matrix) based on the correlation matrix.

In the first component, the item which received the highest value is item 4 (*In the teaching of history, what is most important is to present students with extremely complete information*), referring to a learning based on the transmission of knowledge (model T). In the second component, the item with the highest score was item 8 (*In class, I plan and encourage debate and discussion*), representing a strategy which encourages the active participation of the students and the understanding of historical contents *via* the exchanging of ideas in the classroom (model I). Finally, in the third component, the item with the highest value was item 19 (*The teaching of this subject should help students to question their own understanding of history*) and, in consequence, has the aim of fostering historical thinking among students (model S).

Subsequently, a structural equation model (SEM) was made to validate the theoretical structure of the first set of the questionnaire, based on the three components identified *via* the exploratory factor analysis. In order to do so, the covariance matrix derived from the variables observed was compared with the covariance matrix reproduced by the model. When contrasting the hypotheses, it was observed that, in the case of factor 1, the DWLS estimator had a statistic of 74.3434444 (robust estimation 94.3227299), with 35° of freedom and a significant *p*-value ( $p < 0.05$ ). This would imply that the

**FIGURE 1** | Structural equation model. Factor 1.





**FIGURE 2 |** Structural equation model. Factor 2.

model does not have a good fit with the data. It should be highlighted that this result is preliminary as this statistic is extremely sensitive to minimal differences and the final decision will also be based on the calculation of other fit indices.

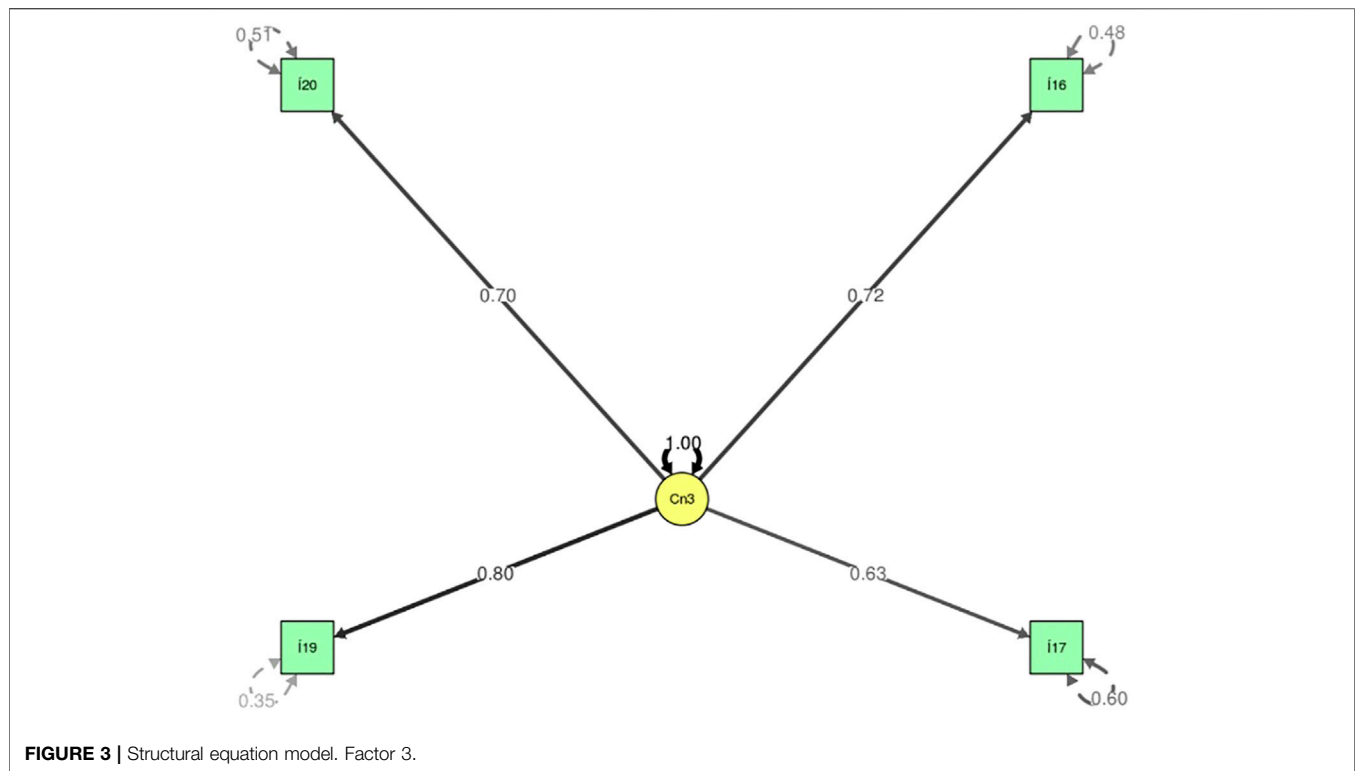
In **Figure 1**, the definition of the structural equation model can be observed, in which the double-headed arrows represent the covariances between the latent variables (ellipses), while the single-headed arrows symbolise the influence each latent variable (constructs) exert on their respective observed variables (items). Last of all, the double-headed arrows which appear above the squares (items) show the error associated to each observed variable. The relationships between the latent and observed variables can be interpreted as coefficients of a multiple regression, showing the influence of each construct on its items in such a way that if the latent factor increases by one unit, the items increase according to the weight of their coefficients. Consequently, in factor 1, the items which contribute most are 11, 2 and 3, while those which contribute least are 6 and 12. Then, measurements of fit were carried out. The result obtained of the TLI value is 0.9747982 and of the CFI value 0.9803986. Therefore, the coefficients provide a good fit. In addition, the calculation of the RMSEA value is 0.060024, with a minimum value of 0.0409652 and a maximum value of 0.0789767. Therefore, the coefficient provides a fit which is close to good.

The analyses carried out on the items of factor 2 indicate that the DWLS estimator has a statistic of 3.7793229 (robust estimation 5.9267877), with 9° of freedom and a non-significant  $p$ -value ( $p > 0.05$ ). This would imply that the model has a good fit with the data. In **Figure 2**, the structural equation model for the items of factor 2 can be observed, in which the items which contribute most are 8, 5 and 13, whereas those which contribute least are 14 and 3.

With regard to the incremental fit indices, the TLI value is 1.006803 and the CFI is 1. Thus, the coefficients provide an extremely good fit. The RMSEA absolute fit index is 0 with a minimum value of 0 and a maximum value of 0.0204691. Therefore, the coefficient provides an excellent fit.

In the case of factor 3, when the contrast of hypotheses is applied, it can be observed that the DWLS estimator has a statistic of 8.6441993 (robust estimation 10.7013211), with 2° of freedom and a significant  $p$ -value ( $p < 0.05$ ). This would imply that the model does not have a good fit with the data. However, as with the other two factors, the fit indices have also been calculated. In **Figure 3**, the structural equation model for the items of factor 3 can be observed, in which the item which contributes most is 19 and that which contributes least is 17.

As far as the incremental fit indices are concerned, the TLI value is 0.9702933 and the CFI is 0.9900978. Thus, the coefficients provide an extremely good fit. The RMSEA absolute fit index is



0.103188, with a minimum value of 0.0400489 and a maximum value of 0.1779714. Therefore, the coefficient provides a fit which is close to good.

## DISCUSSIONS AND CONCLUSION

The results obtained in this study confirm that teachers in primary and secondary education perceive these three teaching approaches and those aspects or elements which most identify them. The current model of history teaching and the new epistemological and disciplinary contexts (Sáiz, 2013; Sáiz and Fuster, 2014; Miralles, 2017; Sáiz et al., 2017; Sáiz et al., 2018; Verdú et al., 2018) indicate that, although changes are taking place in terms of teaching and learning approaches in the social sciences, these are still insufficient to put an end to the pre-eminence of a traditional model in the classroom (Martínez et al., 2006). The present study contributes to the reflection on whether there is a relationship between teaching approaches and preferences in terms of the use of resources.

Although teachers contemplate the use of less traditional resources, they continue to use the resources and strategies of a more traditional teaching approach focused, above all, on the transmission and memorisation of information (Miralles and Gómez, 2016; Gómez and Miralles, 2017; Gómez et al., 2018c; Arias et al., 2019). Postareff et al. (2008), Hernández et al. (2012) and Yunga et al. (2016) have also demonstrated these dissonances, associating them to teachers' desire for change and to improve their teaching, as well as to the influence of education policies which emphasise the importance of student-centred teaching and skills development (Yunga et al., 2016).

Furthermore, the results presented by Gómez et al. (2020) and Montilla et al. (2018), although they refer to teachers undergoing initial training, also show a greater perception in favour of the use of innovative methodologies. Gómez et al. (2018c) state that trainee teachers are, perhaps, influenced by the current trend, which gives more relevance to active methodologies.

This is also pointed out by Yunga et al. (2016), albeit in reference to the context of universities, where an extremely high percentage of teachers identified their teaching approach as being centred on the student. This, however, is in discrepancy with the research by Hernández et al. (2012), which concluded that the conception of teaching most employed by primary education teachers was that centred on the transmission of information. Furthermore, Dejene et al. (2018), with regard to trainee secondary/baccalaureate teachers, found that they attributed greater importance to a traditional teaching approach more centred on the teacher than on student learning.

With regard to the evaluation of the teaching approaches, in this research, there were no differences between primary and secondary/baccalaureate education teachers, although the secondary/baccalaureate teachers valued the teaching model S more highly than those of primary education. In this regard, there are few prior studies on teaching approaches in primary and secondary/baccalaureate education, apart from those mentioned above. Therefore, this study can provide a scientific basis with regard to how in-service teachers consider teaching and learning processes and the consequences they have on the strategies and resources they consider to be most relevant for their teaching.

Different studies have demonstrated that the teaching methods adopted by teachers are extremely influenced by their teaching

approaches and by the relationship of the latter with the learning approaches and academic results of the students (Kember and Gow, 1993; Kember and Kwan, 2000; Gibbs and Coffey, 2004; Trigwell and Prosser, 2004; Postareff et al., 2008). The use of a specific teaching model or approach could, therefore, be related with the use in the classroom of a specific method, strategy or resource. There are, nowadays, many different experiments and studies which establish the use of resources other than the textbook (which is over-used in the teaching of history), which diversify the strategies employed based on educational innovation, mainly concerning research and the use of other resources such as videogames and historical, artistic and cultural heritage (Gómez et al., 2017; Gómez et al., 2018b; Orts, 2019).

Therefore, a new methodological focus is essential in teaching, one which promotes greater interaction and the development of skills which enable students to argue, debate and construct historical contents dealt with in the classroom, promoting the use of more active methodologies, such as problem-based learning, service-learning, challenge-based learning and gamification and the use of videogames and virtual reality (Sáez et al., 2016; Olmos, 2017; Rivero and Feliu, 2017; Trujillo, 2017; Palacios, 2020). Such strategies and methods are more related with a critical approach to the teaching of the social sciences (Blanch, 1994; Gómez et al., 2018b; Giménez, 2019) and encourage the development of the historical thinking skills (Seixas and Morton, 2013).

This study draws attention to the different perspectives of teachers when implementing their teaching using more active and practical methods centred on student learning, which implies implementing alternative and innovative teaching methods and strategies based on the active and meaningful learning of the contents and materials employed. However, there does not seem to be a positive correlation between what teachers consider to be more appropriate for teaching and the reality of their teaching practice. For this reason, it is relevant to study the models or approaches in history classes which in-service teachers tend to consider to be more appropriate for contributing towards the teaching and learning process.

Therefore, it is necessary to make progress towards a view of teaching which is centred on learning and which promotes interaction between students and teachers. Facilitates understanding and skills development, enabling students to not only remember facts or memorise information, but also to resolve problems in their social context (Trigwell et al., 1994; Kember and Kwan, 2000; Gómez and Miralles, 2017). All this in line with the critical models or approaches put forward by Blanch (1994), the didactic-technological, spontaneous-activist models and the alternative or integrator of Mayorga and Madrid (2010), or the constructivist model of Dejene et al. (2018).

In summary, what is clear is that within the context of history and social sciences teaching, taking into account the relationship which exists between the teaching approaches and strategies or actions employed by teachers, a change of approach or teaching model can bring about a methodological innovation in teaching practice. However, the methodological strategies which continue to be used are of a traditional and memory-based nature. Thus, it is necessary for a renovation to take place as far as the

methodology, strategies and teaching resources used in history classes are concerned (Gómez et al., 2020).

To conclude, it would be of interest to look in more detail and depth at the response profiles in order to discover the model with which teachers identify most and whether there are differences among teachers of different stages of education. Furthermore, a qualitative analysis employing interviews or discussion groups would make it possible to contrast these models with more accuracy. However, this study has allowed for the validation of the models employed, as they serve to explain teachers' perceptions regarding the learning approaches of in-service primary and secondary/baccalaureate teachers and their preferences. It is also necessary to have validated tools which facilitate this analysis as it is not common for studies to provide evidence of the validity of the questionnaire employed.

In any case, all of the above leads us to reflect on the training needs of teachers and, particularly, on initial teacher training programmes which are oriented towards practical aspects from approaches which are more centred on students and their learning and which foster more active and innovative teaching and learning strategies. Teachers should reflect on their own approaches with the aim of adopting less traditional teaching strategies in future.

## DATA AVAILABILITY STATEMENT

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

## ETHICS STATEMENT

Ethical issues were carefully contemplated in this study. Participants were informed about the objectives and procedures of the study and how their rights were going to be protected. Participation in the research was voluntary and anonymous.

## AUTHOR CONTRIBUTIONS

CG-R was the primary author of the manuscript. PM-M and RS-I conceived and designed the project of which this study is part. CG-R wrote the first draft of the manuscript. RS-I and PM-M both contributed to revisions and read and approved the submitted manuscript.

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la Región de Murcia (Spain). The second is “The teaching and learning of historical competences at baccalaureate level: a challenge for critical and democratic citizenship” funded by MCIN (PID2020-113453RB-I00 / AEI / 10.13039/501100011033).

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## SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/feduc.2022.842977/full#supplementary-material>



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# Designing Heritage Itineraries in Trainee Teachers Through Virtual Inter-University and Collaboration Groups: The Examples of Barcelona and La Laguna in Social Sciences Teaching

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In the following paper, we present some general results of an innovative teaching experience carried out by the University of La Laguna (ULL) and the University of Barcelona (UB). The project took place during a 6-week period by applying for cooperative work among early childhood ( $n = 109$ ) and primary ( $n = 86$ ) education trainee teachers in a selected virtual environment (ULL). One of the key aspects was the inter-university student's grouping among both bachelor programs (early childhood and primary). The project had two main aims, which are as follows: (1) to familiarize students with heritage itineraries as key tools for the teaching of Social Sciences and (2) to develop professional competencies related to the coordination of teachers among educational levels, teaching, and learning strategies when using historical heritage and improving digital competencies. To achieve these aims, a three-phase intervention was designed (planning, design, and evaluation), all including active learning and the use of local environments as a teaching resource. To investigate the outcomes of the project, two sources of data were analyzed, namely, the results of a rubric and an opinion questionnaire (Cronbach's  $\alpha = 0.693$ ), applied pre- ( $n = 185$ ), and post- ( $n = 152$ ) intervention. The descriptive statistical analysis was carried out with the Statistical Package for the Social Sciences (SPSS; v. 22) showing the positive learning outcomes of the participants. The rubric's results showed that collaborative work and skills development scored higher, while contents of Social Sciences and the handling of heritage itineraries as teaching strategies were correct but lower than the other parameters analyzed. The questionnaire showed a positive perception of working together in consecutive educational levels and of the uses of digital technology for collaborative work but also indicated some difficulties regarding group organization, especially in the first weeks. The main results of the project highlight several aspects.

- (1) The need to apply pedagogical, technological, and educational resources to promote active and meaningful learning in future teachers. (2) The need to use virtual environments as learning and communication spaces in inter-university contexts, and (3) the importance of using local environments as scenarios for teaching Social Sciences.

**Keywords:** heritage itineraries, interuniversity groups, cooperative learning, social sciences teaching, teaching methodologies

## INTRODUCTION

In recent years, in the Spanish university context and in the field of educational innovation, student-centered teaching practices have been developed aiming at overcoming the masterclass-based model and encouraging active student participation. With this purpose, the University of La Laguna (ULL) created the Student-Centered Teaching Model Universidad de La Laguna [ULL] (2021) and the University of Barcelona (UB) Universidad de Barcelona [UB] (2021) its training model, both prioritizing active learning methodologies and a competency-focused pedagogy. This approach follows the 2015 Standards and Guidelines for Quality Assurance in the European Higher Education and, in particular, its criteria on student-centered teaching, learning, and assessment, whereby Universities are encouraged to:

“Ensure that teaching programs encourage students to be actively involved in creating their own learning process, and students’ assessment reflects the student-centered approach” (European Association for Quality Assurance in Higher Education [ENQA], 2015).<sup>1</sup>

Therefore, at the ULL and the UB, the design of the learning processes aimed at allowing students to participate in a global world, by using information and communication technologies (ICTs), thus following the principles of internationalization and borderless education. Within this framework, the main objective of this paper was to offer and discuss the learning outcomes of an innovative and educational transference project carried out in the areas of Didactics of Social Sciences at the ULL and UB during the 2020–2021 academic year. Specifically, the project aimed at developing a heritage itinerary for students from the cities of La Laguna and Barcelona in their transition from pre-school to primary school and the development of digital competencies. In addition, the result consolidated an inter-university working initiative, first carried out between ULL with the University of Huelva (Spain) and the Autonomous University of Baja California (Mexico) during the academic year 2019–2020.

The current project pursued active learning in students outside of the conventional classroom context. The project involved students from the degrees of early childhood and primary school teacher training from Barcelona (Catalonia) and La Laguna (Canary Islands) and applied cooperative work in virtual environments in both universities.

Within the framework of the Spanish university educational context and the trends developed in recent years in the field

of innovation (Red de Investigación e Innovación Educativa [REDINE] (ed.), 2020; Sánchez-Rivas et al., 2020; Ballesteros-Alarcón, 2021; Buzón-García et al., 2021; Guarro-Pallás et al., 2021), one of the main innovations incorporated in the project lies in the inter-university and inter-cycle work. Thus, the project involved mixed groups formed by students of the early childhood and primary teacher training courses from both universities.

The project encouraged students to work and become familiar with a key educational tool in heritage education, namely, the didactic itinerary, which enables both the teaching of history and the development of the skills needed to build critical thinking (Estepa-Giménez and Delgado-Algarra, 2021). Heritage education in both formal and non-formal environments promotes the development of critical citizenship, the approach to relevant social problems, and aspects related to identity configuration and heritage identification (Gómez, 2014; Almansa and Facal, 2015; Molina et al., 2015; Cuenca et al., 2017; Callarisa-Mas and Sabido-Codina, 2020). Another fundamental aspect of this project was the development of specific competencies related to teaching coordination, teaching, and learning strategies in formal education and the digital competencies of future teachers.

In this sense, the project implemented teaching and learning methodologies focused on students’ participation and active learning in order to improve their academic performance, by designing heritage itineraries while improving the didactic uses of new technologies. In the current educational context, it is mandatory to put into practice educational, pedagogical, and technological resources to make active learning possible for students. This is one of the main challenges for university teaching (Peris-Ortiz et al., 2016), for educational areas in general, and for specific didactics in particular, due to their key role in training school teachers (Constanza-Méndez and Patricia-López, 2020). Therefore, in Social Sciences didactics, working in cooperative learning groups, using contextual didactics, and promoting the analysis of students’ immediate heritage can play a key role in training processes of the future teachers by including the environment as a significant learning resource (Muñoz-Villarabiz and Ruiz-Morales, 2020).

## THEORETICAL FRAMEWORK

Cooperative learning groups are effective when students work together to achieve common goals. By using strategies, which promote cooperation, participation, and student’s interaction and problem solving (Quinquer, 2004; Tran, 2019; Liu and Lipowski, 2021), it is possible to approach current professional teaching training contexts from an academic environment. From this

<sup>1</sup>Original text in Spanish, translated by the authors.

perspective, cooperative learning is not only a strategy or a methodology but also a learning content (Pujolàs, 2008), essential in current teacher training.

As Johnson and Johnson (2019) pointed out, in cooperative learning environments students have two interdependent responsibilities, which are to complete the assigned work and to make sure that the rest of the members also do so. Thus, in this project, cooperative learning groups were the driving force in the development of professional competencies. Each group interacted with students from their counterpart university and educational level in virtual collaborative environments. Moreover, in order to design the heritage itinerary, students came into contact with immediate environments in their own real contexts (the cities of La Laguna and Barcelona) from a teaching perspective.

In this sense, a contextual didactic learning model was applied, which was based on the principle of learning by doing first put forwards by Dewey (1938) in his book *Education and Experience* (Guevara-Bustamante and Moreno-Muro, 2021). This type of learning is part of what Dewey defined as the “experienced theory,” developed later by Kolb in the 1980s as “experiential learning theory.” It incorporated the contributions of other authors, such as Piaget or Ausubel, who played an important role in experience their respective learning theories (Rodríguez-Palmero, 2011; Albort-Morant et al., 2017). Experiential learning in the classroom allows knowledge to be transferred to real-life situations and enables certain teaching practices to advocate students’ contact with their surrounding context (King, 2012). The benefits of such learning are that students enjoy putting into practice what they learn in class, increasing their retention and engagement, and addressing social and historical phenomena within their immediate environment (Chapman et al., 2016). Hence, its uses go beyond early childhood and primary education. Universities, aware of the benefits of including contextual learning, have incorporated experiential learning into their curricula as a complement to more traditional lecture-based learning (Albort-Morant et al., 2017).

The development of heritage itineraries from a contextual didactics approach allows working with local history as a resource with many possibilities in the teaching of Social Sciences. As López-Serrano and Guerrero-Elecalde (2021) pointed out, when working with local history, students perceive that heritage assets are fundamental sources for understanding and learning history. At the same time, students can be initiated into historical interpretation and, above all, “it will encourage curiosity for the historical exploration of the environment, activating interest in the Social Sciences and their construction<sup>2</sup>” (López-Serrano and Guerrero-Elecalde, 2021, p. 3). In consequence, local history allows students to relate immediate contexts and phenomena to global and more general ones.

The contextual didactic perspective based on the treatment of the heritage of the immediate environment allows educational contents to be adapted to real-world situations, which is a central focus of today’s teaching. Didactic itineraries, understood as a series of landmarks to be visited, offer unlimited possibilities

in terms of programming educational activities (Maynard and Waters, 2007; Coma and Santacana, 2010) and play an important role in the context of heritage education, especially in the stages of early childhood and primary education.

By addressing local context (neighborhood, surrounding areas) and family context (customs, festivities), it is possible to work with heritage in its tangible and intangible dimensions (Rivero-Gracia, 2011). In this sense, the project trained future teachers in working with heritage in a critical moment, the transition from early childhood education to primary education (Azorín-Abellán, 2019). Designing the itinerary forced students to observe, to make contact with their surrounding reality and immediate context, and to understand the itineraries’ educational and didactic potential, especially within coordination between levels. Thus, the project considered the need to foster research skills in order to prepare a guided visit to a heritage environment. In this case, two World Heritage cities were studied, namely, La Laguna and Barcelona.

In other words, the project took into consideration what Albort-Morant et al. (2017) proposed: “that in active learning activities students participate and reflect that experience, at the same time they understand it and then apply their learning.”

For the development of the project, some of the dimensions proposed by Barriga-Ubed and Sabido-Codina (2020) were taken into account. Although they had been conceived for the specific case of Historical memory, the high presence of identity contained within led to their consideration for the proposal. The specific elements included are the following:

- (1) Selective dimension (scientific method): the didactic practice considers the exploration of cities from the historical research of both World Heritage cities (La Laguna and Barcelona).
- (2) Space and time dimension: the work of the students is based on specific temporality links and themes, articulated in specific environments.
- (3) Social dimension (citizenship): the itinerary was articulated by including aspects, such as memories, social class, gender, ethnicity, and social and historical practices. In other words, the itinerary incorporated an approach to history with memory.
- (4) Historical dimension (historical evidence): the itinerary was structured on heritage assets (both tangible and intangible) due to their historical significance.

## MATERIALS AND METHODS

The general learning objective of the project was to contribute to the comprehensive training and acquisition of professional competencies, based on the creation of didactic itineraries through innovation in the uses of ICTs and their performance in collaborative learning methodologies. To respond to the general objective of the project, the following specific learning objectives were proposed: (1) to favor students’ autonomy and protagonism in their learning and to develop skills for appropriate group work in a virtual collaborative environment; (2) to foster

<sup>2</sup> Author’s translation.

cooperation and inter-cycle work among students from different universities and degrees in virtual and intercultural contexts. (3) To motivate students to discern which information can contribute to learning, civic education, and cultural richness; (4) to identify and assess the approach and didactic treatment of early childhood and primary education in the Organic Law for the Improvement of Educational Quality (LOMCE) curriculum in order to develop valid didactic itineraries that would respond to curricular realities; (5) to encourage trainee teachers to investigate and define the commonalities between the Canary Islands and Catalonia's heritage assets; and (6) to design shared didactic strategies in non-formal educational environments. The main objective of the investigation, therefore, is to know the educational impact of the proposal in the training and development of skills of future teachers. In this sense, the teaching guides of the subjects involved in the project, in both universities, deal with competencies, such as to know and to teach how to value and respect cultural heritage; to develop didactic proposals that promote interest and respect for the natural, social and cultural environment; and to educate in social values and to guide the teaching and learning processes of the future teachers.

To this end, an intervention and subsequent research was carried out in which mixed methodologies were applied (McMillan and Schumacher, 2005; Cohen et al., 2007; Bisquerra, 2014).

## Setting and Participants

The method used to select the research sample was non-probabilistic (Babbie, 2000). Students from ULL and UB (total  $n = 195$ ) in the degrees of Early Childhood Education Teachers program ( $n = 109$ ) and Primary Education Teachers program ( $n = 86$ ) were selected in order to share their cultural heritage frameworks. The fact that both cities have the designation of World Heritage Cities, La Laguna as a historical site and Barcelona because of the modernist works of Antonio Gaudí, the *Hospital de Sant Pau*, and the *Palau de la Música*, made them the ideal places to propose the itinerary models.

For the development of the project, 17 working groups were created. Each of them with 6–8 members. The configuration of the groups was random but on the condition of being mixed both in the city of origin and university degree.

The subjects of the trainee teachers' training program from the ULL involved in the project were as follows: *Didactics of Social Sciences II: didactic aspects* (Primary education) and *Didactics of social knowledge* (Early childhood education), and those of their counterparts from Barcelona were *Social: scientific communication and verbal language* (Early childhood education) and *History and Historical and artistic heritage* (Primary education). This way, and in line with the philosophy of the project, students were brought in together to conform working teams, ensuring coordination between university students of the two degrees.

It is important to note that neither any of the students had previously participated in inter-university collaboration projects nor in the design of heritage itineraries or the development of

inter-cycle educational programs within the framework of Social Science education.

## Teaching Intervention and Materials

To achieve the aforementioned learning objectives, a didactic process was designed. Three phases were defined for this purpose, planning, design, and evaluation, and were carried out over a 6-week period.

For the development of the project, a virtual campus (Moodle) was specially created and hosted in the interface of the ULL, to which all participants had access. It contained not only the project instructions and the links for the submission of the itineraries, but also useful bibliography, the school curricula of both communities, tutorials of interest for collaborative distance work, a forum for consultation with experts on each educational stage, and the links to virtual classrooms for each working group's meetings. The shared virtual campus was the main tool for communication between the 195 students and the four teachers in charge.

In the first phase, the planning of the itinerary, each group had to start their conceptualization of the itineraries, one for each city. This planning was framed under a shared chosen theme for both cities and selected upon the possibility of offering continuity for both educational stages. Clear instructions were given in terms of landmarks to include in the itinerary. In the early childhood itinerary section, a maximum of three landmarks were to be included, and in the case of the section for primary level, the number of itinerary landmarks was between 3 and 6. To do this, it was essential to carry out a historical analysis of each city in order to select their most representative heritage site, consistent with the chosen theme. Within this first selection, students also had to state the didactic and learning objectives (see Table 1).

The second phase was the core of the project, where students had to develop the didactical design of the itineraries. Students had to frame the heritage design in curricular terms for both autonomic communities and for both educational levels. This

**TABLE 1** | Actions and timing of the project's three phases.

Phase	Actions	Timing
1	(A) Historical exploration of our cities: brief presentation and commonalities of the cities. (B) Conceptual presentation of the Itinerary: subject, temporality, and educational levels. (C) Didactic justification and learning objectives. (D) Presentation of typology points to be included in the itinerary.	2 weeks
2	(A) Title and writing of the itinerary. (B) Learning objectives and link to the curriculum. (C) Timing (calendar) of the itinerary. (D) Route of the itinerary. (E) Development and working detail of the itinerary. (F) Learning assessment instruments. (G) Consulted and quoted bibliography.	3 weeks
3	(A) Self-analysis and evaluation of the itinerary.	1 week



was undoubtedly the most elaborate phase, as they had to define the educational activities for each educational stage and heritage site and frame it within the school year and define the learning assessment process (see **Table 1**). Finally, students had to illustrate the itinerary on Google maps.

In the third phase, students had to critically evaluate the itinerary design. They had to consider an assessment of the theme selected in accordance with the educational stages, the quality of the designed activities, and the proposed evaluation procedures. As a result of their critical view of the itinerary, students were called to propose aspects to improve it.

## Instruments and Data Collection Procedures

As the first two phases are directly linked to the professional competencies analyzed in this paper, the results shown will be focused on this first couple of phases. In order to verify the formative capacity of the intervention, two procedures were applied, each with its corresponding instrument. On the one hand, learning outcomes were collected and valued by a learning assessment scale. On the other, the perception of the students was explored before and after the intervention by an initial (pre-test) and final (post-test) questionnaire.

The assessment scale was constructed according to the learning objectives of the proposal, considering the different generated products (see **Table 2**). The scale, which evaluated the different phases of the intervention, had five performance levels, not observed, insufficient, sufficient, good, and excellent, and was applied by pairs of teachers, thus reaching a consensus on the level of achievement of each indicator.

For the purposes of this paper, the elements assessed and included in the analysis are the following:

Phase 1: Selection and justification of the itinerary:

- Historical synthesis of both cities.
- Argumentation and justification of the itinerary (topics, temporality, and spaces).
- Didactic justification of the itinerary in general (Social Sciences learning).
- Selection and justification of the landmarks of the itinerary.

Phase 2: Didactic design of the itinerary

- Adaptation of the activities to the levels of the students (early childhood and primary education).
- Early childhood-primary continuity.
- Virtual itinerary on Google maps.

The questionnaire, applied prior to and at the end of the intervention via Google Forms, assessed student's perception of the main concepts developed by the project, at the same time that student's self-perception on skills developed by the project were collected. The questionnaire included a total of 22 open- and close-ended questions –a four-point Likert scale with Cronbach's alpha of 0.693, acceptable in multidimensional instruments according to Taber (2018). Fifteen of the questions were common to both questionnaires, and seven of them were only asked in the post-test.

**TABLE 2 |** Synthesis of the assessment scale in phases 1 and 2.

Phase	Content and products evaluated	Maximum score possible on the instrument (proportion within the activity)
Phase 1	Initial design of the itinerary: historical research of the cities, selection of the topic to work on and didactic justification of the heritage site.	16
Phase 2	Didactic design of the itinerary: selection and design of the learning sequence that includes the itinerary and visual elaboration of the itinerary on Google maps.	22

The survey was structured in four dimensions: conceptualization, teaching capacities, working group capacity, and project evaluation (only post-test).

The questions analyzed for the purpose of this paper are detailed below in **Table 3**.

## Data Analysis Techniques

In order to have a global view, independently of the university, the analysis of the data included specific procedures according to each type of question and instrument.

The open-ended questions were analyzed with the IRAMUTEQ software, by using the Lexical Analysis of Co-occurrences in Simple Sentences of a Text (ALCESTE) analysis of keywords in context (Illia et al., 2014). Specifically, the Reinert method of descending analysis was used for the entire corpus of open-ended questions, differentiating between the two questionnaires administered (De Alba, 2004). In this way, it was possible to investigate in comparative terms the discourses offered by the students prior to and at the end of the intervention.

The closed-ended questions of both questionnaires were analyzed using descriptive statistics, specifically by cross-tabulation procedures and verifying, when possible, the random or non-random distribution of the results between pre-test and post-test. The chi-square statistic was used for this purpose. Moreover, a descriptive statistic was used for the analysis of the fourth dimension of the questionnaire (post-test only) and for the results of the assessment scale results.

## Ethical Dimension

In addition to the procedures mentioned above, some aspects relating to the ethical dimension were included. On the one hand, the project was explained to students and it was explicitly stated that the data collected would be used for scientific and academic purposes. Their informed consent was requested. The decision was respected and the responses of the only person who rejected the possibility of using the responses for scientific purposes were deleted and not included on the sample, nor in the analysis. On the other hand, the general results were shared with students in a report written especially for the students who expressed their desire to receive a copy of the results.

**TABLE 3 |** Table of specifications of the questions analyzed in the initial and final questionnaire.

Dimension (questionnaire)	Description	Question type	Questions analyzed
(1) Conceptualization (initial and final)	Questions aimed at identifying the main conceptions of students about heritage and its didactic use	Open	(1) Write five words that you associate with heritage as an educational tool. Separate them with a comma. (2) List 5 concepts or words in which you consider that this didactic proposal could enhance your learning. Separate them with a comma. (3) Choose one of the concepts you noted in the previous answer and explain why you consider it to be relevant
(2) Domain of didactic skills (initial and final)	Dimension that explores the perception in the domain of the capacities associated with the design of didactic proposals using heritage in interuniversity work in transition stages	Closed and open	(4) Indicate the degree of ability or confidence you feel in the following skills. (4a) Early childhood education to primary education transition processes. (4b) Interdisciplinary teamwork. (4c) Proficiency in the creation of didactic itineraries.
(3) Mastery of group work skills (initial and final)	Dimension aimed at verifying the perception of students about their ability to work in teams	Closed	(5) Indicate the degree of difficulty you think there is in carrying out an inter-school and/or inter-cycle project. (5a) Communication between participants. (5b) Technological mastery of the participants. (5c) Organizational capacity within the group.
(4) General evaluation (initial and final)	Dimension that explores learning perspective thanks to the execution of the project	Open and Closed	(7) Mark from 1 (a little) to 4 (a lot) the areas in which this project has benefited you. (7a) To know strategies to prepare an itinerary.

## RESULTS

The intervention aimed at developing the future teachers' professional competencies, in relation to teaching autonomy, inter-cycle work, and the development of didactic routes. Positive results can be seen in both sources, students and teachers.

The overall analysis of the open-ended questions in the survey allows us to identify some trends in the perception of students. One of the first issues that emerge is the centrality of the experience in their narratives (**Figures 1, 2**). Thus, while prior to the intervention, the ideas of knowledge, activity, and their function in the learning process were not linked, after the intervention the relationship between these elements became closer.

Moreover, at the end of the didactic proposal (**Figure 2**), it is evident that teamwork plays a structuring role in the generation of knowledge and its didactic application, which are complemented by positive explicit positive ideas. At the same time, the concept of heritage became more complex with the intervention. Students changed their view from a content to be taught prior to the intervention (**Figure 1**) to a dimension of effective work in the environment with a sense of citizenship (**Figure 2**).

Finally, the narratives reported by the students in their intervention reveal a positive and explicit degree of satisfaction about the development of the project, especially in relation to learning acquirement, in terms of teamwork and the transition between educational levels.

View of the students is consistent with the assessment made by the teaching staff, especially in terms of learning outcomes. The analysis of the assessment scales, in the items about the design of the itinerary (phases 1 and 2), shows that the learning objectives

of the project were achieved, although the maximum levels were not reached by the participants.

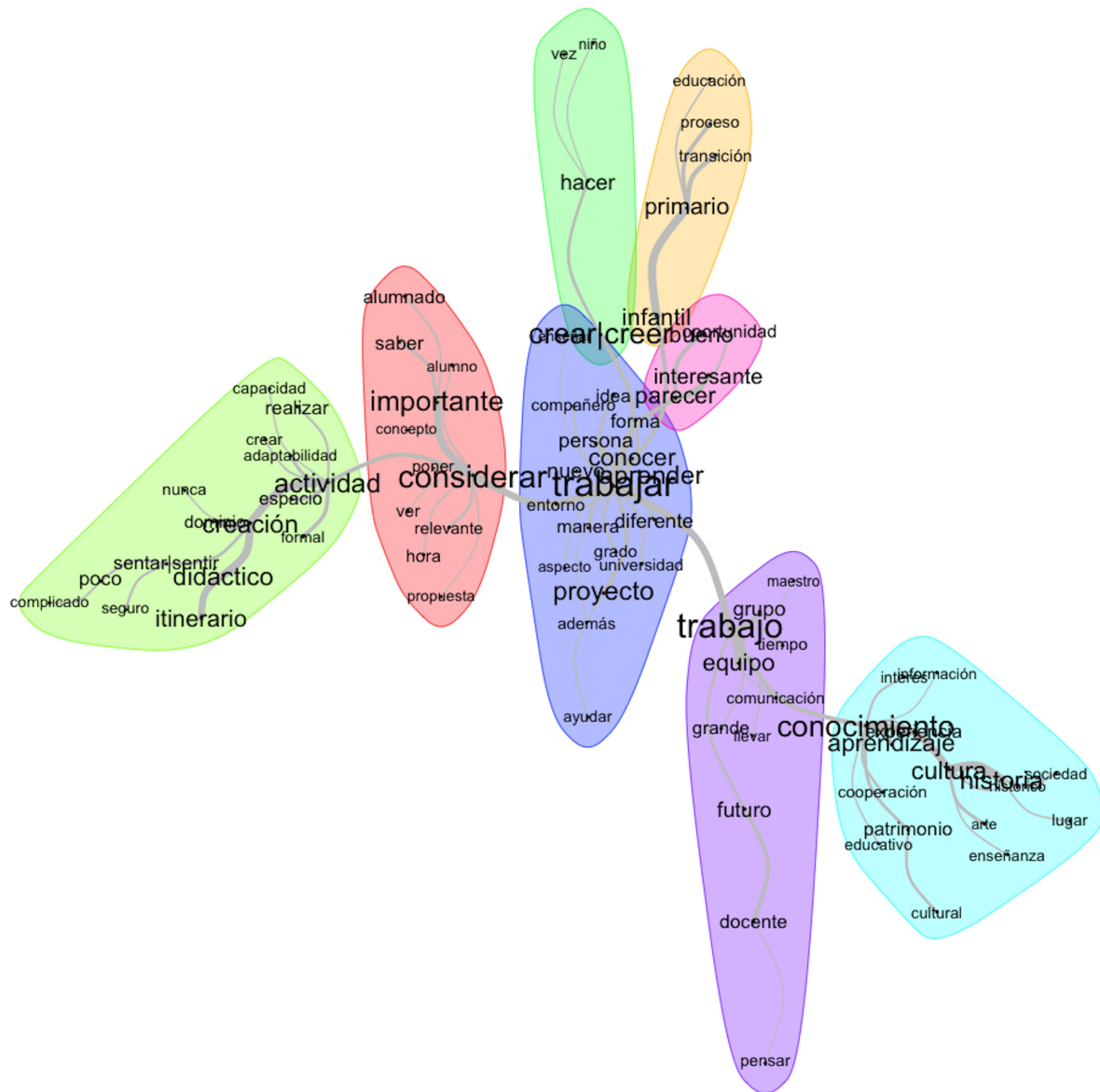
The average scores of the phases that assessed the achievement of the itinerary were 12.17 (out of 16, SD 1.88) in phase 1 (oriented to the selection and justification of the places for the implementation of the itinerary); while phase 2 (didactic design of the itinerary) obtained positive results, although slightly lower than the first phase (average score of 16.33 out of 22, SD 2.42).

In general terms, the results of both phases were homogeneous (Pearson's coefficient of variation: 0.14 in phase 1 and 0.15 in phase 2), which indicates that the learning outcomes do not show significant differences between participants, and learning outcomes in each phase were common to all working groups involved.

These general results can be tinged by looking at the specific performance of certain assessed aspects, in detail below.

## Designing Heritage Itineraries as a Strategy for Social Sciences Teaching

The core of the whole project was the design of heritage itineraries of the cities of Barcelona and La Laguna. The assessment scale results show that the discovery of both cities and the detection of common points between them (**Graph 1**) obtained 40% insufficient and sufficient levels, as the chosen information was sometimes inaccurate and the sources of information non-existent. Only 13.3% obtained the maximum score (excellent) in this item. Similar results were obtained in the justification of the points to visit with the itinerary. Better outcomes were shown in the formulation of learning objectives to the selected themes to work with and the selection of heritage sites, especially in their adaptation to the two educational levels (early childhood and primary). A satisfactorily level was obtained in 83.3%



**FIGURE 1** | Graphical representation of the discourses collected in the open questions of the initial questionnaire.

of the itineraries. The criterion of adequacy of the designed itinerary obtained high scores, and 33.3% of them received the highest ones.

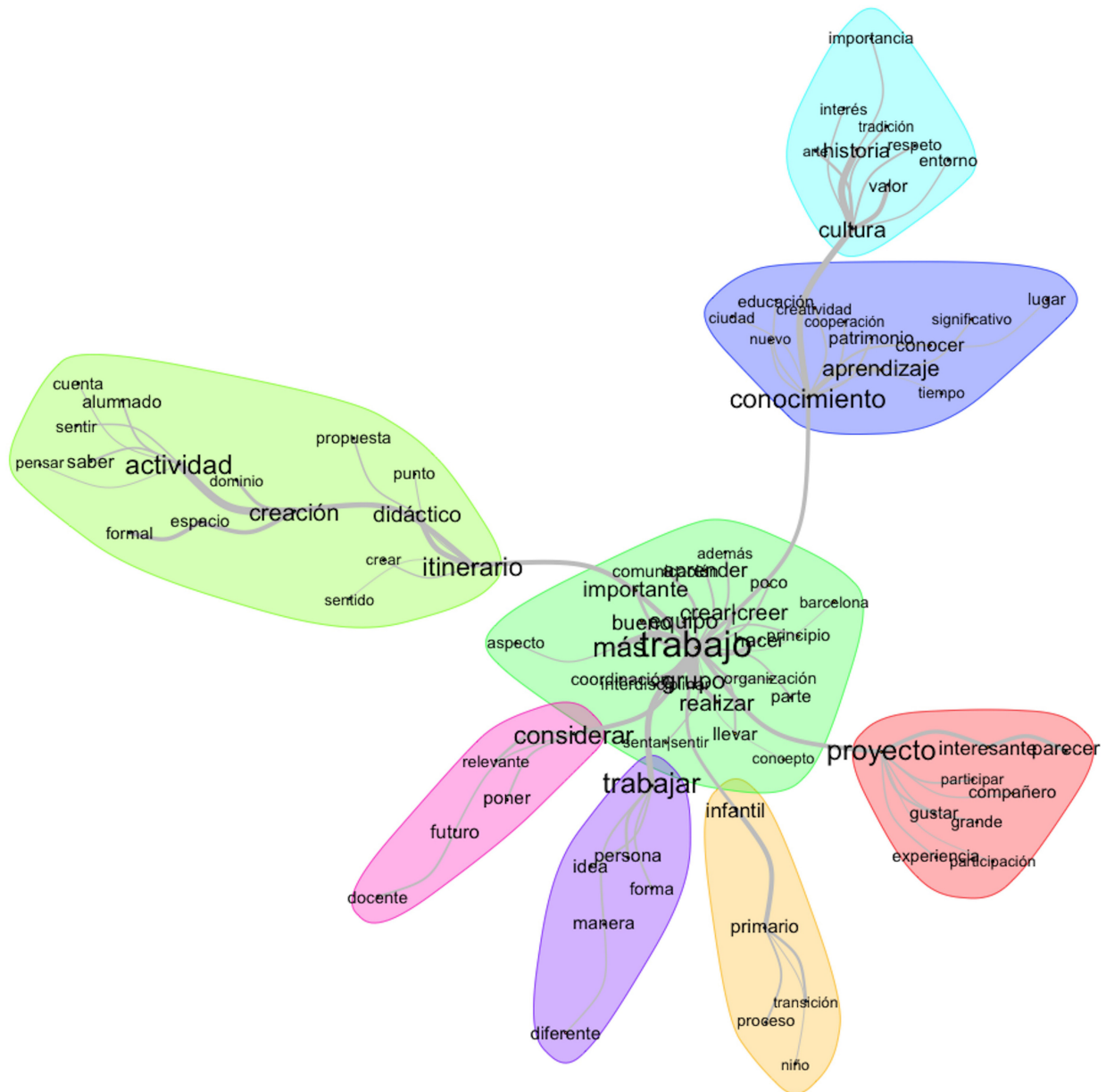
The questionnaire shows that after the intervention, students seem to feel confident with the designing of heritage itineraries due to the intervention. If we look at the students' perception in the first questionnaire, 41.1% said they were fairly or very confident in the creation of didactic itineraries. At the end of the project, 81.1% considered themselves to be prepared to use this strategy. The application of the chi-square statistic makes possible to link the results directly to the implementation of the project, as it is not random (**Graph 2**).

Finally, the high degree of confidence shown by the students in the final questionnaire stands out, placing 88.8%

between the values of medium and high ability in terms of knowledge of strategies for preparing didactic itineraries (**Graph 2**).

## Development of Professional Competencies

Another of the issues addressed by this project was the field of professional competencies. Here, the ability to deal with the transition from pre-primary to primary education was one of the most important ones. In the elaborated didactic proposals, more than 75% of the pieces of work were managed to satisfactorily develop interventions that favored the transition from one educational level to the other (**Graph 3**). Thus, the



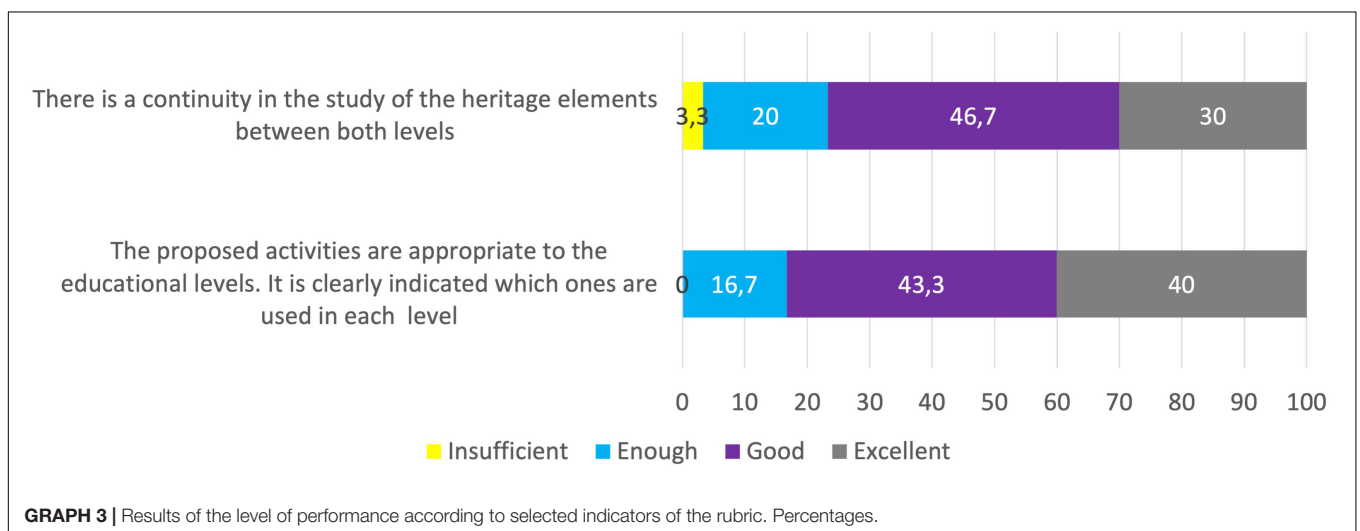
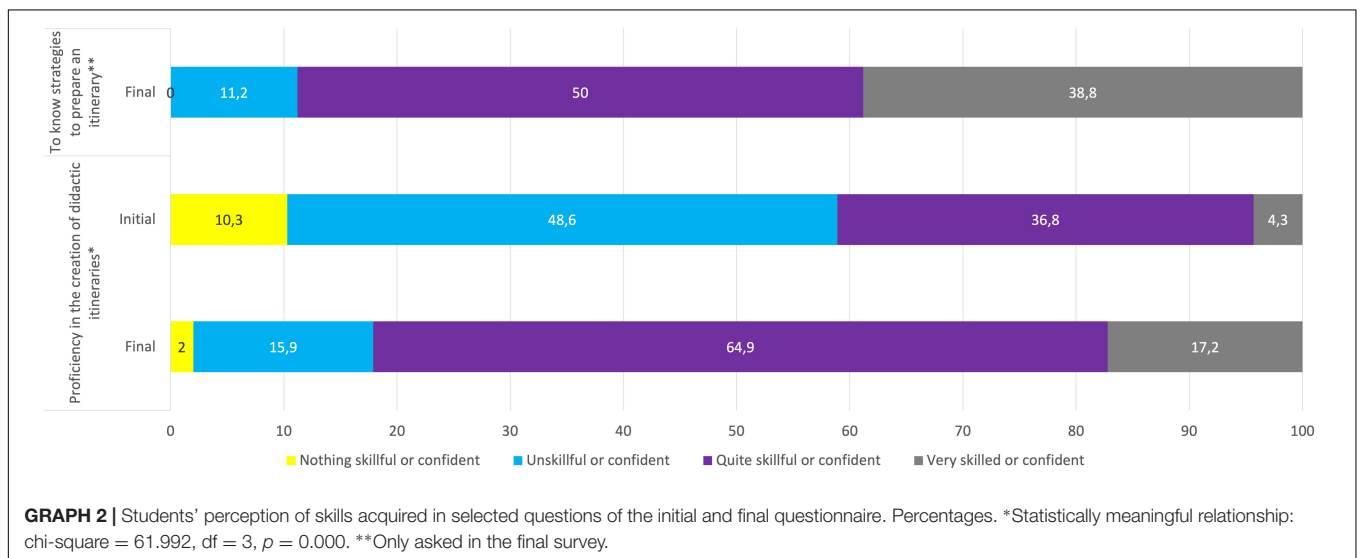
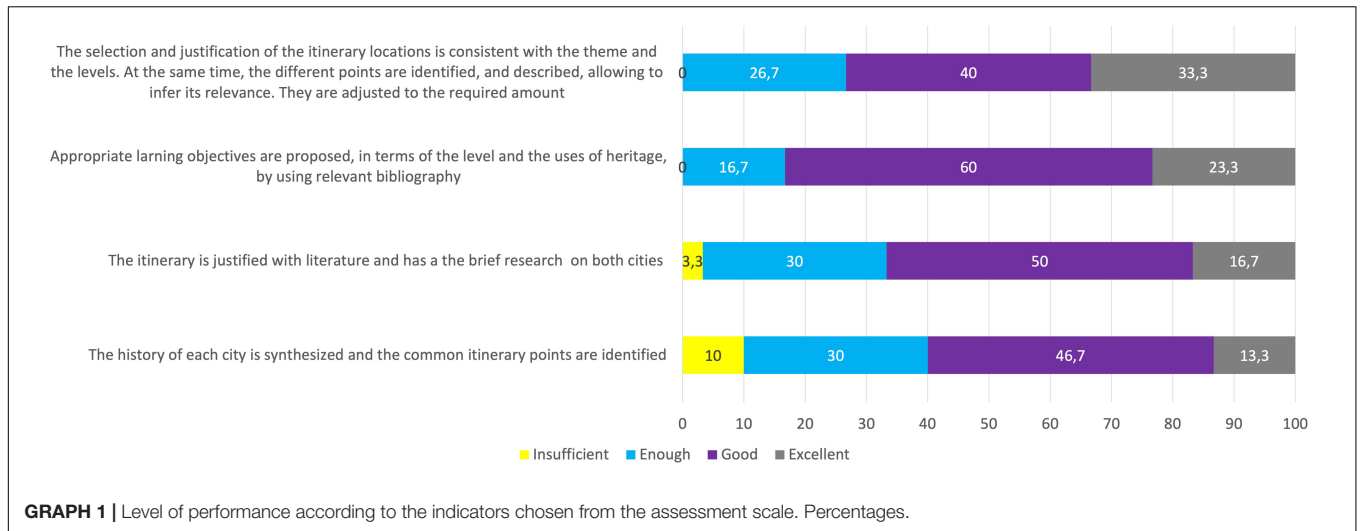
**FIGURE 2 |** Graphical representation of the discourses collected in the open questions of the final questionnaire.

didactic itineraries used the different chosen points to work on Social Sciences at early ages (5–7 years) with a continuity view. However, it was the ability to propose activities according to each level, the aspect with better results (83% of the itineraries achieve “good” or “excellent” scores).

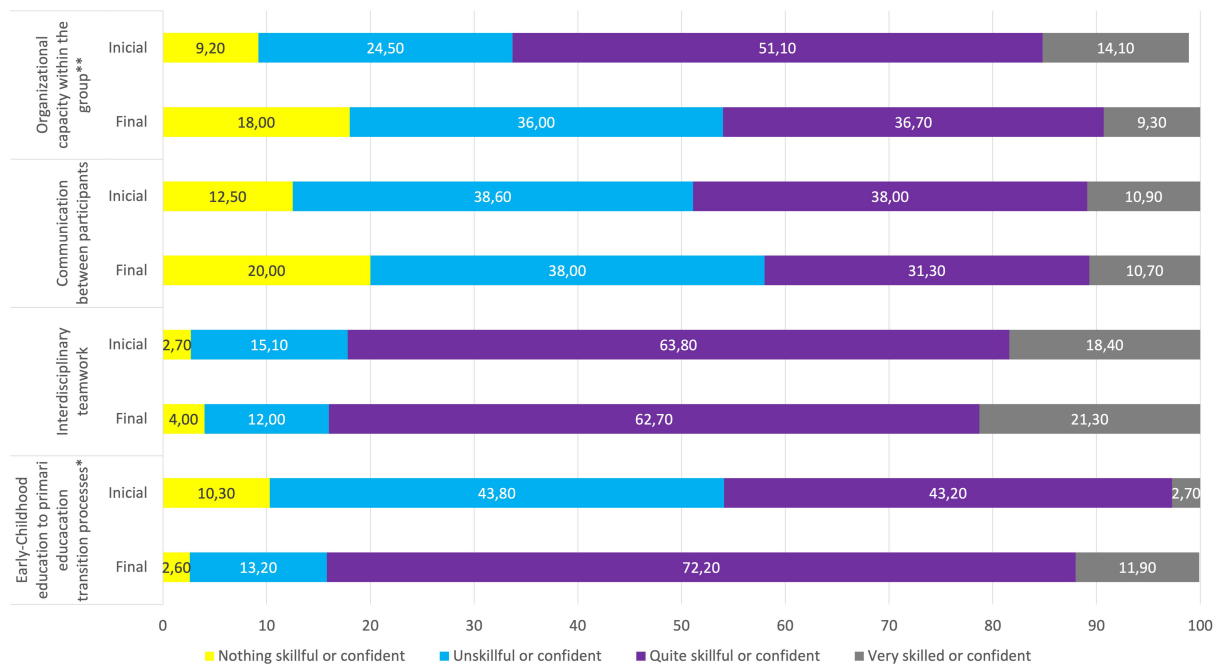
Accordingly, students seem to feel quite confident about the ability to develop transition activities by using itineraries. The comparison of the results of the initial and final survey shows significant differences in their confidence levels (**Graph 4**). While in the initial questionnaire, less than 50% of the students declared themselves fairly or very confident in planning transition routes, almost less than 80% considered themselves capable of doing so at

the end of the project. The application of the chi-square statistic shows that these results are related to the intervention and cannot be explained by chance (**Graph 4**).

The questionnaire (**Graph 4**) also shows that due to the intervention, the declared capacity of teamwork was calibrated. If prior to the intervention, students declared to feel quite or very confident in more than 64% of the answers, after the intervention only 46% felt so, and this result can be attributed statistically to the intervention. Others involved competencies, measured in pre- and post-test, did not show major changes between the initial and the final questionnaire, and their results cannot be statistically linked to the intervention (**Graph 4**).







**GRAPH 4 |** Students' perception of skills acquired in selected questions of the initial and final questionnaire. Percentages. \*Chi-square = 55.550, df = 3,  $p = 0.000$ . \*\*Chi-square = 13.944; df = 3,  $p = 0.003$ .

A special mention should be made to the questions referring to the students' digital competence, as it is present in both the general objective of the project and the specific objectives. In addition to using the virtual environment as a communication and work tool, within the didactic proposals, students were required to generate urban itineraries for both cities using the Google maps tool. Learning results show good proficiency in the uses of the resource, as 66.7% obtained fully satisfactory results (Table 4).

In addition, 16.3% of the respondents perceived using technology as quite difficult or very difficult at the beginning of the project, while 83.7% considered technology as "not" or "little difficult" (Graph 5). But if we compare their answers in the initial and final questionnaire, we see a slight improvement that places most of the answers in low difficulty levels, reducing as well, the percentage of students that felt the uses of technology "quite" or "very difficult." However, these results cannot be statistically attributed to the intervention.

**TABLE 4 |** Results of the level of performance according to indicators chosen from the assessment scale. Percentages.

Assessment scale level	The Google maps itinerary corresponds to the points established in phase 1
Insufficient	0
Enough	0
Good	33.3
Excellent	66.7
Total	100

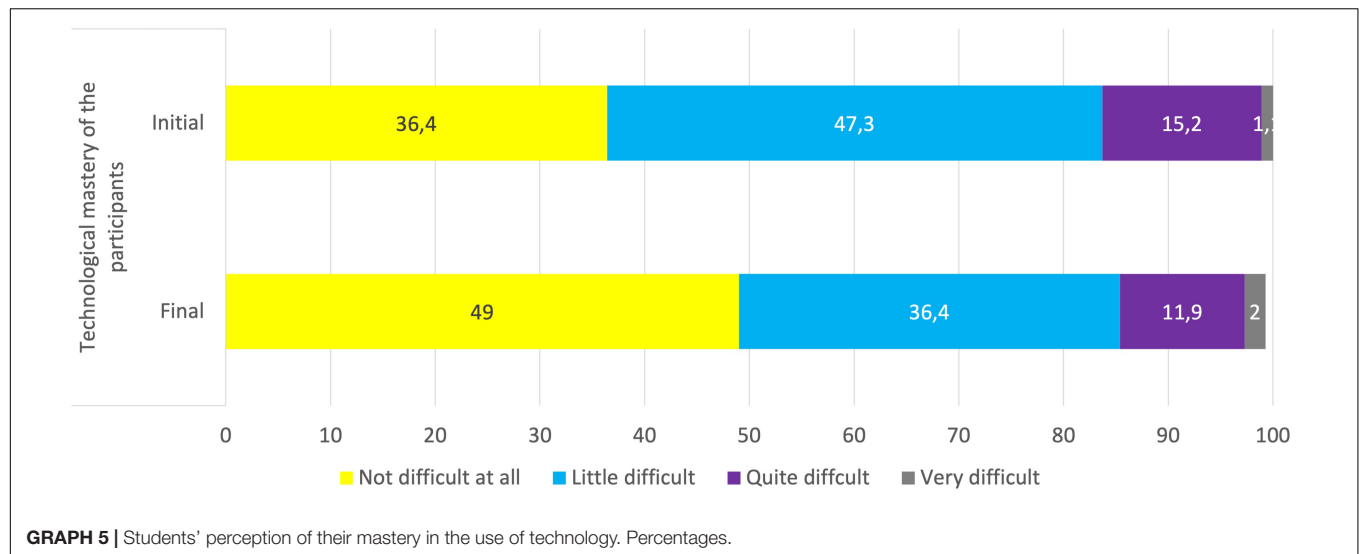
Consistently, students obtained very satisfactory learning results in their didactic proposal according to the teaching team's criteria (see Table 4).

## DISCUSSION AND CONCLUSION

In this paper, we have analyzed the general results of an experience on educational innovation in Higher Education, in which inter-university cooperative learning, heritage education, and the competencies' approach converge. Students, as learning subjects, have occupied a central position in this process (Albort-Morant et al., 2017). Moreover, due to the inter-university work, the physical barriers of the classroom were broken down by connecting the students of the early childhood and primary education teaching degrees and by actively using ICTs.

In general terms, the results show a significant level of satisfaction on behalf of the students. Self-regulated work, teams' organization, the development of communication skills, inter-cycle coordination, the understanding of the training potential of heritage resources from the local environment, and in short, their overall contribution to the strengthening of professional teaching skills underlie as key reasons for a positive self-perception, with an impact on the motivation of the participants.

Therefore, this motivational boost, confirmed by the questionnaires, was not only due to the fact of working with real contexts and as primary sources, but was also a consequence of the whole set of methodological ingredients from cooperative learning (Johnson and Johnson, 2019) and the contextual



and experiential didactics (Chapman et al., 2016; Guevara-Bustamante and Moreno-Muro, 2021). These elements were the backbone of the working proposal (Cañabate-Ortiz et al., 2014).

The core role in the learning process given to students prioritized autonomous learning. Students became actively involved in their own learning process through a commitment to their work group and their achievement. This enabled them to gradually become aware of their learning process, their strengths, and weaknesses. The differences found in the answers to the open-ended questions in the pre-test and post-test survey, especially in relation to soft skills (inherent to professional competencies) favored, at the same time, self-regulating learning mechanisms.

The self-perception of the students on learning and the assessment results observed by the teaching staff stands out in consistency among the two sources. These results allow us to deduce that, in general terms, the experience had the expected impact on learning, even when desirable achievements were not always observed in all the measured aspects.

Likewise, the results seem to endorse the inclusive nature of this proposal, since it has worked as a promoter of an experience that can be considered successful for most of the participants, regardless of the personal or contextual factors. Students at both universities applied an approach to Social Sciences, and specifically to heritage education, to develop social and critical thinking (Gil, 2020), which will allow them to start promoting it in the early stages. Nevertheless, these results also show that one of the most obvious areas for improvement is undoubtedly the aimed at getting to know their own cities and their heritage, based on more and better critical work with primary and bibliographic sources.

When assessing the planning, documentation, and design of the heritage assets, the historical aspects in terms of content had the lowest scores, compared to the development of the ones with a didactic nature. Knowing of the past of their cities and the selection of working topics for the itinerary posed difficulties for students, and the learning outcomes show a wide margin for

improvement for the future. Thus, the limitations in terms of student's historical knowledge reduced the complexity of their designs, raising the importance of future teachers having high content knowledge. Still, appropriate choices of the heritage landmarks were proposed and their didactic exploitation as learning resources stated. Students became aware of their lack of historical knowledge, which may explain their perceived insecurities when using heritage itineraries as didactical tools.

The panorama described above is consistent with the structural weakness in the Spanish education system in terms of heritage education as a basic element in the formation of a critical and participatory citizenship. This is a problem that has been widely documented and well described in manualistic studies (Estepa-Giménez et al., 2011; Farrujia de la Rosa et al., 2020), among others, which is not solved in secondary education, and whose effects are projected onto teachers in training.

Generally speaking, the learning outcomes measured in this study show that students do not face their university education with full basic proficiency strategies in the use of technology and information competencies, especially in those fields aimed at active work with primary and secondary sources. At the same time, they have not fully incorporated mechanisms to make use of cultural heritage as a didactic resource and as a tool for learning. However, the objectives of previous educational stages follow these lines within a competency-based approach to education (Valls and Parra, 2018).

In the specific case of this proposal, the immediate solution involves reformulating the first phase (research and knowledge of the cities), incorporating demonstrative resources, instructions, and activities to guide the analysis of heritage as a document for knowing the past (Callarisa-Mas and Sabido-Codina, 2020; Ballesteros-Alarcón, 2021; Estepa-Giménez and Delgado-Algarra, 2021).

Within the scope of the professional competencies promoted by this project, it seems clear that we can consider the configuration of inter-cycle teams to be a success according to learning results, specifically in terms of the continuity

between early childhood and primary education. Once again, the differences between the pre-test and post-test results reflect the fact that the learning process, although positive and successful, provokes students toward a critical perception of their own professional skills.

Developing knowledge, skills, and attitudes toward the educational use of technology in the digital era was one of the objectives pursued, being one of the most demanded competencies among today's teachers (Ibáñez-Etxeberria et al., 2019). In the digital revolution which humanity is experiencing, progressive digitalization has put schools in a complicated situation, blackboards, chalk, and paper books still being daily standard tools (Santacana and Coma, 2014). All this became more than evident with the recent pandemic crisis (Gutierrez-Moreno, 2020). Indeed, it was during the pandemic that this project was developed, in which technology became the virtual scenario that interconnected students from both universities. The percentage of participants who claim to have a mastery of basic digital technology is surprising, but even more so is the percentage of the ones that recognize to feel that technology is quite or very difficult. Although the results of the project reflect an improvement in their technological skills, once again the gaps in the current educational programs dealing with this competence are evident. Students, as citizens who relate, live, and communicate digitally, show a lack of skills in technology uses and a slight mistrust in their own abilities to use technology as an ally in the classroom. Thus, digital competence continues to be a challenge and a pending subject to be developed among future teachers.

To sum up, the overall data collected show the suitability of the proposal to achieve a high degree of attainment of the objectives set out in the research. The students have experienced a significant improvement in the skills and competencies mobilized in the learning process, as reflected in the evaluation evidence, and have also become aware of their main strengths and weaknesses. It supports that when learning is meaningful and when regulation and reflection on the process is encouraged, critical awareness increases in students' self-perception of their own training. Acquiring this awareness of what one knows, and what one does not know, opens a pathway in favor of autonomous learning with a strong potential for the development of professional teaching competencies. The conception of a training proposal as a process of research in action, invites students to actively participate, to work in groups, to carry out professional tasks, and to commit themselves to shared learning objectives. This is perhaps the main implication that derives

from this proposal, since it evidences a didactic strategy with a strong potential to promote the much needed renewal of teaching processes in early childhood and primary education.

This educational project has involved working toward constructing the concept of heritage as a basic resource for the performance of a contextual didactics. It involves the relation between school and its own environment by encouraging students to become critical citizens, achievable by the promotion, since earliest ages, of intellectual interests on knowledge, conservation, and enjoyment of the cultural assets that appear in their everyday landscape. However, as regards to historical research of the cities and to the selection of heritage assets (Barriga-Ubed and Sabido-Codina, 2020), a series of improvements must be introduced in the design in order to enable university students to transform their pre-conception of cultural heritage. In this sense, the result of the project shows the need to raise awareness among trainee teachers in considering the children's point of view toward the analysis of their reality, by understanding it as an educational mechanism that endows schools with their social significance.

## DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

## AUTHOR CONTRIBUTIONS

AF designed the project, data collection, and analysis. TM-G, CG, and IS-R participated in data collection, analysis, and interpretation of the results. All the authors contributed to the article and approved the submitted version.

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# Technological Pedagogical Content Knowledge: Implementation of a Didactic Proposal for Preservice History Teachers

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Information and communication technologies (ICTs) now form part of virtually all aspects of our daily lives, including education. However, teacher training in digital competence has been pushed into the background, especially in social sciences and in history instruction, in which digitalization and the use of ICTs is an opportunity for improvement and educational innovation. Consequently, proposals integrating the various types of knowledge into the training of history teachers are still rare and scarce. To solve this problem, this study presents a mixed quantitative and qualitative analysis using a pre- and posttest questionnaire with a sample of 235 students of the primary education degree at the Public University of Navarre who took part in an innovative didactic proposal that was implemented using the technological pedagogical content knowledge (TPACK) model based on digitized primary sources in three resources: PARES (Spanish Archive Portal), EUROPEANA, and BNE (National Library of Spain). The primary aim of this study was for preservice teachers to develop digital competence in teaching social sciences by integrating the technological, pedagogical and content knowledge types using the TPACK model. There were three specific objectives. The first was analyzing the digital knowledge of students following a primary education degree concerning the use of ICTs in history instruction. The second was implementing a didactic proposal in the teaching social sciences course based on the TPACK model by integrating ICTs and history instruction using Spanish and European digitized primary historical sources. Finally, the third was evaluating the impact of this didactic proposal on developing the knowledge types linked to the TPACK model, especially content knowledge (CK) and its technological content knowledge (TCK) and pedagogical content knowledge (PCK) combinations.

**Keywords:** TPACK, historical thinking, preservice teachers, ICTs - information and communication technologies, history instruction

## INTRODUCTION

The development of information and communication technologies (ICTs) has been one of the most significant constituents of change in recent decades (Mishra and Koehler, 2006). Besides altering social relationships, communication, and information, their impact has transformed society and posed a major challenge in education (Jiménez Sabino and Cabero Almenara, 2021).

As a result, it is becoming increasingly obvious that the individuals forming our current society and who will shape the future one will need to develop digital competence (DC) to a high level in order to function properly (Cabero and Palacios, 2020; Hidalgo Cajo and Gisbert Cervera, 2020; Miguel-Revilla et al., 2020). This need has been even more evident, if possible, in the past 2 years when the exceptional circumstances caused by COVID-19 have led to transformation toward an unprecedented digital and virtual education at all educational levels. Simultaneously, this accelerated change has highlighted the need to begin promoting the development of DC in classrooms based on improved pedagogy and the significant development of digital competence of educators (DCE) (Cabero-Almenara and Llorente-Cejudo, 2020; Romero Tena et al., 2021).

This position, which has become increasingly widespread among social sectors (García-Valcárcel and Martín del Pozo, 2016), has also been echoed at all institutional levels in recent years: in the creation of national and international standards that include improvement and implementation proposals for DC and DCE (International Society for Technology in Education [ISTE], 2008; UNESCO (2008, 2016); Ministry of Education Malaysia, 2012; DIGCOM; DigComEdu), and in curricular and legislative development for use in classrooms. In this regard, in Europe, DC has been included among the key competences for learning (Commission of the European Communities, 2006). Consequently, DC has to be developed to improve educational practice (Redecker and Punie, 2017). In Spain, this competence has been included in the latest educational legislations (LOE, LOMCE, and LOMLOE), and also in the curricular frameworks established by regulations to govern the initial training of teachers studying primary and preschool education degrees (Order of the Ministry of Education, Science, and Innovation 3857/2007 of 27 December, Objective 11).

However, the education system still faces numerous challenges and difficulties where DC is concerned, and the causes of the delay in implementing it in the various learning processes are diverse (Mishra and Koehler, 2006). On balance, the norm in both classrooms and teacher training has been to focus didactic and pedagogical proposals concerning DC on using new equipment and resources (Hargrave and Hsu, 2000; Graham et al., 2004, 2009; Mishra and Koehler, 2006; Ortega Sánchez, 2015), reproducing explanatory and traditional methodologies that have not enabled the breadth of changes needed in education (Cabero and Marín, 2014; Cejas León et al., 2016; Gómez Trigueros, 2017).

Given this situation, we should remember that new educational contexts not only require more technological resources but also a real change process that affects DC, DCE, and, therefore, educational practice and roles in the classroom. The development of ICTs does not merely consist of applying new resources but also, and especially, of promoting their implementation as an integrated pedagogical tool in the educational development of students (Tirado and Aguaded, 2014; González et al., 2018; Ramma et al., 2018). Furthermore, concerning educational practice and roles in the classroom, the use of ICTs in teaching–learning processes cannot occur independently as it must be linked to methodological,

pedagogical, and content innovation processes in which teachers' and students' roles overcome traditional approaches (Rivero and Mur, 2015).

For this to occur, initial teacher training should be presented as a space for preferential action and, simultaneously, as a didactically and pedagogically complex field. On the one hand, courses linked to ICTs in teacher training are scarce, especially in the specific area of social sciences (Ortega Sánchez, 2015; García-Valcárcel and Martín del Pozo, 2016). This lack of training coupled with teachers' lack of knowledge in how to use ICTs in the classroom means that the dissemination media for history instruction technologies are often personal blogs and colleagues' recommendations, as highlighted by Flores and Rivero (2014). On the other hand, even in cases in which courses and training models have been rolled out (Price and Kirkwood, 2014; Voithfer et al., 2019; Koh, 2020; Ortiz-Colón et al., 2020), lack of knowledge and interest in technologies persists among most teaching personnel of the various disciplines and also in history instruction.

Consequently, the starting point of this study is this complex issue (see, for example, Colomer Rubio et al., 2018; Hidalgo Cajo and Gisbert Cervera, 2020; Ortiz-Colón et al., 2020), in which a lack of interest and pedagogical training is combined with an obvious need (Sharp, 2014) to develop DCE, in this particular case with the added difficulty of linking it to social sciences and the development of historical thinking in the classroom, as some studies have done (VanSledright, 2013; Colomer Rubio et al., 2018; Ortega-Sánchez and Gómez Trigueros, 2020; Rinder, 2020).

## BACKGROUND: THE TPACK MODEL

The scientific literature on DCE and teaching training has a relatively long history that began at the end of the twentieth century. Initially, ICTs in the classroom were analyzed and developed on the fringes of the pedagogical or content dynamics and processes implemented at various educational levels (Hargrave and Hsu, 2000; Graham et al., 2004). The aim at that time was to present various media and resources to develop what was considered technological knowledge, which differed from other knowledge imparted in teaching and learning processes. However, in-service and preservice teachers that had begun to implement technological models and proposals soon observed problems with this separation. Consequently, they advocated that technologies had to be linked to the other factors involved in the educational process (Gómez Trigueros, 2016) and by the start of the twenty-first century, technology integration had become the objective to achieve (Graham et al., 2009).

Several educational proposals and training models soon appeared to respond to this demand, seeking to integrate technological knowledge (TK) with the other aspects of the educational process (Moersch, 2002; Lee et al., 2007). It is in this context that Mishra and Koehler (2006) developed the technological pedagogical content knowledge (TPACK) model. This proposal was based on the educational knowledge theories put forward by Shulman (1986, 1987), who advocated the existence and link in the classroom of two types of knowledge

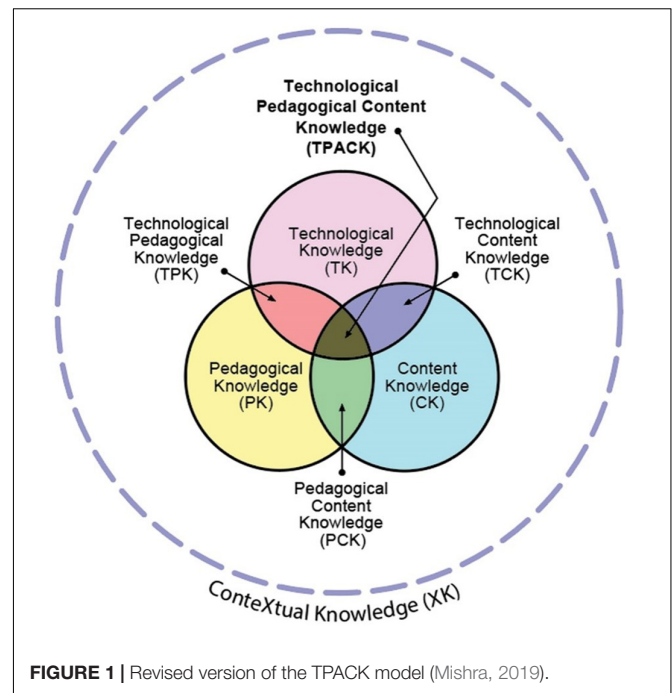
that teachers should impart for their teaching to prove successful: pedagogical knowledge (PK) and content knowledge (CK). This model, known as pedagogical content knowledge (PCK), supported the idea that the knowledge types needed to be integrated in the classroom and that none was independent. Despite the criticism leveled at PCK (Cochran et al., 1993; Van Driel et al., 1998), the model has remained current over the years. Consequently, with technological innovation as an objective, and using the bases of PCK, Mishra and Koehler (2006) added a new type of knowledge, TK, and developed their new model, originally known as TPCK and later as TPACK (Jang and Chen, 2010).

The TPACK model kept the main principle of the theories of Shulman (1986, 1987), namely the integration of the knowledge types; therefore, it was not a simple TK add-on. According to Mishra and Koehler (2006), it is a technological integration model of ICTs in teaching and learning. For this to occur properly and successfully, the three main types of knowledge—TK, PK, and CK—should not be implemented independently; instead, the focus should be especially on knowledge developed from the three interacting with each other, in other words, technological pedagogical knowledge (TPK), technological content knowledge (TCK), and pedagogical content knowledge (PCK), whose intersection finally gave rise to the TPACK (see **Figure 1**).

Although the TPACK model currently has the essential structure developed by Mishra and Koehler (2006) and Koehler and Mishra (2008), it has been adapted several times in recent years (Angeli and Valanides, 2009; Jang and Chen, 2010; Van Vaerenwyck et al., 2017). These adaptations have been especially important for contextual knowledge (XK) as another element in teaching development (Porras-Hernández and Salinas-Amescua, 2013; Rosenberg and Koehler, 2015; Phillips et al., 2016; Swallow and Olofson, 2017), which was included in the last revision of the TPACK by Mishra (2019). The relative stability of the main bases of the model has coexisted with extensive scientific literature outlining its limitations and issues (Mishra, 2019).

On the one hand, some analyses have considered TPACK as an ill-advised proposal that does not apply in some educational contexts (Abbitt, 2011). These analyses emphasize some of the aspects they consider problematic in the model, for example, the excessive pursuit of technological sophistication in some studies when applying TPACK (Roussinos and Jimoyiannis, 2019), the complexity of practically applying the model as it is divided into many types of knowledge (Angeli and Valanides, 2009) and, consequently, the difficulty in implementing an instrument to evaluate the acquisition of different types of knowledge (Phillips, 2016; Özgen and Serkan, 2020).

On the other, some studies have tried to improve and expand the model in different ways, even though they have detected problems with Mishra and Koehler's proposal in several contexts. For example, the technology, pedagogy, content and spaces (TPeCS) knowledge model (Kali et al., 2019), the study designed to reconceptualize the model, including a scope and apparatus of literary criticism by Watulak and Kinzer (2013), and, especially, other analyses focused on applying the TPACK model with the aim of developing e-teaching resources and specific applications (Ortega-Sánchez and Gómez Trigueros, 2019; Miguel-Revilla et al., 2020).



**FIGURE 1** | Revised version of the TPACK model (Mishra, 2019).

Nevertheless, although the TPACK model has been criticized and modified, many studies have defended its validity for integrating ICTs into the classroom in all educational spheres (Cabero, 2014; Barac et al., 2017; Hsu and Lin, 2020), but especially referring to teacher training in several areas and disciplines (Redmond and Peled, 2018; Agustín et al., 2019; Atun and Usta, 2019; Koh, 2019; Ladrón et al., 2019; Valtonen et al., 2019; Kaplon-Schilis and Lyublinskaya, 2020; Kong and Lai, 2021). However, as mentioned above, the TPACK model is still a novel and emerging practice in the teaching of social sciences (Willermark, 2018). In any event, in the past decade, the TPACK has been applied in aspects such as the creation and use of specific ICT resources for the classroom (Lee and Tsai, 2010); the perception and self-perception of ICTs and their integration by in-service teachers at several levels (Graham et al., 2009; Cózar et al., 2015; Van Vaerenwyck et al., 2017; Jiménez Sabino and Cabero Almenara, 2021); curricular analysis (Ortega Sánchez, 2015); and, essentially, initial teacher training in social sciences, which includes, among other elements, a direct or indirect link with several aspects of historical thinking in the teaching-learning process (Gómez Trigueros, 2016; Colomer Rubio et al., 2018; Miguel-Revilla et al., 2020; Ortega-Sánchez and Gómez Trigueros, 2020; Rinder, 2020).

## METHOD

This research starts with the hypothesis that, although preservice teachers are “digital natives,” they are not “digital experts” (Miguel-Revilla et al., 2020; Romero Tena et al., 2021). Therefore, despite knowing and being familiar with ICTs, they are not capable of integrating technologies into their future teaching work and far less capable of applying them at a specific content and pedagogical level.

The main objective of this study was for students of the primary education degree to develop DCE in the field of social sciences by integrating content, pedagogical, and technological knowledge in cooperative settings using the TPACK model (Mishra and Koehler, 2006).

The following are the specific objectives.

First objective (SO1): analyzing the digital knowledge of students following a primary education degree concerning the use of ICTs in history instruction.

Second objective (SO2): implementing an educational proposal in the teaching social sciences course based on the TPACK model by integrating ICTs and history instruction using Spanish and European digitized historical sources.

Third objective (SO3): evaluating the impact of this didactic proposal on the development of the knowledge types linked to the TPACK model, especially CK and its TCK and PCK combinations.

The research we present in this study is descriptive and experiential. Given that mediation and evaluation of the TPACK model and its knowledge types have been seen as one of the difficulties in implementing it in the classroom, this study addresses that problem in the way other studies have (Cózar et al., 2015; Gómez Trigueros, 2016) by developing a mixed research model combining quantitative and qualitative analysis factors (Kaplowitz et al., 2004). For that purpose, this study is based on two questionnaires before and after implementing a didactic experience using the teaching–learning TPACK model and three ICT resources linked to history and the digitalization of primary sources (BNE, PARES, and EUROPEANA) in the classroom.

An experimental design was used in both the quantitative and qualitative approaches using questionnaires created from instruments already developed for the TPACK model (Schmidt et al., 2009; Cabero et al., 2015; Ortega-Sánchez and Gómez Trigueros, 2019; Valtonen et al., 2019) and validated by experts from Nebrija University and the European University of Madrid for this specific proposal. The questionnaires contained a first general identification part and a second part that included closed, open, and Likert-type questions (Cejas León et al., 2016; Lopera Pérez et al., 2020), which corresponded to self-perception of the TPACK model knowledge types: PCK in questions aimed at applying several historical thinking aspects in the primary classroom (questions 1–7); TPK in questions focused on ICT knowledge and its application in the social sciences classroom in primary school (questions 8, 9, 10, and 11); and TCK in questions on integrating ICTs in the history classroom (questions 12 and 13). The quantitative analysis was performed using the RStudio program, and the qualitative analysis of the sections with open answers was based on reducing, categorizing, and coding data based on TPACK model information and KWIC and KWOC approaches using the Atlas.ti program.

The didactic proposal was completed over a total of four sessions lasting 2 h each. The aim was to understand the complex dynamics and interrelations between teaching, content, and technology in a specific context. Consequently, this study proposed to analyze the development of historical thinking

among preservice teachers by means of collaborative work structured on problem-based learning enabling the impact and modifications caused by the TPACK model to be analyzed (Colomer Rubio et al., 2018). The goal was to create an active learning space for preservice teachers that would change the students' role through technologies and, in this case, enable collaborative e-activities to be implemented in the classroom (Baran and Uygün, 2016) based on the use and educational transposition of digitized primary historical sources (Britt and Aglinskias, 2002; Haydn, 2013; Rinder, 2020).

The didactic experience took place in the two groups of the teaching social sciences course in the second year of the primary education degree taught in Spanish (Group 1 and Group 2) and in a group in the teaching social sciences course in the second year of the international primary education degree taught in English (Group 81). Consequently, the sample used is non-probabilistic, convenience, or causal (Sabriego, 2012), in other words, based on how easy it was for the researchers in this study to access the subjects participating in it (Neuman, 2007; Wellington, 2015). Given that the course in which the proposal was implemented is compulsory, the sample did not include a control group; however, as it is formed by a total of 235 subjects (pretest  $n = 127$ , posttest  $n = 108$ ), it can be considered representative of the total population ( $n = 600$ ) as it exceeds the minimum established for this type of studies with surveys in social sciences (Sevillano, 2002). Concerning the general characteristics of the sample, the mean age is 19.4 years and, although the range is 12, the standard deviation is 1.59; therefore, the sample is relatively homogenous in this aspect. Concerning the analysis groups, their numbers vary; the largest is Group 1, followed by Group 81, and, finally, Group 2 (see Table 1).

## RESULTS

The TPACK model is based on integrating the knowledge types (Koehler and Mishra, 2008) needed for successful teaching and appropriate DCE. Consequently, the results of this study are presented below on the basis of these knowledge types (CK, PK, and TK), and, especially, of their integration (PCK, TPK, and TCK).

The results were generally positive, especially concerning CK, and, particularly, PCK. Starting with question 1 (Table 2), the pretest and posttest results of the initial questions of this section are shown with Likert-type responses, specifying the mean (M), median (Median), interquartile range (IQR), and variance (VAR). For the quantitative analysis, the Likert-type responses—“completely disagree” (1), “slightly disagree” (2) “neither agree

TABLE 1 | Sample by groups.

	Pretest <i>N</i>	Posttest <i>N</i>
Group 1	58	43
Group 2	30	30
Group 81	39	35



nor disagree” (3), “slightly agree” (4), and “completely agree” (5)—were numerically transform in the data (Table 2).

In the CK and PCK questions, shown in Table 2, we can observe that a large number of students showed a relatively positive perception with an upward trend in the posttest results that is, however, limited by the good initial results.

The most positive responses were provided for two issues: the first was the question on the importance of learning history (shown in the table as “PretestHistImp” and “PosttestHistImp”). Most of the sample was aware of the importance of history in both the pretest and posttest, and this was the most common response with a significantly reduced variance (0.373 in the pretest and 0.324 in the posttest). The second question with a highly positive response concerned the importance of the teachers and their explanations in history instruction (“Pretest Explain” and “Posttest Explain” with a mean response somewhere between “slightly agree” and “completely agree” and staying almost the same after implementing the proposal.

The results were positive, although slightly less than above, in four questions. The first concerned rote learning (“HistRoteLearn”), perceived as the most usual by students before the TPACK model proposal. In this case, a substantial improvement was observed in the posttest up to an intermediate level, although with a variance of 1.298, a fact evidencing dispersion in the students’ perception. The second concerned the different versions in the historical stories (“Versions”), with slightly improved results in the posttest, even though with a trend toward maintaining the results. The third was related to the development of empathy in history instruction (“Empathy”), which was not significantly modified from the proposal of the TPACK model implemented with digitized sources, although the students perceived its importance. Finally, the fourth was the question on the importance of using primary sources in the classroom (“Pretest Sources” and “Posttest Sources”), a central part of this study deserving special attention. The pretest and posttest results showed that preservice teachers have a generalized

positive perception, and even a slight improvement, after the proposal, but with a relatively important variance (0.842 in the pretest and 0.868 in the posttest). The latter prevents us from advocating a direct and clear link between working with sources and improvement as perceived by students. Although this improvement occurs, the wide variance evidences discrepancies in perception by subjects in the sample.

Lastly, the most negative results in the responses in Table 2 were observed in two questions; however, the analysis of both differs. The first is the question linked to the use of diverse opinions and historical divergent approaches in teaching (“Pretest Opinions” and “Posttest Opinions”). In this case, the results showed the students’ negative perception of this type of practice in teaching–learning processes. In any event, the variance in the responses is the largest of the entire sample (1.520 in the pretest, 1.584 in the posttest), showing the dispersion and, therefore, the broad difference in opinion in this regard. The second is the question with the clearest negative response, focused on CK and PCK, linked to the negative self-perception that preservice teachers have of their content and pedagogical knowledge for history instruction. Despite having the worst result in the pretest, this aspect, already observed in other studies (Colomer Rubio et al., 2018), exhibited one of the most substantial improvements linked to our didactic proposal between the pretest and the posttest. Consequently, there was an increase in the mean (2.551 in the pretest and 2.769 in the posttest), and especially in the median, which changed from “slightly disagree” (2.000) to “neither agree nor disagree” (3.000), at the same time as the variance decreased (1.059 in the pretest to 0.852 in the posttest).

The following tables continue with the questions focused on CK and PCK, namely, question 2 (Table 3), question 4 (Table 4), and question 6 (Table 5). They were questions with closed nominal “Yes/No” qualitative responses that were transformed into “1/2” for the numerical analysis. These questions were complemented by the linked open-response questions, namely, question 3 to question 2, question 5 to question 4, and question 7 to question 6 (see Tables 3–5).

A clearly positive trend can be observed in all the questions based on the implemented TPACK model proposal. This can be interpreted as a significant increase in the students’ knowledge, in this case, CK and PCK. Concerning historical thinking (question 2), this improvement is especially significant, increasing from a total of 28 students with knowledge of it in the pretest (22%) to 88 in the posttest (81.4%). The open responses to question 3 allow us to qualify the results of question 2 (Table 3).

**TABLE 2 |** Pretest/posttest comparison question 1.

	Mean	Median	IQR	Var
PretestHistImp	4.567	5.000	1.000	0.373
PosttestHistImp	4.542	5.000	1.000	0.324
PretestHistRoteLearn	3.810	4.000	2.000	1.083
PosttestHistRoteLearn	3.150	3.000	2.000	1.298
Pretest sources	3.881	4.000	1.000	0.842
Posttest sources	4.194	4.000	1.000	0.868
Pretest versions	4.173	4.000	1.000	0.842
Posttest versions	4.306	4.000	1.000	0.625
Pretest opinions	2.667	2.500	1.000	1.520
Posttest opinions	2.574	2.000	1.000	1.574
Pretest explain	4.619	5.000	1.000	0.382
Posttest explain	4.620	5.000	1.000	0.387
Pretest empathy	4.008	4.000	2.000	0.833
Posttest empathy	4.250	4.000	1.000	0.731
Pretest knowledge	2.551	2.000	1.000	1.059
Posttest knowledge	2.769	3.000	1.000	0.852

**TABLE 3 |** Pretest/posttest results question 2.

Pretest historical thinking		Historical thinking posttest	
Mean	1.779527559	Mean	1.18691589
Typical error	0.036932408	Typical error	0.037865
Median	2	Median	1
Mode	2	Mode	1
Standard deviation	0.416207096	Standard deviation	0.39167856



Consequently, most of the 28 students who say they know what historical thinking is in question 2 linked it in the responses to question 3 with the concepts of “historical knowledge” and “learning about history”: “it is knowledge we have acquired through historical learning” or “having a point of view that shows you have knowledge of the past.” However, none of the responses to question 3 linked historical thinking with the idea of “historical competence.” In a few cases historical thinking aspects were mentioned, such as historical perspective: “it is thinking in the same way as people did during the era we are studying.” In any event, the posttest results show a clear improvement with far more elaborate responses in which the elements and concepts mentioned include “interpreting historical processes,” the “historical narrative,” “historical reflection,” and, especially, understanding historical thinking as the capacity to think and imitate a historian’s work by using historical sources, for example in responses such as “it is thinking like historians” or “it is students’ ability to think as a historian would, to understand how history is made.”

The responses to question 4 (Table 4) on knowledge of the historical method and its qualitative details in question 5 show a similar trend to the previous questions. Furthermore, in the

pretest, the students display serious difficulties in differentiating the historical method from historical thinking, linking both with the concepts of “historical knowledge,” “historical content,” and “learning about history.” In the posttest results, the improvement is significant; more understanding of the historical method is observed, clearly linked to the idea and concept of “research,” “scientific method of history,” “historical sources,” and “stages of historical analysis.” In that regard, the following responses are good examples: “it is the method used to make history and it consists of asking an initial question, looking for sources, analyzing them, comparing them, proposing hypotheses, and trying to confirm them.”

Slightly different results are observed in the responses to question 6 (Table 5) and its qualitative details in question 7 on knowledge of primary historical sources. For question 6, most of the sample, both in the pretest and the posttest, showed that they knew this type of source. Despite this, the increase after the TPACK model proposal was significant, which is logical given the central role of the sources in it (from 72 students, 56%, in the pretest to 107, 99%, in the posttest). In any event, a slightly higher prior lack of knowledge than that perceived by the students was evidenced for question 7. In general, they were incapable of giving more than two examples of primary historical sources, which were also generic and mostly written. The most common cited were: “a letter,” “a text,” and an “article.” In contrast, most of the responses to question 7 in the posttest presented more than four different historical sources and their references were also far broader in type and more specific in the description, with examples such as “photograph of Franco,” “Greek ceramics,” “remains found in an archaeological excavation,” and “cave drawings.”

Finally, concerning issues focusing on implementing ICTs—which for this proposal were especially specified in questions 8, 9, 10, and 11 for TK and TPK, and questions 12 and 13 for TCK—the results were widely positive, from a general point of view, in both the pretest and the posttest. The response in questions with a closed nominal “Yes/No” qualitative response was transformed into “1/2” for the numerical analysis. These were questions 8, 10, 11, and 12 (Table 6) of the pretest and posttest analysis instrument in which the students were asked about their ICT knowledge (question 8 “ICT Pretest”

**TABLE 4 |** Pretest/posttest results question 4.

Pretest historical method		Posttest historical method	
Mean	1.71653543	Mean	1.26851852
Typical error	0.04014976	Typical error	0.04284468
Median	2	Median	1
Mode	2	Mode	1
Standard deviation	0.45246482	Standard deviation	0.44525497

**TABLE 5 |** Pretest/posttest results question 6.

Pretest historical sources		Posttest historical sources	
Mean	1.433070866	Mean	1.009259259
Typical error	0.04414267	Typical error	0.009259259
Median	1	Median	1
Mode	1	Mode	1
Standard deviation	0.497462628	Standard deviation	0.096225045

**TABLE 6 |** Pretest/posttest results questions 8, 10, 11, and 12.

ICT pretest		ICT posttest		ICT prim pretest		ICT prim posttest	
Mean	1.00787402	Mean	1.01851852	Mean	1.00787402	Mean	1
Typical error	0.00787402	Typical error	0.01303324	Typical error	0.00787402	Typical error	0
Median	1	Median	1	Median	1	Median	1
Mode	1	Mode	1	Mode	1	Mode	1
Standard deviation	0.08873565	Standard deviation	0.13544537	Standard deviation	0.08873565	Standard deviation	0
ICT prim hist pretest		ICT prim hist posttest		ICT tool pretest		ICT tool posttest	
Mean	1.00787402	Mean	1	Mean	1.19685039	Mean	1.0833333
Typical error	0.00787402	Typical error	0	Typical error	0.03542265	Typical error	0.02671919
Median	1	Median	1	Median	1	Median	1
Mode	1	Mode	1	Mode	1	Mode	1
Standard deviation	0.08873565	Standard deviation	0	Standard deviation	0.39919304	Standard deviation	0.27767392

and “ICT Posttest” in **Table 6**), the possibility of using ICTs in the primary classroom (question 10 “ICT Prim Pretest” and “ICT Prim Posttest” in **Table 6**), the use of ICTs specifically in the primary classroom for history instruction (question 11 “ICT Prim Hist Pretest” and “ICT Prim Hist Posttest” in **Table 6**) and about their knowledge of specific ICT tools for history instruction (question 12 “ICT Tool Pretest” and “ICT Tool Posttest” in **Table 6**) (see **Table 6**). The results show a widely positive perception toward ICTs among preservice teachers, a fact observed in other analyses (Cózar et al., 2015; Gómez Trigueros, 2016). Most of the sample knew what ICTs are, believed they were useful in the primary classroom in general, and for history instruction in particular, and, furthermore, were aware of ICT tools for use in the classroom. However, this positive self-perception of their own TPK and TCK did not obtain similar results in the open-response questions associated with the previous ones (question 9 and question 13). Consequently, as occurred for primary historical sources, the responses to the pretest evidenced generic knowledge of ICTs, as the students mentioned resources such as “PowerPoint,” “virtual maps,” and even confused them with equipment such as “computers,” “tablets,” and “digital whiteboards.” In this regard, the posttest responses to both questions evidenced a positive trend, especially in outlining the tools, as the students were more specific when identifying possible ICT resources to use in history instruction in primary education. Consequently, although generic aspects such as “webpages for creating timelines,” “blog,” and “videos” were still mentioned, other elements such as “Kahoot,” “Edpuzzle,” “Popplet,” “Google Earth,” “Europeana,” and “PARES” began to appear in the responses. However, in many cases the concepts were linked to “computer,” “projector,” “digital whiteboard,” and “tablet,” highlighting a confusion between ICT resources and ICT equipment.

## DISCUSSION

In recent years, several analyses have explored the integration of ICTs in teaching–learning processes in various contexts and educational stages (Redecker and Punie, 2017; Cabero and Palacios, 2020; Hidalgo Cajo and Gisbert Cervera, 2020; Ortega-Sánchez and Gómez Trigueros, 2020; Rinder, 2020; Romero Tena et al., 2021). The situation caused by COVID-19 has not only led to a trend toward accelerating ICT digitalization and integration processes in the classroom, it has also highlighted some deficiencies and gaps in both the educational system and in teacher training. The challenges of integrating ICTs are multiple and depend on numerous factors that vary based on specific educational contexts. Throughout this study, the didactic proposal implementing the TPACK model in the training of students in the degree in primary education in history allows us to observe certain difficulties and limitations, but it also paves the way toward future innovations and research.

In general, as other analyses have pointed out (Redmond and Peled, 2018; Ladrón et al., 2019; Jiménez Sabino and

Cabero Almenara, 2021), the knowledge types (CK, TK, and PK) and their integrations (CTK, CPK, and TPK) increase, albeit heterogeneously, after implementing courses and pedagogical proposals centered on ICTs such as the one this study concerns. This occurs especially when these teaching–learning processes are put forward in particular contexts with proposals applied to specific didactic, technological, and content problems that are simultaneously integrated, which is why the XK of the TPACK model was revised (Mishra, 2019).

Consequently, this study shows how preservice teachers have a broadly positive perception of history, its importance, and of the need to apply and implement it in the primary school classroom. It also evidences that the perception these preservice teachers have of the importance of ICTs and the knowledge they have of them is highly positive, in line with the most recent analyses (Colomer Rubio et al., 2018; Cabero-Almenara and Llorente-Cejudo, 2020; Koh, 2020), which observe a difference with studies of in-service teachers with more years of experience. This aspect allows us to observe a clear, positive trend in the development of knowledge types linked to ICTs (TK, CTK, and TPK), which, besides showing good initial results, widely improved with the implementation of the TPACK model proposal, and were defined, specified, and applied to the particular problems of history instruction in primary education.

However, combined with these positive aspects, this study observes some difficulties and limitations linked with integrating ICTs into teaching–learning processes. Firstly, and especially, there are divergences between the students’ self-perception of TK and the limitations in their open responses, with an important part of the sample confusing ICT tools with equipment, and providing generic rather than specific responses for history instruction. Consequently, as observed in other cases (Miguel-Revilla et al., 2020; Romero Tena et al., 2021), this study evidences the difference between “digital native” and “digital expert,” which is crucial for understanding the development of DCE in future. After all, current preservice teachers use ICTs every day. This fact makes them “digital natives,” leading to positive results in TK, but not to a satisfactory development of this integrated knowledge.

Consequently, the results worsen when implementing TK in a context and analyzing PTK and TCK. The main limitations occur in this last point. Unlike the observations of Miguel-Revilla et al. (2020), and more in line with the results detected by Colomer Rubio et al. (2018), our analysis has detected that the worst results occur in CK. Although these results clearly improve with the TPACK model proposal implemented in this study, the improvement does not occur until the results are satisfactory. The cause of this limitation lies especially in the students being clearly aware of the importance of CK, PK, and TK, although PK and TK predominate over CK, as observed by García-Valcárcel and Martín del Pozo (2016), among others. As this fact occurs in an integrated knowledge model, it not only affects the teaching–learning process of history concerning its CK, but it also hinders the other knowledge types it interacts with in the classroom.

On the one hand, CTK evidences problems as it does not implement specific technological tools for history instruction and, instead, it is limited to equipment and generic ICT programs and resources. In this respect, the results of the TPACK proposal based on digitized primary sources with preservice teachers are positive, yet insufficient. The lack of CK perceived by the students influences their capacity to implement specific technological proposals. Furthermore, although the results are better than for CTK, they are also negative in PCK. Even though preservice teachers are aware of the need to integrate knowledge—paying special attention to PK (Colomer Rubio et al., 2018)—and their results regarding PK are positive from a general viewpoint, as in other analyses (Hidalgo Cajo and Gisbert Cervera, 2020), the specific application of this knowledge and its combination with didactic approaches in history instruction are problematic. Consequently, although there are high self-evaluations in PK and, especially, in TK, a fact already observed in prior analyses (García-Valcárcel and Martín del Pozo, 2016), gaps in CK have repercussions in all teaching–learning processes, and, at the same time, in the DCE of preservice teachers.

Nevertheless, these limitations and problems linked to negative CK results do not involve the need for a specific development of this knowledge—quite the contrary in fact. Successful results of this TPACK model proposal show us the possibilities of a knowledge integration process to fully develop DCE. Consequently, difficulties concerning one of its knowledge types, namely CK, must be addressed by integrating this knowledge with other types (CTK and PCK), but not in a specific or isolated manner.

## CONCLUSION

The situation caused by COVID-19 has led to a trend toward accelerating ICT digitalization and integration processes in the classroom. However, at the same time it has showed the lack of DCE on preservice teachers. With the goal of developing DCE in the field of social sciences by integrating content, pedagogical, and technological knowledge in cooperative settings using the TPACK model, this study has shown that preservice teachers' self-perception of TK is highly positive (SO1), that implementing integrated knowledge proposals has positive effects (SO2), and

that despite their limitations, these proposals especially make it possible to develop the most problematic aspects, namely PCK and TCK, which are both disadvantaged by preservice teachers' self-perceived deficiencies concerning CK in history (SO3). Besides, this study shows the fundamental difference between “digital native” and “digital expert,” and its influence on the present and future development of DCE.

All these elements evidence that implementing specific didactic proposals based on the TPACK model to develop DCE in preservice teachers opens up a field of analysis that is innovative and beneficial, albeit not without challenges. Moreover, they show the need for a development of knowledge integration process to fully develop DCE, taking into account the different knowledge types (CK, TK and PK) but mostly, their integrations (CTK, CPK, and TPK) in a particular context (XK). Even though research should continue to explore the limitations and problems of implementing certain knowledge types, the integrating proposal is still the path to follow for teaching–learning processes in which ICTs are increasingly the central and essential resource for both teachers and students.

## DATA AVAILABILITY STATEMENT

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

## AUTHOR CONTRIBUTIONS

CC-M and AL contributed to conception and design of the study and wrote sections of the manuscript. CC-M organized the database, performed the statistical analysis, and wrote the first draft of the manuscript. All authors contributed to manuscript revision, read, and approved the submitted version.

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# Feminism, Intersectionality, and Gender Category: Essential Contributions for Historical Thinking Development

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The following article inquires how introducing the gender category, feminism theories, and intersectionality into social sciences education, especially regarding historical thinking development, could be key for the construction of a more critical and egalitarian future. The main research problem is knowing how the use of the gender category is included, or not, in the development of historical thinking in pre-service teacher beliefs and how it could condition them when they work on historical and social problems in the classroom. The main objective is to analyze the historical thinking development in pre-service Spanish teacher students and their capacity for constructing critical discourses with a gender perspective. Pre-service teachers of five Spanish universities (of the Primary and Secondary Education Degree) were asked about a report from a digital newspaper version that forces them to use historical thinking and to consider gender stereotypes and prejudices. Their responses were analyzed both qualitatively and quantitatively. The results indicate that pre-service teachers are not able to identify their own gender roles and prejudiced attitudes when they attempt to explain a social problem and they propose solutions, even when they could verify that there was another manner to understand this report. Hence, this research highlights the relevance of implementing feminism, intersectionality, and gender category for historical thinking development since these future teachers need to work around democratic culture competences. By contrast, not including this perspective will lead to them still maintaining historical thinking and democracy configured on hegemonic, heteropatriarchal, sexist, and Eurocentric cultural models.

**Keywords:** historical thinking, learning outcomes, feminism theories, gender category, intersectionality, critical thinking, problematizing knowledge

## INTRODUCTION

In the 21st century, our societies are trying to contribute to the development of the Sustainable Development Goals and, at the same time, to achieve concrete targets by 2030 (in our research, it is linked to SDGs 4 and 5). Besides, the 2030 Global Education Agenda “recognizes that gender equality requires an approach that ensures that girls and boys, women and men not only gain access to and complete education cycles, but are empowered equally in and through education”

(UNESCO, 2019). For this reason, we can continue to affirm that in our initial teacher training centers, there is still a strong epistemic androcentrism (Maffia, 2007, p. 64).

Feminist epistemologies, since the 1980s, have been providing the configuration of specific critical theories of knowledge, at the same time that they were facing multiple acts of structural violence within the system itself for its acceptance. These acts of violence are still present today, since we could say that what Puleo García (2005) calls “patriarchy of consent” and an “ice law” (or mistreatment through silence) of the gender perspective in the education system have been imposed, relegating it to a second place, diluting the contributions of feminist epistemology and its demands, questions, and proposals, without incorporating it into practice in the classroom. However, seemingly, it is true that educational activities have been increased in the area of gender equality, but as Cobo Bedía (2005, p. 250) pointed out, “In recent years, the notion of gender detached from feminism is being used in both academic and political spheres, despite of the fact that this concept emerges as an instrument for the analysis of feminist theory.” Thus, in the face of the strengthening of feminist epistemologies, the transfer of their advances to the educational field has been largely diluted in actions concentrated in the months of March and November (coinciding with the anniversaries of 8 March and 25 November), the incorporation of some elements of women’s history in textbooks or the curricula highlighted in the equality plans of schools, and the emergence of standard phrases in curriculum programming which, despite being subject to constant evaluations by quality agencies, do not analyze or evaluate the instruments with which they are applied or the students’ learning outcomes.

Nevertheless, feminist theories have shown us that adopting an epistemological position also implies adopting an ethical position. The incorporation of the intersectional feminist perspective (Crenshaw, 1989, p. 139; 1991) made us aware of the discriminations of binarism present in epistemological systems and in the use of logical principles when we ontologize, interpreting as exclusionary and susceptible to being ignored (by the idea of no confrontation of ideas) all social realities that did not respond to such binary explanation. Hill Collins (2000) made us think of that “matrix of domination” that has organized and ranked our vision of the world around those who were historical subjects and held power and that, besides, was expressed through different local manifestations from particular historical and social configurations. Thus, structural, disciplinary, and hegemonic dominance (which, for example, make it possible to socially establish binary gender roles as unique and valid) and the interpersonal domain that shapes the life trajectory of people and groups have not only been present in our daily life and our construction of our own identity but they also appear in the construction of historical narratives selected to construct school history.

We would have to assume, therefore, that the analytical categories used that lead us to understand societies, make critical judgments, and participate as part of active citizenship should be reviewed to show their interpretative biases (Giddens, 2000) of space and time in which they established their hegemonic

meanings. In this way, for instance, feminism went from talking about the importance of incorporating “the woman” as a historical subject to analyzing it from the diversities of women, breaking the universal logic of the History of Man, where the concept of man was in singular, allegedly referring to an eminently hegemonic generic male.

This is where the resistance becomes deeper in academia (Ballarín Domingo, 2017) because it involves rethinking absolute truths, interpretations constructed on the basis of logic, and also subjective interpretations generated by people who approach historical knowledge and/or reproduce it in other dissemination channels such as cinema, the specialized press, video games, and educational proposals, which now, in the face of the hegemony of epistemic androcentrism, are where invisibilized stories and their motives are posed to us.

This questioning, moreover, and in a concrete way when our gender identities are historical constructions, challenges us personally and professionally. There are already some studies, besides what is shown, for men, to speak of masculinities; therefore, male hegemony in history and leading them to deconstruct their meanings is linked more to the personal than to the professional perspective in spite of women, which is reflected in the personal but also and in a more epistemic way, in the professional (Elipe et al., 2021).

For all these reasons, it is no longer a question of learning and/or teaching history but of contributing to the development of historical thought (Seixas and Morton, 2013) and therefore, of attending to contexts (temporal and spatial) and to the notions of causality and change (we have hardly worked on the subject of historical time), but also learning to analyze when, who, and based on what research questions were obtained the results that shaped each moment and, even today, history.

## How Is Research on the Development of Historical Thought With a Gender Perspective Materialized?

Gender equality is not only a matter of social justice but also affects the performance of teaching and research<sup>1</sup> (EU, H2020, 2018) and not only in universities but also in the case of initial teacher education. It is a look capable of detecting gender asymmetries in the past and the present (Díez-Bedmar and Fernández Valencia, 2021).

Díez-Bedmar and Ortega Sánchez (2021) analyzed areas of research, innovation, and action that are being developed in our context and that materialized in the following parts:

- Research studies on the visibility of women and their roles from different sources and, normally, linked to the historical temporality of these sources (both from the premises of the history of women and addressing it with a gender perspective analysis).

<sup>1</sup>Topic description. The Horizon 2020 Regulation, Work Programme 2018–2019, Science with and for Society, Swafs-13-2018, Gender Equality Academy and dissemination of gender knowledge across Europe: <http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-13-2018.html>.

- Research studies on the student and teacher's perceptions, both with regard to the perception of women as historical subjects and gender mainstreaming.
- Research studies on curriculum elements and their application, educational practices, resources used (mostly textbooks), assessment, and learning outcomes and methodologies used (including co-education) linked both to the inclusion of women as invisible subjects and to the gender perspective.
- Research studies linked to the rupture of a binary and unitary gender construction and, in that sense, the inclusion of the theory of intersectionality, the construction of alternative masculinities, or the incorporation of diverse gender-generic identities.

All these research studies highlight the need to continue analyzing and investigating how we are contributing to the development of historical thinking with a gender perspective in initial teacher education students. The purpose, or rather the desire, is that in the future, the category of gender thinking is used in contextualizing its implications in each historical situation to understand how historical narratives and narratives around social relations were produced, the hierarchies of power, and the gender roles established by each society. Thus, they will be aware in their decision making about what social sciences to build in current classrooms for a future citizenship that neither should nor can perpetuate gender biases in the construction of science, that is to say, to develop the teaching competence in gender (Díez-Bedmar, 2019) that, although it is demanded by organizations such as UNESCO (2015), becomes evident and is visible only when studies make specific reference to equality and gender [see case study cover *Meeting our commitments to gender equality in education* (2018)<sup>2</sup> (Table 3) versus study cover *Migration, displacement and education: Building bridges, not walls* (2019)<sup>3</sup>].

It is not surprising, therefore, that as Ortuño Molina and Fredrik (2021) remind us in their work "Swedish and Spanish pre-service teachers' assumptions on gender inequality in temporal perspective," the curriculum is mostly not developing historical thinking with a gender perspective, but tends to address gender inequality as a current social problem, although a third of the narratives analyzed do not even "see or mention problems of gender inequality at present" (p. 171). Possibly, therefore, in the face of the discouragement that appears in the students with regard to the teaching of history, since they are not recognized in the past that is presented to them, we see how they act, think, and position themselves when confronted with realities that have an equal dimension in the present and the future (Díez-Bedmar and Fernández Valencia, 2021).

But, could a teacher who does not implement an intersectional gender category analysis develop democratic culture competences?

## MATERIALS AND METHODS

According to Seixas and Morton (2013, p. 7), the student's historical thinking "is rooted in how they tackle the difficult problems of understanding the past, how they make sense of it for today's society and culture, and thus how they get their bearing in a continuum of past, present, and future." The Council of Europe model for democratic culture (2018) includes the following competences: values, attitudes, skills, knowledge, and critical understanding. We understand that it is impossible to be a good democratic citizenship that develops critical historical thinking without including a gender perspective when society is analyzed.

That research arises from a research project financed by the Ministry of Economy, Industry, and Competitiveness of Spain (R&D EDU2016-80145-P), with the participation of several different Spanish universities, in whose context different research instruments were designed and implemented in the Primary Education degree and Secondary Education master degree (Castellví et al., 2020).

This study analyzes the discourses constructed by the students based on one of the activities (the fourth) on one of the questionnaires<sup>4</sup> implemented. This questionnaire, which provided us with quantitative and qualitative data, inquires into the students' capacity to analyze different news items and develop a critical discourse on controversial issues with a strong value skew. The activity where students had to make a critical analysis of a newspaper report published on 21/08/2015, 10:10 a.m., has been chosen because the topic is related to the gender perspective: gender roles, taking care of minors, responsibilities, *inter alia*, and because then, on the same questionnaire, they found another report published on 21/08/2015, 20:32 p.m., on the same newspaper and topic, but with more information.

### Activity 4.a

In the following part, a piece of news from the newspaper "La Vanguardia," from 2015,<sup>5</sup> (Figure 1) is shown, which can be found on the following web link: <http://www.lavanguardia.com/sucesos/20150821/54435940954/encierran-bebe-caja-fuerte-habitacion-hotel.html>.

What is your opinion on this news?

### Activity 4.b

For further information on this report and its outcome, please consult the following web link: <http://www.lavanguardia.com/sucesos/20150821/54435954170/bebe-caja-fuerte-jugando-escondite-hermanos.html>.

- Has your opinion changed about the parents? Why?

The complete questionnaire data were collected through a series of activities and open-ended questions which they filled out individually in, at most, 45 min. All the questions gave the possibility of consulting any kind of digital source to verify or complete the news item or to seek other sources that contradict it.

<sup>2</sup>[https://en.unesco.org/gem-report/2018\\_gender\\_review](https://en.unesco.org/gem-report/2018_gender_review)

<sup>3</sup><https://en.unesco.org/gem-report/report/2019/migration>

<sup>4</sup>The full dossier can be consulted on [https://ddd.uab.cat/pub/recdoc/2018/214742/EDU201680145P\\_literacidadcritica\\_gredics.pdf](https://ddd.uab.cat/pub/recdoc/2018/214742/EDU201680145P_literacidadcritica_gredics.pdf)

<sup>5</sup>The translation is ours.

## A couple locks up their baby in a hotel bedroom safe

Police looks for parents, who alerted to the hotel staff and left the establishment before police arrived | The safe where he was locked up was of 50x35x43 centimeters.

Current Events | 21/08/2015-10:10h | Last review: 21/08/2015-12:02h



Picture of the safe where the baby was locked up CBCNEWS

Barcelona. (Editorial Board). - Niagara Regional Police are looking for a couple who left their baby locked in the safe of the Howard Johnson Hotel room, located near the Canadian city of Niagara Falls. The couple alerted the hotel staff about 10 o'clock in the morning last Tuesday, and they left the establishment before the police came. A hotel maintenance worker found the baby, who was crying inconsolably, according to the Mirror newspaper. With dimensions of 50 cm x 35cm x 43 cm, the little one, whose age is thought to be less than a year old, had been locked up there by his parents before leaving the room."

FIGURE 1 | Figure in the questionnaire, translated and adapted.

The responses obtained for that activity ( $n = 296$  students in the third year of the Primary Education degree and 67 students in Secondary) have been analyzed, making two groups. On the one hand, students of the third year of the Primary Education degree, and on the other hand, students of the master of teacher training, were assigned different codes in Atlas.ti software (version 9).

We performed a triple analysis:

- Direct coding of responses after thorough reading.
- Axial coding, obtaining categories from the responses collected.
- Selective coding, construction of central concepts that rank knowledge and generate theory.

With these codes, we have created three networks that, following the Grounded Theory (Strauss and Corbin, 2002; Carrero et al., 2012), have enabled us to establish three profiles according to groups 4–7 of codes for the deconstruction of their own discourses and the categorization of their responses.

Our mission is to determine if students apply a gender perspective or if gender differences appear. How do they interpret society? Do they do it with gender biases? Is there any difference among degree and master degree students?

## RESULTS

The nodes generated through Atlas.ti. (Tables 1, 2, 3) return the following results:

### Responses to Activity 4.a

#### Examples of Network A

"It expresses it in a grotesque way and by the morbid, giving data that besides possible identification of 'social class' makes you think a would not have to happen to you" (Degree, Fem, UJA,

40); "Well I think that what they count is very brief and missing data" (Degree, Fem, UJI, 37); "This is sensational news, which tries to gain visibility 'clickbait' without answering or verifying the information before verifying it" (Master, s/n, UMA, 30).

#### Examples of Network B

Before setting out some examples, we must notice that the news in no case refers to a heterosexual couple (speaks of couple and parents), despite which, 98.35% of the total responses (363) assume that it is a father and a mother, expressing this duality either in the response to question 4.a or 4.b, indicating a clear conception bias toward the traditional family of the patriarchal and heterosexual model. On the other hand, although the responses do not differentiate causes or consequences for the two parts of the couple (who have been assumed to be a father and a mother), since they use the male generic parents (77%), parents (11%, although it is not indicated in any case that they are biological children), speak of both (7%), or do not put a subject (5%), their narratives do have a clear sex-gender bias.

The men's responses tend to be less explanatory and more forceful; they judge with more violence and, in most cases, impose penalties for parents: prison (70%), perpetual (50%), or even death penalty (37%). "The parents should receive some kind of sanction" (Master, Mas. UAB, 28); "May the forced labor return, life imprisonment and cut stone for life" (Master, s/n, UMA, 37); "It seems to me a terrible news and a lack of respect for the deal, are made by two monsters, since they have no other name and deserve a death or life imprisonment" (Degree, Mas. UJI, 21). In some cases, the responses at least indicate that if they did not want to have children, they could have taken precautions or given them up for adoption (24%), which is a more common response in Bachelor's degree than in Master's degree students, assuming that it was the will of the parents to get rid of minors.



**TABLE 1 |** Model to categorize the items.

A Personal information	Group 1 Classroom code.	Degree	A.1.1
		Master's degree	A.1.2
	Group 2 Sex code according to their names.	Male responses	A.2.1
		Female responses	A.2.2
	Group 3 University codes.	UJI	A.3.1
B Answer data		UJA	A.3.2
		UB	A.3.3
		UA	A.3.4
		UMA	A.3.5
	Group 4 Analysis codes and news contextualization.	Place, date, social status, and economy	B.4
	Group 5 Attitude codes addressed to news.	Judges	B.5.1
		Condemns	B.5.2
		Imposes	B.5.3
		Distrusts news	B.5.4
	Group 6 Role codes which are allocated to adults as desirable.	Looks after	B.6.1
C Attitude codes		Protects	B.6.2
		Takes care	B.6.3
	Group 7 Attitude codes with gender biases.	To women	B.7.1
		To men	B.7.2
		Neutral	B.7.3

According to women's responses, whose narratives contain more argumentation and reflection, they state that there must be a psychological problem behind it (74%) because otherwise they would not understand it. You have to propose measures before you get to that situation ("put means" 46% and give up for adoption 64%, the first being the most common option in the Bachelor's degree and the second in the Master's degree students, which is also an indication of the personal moment in which they are in function of age and tells us about the importance of this intersectional variable). As for sanctions, they tend more to ask that they do not continue to care for minors (47%), with very similar percentages in both Bachelor's degree and Master's degree students.

Some examples are presented in the following lines: "that couple is not mentally capable of holding a baby in their hands" (Degree, Fem, UJA, 53); "I believe that to be parents you should pass some psychological test or something similar to know if you are or not trained to care for your child because then things like this news happen" (Degree, Fem, UJI, 18); "A possible solution might have been adoption, as many couples cannot have babies and would have given the child a chance" (Degree, Fem, UJI, 28); "First, I would have taken custody of the parents, since they are not qualified to have a child." (Degree, Fem, UJA, 53). Only in 25% of cases, they refer to punishment or prison.

### Examples of Network C

Although there are few cases detected, since the news is written with the subjects "a couple" and "parents," the students have tended to respond in the same terms; we see how 2% of the

**TABLE 2 |** Networks.

Network	Descriptor	Codes whose relationship configures nodes
A Historical thinking without apparent gender biases	Students who contextualize and describe the situation without judging people and gender biases.	B.4, B.5.4. B.7.3
B Lack of historical and democratic thinking	Students who judge adult people and condemn them.	B.5.1, B.5.2, B.5.3, B.6.1, B.6.2, B.6.3, B.7.3.
C Lack of historical and democratic thinking with clear gender biases	Students who judge people, condemn them, and do it with gender biases.	B.5.1, B.5.2, B.5.3, B.6.1, B.6.2, B.6.3, B.7.3.

Bachelor's degree students' responses (mostly women) and 9% of the Master's degree students' responses (mostly men) have given us responses that focus on women or men. In both cases in which men are placed, these are responses of women and are linked to the hegemonic role of male protection ["My opinion regarding that news is that this man has a problem, and should not have the right to do that to a helpless baby" (Degree, Fem, UJA, 32); "We must raise awareness and educate society about what it means to have a child and how it really is the figure of a good father" (Degree, Fem, UJI, 29)]. The rest of the cases focus on women: they point out that "there are women who should not be mothers" (Degree, Mas. UJA, 19), blame them "she by mistake seems to leave a child in the safe." (Degree, Fem, UJA, 43); "it is necessary to make people aware that having a baby is very important and that if you do not have minimum conditions to ensure their care should not be allowed to give birth" (Degree, n/s, UMA, 49), or directly hold them responsible for having had children without wanting them and point out other options: "if you don't want a child there are many more options, beforehand, you can abort, but if not then you can always reach adoption" (Master, s/n, UMA, 36); "in my opinion if you don't want to have a child you have plenty of options. The first is abortion that is legal in many states" (Degree, Fem, UJI, 40). There is no case where women hold men responsible, nor do women point out that they could have taken precautions or that a vasectomy could have been performed.

### Responses to Activity 4.b

In fact, when they access the second story and read that the children were playing hide-and-seek and they were not abandoned by the parents, it is worrying to see how 10 Bachelor's degree students who answered the first one do not do it for the second, and only 12 students acknowledge having misjudged the parents. "Yes, it has changed because it was an accident and there was no intention of mistreatment or abandonment" (Degree, Mas. UJA, 61). The rest, although in some cases they recognize that the new headline changes the meaning of the news, continue to judge the adults (92.5%). Among these responses, we find some that continue to mark gender biases: "No, I think it's false. And



**TABLE 3 |** Responses to the activity 4.a.

Network	Degree			Master's degree		
	Women (55.4%)	Men (34.8%)	Unspecified (9.8%)	Women (29.9%)	Men (46.2%)	Unspecified (23.9%)
A	4	5	2	5		2
B	147	80	27	15	27	11
C	4	2			4	2
There is no response	9	16				1

in case it was real, a mother doesn't let a little boy play alone with his siblings. It should be aware of them all the time, as they are children and children are put in danger with everything (Degree, Fem, UJI, 52)"; "In addition, no parent (good parent) would leave the Hotel without making sure that the whole family is together" (Master, Mas. UJA, 47), with the same connotations mentioned above. In the case of the Master's degree students, only five responses acknowledge prejudgment, while 95.5% continue to judge the behavior of the adults.

## DISCUSSION

Seixas and Morton (2013) propose "The Big Six Historical Thinking Concepts": *historical significance, evidence, continuity and change, cause and consequence, historical perspectives, and ethical dimension*. This study exposes that with a particular relevant social problem, pre-service teachers select what is important (*historical significance*) by taking into consideration emotions rather than the critical analysis of information and that they also do so from their cultural conceptions. In this case, the elderly and those who are not parents assume that it is a heteropatriarchal family, and in particular, the mothers have to take care of the minors. The cultural and sex-gender intersection is omitted. This is true for both undergraduate and master's students (Networks B and C).

When we analyze the answers that are offered after visualizing the second report, which adds nuance and offers another perspective of the problem, it can be verified that the "how" is known like something of the past (*the evidence*) which is quite connected to the first opinion created (which responds to hegemonic parameters). Moreover, it is difficult to modify or contrast with other realities, which can be linked to resistances to introducing theories such as feminism in historical interpretation.

In connection with the concepts of *continuity and change* (which serve to give meaning to historical processes) and *cause and consequence* (why events take place and what their consequences are), the study shows us that, in general, instead of analyzing processes, pre-service students tend to analyze information from a direct causality, although women are more reflective, try to seek explanations, and tend to establish other causalities. The direct and hierarchical responsibilities are established around age and who has to do what (older people have to watch and care for minors and therefore the consequence is their fault). At no time, or when the information is checked, is there a shared responsibility established. This shows us a lineal

and hierarchical consequence in the historical explanation that does not allow other interpretations (Network B and answers after contrasting the information).

Finally, the most relevant thing is that whether the *historical perspectives* are analyzed (how people can better understand the situations and people of the past) and the *ethical dimension* (which leads us to make decisions in the present) we can observe where value judgments from the present and from their first opinion regarding what happened are the predominant ones. Therefore, the historical perspective arises from perceptions marked by cultural hegemonic mandates as to who is responsible, what should have been done, or what punishment those who do not should have. The concept of guilt is very present in their answers, given in a clearly Judeo-Christian cultural context where heteropatriarchal relations predominate. In general, the responses in Network C show clear gender role biases associated with the responsibilities of adults and blame and make women more accountable, which shows the need to incorporate the intersectionality and gender perspective in initial teacher training so that future teachers can make democratic and equal ethical decisions in the development of historical thought.

As Castelly et al. (2019, p. 38) pointed out, "From the Didactics of Social Sciences, the concern for the interaction between emotions and reason is twofold: first, because social contents have an important emotional charge (identities, memory, social problems, etc.) which influence the processes of their teaching and learning; secondly, because it conditions the development of critical thinking and influences value judgements and social action" (see text footnote 5).

The present study shows that they are the emotions, expressed in the narratives of the students that predominate when faced with a socially relevant problem report story. They prejudge, sanction, and let themselves be carried away by emotions from their own position, without contrasting the information, without contextualizing or analyzing the data offered. Nor do they change their minds when they discover that there is another reading of the report that completely changes prejudiced behaviors. In addition, conducting a Critical Analysis of Feminist Discourse (Baxter, 2004, 2007), we appreciate how, far from being neutral, the responses of men and women are answered from the gender-generic roles assigned, which agrees with previous studies such as those of Kerr and Schmeichel (2018), which pointed out the existence of emotional divergencies as a function of sex, in the contributions to the digital debates on Twitter. Ortega-Sánchez et al. (2021, p. 15) also indicated that "how to identify the emotional mediating effects in the construction of social narratives and questioning the impact of hegemonic discourses

on gender” should be taken into account. In this sense, the responses of the men confirm the results obtained in research on masculinities and co-education (Elípe et al., 2021).

## CONCLUSION

Contrasting these results with those obtained by Díez-Bedmar reinforces the idea that the development of teaching competence in gender implies that one should “not only know, but also internalize and be aware of the consequences of their decision making, and that is why it involves long-term learning processes in which, gradually (depending on the starting point and the previous knowledge of each person) gender is internalized as a category of analysis and, from there, historical education with a gender perspective” (Díez-Bedmar, 2019, p. 115).

In this research, which analyzes both Bachelor’s degree and Master’s degree students’ responses, it is demonstrated that the emotions linked to the hegemonic sex-gender roles in our culture are stronger (in order to interpret a relevant social problem, which students have identified as a taking care issue) than the development of historical thinking competences. In fact, the supposed deep learning outcomes about historical thinking competences of Master’s students do not offer differences when their responses are analyzed looking for their intersectional and gender perspective on their critical narratives. Thus, these competences have not been developed through their academic formation.

Pace (2019) indicated the need to prepare training teachers for education concerning social problems, socially alive issues, and controversial topics within divided societies, considering the emotional variable as one of the most influential factors in their didactic treatment. While the work of Ortega-Sánchez et al. (2021, p. 13) point out how “The results that have been obtained have provided information on the influence of emotions and feelings that are socially constructed within the articulation of digital social narratives,” our study shows that these emotions should be approached from the perspective of feminism, analyzing their narratives and discourses with the category of gender thinking and attending to the theory of intersectionality, since they are intimately linked to sex roles.

This is what our patriarchal society has marked. As Díez-Bedmar and Fernández Valencia (2019) pointed out, asking questions with a gender perspective and knowing how to analyze the responses with a gender analysis is key in the training of teachers so that they can apply it in their professional field.

The lack of training offered by intersectional feminist epistemology as part of democratic culture competences sets a serious problem for democracy since, if future teachers are not

able to challenge their own gender stereotypes and prejudices and how they are personally and professionally affected, they will not be able to work critically on the human and social sciences constructed, which are configured with heteropatriarchal models, sexist, Eurocentric, and based on hegemonic cultural models of hierarchical structures whose hegemonic narrative is based on exclusionary power configurations.

Moreover, as we have seen, despite having access to information that complements, adds nuance, explains, and contextualizes information, they are not able to identify their own prejudiced attitudes and maintain their discourses; therefore, they will be unlikely to be able to develop educational proposals, analyze materials and resources, and guide students to question the information they receive, with gender bias, every day. Feminism, intersectionality, and gender category appear to be essential for the development of historical thought and for the development of knowledge and critical understanding of society, if we do not want the citizenship of the future to assume messages based on stereotypes and prejudices are valid, unique, and truthful not only toward women but also toward diverse identities, perpetuating the systemic and structural gender violence present in our patriarchal and hierarchical system of current values and attitudes.

## DATA AVAILABILITY STATEMENT

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

## AUTHOR CONTRIBUTIONS

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# The Voices of Primary School Boys and Girls on Human Rights and Their Historical Agency

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The teaching of History in primary school must integrate education for active global citizenship in the face of inequalities and social injustice caused by the constant violation of human rights in the present. The transformative framework at school promotes global citizenship from a humanizing perspective and a respect for diversity. All of this comes in a context marked by the effects of the capitalist economic dimension of globalization, which translates into a crisis in the exercising of fundamental democratic values. Below, we show the first-phase results of educational research comprising a qualitative exploratory study that investigates what primary school students think about and know. The participants come from a public school in the city of Almería, south-eastern Spain. Given the volume of information obtained from the semi-structured group interviews conducted on a total of 126 students (male and female) and seven teachers at the school, a qualitative content analysis has been carried out to extract relevant meaning regarding the research objectives; these focused on what the students know and feel about human rights, social problems and injustices, and the role of girls and boys throughout history. Hearing, listening to and recognizing the voices of primary school boys and girls has provided us, first of all, with ethical cues to design professional teacher development experiences in line with the new times of change and uncertainty, from the framework of a critical teaching of the contents of school history. Secondly, it has guided us in the configuration of training opportunities to cover the weaknesses caused by the democratic deficit and strengthen democracy by increasing child citizen participation. In this way, we hope to contribute to the education of a global citizenry that is more critical and committed to the common good in collective decision-making in an interconnected world.

**Keywords:** global citizenship, agency, human rights, boys and girls, school history, primary education

## INTRODUCTION

The school, as created by nation States in the 19th century, was used to support the process of forming patriotic citizens. For this reason, history and geography “are disciplines that have supported individual and collective identities and memories” (Pérez-Garzón, 2008, p. 39). From our point of view, a teaching of the Social Sciences (hereinafter, SS) and History has to prevail, both in childhood and in early life, in order to fulfill a transformative social function. With this orientation, the functioning of democracy and of lawful States would be reinforced (Gutiérrez and Pagès, 2018)



in a context conditioned by the Globalization of a model of life, anchored in the hegemony of the individualistic values of neoliberal ideology, based on immediacy and a superficial knowledge of social reality. The possibility of making children's voices heard more is the priority of this research. Girls and boys are capable of constructing their own discourses so that their opinions on social problems and their rights are more valued; in the same vein as the historiographical efforts to recover children's voices in history (Sosenski, 2016). With this work, we intend to contribute to the visibility and experimentation of children's participation (Trilla and Novella, 2001) in the face of social problems. At the same time, contributions from the sociology of childhood help us to generate spaces and times where their voices are heard; they can learn about the U.N. Convention on the Rights of the Child (hereinafter CRC) and they are recognized as active subjects of their present and past, capable of contributing to collective agency.

Below, we show the first-phase results of educational research comprising a qualitative exploratory study that investigates what primary school students think about and know. It should be made clear that the regulatory framework in which this first phase of research was carried out corresponds to the Order of January 15, 2021 which develops the curriculum corresponding to the stage of primary education in the Autonomous Community of Andalusia. This is a curricular development that comes from the imprint left by the previous Organic Law 8/2013, of 9 December, for the improvement of educational quality (LOMCE).

Due to the continuous violation of human rights in our present time (Amnesty International Report, 2020/21, Human Rights Watch World Report, 2022), if we want the school to be the transforming engine of a collective citizen identity based on social justice (McCrary and Ross, 2016), the rights of children and global citizenship education deserve to be the backbone of SS and History teaching in Primary classrooms, as well as in initial teacher training programs. This idea arises when we face certain challenges encountered at the nation-state level despite the hesitant regional experiences in the EU in matters such as those of immigrants or the demands that have suddenly surfaced due to the first global pandemic we are witnessing. The dilemma presented in the teaching of History at school consists of looking the other way, maintaining the status inherited from the teaching model conditioned by "the turning of educational systems toward the logic of the market" (Mercado and Pinochet, 2021, p. 290), or, instead, embarking on the path of emancipatory and transformative knowledge (Freire, 2002), in a world where, as has been shown by the COVID-19 pandemic, all human beings are interdependent. In Freire (2002) critical pedagogy a liberating education is bet against the market-based education that oppresses. The latter understands the child as an object that is diluted by the teacher and not as an active subject. In this sense, Freire's effort was to make the subject the protagonist of their education, of their personal history in the context in which they forms their identity. The way to achieve this arises as a communicative act in the dialogic interaction between teacher and student within a symmetrical and non-hierarchical relationship (García Gómez, 2021).

In this scenario, marked by the effects of the capitalist economic dimension of Globalization, which translates into a crisis regarding the use of and respect for democratic values, concern emerges about the democratic citizenship deficit and the advance of non-democratic (populisms, technocratic elites) "shortcuts" that degrade "the standard set of rights and opportunities for political decision-making enjoyed by citizens in democratic societies [...]" (Lafont, 2021, p. 19). For this reason, it is necessary to contribute to the construction of a transformative educational framework that fosters the practice of global citizenship at school from a humanizing perspective and respect for diversity.

## A Humanistic Historical Education With a Sociocultural Perspective

The revisions experienced in school History have not hidden the long shadow of National History and Universal History (Carretero et al., 2013) by continuing to "limit school historical knowledge to a predominantly political history, featuring men and with a Eurocentric periodization" (Ortega, 2020, p. 12). The basic problem underlying the Primary school classroom for a society in continuous change is, as (Cardoso et al., 2020, p. 21) state, "the persistence of the teaching of history as an element of acculturation and with scant identification of the collectives that have no traditional voice in historical discourses." In this sense, we are aware of the various research lines on what school history should teach. For García (2021, p. 40), there are four main lines in the debate concerning the contents of school History teaching:

- (1) The defense of history as a core subject to construct citizenship and critical thinking in students;
- (2) The questioning and criticism of national and universal history in schools;
- (3) The defense of interdiscipline in history within the social sciences framework; and
- (4) The inclusion of both old and new actors in the subject of history (women, sexual diversity, racial, and ethnic diversity, etc.).

This role of History in contributing to citizen training with critical thinking was highlighted by Dalongeville (2006) when he stated that:

"l'histoire a la charge, plus que toute autre discipline scolaire, d'aider à la formation d'un citoyen. En effet, nul ne conçoit un citoyen sans une mémoire collective forte. Mais le citoyen, c'est aussi celui qui apprend à penser librement, qui se forge un esprit critique."

We agree with Lévesque (2008) that the learning of historical knowledge and the practice of History itself, when adding the exercise of citizenship, will allow students to acquire a commitment to a democratic society that overcomes the patriotic spirit. The current scenario in which History is taught is complex and challenging (Carretero, 2019) due to the loss of political power by nation States in the context of Globalization and the presence of new political agents of culturally diverse ethnic and religious origin, which compete amongst one another to be recognized as emergent, national or global subjects by claiming historical rights based on their collective memory. We share



this radical line regarding the new developments that must confront historical education for a global citizenship. One of these developments must be embodied in an integrated model of thought and historical consciousness functioning in the classroom within a dialogical and multiperspectivist framework; another must be attentive to reviewing the past and present protagonists in school history, leaving behind androcentric and adultcentric approaches because, as Joan Pagés affirms, “the protagonism in the construction of the past, as in the construction of the present and future, has been, is and will be, of the group of people who integrated, integrate and will integrate societies” (Pagès, 2007, p. 25).

Indeed, the teaching of History should be “useful to boys and girls, to young people, to construct their historicity and develop their thought and historical awareness” (Pagès, 2019, p. 27). The understanding of History therefore includes the development of cognitive skills and abilities, and a methodology to interpret data and information about the past (Domínguez, 2015). The results from various studies show that these skills are not being sufficiently promoted (Miralles et al., 2014; Gómez Carrasco et al., 2015), despite proposals suggesting progression in primary school boys and girls (Cooper, 2015), or research on improving storytelling and early childhood literacy (Arias et al., 2019). The research by van Bostel and van Drie (2017) shows that, for training in historical thinking, dialogic activities should be encouraged where children and adolescents can evaluate historical sources, containing different points of view of the same historical theme. The idea is that, based on evidence, they use historical concepts in their deliberations to support claims with arguments. From all of the above, it follows that using a dialogical framework in the teaching and learning of historical thought or reasoning prepares primary school students to be participatory citizens in a democratic society. In this vein, we recognize the need to implement a humanistic vision of History teaching, and from a sociocultural perspective, as Miralles and Gómez (2017) mention, following the approach of Barton and Levstik (2004). Faced with the emphasis being placed on individualism, regarding certain historical protagonists, such as the **Figure 1** of the hero, it is necessary to pay attention to a collective agency (Arias and Egea, 2021) doing history for the common good, and giving boys and girls the message that they can join with others and make a difference, thus offering hope that they can be part of the change.

## Children’s Rights as the Backbone of Training

A key aspect for achieving collective agency is children’s participation but it is mostly located in spaces controlled by paternalistic and protectionist hegemonic models (Lay-Lisboa and Montañez, 2018), which evidence childhoods subordinated to the power exercised by adults. In our democratic societies, strengthening children’s participation is a priority; however, the essential part is missing and that is to make it real (Novella and Trilla, 2014). As Esteban et al. (2021, p. 23) argue,

children’s participation is an object of study of great relevance for being a fundamental right whose development and articulation is

yet to be achieved, for being a value of democratic societies, for being a key to socialization and political development, and for being a key procedure for peaceful coexistence.

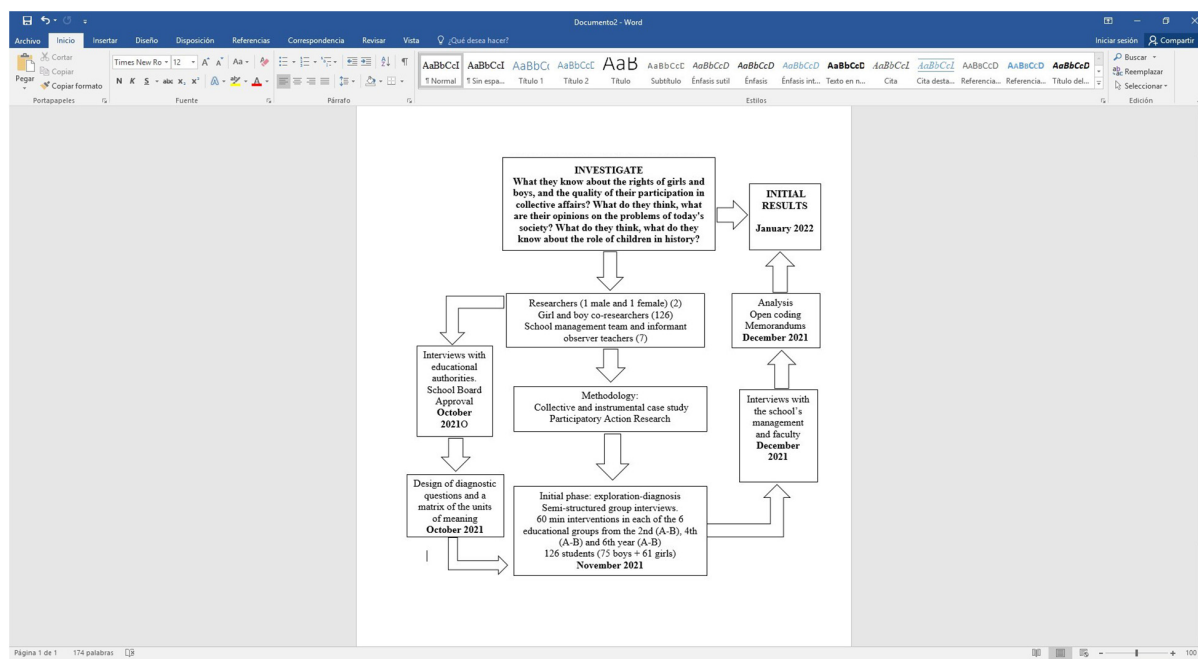
Observing the data, boys, girls, and adolescents between the ages of 0 and 17 constitute a little over 30% of the world population (Sanz Gimeno, 2020, p. 6). According to this author, if we look at the vital phases that this social sector goes through, three main stages can be distinguished (**Table 1**).

However, only with a greater awareness of the role bestowed on children from a social and political perspective will it be possible to visualize and experience children’s participation and rights in school. Formally, an adultcentric conception that conceives of minors as incomplete beings in transition would thus be overcome (Liebel, 2015) and there would be a tendency toward a more active, fair, and equitable approach in the so-called democratic states. As Bruck and Ben-Arieh (2020) argue, in recent years there have been a series of changes in the way children are viewed, that take into account the signing of the CRC. For these authors,

there have been some important advances in the understanding and study of children’s well-being, moving from *welfare* to *well-being* (feeling well) (Kammerman et al., 2009), and from child protection to child development (Bruck and Ben-Arieh, 2020, p. 36).

Undoubtedly, the most noted achievement when it comes to integrating the contents of the CRC into the formal educational field lies in implementing its principles in the life, organization and daily functioning of a school. Since 2010, UNICEF has promoted the integration of children’s rights and global citizenship in the organization of infant, primary and compulsory secondary schools, intending that the CRC comprises the driving force of school life. In addition, we have examples of efforts to convert the CRC articles into the cornerstones of the urban space and the school community. An example of the above is represented in our country by the educating cities movement started in Barcelona in the 90s, in the work carried out by Tonucci (2009), which has crystallized into the network of children’s cities, in the creation of the Childhood Friendly Cities (CAI), in the “We propose” project started in Portugal in 2011 (Rodríguez and Claudino, 2018), and also in the educational experiences in citizen participation developed in the STEP project among infant and primary school teachers in Italy, France and Spain (Estepa and García Perez, 2020). In Spain, we can highlight contributions such as that of Llana and Novella (2018) about child participation and childhood councils, or that of Del Moral-Espín et al. (2017), whose objective was to review and define, in the words of the boys and girls themselves, the relevant capacities for their own well-being in the context of Andalusia. In addition, the State Council for the Participation of Children and Adolescents has been created (Order DSA/1009/2021, of September 22; BOE number 231 of September 27, 2021).

Similarly, we are aware of the benefits of incorporating children’s rights and global citizenship into school institutions. According to Urrea et al. (2018), programs have been assessed in Canada [*Rights, Respect and Responsibility* (RRR) of 2011] and in



**FIGURE 1 |** Chronological scheme of the process followed in this first phase of the research.

**TABLE 1 |** Distribution of children between 0 and 17 years old.

Early childhood (0–6 years old)	11%
The school and pre-adolescent stage (between 6 and 11 years old)	10%
Adolescence (between 12 and 17 years old)	10%

Source: Own design based on Sanz Gimeno (2020, p. 9).

England [The Rights Respecting Schools Award (RRSA) of 2008], in which these positive consequences are appreciated. It has been proven that great benefits are obtained for the entire educational community and not only for some of its groups (Covell et al., 2009; Monclús et al., 2017, p. 1350), highlighting the following advances:

- (1) Improved self-esteem of students; (2) Prejudice reduction; (3) Improvement in the behavior and relations between the school members; (4) Satisfaction among the faculty; (5) Improved academic results; and (6) Recognition of all members of the community [Sebba and Robinson, 2010, cited in Urrea et al. (2018), p. 130].

Furthermore, the celebration on November 20th of “International Children’s Day” has been the indicator used for qualitative research of an ethnographic nature (López Martínez, 2021), carried out in public and charter schools in the province of Almería (Andalusia) to check if children’s rights were worked on and how this work is carried out in the classroom. In this research, the teaching students prepared final reports (124) on their work placements with encouraging results, since the CRC was marked in 62% of the infant and primary schools,

although 38% did not carry out educational classroom activities to celebrate the day of the Convention’s signing.

Despite these advances, it has been confirmed that the CRC articles are not mentioned in compulsory education curricular developments (Urrea et al., 2018). Thus, in the study on the international situation regarding Children’s Rights in the educational systems of 26 countries, including Spain (Monclús et al., 2017, p. 1350), the following conclusions were reached:

- (1) In most of the participating countries, Children’s Rights are not mentioned in the official compulsory education curricula; and (2) none of the States ensure that teachers are trained in Children’s Rights or are familiar with the CRC.

Recently in Spain, with the approval of Organic Law 3/2020, of December 29, (LOMLOE), mention of this international regulation has been included as a guiding principle of the education system. The new 3/2020 law, of 29 December (Ley Orgánica de Modificación de la LOE (LOMLOE), 2020) came into force in Spain on January 19, 2021. However, it is the January 15, 2021 Act that is currently in force in Andalusia for the official curriculum of this stage. The objectives of Primary Education in the Social Sciences have a direct and complementary relationship with those in the areas of Social and Civic Values, and Education for Citizenship and Human Rights. As stated on page 45 of the Official Gazette of the Junta de Andalucía (January 18, 2021), “students should strengthen respect for human rights and fundamental freedoms as well as to lead a responsible life in a free and democratic society, with respect for the values enshrined in the Spanish Constitution and the

Statute of Autonomy for Andalusia.” It is only in the subject entitled Education for Citizenship and Human Rights, which is taught in the fourth year of Primary Education, where it is specified that both Human Rights and those expressed in the 1989 Convention on the Rights of the Child should be treated in unison. However, in the Social Sciences subject this recognition is more generic, and the development of such capacities as to know, to value, and to respect human rights and democratic values are included as objectives. Let us remember that in Spain the CRC came into force on January 5, 1991, that is to say, more than 30 years ago. For all these reasons, we are convinced that children’s rights must be included and addressed in the initial training of education professionals.

The results from evaluative research projects on the presence of children’s rights in initial training plans, coordinated by the “Abel Martínez” University Chair of Education and Adolescence at the University of Lleida and supported by UNICEF, endorse this statement. The resulting analysis of this presence yields discouraging data, since it only appears explicitly in the teaching guidelines of 1.26% of the Teaching and Social Education degrees (Balsells et al., 2015). For this reason, UNICEF has encouraged a training plan for curricular integration of the CRC for undergraduate degrees in teaching and social education, and the design of teaching-learning activities on the rights of the child. This training plan has materialized in the creation of the guide entitled “The rights of children and global citizenship in education faculties. Training proposal for education degrees” (Urrea et al., 2016). Said guide was implemented from 2016 to 2018 in the four public universities in the Autonomous Community of Catalonia, with the objectives of evaluating its design, and improving and expanding activities with the input of the participants. The first results indicate that progress has to be made in disseminating and learning about children’s rights and global citizenship in teacher training, as well as its use as a transversal resource for future professional practice, adapting activities and materials to infant and primary schools (Monclús et al., 2017).

Therefore, we maintain that both global citizenship and children’s rights deserve a more prominent attention space in the learning of SS and History in primary school classrooms, to reactivate an identity based on global collective citizenship (Levstik, 2008; Pineda-Alfonso et al., 2019). Having said this, we demand the participation of the minority social sectors in the hegemonic adultcentric society (Liebel, 2015; Gaitán, 2018), knowing that there is cultural resistance to child intervention in political decision-making, despite the obligation of the signatory States to comply with the CRC. It therefore seems necessary to research citizenship from a perspective of childhood, which favors training that recognizes, understands, thinks, and acts globally in the search for social justice (González-Monfort et al., forthcoming).

## RESEARCH METHOD

As researchers at the University of Almería, we are part of the project “Education for the future and hope in democracy.

Rethinking the teaching of social sciences in times of change” (PID2019-107383RB-I00). The general objective is to investigate Democratic Education in Primary Education. The intention is to improve Democratic Education with new proposals following the guidelines of the Council of Europe on Democratic Culture Competencies. As a main objective, we intend to know what boys and girls know, what they think, what views they have, and what emotions they feel about the current problems in society, about children’s rights and citizenship, social injustice, and democracy. This study allows us to reflect on the SS teaching approach in primary education to form global citizens. The project methodology is part of a mixed, quantitative, and qualitative approach, which will be implemented sequentially based on the research objectives (González-Monfort et al., forthcoming). In this article, we present the first phase of the project’s research, characterized by an exploratory study of a qualitative nature through the use of semi-structured interviews, which has investigated what groups of primary school students in an urban environment think and know about children’s rights and responsibilities, social problems and injustices, and the role of girls and boys in history. In the second phase, a sequence of individual activities compiled in dossier format will be presented -the project’s main information-collection instrument- aimed at the students in each selected group, to collect more precise and comprehensive data on diversity and rights, critical literacy, participation, and hope in democracy. In the third phase, once the content of the information collected from the dossiers has been analyzed using the Atlas.ti software and descriptive and inferential statistics (González-Monfort et al., forthcoming), it will be contrasted with the students and teachers who participate in the research project through follow-up or development interviews (Massot et al., 2014). Finally, after triangulating the different sources of information with the techniques and instruments, a final consensus report will be prepared and made known to the school’s educational community.

The specific objectives of the first phase are:

1. To check if the students know the CRC and Human Rights, and to analyze if they are capable to compare the situation of children’s rights in the past and in the present.
2. To investigate and analyze the capacities of primary school boys and girls in second, fourth, and sixth grades to identify relevant social problems of the present from the perspective of human rights and social injustice.
3. To interpret the arguments that Primary students develop so that boys and girls can be included as protagonists of History.

## RESEARCH DESIGN

It is known, as Esteban et al. (2021) argue, that research into children’s participation has been carried out without them. This is the main challenge for our research: employing a methodology using the participatory action of and with primary school children, to verify if we can hear their voices and thus elucidate their insights into the complex social reality. This is research on

and with girls and boys, taking as a reference the Responsible Research and Innovation (RRI) concept to carry out Science with and for Society (SwafS) (González-Ramírez et al., 2020). Hence, we are aware of the difficulty in activating research within the framework of dynamic educational spaces that allow the student body of a primary school to be recognized, listened to and become co-researchers, providing relevant information and knowledge.

Our position is to recognize the agency of girls and boys as producers of knowledge. Mason and Watson [2014, cited by Del Moral-Espín et al. (2017)] point out that boys and girls have traditionally been at the lowest point in the hierarchy of formal knowledge production, and their knowledge has been excluded or marginalized because they are outside dominant production forums. The reasons supporting this recognition are the following: one, incorporating and recognizing children as actors and agents in research contributes to the quality of the research process; two, their incorporation is an emerging need, respecting the guidelines of the ERIC Charter “Ethical Research Involving Children,” which is aligned with the 1989 CRC principles and articles. This represents an opportunity to consolidate an approach based on ethical symmetry (Liebel and Markowska-Manista, 2020, p. 1); three, it involves going beyond mere symbolic participation, assuming the difficulty that this action generates within the research team; four, with this inclusion, we intend to encourage the children’s participation in the research and thereby benefit them by recognizing the value of their contributions.

Being aware of the contradictions and the distancing of university research on childhood, we opted for a qualitative methodology through a case study, adopting techniques, instruments, and strategies that guarantee the participation of the boys and girls. Following Stake (1998), it is a collective instrumental case study that aims to achieve three types of objectives: exploratory, descriptive, and explanatory-interpretative (Sabariego et al., 2014). The epistemological environment built by the research team is based on the contributions of the Imaginative Education (IE) approach proposed by Egan and Judson (2018), by which education provides students with cultural and cognitive tools to foster the creation of meaning in our society through the force of oral culture, emotions, images, stories, metaphors, mysteries, and games.

## Sample and Participants

The convenience sample selected comprises 126 primary school students ( $n = 126$ ), (61 girls and 65 boys) from a public school, CEIP Los Millares (in Almería, a city in the southeast of Spain), which has a total of 329 students ( $N = 329$ ) (167 boys and 162 girls). They are in the final courses of the three educational cycles, the second (40 students aged 6–7 years), the fourth (39 students aged 8–9 years), and the sixth course (47 students aged 11–12 years), guaranteeing sufficient heterogeneity and fluency of speech so that peer-to-peer content and controversies emerge. The reason for this intentional choice of final cycle courses is because the students complete a learning stage which is structured and defined in the curriculum. The students in the sample live in a coastal city in Andalusia that has great cultural

diversity due to the migratory movements experienced in the medium-sized cities of the peninsula’s Mediterranean arc since the beginning of the 21st century, coinciding with the explosive growth that took place between 2000 and the Great Recession of 2008, which lasted until 2017 (Martínez et al., 2020). The context of CEIP Los Millares is characterized by a great diversity of socio-economic and cultural situations. This public school is spatially located to the northwest of the city of Almería, close to the historic center and the neighborhood called Fuentecica-Quemadero, one of the four neighborhoods considered by the First Municipal Plan for Community Social Services (2018–2022), prepared by the Almería City Council, as a disadvantaged area of the municipality. The area presents notable levels of social exclusion that require a socio-community intervention. The basic social diagnosis for this neighborhood describes some indicators of the vulnerability profile that can be summarized as follows: immigration, multiculturalism, cultural gap, ethnic minorities, low and very low socioeconomic status, chronically unemployed population, high rate of unemployment, poverty, submerged economy, coexistence conflicts at the community and family level, lack of public participation.

The intentional selection of the school and its student sample as a research unit in this first phase is for several reasons. First of all, the school participates in the Municipal Council for Children and Adolescents (hereinafter CMIA) since Almería’s provincial capital was recognized in 2018 with the official seal of a Child-Friendly City (CAI). The function of these Councils is to give “a local response to the information and participation rights, as established in the CRC (arts. 12, 13, 15, and 17), offering, at least in theory, a possible laboratory for new forms of decision-making in municipalities, which include the values of participation, democracy, inclusion, transparency, and responsibility” (Del Moral-Espín et al., 2017, p. 206). Secondly, the real commitment of the school management, the educational team and other representative bodies to democratic education and values. This transversal axis is included in its School Plan (updated and approved by the School Council on 11/11/2021<sup>1</sup>). As we have been able to verify from our field work, the school promotes plans and programs such as the Coexistence Plan, the School Mediation Program, the Plan for Equality between Men and Women, and the School Project: Space for Peace.<sup>2</sup> During the investigation process, we could confirm that the contents on childhood’s rights included in the Social Sciences textbooks in used in Los Millares school are minimal. However, we could see that the textbooks used in the subject Education for Citizenship and Human Rights do include them explicitly. Therefore, we understand that the contents referring to childhood’s rights are not highlighted by their historical relevance in the Social Sciences textbooks. For this reason, the different plans developed in the school under investigation fill the gap detected in the main source of written information in school culture, such as the textbook. Among the actions of the school are, on the one hand, the development of audiovisual resources in the school’s Mediation Plan and, and on

<sup>1</sup><http://ceiplosmillares.es/wp-content/uploads/2014/02/pcentro.peducativo.2013-14.pdf>

<sup>2</sup><http://ceiplosmillares.es/>



the other hand, the discussion activities in the living together, or coexistence, Plan.

Selecting a school with experience in the CMIA serves as an indicator of its commitment to and practice of girls and boys being present in participation spaces. The management has also taken on the commitment that it be the participants themselves who disclose the content of their work to their classmates.

## Instruments

The direct or interactive techniques used simultaneously in this first phase have been the semi-structured group interview (students), individual interviews (teachers and management team), participant observation in the classrooms and in the school, as well as content and discourse analysis. According to Kvale (2011, p. 30), “the qualitative research interview is a place where knowledge is built.” For this reason, we have considered the group interview conducted in the classroom as the “appropriate research technique to study the construction processes of the social world of childhood” (Rodríguez Pascual, 2006, p. 71) by sharing the same socialization space among equals. Starting from the questions, possibilities are opened up in this dynamic that enrich the analysis, taking into account, “the way in which the group faces these issues, the conflicts that arise at their core when it comes to finding an answer, the sense and meaning of the responses or the distribution of leadership in the group in producing children’s discourse” (Rodríguez Pascual, 2006, p. 75).

An initial script with open questions (Table 2) was designed for use in each of the interview groups, according to key aspects of the research.

Once the research has been presented and the aims have been outlined, we must reiterate that, in the six group interviews, we worked with the informed consent of the children, which was explained and elicited orally and voluntarily by the boys and girls themselves in the first few minutes of each of the interviews. It was decided that we work orally with electronic audio recording in each of the selected classrooms. It was verified that some boys and girls voluntarily decided not to participate, although they were a minority. Prior research approval had been obtained from the School Council on October 18, 2021.

To carry out the qualitative analysis, with the aim of extracting relevant meaning regarding the research issue focused on what primary students know, what they feel about social problems and injustices, rights, the role of boys and girls in history, and in accordance with some previously established criteria on what information should be taken into account, after transcribing the oral interviews, a first step of data reduction was carried out by classifying into basic units of meaning or categories (Table 3). Added to this are the contributions from the people who make up the school’s management (3) and the school’s teaching staff (4), who voluntarily participated in in this first phase of the project; their contributions were collected in seven formal and informal interviews.

## Research Ethics

From an ethical standpoint, efforts have been made to maintain the principle of a symmetric dialogic relationship between the researchers/boys and girls. For this reason, care was taken

**TABLE 2 |** Semi-structured group interview script.

### Human Rights. Children's rights. Participation

Do you know what human rights are? And the rights of children? Do you know that you have some rights and also some responsibilities? What rights do you know? Can you mention some of them? What responsibilities? Do you know that soon you will celebrate your second anniversary on 20th November? Do you know what is celebrated on 20th November?

Are the rights that you have now the same as those your fathers and mothers had when they were like you? And what do you think of the ones your grandparents had? If they have changed, how have they changed? Do we now have more rights or less? Are they the same for all the girls and boys from different parts of our neighborhood, our city or the world?

### Problems in your environment. Relevant social issues

What problems do you think the school has, and which have to be solved? And your neighborhood? Could you list which are the most serious or important? Are you considered when adults make decisions about a nearby problem? How do they do it so that you can give your opinion and offer your vision?

During the pandemic, schools were closed. Were children asked to make that decision? What do you think about that? Would you have made the same decision? And the parks? In your house, are you asked your opinion if you have to go out to a place or do anything related to home maintenance? What responsibilities do you have at home? And in class? How do you collect a petition that you would like to make to improve the school? Do you vote in the elections? Which ones? What would you think of voting in the city elections in the same way that adults over 18 years of age do? What would you think about voting earlier, for example, at 16 or 14 years old?

Do you know about the CMIA? Do you know that your school participates in it? Do you know your classmates who participate in it?

### The childhood protagonist of the past-present-future

What do you think history is for? What you have learned about history, facts, people, have you used it in something concrete? In what? What is important to learn in history? What is relevant to you? If we think about history, what can we use it for?

If we told you that by learning history we can improve people’s lives, do you think that is possible? What would we have to learn in class for that?

Have children been taken into account in history? Why? Do they talk about they (male) and they (female) in your textbooks? If history were a movie, who would be the protagonists of the story? The boys, the girls? Or only the adults? What do you think about that? Do you think that children have been part of history? Why? What have they done in the past? And nowadays, what things do children do? Have they been taken into account? Have they been taken into account in the decisions that adults have made? Why? Have they contributed to improving the life we live?

Can you give us examples of boys and girls who have contributed to improving coexistence between people? Do you know the cases of Malala, Greta Thunberg, Francisco Javier Vera, or the children of La Cañada Real in Madrid?

on the path to follow in this first phase, offering transparent information on the research process to the management and teaching staff of the selected school and to the competent educational administration, the School Council and, above all, the girls and boys participating in the research. This information was shared with the school’s management and with the School Council so that it can be formally incorporated, as a school wishing to carry out an intervention in the field of innovation and educational research. Let us remember that, in the Autonomous Community of Andalusia, the Ministry of Education and Sports has signed cooperation agreements with the 10 Andalusian public universities to develop interventions in the field of innovation and research in non-university public



**TABLE 3 |** Units of meaning matrix.

	Knowledge level scale	Source experience/opinions
<b>A. Knowledge, experiences, and opinions about the object of study</b>		
A.1 Knowledge of children's rights and responsibilities, and of the past through their family memories	0-1-2-3-4*	Fa-Ca-Ba-Pa-Eu-Mu**
A.2 Identification of relevant social problems in their environment and in other spaces		
A.3 Recognition of boys and girls as protagonists of History		
<b>B. Attitudes of participation and collaboration as co-researchers</b>		
B.1 Non-verbal language: attentive listening, posture, direct observation		0-1-2-3-4*
B.2. Open participation, intensity, freedom in expressing opinions		
B.3. Receptivity and collaboration on offering them the role of researchers. They question themselves and provide solutions		

\*0 = None; 1 = Low; 2 = Medium; 3 = High; 4 = Very High. \*\*Fa = Family; Co, College; Ba, Neighborhood; Eu, Europe; Mu, World. Source: Own design.

schools. In this environment, we must highlight the Instructions of February 14, 2017, from the General Directorate of Innovation for the participation of non-university education centers in innovative interventions and educational researchers carried out in collaboration with Andalusian universities. With this type of intervention, all the agents are involved in a common project, which starts from the same point of interest, and is approached through group dialogue and negotiation.

## RESULTS

In this manuscript, we have put the main focus of attention on the first unit of meaning (A. Knowledge, experiences, and opinions about the object of study) and its three subunits (A.1, A.2, A.3) linked to the specific objectives described above. Taking this into account, we ask ourselves what the research findings have been and what the findings of this first phase of the research mean. Accordingly, we have condensed the meanings expressed by the interviewed groups, incorporating textual fragments of the participating students and teachers. Following Kvale (2011), with our interpretation, we recontextualize the statements of the groups, and the people who were interviewed, in three subunits, as reported below.

### A.1 Knowledge of Children's Rights and Responsibilities, and of the Past Through Their Family Memories

Emerging from the content analysis is the broad knowledge that girls and boys possess regarding social rights linked to issues such as: medical care, education and school, basic food and clothing needs or the right to play. They describe their meaning with ease, in a rich and nuanced way, *in crescendo*, as the course progresses. This knowledge is more analytical and reflective in the sixth grade—when during the dialogue they insist on public and free medical care in Spain, one girl argues that “they do not charge us to go to the doctor” (sixth grade; Girl 1). Another of the girls (sixth grade; Girl 2) completes the information on countries where health is private, mentioning the case of the United States. To the question on how she knows that detail, she tells us: “I

heard it from my parents, and I've known it for a while, as my parents bring up the subject” (sixth grade; Girl 3). This indicates the impact that immediate and family experiences have on the interrelation between experiential and academic knowledge in constructing school social knowledge. Also, Vygotsky's socio-cultural or socio-historical approach highlights the social origin of learning and the development of people. Both processes occur through the interactions of the individual with their social and cultural environment in a given or situated context. Hence the importance of informal learning acquired in the family as an action mediated through language. According to Veraksa and Sheridan (2021, p. 21), “For Vygotsky, the child's development is a process of interaction between the child and culture, a two-sided process. On the one hand, the adult acts as a carrier of cultural tools and, on the other, the child learns to use these tools.”

Similarly, it is interesting to note that, when equal rights in the globalized world are questioned, making them think about whether all the children in the world have the same rights, in the fourth and sixth grades, they equate poverty with loss of rights. Another of the girls (fourth grade; Girl 1) resorts to family memory when she tells us what her father did in Colombia, giving clothes to the indigenous people who were on the street. Another boy relates it to his own experience, telling us that an impoverished person asked them for help when he was at the bus stop with his mother, and they gave it to him (fourth grade; Boy 1). The idea of the importance of experiential learning within the family environment (informal education) is reinforced again with the meanings that the students construct.

In the past-present comparison regarding the achievement of rights, when we asked them about their grandfathers and grandmothers, we observed a substantial difference between the first two cycles—the second and fourth grades—and the last cycle, the sixth grade, the latter having a clearer concept of the change and progress experienced. We have verified that there is an overlap in identifying poverty with loss of rights, but it is in the sixth grade when, in the debate on child labor and exploitation, all the children affirm that they know of its existence, locating it “in countries where there is more poverty” (sixth grade; Girl 4), and linking poverty with child labor. One boy states that “his father has told them that he was in need and had to go to work” (sixth

grade; Boy 1). Orally transmitted family memories have great potential as an educational resource in contexts of diversity, and in those where the collective identities present in the classroom enrich the exchange of experiences. By going a step further in the reflective dialogue, it becomes clear to them that there may be boys or girls who work in collaboration with their parents without being exploited. This circumstance creates opposition and a certain skepticism.

When investigating the rights of opinion, participation in the family, and socialization at school and in its environment, there is no agreement. Some feel that their opinion is heard, but others do not. In the fourth grade, they indicate that they also have the right to be heard. Hence, a boy mentions the case of children with hearing impairment. Another boy says verbatim, “they do not take us into account [because] we are good for nothing, at least I am” (sixth grade; Boy 2). Another girl says: “my parents, I think they ask my opinion, but sometimes they do not listen because I’m a child, and they do not think I’m mature enough” (sixth grade; Girl 5). Faced with these acquired beliefs about their lack of maturity in giving an opinion on “adult” matters, we insist on how valuable their opinions and points of view are, since we are all valuable because we are unique, the school being a space to expand our knowledge and be open to valuing who each one of us is within the social group in which we find ourselves. When we speak to the students about rights, we also ask them about their responsibilities. In the fourth and sixth grades, we perceive some confusion at first because they identify them with school tasks, due to the polysemy of the term, although they do immediately link them to cooperating in domestic activities, helping the elderly, or responding to the teachers’ requests. When we say to the children in sixth grade that they have a main right that they have not mentioned, the right to know their rights, they show some surprise. We have verified that values of respect for otherness are detected in all the groups, but they can argue about recognizing the relevance of diversity. At one point in the group interview, a girl wants to participate saying “you have to respect the opinion of others, even if they don’t think the same way,” another classmate points out that “not all opinions have to be the same” because, as highlighted by another boy, in that situation “we would be robots.”

In the strategy used to talk about the anniversary of November 20 and the meaning behind celebrating it, we involved them emotionally so that they felt it was their second birthday. Their knowledge of this question was exceptional in the second and fourth grades; out of the total of 80 students, only four (one per group) knew about it, and their reactions were those of surprise and strangeness. However, in the sixth grade, both in groups A and B, not only did a thorough knowledge emerge from the dialogue, but also the interrelation with other historical pasts, conflicting memories and controversial presents. The sixth graders did not hesitate in their answers to the question about the International Children’s Day anniversary. We used the blackboard to highlight the date 1989 next to the CRC acronym. When asked what happened on that date, one child quickly said, “the Berlin wall, the wall divided Germany” (sixth grade; Boy 3). We then reported that many families and friends were separated by the wall, and we mentioned the existing walls in the world

and those that have existed in the past—in Northern Ireland, Palestine or on the United States-Mexico border. By referring to the simultaneity of these historical events in 1989, a debate on the Holocaust arose, recalling the vexation suffered by the Jews, a debate that raised participatory interest and intensity. One boy participated by saying that “they took away their name,” to which another classmate added that “they took away their identity.” We related this thread to the loss of children’s rights today. Empathy and emotion arose when bringing up events such as the Holocaust, allowing us to reflect on the violation of rights and the importance of keeping memory alive. We challenged the students over the importance of not forgetting, and with the role of the school as a social laboratory where humanistic values can be learnt from the perspective of a historical education for the common good. When questioning them about how we can act, one child replied, “by talking” (sixth grade; Boy 4), thus positively reinforcing the path of dialogue as a means of conflict resolution.

We then move forward by investigating the students’ knowledge and opinions on the right to participate in collective affairs, the starting point being the election of their classroom delegate. They are aware of the election procedure and exercising the right to vote. In the fourth-grade classroom, they have a poster board on the wall with the names of those chosen. However, when we ask the children to describe and explain the functions of the position, it becomes clear that they are strictly linked to maintaining order in the classroom in the absence of the person in authority, the teacher: “when the teacher leaves the class, he/she writes on the blackboard who will speak” (fourth grade; Boy 2). In the fourth grade, when we presented them with a hypothetical situation of a problem in the classroom, to find out who they would delegate to resolve it, they continued to say that it was the teacher.

In the sixth grade of this school, the function is attributed to the mediators. The students in the group make it clear to us that, when they have a problem, they do not go to the delegates, but to the mediators. One student (sixth grade; Girl 6) intervenes to describe the mediation process. In this dialogue, the request to have individual lockers at the school emerges. Thus, as a significant result, we detect this lack of definition regarding the functions carried out by their representatives in the classroom, although we do confirm that the proper functioning of the mediation plan covers this deficiency. The coordinator of said Plan herself recognizes the need to work on this deficiency. During the debate about student representation we mentioned municipal representation in the fourth and sixth-grade groups. In the fourth grade, the children do not identify problems as being solved by the elected delegates but by the police authority, since the problems concerning them most are those of public order. We remind the students that their school participates in the CMIA of Almería, and that they can refer their problems to that consultative participation body. We found that they were unaware of the existence of a CMIA in the city, given that this representation is limited to the third cycle of primary education.

In the two sixth-grade groups, the students are questioned about the right to vote and the age at which to exercise it. They are told about the case of Austria, a country where you can vote from the age of 16, and the possibility that they too could do so.

The children express their desire to vote, but when questioned about the repercussion that this would have, a student says: “if they gave us the freedom to vote, we would be considered more because they would want to know our opinion” (sixth grade; Girl 7). The subsequent silence in the classroom shows this point makes them think about that option. The result that we detect is that the opinions expressed permeate the group, causing them to reflect on their agency. Hence, another boy argues: “before, you said that in Austria one can vote at 16 years of age, and I think this is because you are already trained to be able to understand that kind of thing and able to vote responsibly” (sixth grade; Boy 5). We gave feedback to this response, assessing his argument, but immediately a female classmate told us that this child would vote for the school to be burned down. We were surprised how this question generated controversy in the group. Going deeper into the reasons for that statement, they reply that it “because it is very boring,” or “because we do not like it.” We invited them to reflect, explaining that, from our point of view, this weariness may come from the boring lessons they may have experienced.

## A.2 Identification of Relevant Social Problems in Their Environment and in Other Spaces

From analyzing their interventions, allusions emerge related to immediate problems linked to deficiencies in public services, transportation or keeping their neighborhood clean. Thus, they are aware of dirtiness due to rubbish tipping, and problems that affect their family economically, such as the rise in electricity prices or the lack of food to eat. In the fourth grade, a male student mentions drugs, and cholesterol from eating unhealthy foods.

As a significant finding, we verified that there was a common concern in all the groups regarding current socio-environmental problems such as coronavirus or climate change. In the fourth-grade groups, events that had great media impact were described, such as the eruption of the volcano on La Palma (Canary Islands) or natural disasters, such as floods. The knowledge and vocabulary used to identify problems such as deforestation, plastic waste, pollution, or the scarcity of fossil fuels are surprising. The variety and richness of their interpretations are evident, revealing their concern for the future. In the sixth grade, during the course of the debate, we reflect on the statements by the UN Secretary General, António Guterres, who denounced the inaction of the powers that be and predicted the image of the Earth turned into a landfill. At the same time, we show the importance of finding alternatives. We focus the dialogue on highlighting the actions of male and female scientists in seeking solutions to COVID-19, or the protests of “environmentalist” girls and boys at the Glasgow Summit (November 2021) demanding action from the powers that be, as exemplified by Greta Thunberg and Francisco Javier Vera.

In that description, the conflict and violence in the students’ immediate environment emerged, as when they said that “what worries us about what is happening on the streets are the shootings” (sixth grade; Girl 8). An intense debate was generated on the subject of street violence with a high level of participation; their gestural language reflected great interest, which forced

us to reiterate the rules for taking the floor, “There are many problems here. A week ago a boy our age started punching,” “There was a 17 or 18-year-old boy at the school gate with a weapon and the police came” (sixth grade; Girl 9, Boy 6). We tell them that coexistence problems can be resolved, and we highlight the role of mediators. One of the mediators intervenes, talking about the ways of resolving problems at the school. Coincidentally, this girl was also a representative, recently elected to the CMIA, and we urged them to collect requests for improvements at their school and in the neighborhood, with the intention that she takes them to the council. A petition arose to improve the school’s accessibility for girls, boys, and older people with mobility issues. With regard to this issue, the school’s director informed us that the refurbishments were suspended due to the pandemic.

The results of the interviews with the boys and girls in their last year included concerns highlighting sexism and gender inequality, “apart from the problems that we have to face with climate change, I think that the biggest problems that I perceive, so to speak, are those of machismo” (sixth grade; Boy 7). This statement was given nuance when experiences of micro-machismo surfaced in their environment and in the school itself: “once there was a demonstration here asking for women’s rights, when they were finishing, a man shouted: ‘Come on, finish it already! You have to go make dinner!’” (sixth grade; Girl 10). Another female student commented on a further example that occurred in the playground: “well, speaking of machismo, the other day [playing football in physical education class] a boy said, why do you put a girl as goalkeeper?” (sixth grade; Girl 11). To make them think, we asked them what would happen if those women who had to go make dinner went on strike. In a few seconds the answer came: “Well, women would be just as recognized as men” (sixth grade; Girl 12). The intervention of a boy reminded us of the importance of messages that are transmitted in families when he told us that, at a Christmas function, he had to make the presentation and it was his mother who corrected the text so that he used inclusive language.

A strength verified in these boys and girls is their ability to relate historical processes with new explanatory variables, “another problem that exists and has not yet been resolved is dictatorship and corruption” (sixth grade; Boy 8). We asked him to explain what a dictatorship was and if it was related to corruption, identifying dictatorship with someone who has more power, who believes himself superior. We question whether power is necessarily associated with dictatorship, that we must think of the use made of it. This dialogue led to the issue of gender inequality in the past, relating it to the power of dictatorships: “when Franco was in power, women could not work, they did not allow certain things” (sixth grade; Girl 13). This allowed us to reinforce the concept of social injustice with that of the loss of fundamental rights during dictatorships, describing specific examples of that inequality. A significant result is that the students have been able to explain social changes over time, how the evolution of women’s rights in the family has occurred, sharing testimonies of their grandmothers dropping out of school and recognizing the loss of their rights to go to school.

An unexpected research finding had to do with the conflicts that arise when respecting (or not) affective and sexual diversity in the classroom. An issue of affective-sexual orientation emerged that surpassed the hegemonic heterosexual sexist pattern -this we can only attribute to the atmosphere created in the classrooms, to our attitude of attentive listening and to recognizing their opinions. It all started with the comment of a boy from a fourth-grade group about the clothing of a classmate, saying that she dressed like a boy (fourth grade; Boy 3). At that moment, we explained to the group that we are people who have the right to choose and be what we want to be. That comment caused quite a stir in the classroom. Another girl intervened saying: “they pick on me because I like girls, I’m bisexual.” We insisted on the right to be and express what we want to be, and to make them see the school as a place where one learns the values of respect for diversity. At the end of the intervention, this girl came up to us to thank us for our help because our presence had “allowed [me] to speak aloud about [my] problem” (fourth grade; Girl 2).

### A.3 Recognition of Girls and Boys as Protagonists of History

The next focus of analysis was to investigate views concerning the historical narratives of the textbooks, in order to verify if they were aware of the adultcentrism in the stories, and how they evaluated the presence of childhood in their books. In the second-grade groups, the boys and girls affirmed that their peers were present. We asked for their SS books and, at that moment, one of the boys told us that “with the books we can investigate” (second grade; Boy 1). We emphasized the importance of using sources to know reality. When we asked them this in the classroom, we informed them that most images in the textbook featured adults. We picked up the thread by asking them again: “why do not children appear in the books?” There was a surprised reaction to the evidence.

In another encounter, we were able to verify that sixth-grade children express a feeling of “boredom” with the contents of the SS and History subjects: “I find it boring because I’m not interested in what happened thousands of years ago” (sixth grade; Boy 8). We wanted them to think about the reasons for this and we asked them what history they would like to study. We raised the idea that the lives of boys and girls who lived thousands of years ago could appear in books: would they be interested in such content? They responded affirmatively and a boy added that “wars, conquests, and reconquests appear in history books, only those things appear” (sixth grade; Boy 9). If that were the case, we asked them if there was also content about peace, to which they replied, “very little.” One boy made a case for the perspective of history that he would like to learn: “I would like to see how people lived years ago with very few things and had to go to fetch water from the well, or from far away. Now that we live so well, are so comfortable at home, people do not value what they have. Some people do not value what they have” (sixth grade; Boy 10). With this intervention we invite them to think about the concept of inequality in the distribution of services and we ask if we have made progress in that direction or not. The group’s response is again negative, although a child tells us that “in some things yes

and in others no” (sixth grade; Boy 11). To reinforce the concept of inequality, we explain the case of the children of the Sahara and their difficulties in accessing water. A boy tells us that he knows, “they have to walk miles and miles” (sixth grade; Boy 12). We present the case of the villages in which formerly there were no washing machines but outside laundries (*lavaderos*), this activity being exclusively female, to which the students nod, thus demonstrating that they know about it despite the time that has passed. Next, we use the light switch in the classroom to show them that light is a resource that we have within reach, and they compare. Hence, a girl states: “before, people took sticks, they did this, and warmed up.” We asked them what life was like in the past, and they answered that it was “bad,” “difficult,” “complicated,” “because they did not have the technology we have now” (sixth grade; Girl 14).

Progress in women’s rights is another example to consider in terms of fulfilling children’s rights and their visibility in history textbooks. When speaking about the absence of boys and girls in their textbooks, we were corrected in one of the groups by a boy who said: “you have talked about children who are not in history; and there is at least one girl: Anne Frank” (sixth grade; Boy 13). His contribution demonstrates the importance of listening to children and valuing their knowledge. During the interventions in the different groups, we looked at the role of children from the past to the present. For this, we use various child role models, such as Malala and her defense of the right of girls to go to school, along with the aforementioned Greta Thunberg and Francisco Javier Vera in their fight to protect the environment. We use images and videos to support the story of their lives and their actions. We begin with Malala as a child, and as an adult collecting the Nobel Peace Prize. We continue with the protagonists of environmental activism, and we incorporate the collective activism of girls and boys from the Madrid neighborhood of La Cañada Real over the lack of electricity service. In the second grade, we helped identify Malala with a game to guess the letters of her name. They did not know her, only one boy said her name. In the fourth grade, we intervene with the same approach, and encounter greater interest as a result of their previous knowledge. We greatly emphasize the astonishment shown in both fourth-grade groups, followed by interest about the attack against Malala. We explained the ethical principles that motivated Malala to defend the rights of all girls, risking her own life. Some boys wondered “Why would she risk her life to go to school?” (fourth grade; Boy 4), “Why can boys go to school and girls cannot?” (fourth grade; Boy 5). Through these questions, we verify that they have internalized the concepts of injustice and social inequality.

On the other hand, regarding the issues raised about energy, we showed them images of boys and girls from La Cañada Real in Madrid who demonstrated in public spaces demanding their right to go to school, because school activity had been interrupted as a result of the power blackout caused by the Filomena storm in early January 2021. In the second grade, a boy read out the banner carried by these children: “We have the same rights as all the children in the world” (second grade; Boy 2). We were able to verify their attentive listening and the strangeness they felt that these children did not have heating at school, and we



asked them if they knew at whom the protest was directed. They knew immediately that they were targeting adults, who “did not care and did not do anything about it” (second grade; Girl 1). When questioned about names of child activists, a student said: “I do not remember well, but I think that some time ago in the United States there was a girl, about our age, who was demonstrating against global warming. It seems that the previous president, Trump, did not pay much attention to her” (sixth grade; Girl 15). In this same group, we used a video from a newsreel about the actions of the Colombian boy Francisco Javier Vera and his movement “Guardians for Life,” linking it with the actions of the children of Madrid. We asked for their opinion on whether they believed it was necessary to include these children in the SS books because their actions were just as important as those of adults. The majority response was positive.

## DISCUSSION AND CONCLUSION

To conclude, we believe that we should not lose sight of the fact that we investigate issues concerning the well-being and interest of children (Bruck and Ben-Arieh, 2020) and to recognize their real participation in society (Novella and Trilla, 2014; Esteban et al., 2021). Having carried out the content analysis and taking into account the research objectives, we have been able to verify that it is possible to amass scientific knowledge from the views that children have regarding their social reality, while also fulfilling their role as co-researchers. In the presented results, we have been able to build knowledge of, with, about and for children. Below, we present our assessments of this first research phase, which lasted until December 2021, and which can contribute to broadening the field of knowledge regarding the practice of teaching History in Primary Schools, having as foundational supports the rights of the children and education for global citizenship.

First of all, we consider it relevant to highlight the facilitating attitude of the students of the three primary cycles as informants and researchers, allowing us to have a fluid dialogue with them despite being in a formal educational framework. A bond of trust was created between the researchers and the students in this time period prior to applying the main information gathering instrument, which will be carried out in January 2022 with the dossiers validated and adapted to each of the Primary cycles.

Subsequently, we should highlight the findings of our research, based on the humanistic teaching approach to School History (Barton and Levstik, 2004; Miralles and Gómez, 2017). This initial exploration has allowed us to detect the expository richness of some of the children who have not been afraid or cautious when expressing their opinions on relevant social issues. We have verified that this investigative-educational orientation, supported by various cognitive and cultural tools typical of Imaginative Education (Egan and Judson, 2018), has provided us with broad-based initial knowledge about the object of study.

The contributions of these Primary school students have been remarkable from all points of view, both in quantity and quality, being presented with great coherence based on their personal and family experiences. Their agency as individual and social

subjects contributes to social knowledge, clearly demonstrated in the six group interviews, recognizing their individual skills from “the logic of scaffolding” (Di Iorio et al., 2020, p. 130). We highlight the deluge of information that was provided to us, establishing an open, spontaneous, and dynamic communication channel with the groups spanning the three cycles. We have verified that the majority of the students interviewed have a great communicative capacity, to which a relaxed and trusting epistemological environment (Liebel and Markowska-Manista, 2020) was able to contribute at all times, with the students showing a high level of attention and responsiveness to the questions (see **Table 1**) and to problematizing the contents proposed in the interviews.

A predisposition to collaborate and participate in the research was evidenced, taking into account the diversity of the children in this city of Almería school. Since the first offering, there was a constant affirmation to collaborate in the project. The level of empathy was very high, reflected in the volume of feedback offered by each group and recorded in the field work. We also verified that they have extensive knowledge of social rights linked to issues such as medical care, education and schooling, basic food and clothing needs, or the right to play. They describe what they mean with ease, in a rich and nuanced way, increasing as the school grade progresses, with this knowledge becoming more analytical and reflective in the sixth grade. At the same time, the students relate the loss of rights with poverty and child labor. The ability to interrelate knowledge was corroborated and evaluated as satisfactory by all the teachers interviewed from the school, who were present during the various classroom interventions (Urrea et al., 2018).

Likewise, the knowledge expressed about the various current and recent issues, both in their immediate and distant environment, related to problems of community coexistence, conflict in family settings and in their lived space, was received positively by the teaching staff and by the research team. In the different groups, experiences related to the violence perceived in the public space around them have surfaced, which have repercussions on the daily life of the school itself and on that which the children are aware. It caught our attention how the sixth-grade students have shown a high degree of awareness toward the problem of inequality between men and women despite the fact that the majority, as a teacher told us, “come from very sexist family structures” (Teacher P). Despite the conflicts and limitations of the sociocultural environment in which this school is located, we have verified the positive effects of the equality and coexistence plans put in place by the teaching staff over several years, and which continue to be in force in the school.

Simultaneously, the communicative capacity of the boys and girls, their reasoning and their maturity in argumentation surprised the schoolteachers. The coordinator of the school’s educational plans recognizes the strengths they show in their oral skills, but indicates that their weaknesses lie in the lack of tolerance and respect for the opinions of others, arguing that “they do not have empathy, they are not capable of putting themselves in the place of others, they know how to defend themselves perfectly, but they greatly lack this empathy, that’s why we work a lot with mediation” (Teacher 1). The



school thus becomes a space where experiential knowledge, that is, communicative situations based on survival in contexts of conflict, are used to generate collective learning about conflict resolution. Consequently, from the school project Space for Peace, an action entitled “Debate is written with D for dialogue” was initiated this year to develop these capacities.

As for the CRC anniversary, we have established that it is not celebrated at the school, and its historical significance is not known to the first- and second-cycle students, unlike the sixth-grade groups, in which knowledge of it was evident. Nevertheless, following their intervention and participation in the research project, the teachers are interested in including this celebration in the curriculum. One of the teachers’ contributions was that the proximity of anniversaries in the school calendar puts pressure on the curriculum—Flamenco Day (November 16), International Day for the Elimination of Violence against Women (November 25), Universal Children’s Day (November 20), Functional Diversity Day (December 3) and Constitution Day (December 6). This may be a reason for the school and its teachers having to ignore some of these events. In any case, we value that the initiatives are carried out, such as the one by this school connecting plans and programs, coordinating anniversaries in a common project of education in democratic values. In this way, they have brought together the Day of Functional Diversity (December 3) and the Day of the Constitution (December 6), revising the Constitution’s Article 49, whereby the denomination of “diminished” is replaced by that of “Person with Disability.”

On the other hand, when we have investigated the ideas of children as active protagonists of their present and past, girls and boys express the desire to be visible. In this sense, when presenting images of active childhood models, the students welcomed and positively valued the performances of Malala, Greta Thunberg and Francisco Javier Vera, or the children of La Cañada Real in the face of social and environmental problems. We interpret this as a need for them to be recognized in the face of hegemonic narratives that hide identities (Ortega, 2020). In this way, the power of their collective agency is made visible (Arias and Egea, 2021), easily recognizing social injustice as regards girls not being allowed to exercise their right to go to school, and with them being able to relate this to their families’ pasts. The students identify the violation of rights in the past, bringing up family recollections of grandmothers who did not go to school when they were little because they needed to work to survive. We have been able to verify that the voices of girls and boys are required in academic school life since, with these, one can be made aware of their role in the past and present as active and participatory subjects (Pinochet, 2015; Sosenski, 2015).

Let us also remember that studies on curricula and school textbooks in different countries have revealed the invisibility of children as protagonists in school history (Pagès and Villalón, 2013; Villalón and Pagès, 2013; Pinochet and Pagès, 2016). In the historical discourses of the textbooks, participation is exclusively that of adults. Therefore, we agree with Sosenski (2015) in recognizing the benefits of actively incorporating children into school history and in the curriculum, because this would facilitate processes of empathy and improve the participation of young

people in social development. As seen in this research, if boys and girls do not see themselves reflected in predominantly adultcentric school discourses and narratives, they will not be able to trust their ability to be agents of social transformation (Freire, 2002). Therefore, there is hope of recovering minors as participatory social actors in the school narrative.

Interestingly, we have the opportunity to follow a line of work in children’s studies and in the teaching of History and SS following the path initiated by social and historical education from a gender perspective (Díez-Bedmar, 2019; Díez-Bedmar and Fernández-Valencia, 2019). The idea of introducing children as active protagonists of their present and past generates a very positive response in all the teachers interviewed, because, for them, “everything that is within the child’s universe, which is equal to it, is going to attract attention” (Teacher I). Developing historical thought by searching for genealogies of their equals, and the use of historical sources in the curriculum, can mean changing to a historical education that contributes to more active participation of citizens in their present and their future.

As trainers of future teachers, we would like to highlight the need to elucidate a broad vision of school knowledge that is emancipatory in nature. We believe that university classrooms are a space for critical reflection on social reality, using SS to encourage collective action that cares for the proper functioning of democracy (Pagès, 2019). We maintain, therefore, that the selection of content and the construction of teaching and learning experiences need to be rethought from an epistemological and methodological perspective using the cognitive and cultural tools of Imaginative Education, as set out by Egan and Judson (2018). The results presented on how the boys and girls at CEIP Los Millares see rights/responsibilities and social injustices encourage us to invigorate this more open outlook of adult teachers toward the capacities of children.

Viewed from this radical approach, we understand that one of the purposes of public schools is to foment a critical and transformative reading of the social fabric, thus promoting a broader intervention of children’s citizenship in their environment. In line with that stated by Ayuste and Trilla (2020), educational institutions have the opportunity to become public spaces for critical reflection on how power issues are managed between different age groups. This has been the case for the CEIP Los Millares students, being aware of the complex socio-economic and cultural environment in which they find themselves in the city of Almería.

We think that it is imperative that the teaching profession make a determined effort to strengthen real democracy, with teachers in an intermediary scenario where they have to take sides, despite the aforementioned obstacles and resistance expressed by the teachers of this Almería school in the individual interviews. This is what we verified in the field work when assessing, for example, the annual “Debate is written with the D for dialogue” program mentioned above. Thus, the impossibility of teacher neutrality is demonstrated (Santisteban, 2019) in the face of problems generated by social and political inequality. However, research tells us that the SS content taught and learnt can help consolidate a democratic and social-justice education

(Gutiérrez and Pagès, 2018), overcoming historical school knowledge predominantly protagonized by adults, men, and eminently ethnocentric in character (Ortega, 2020). The above point was verified in the group interviews when the students were offered a different approach to SS and History, analyzing the models of girl and boy activists, and recognizing the collective agency of the children at CEIP Los Millares as participants in the Mediation Plan and in the CMIA. Accordingly, we are convinced that the contributions from New History, showing, as Pinochet (2015) pointed out, the possibilities of History from below, can help in an epistemological and ontological reflection on the History content to be taught.

To conclude, it should be noted that the rights of children not only have to be recognized by celebrating them annually, but also have to be lived and practiced in daily school life, as Novella and Trilla (2014) advocate. We have sufficient innovative experiences and research (Urrea et al., 2018) showing us the way forward. That is why initial training must influence the thought processes, beliefs, and pedagogical conceptions of future teachers to internalize their role as agents of social and cultural transformation (Freire, 2002), considering the content of the CRC as a fundamental axis in the construction of the Primary teaching identity.

From the perspective of critically teaching the contents of school History, and creating opportunities so that the voices of Primary school boys and girls can be heard, listened to and recognized, we think that this research process provides us with sufficient knowledge to, first of all, explore ethical keys that allow us to design professional teacher development experiences in line with the new postmodern times of change and uncertainty. Secondly, to guide the configuration of training models to cover the weaknesses caused by the democratic deficit and to strengthen inclusive

democracy by increasing child citizen participation in a globalized world.

## DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding authors.

## ETHICS STATEMENT

The studies involving human participants were reviewed and approved by Consejo Escolar. Written informed consent to participate in this study was provided by the participants' legal guardian/next of kin.

## AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct, and intellectual contribution to the work, and approved it for publication.

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# Epistemic Beliefs and Pre-service Teachers' Conceptions of History Instruction

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This study investigates the difficulties pre-service history teachers face in understanding and implementing a history curriculum focused on historical reasoning. Based on the general hypothesis of beliefs exerting a direct influence on teachers' actions, this phenomenographic study provides a qualitative analysis of the epistemic and learning/teaching conceptions on which pre-service teachers base their reflections and decisions when they have to produce a teaching plan for a specific situation, taking  $n = 72$  pre-service teachers from the Master's Degree in Teaching in Secondary Education at the University of Zaragoza (specialty Geography and History) as statistical sample. The outcome of the first phases of the analysis was a new theoretical reference framework that innovated by simultaneously analyzing epistemic and educational conceptions. On the one hand, the analysis results include a considerable number of pre-service teachers who use epistemic beliefs identifying history and the past when addressing the curriculum. On the other, none of them, not even those with advanced epistemic beliefs, think about the curriculum in terms of an inquiry-based approach to historical problems, and, therefore, they display a transmissive-reproductive conception of history instruction. Consequently, the main contribution is observation of a twofold threshold that pre-service teachers must cross to understand and accept an interpretive history curriculum: they must overcome the identification between past and history and instead immerse themselves in the necessarily interpretive nature of any history; and they must stop viewing learning as knowledge internalization and reproduction and, instead, embrace a conception of learning as inquiry and reasoning.

**Keywords:** epistemic beliefs, historical thinking, pre-service teachers, teaching approaches, history instruction

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## INTRODUCTION

One of the main objectives of training pre-service secondary-school history teachers is exploring alternatives to the traditional encyclopedic curriculum based on explaining and reproducing historical data. For decades now, research has proposed another curriculum focused on developing historical literacy, in which students investigate historical problems by developing competence for historical interpretation and reasoning. However, in general and repeatedly, we observe that pre-service teachers find it extremely hard to first understand and then apply this type of interpretive curriculum. This difficulty has been related to both epistemic beliefs on the nature of history and beliefs on what learning and teaching means. Based on this general hypothesis, this study analyzes these beliefs at the start of the specific education program for history graduates, which lasts one academic year and is compulsory in Spain to become a secondary-school teacher. The study presented here is part of a more overarching project whose purpose is a longitudinal monitoring



of these pre-service teachers' beliefs throughout their entire year of training. The ultimate aim is to improve the program by having a more specific impact on these pre-service teachers' beliefs.

On the one hand, there is a relatively consolidated line of research on the determining role of epistemic beliefs in teachers' decisions that has been extended to the specific area of history instruction in some relevant studies. On the other, there is now classic research on teachers' beliefs concerning the curriculum, teaching, and learning, which in the case of history has essentially been explored in studies focused on the difficulties involved in implementing inquiry-based learning—essential for developing the capacity for historical thinking—in the classroom. Some recent studies can be found in the Spanish context, such as Colomer et al. (2021), Parra-Monserrat et al. (2021), and Gómez-Carrasco et al. (2022). However, the pioneering method of this research has complicated the possibility of contrasting its results with those of previous studies. Although both types of beliefs have often generically been linked together, the complexity of this relationship has barely been analyzed in the specific case of just one discipline, particularly history. This study simultaneously analyzes both types of beliefs in an attempt to shed some light on how they mutually determine or condition each other.

An exercise of reflection and decision making on the teaching of the First World War is proposed to analyze these beliefs with the aim of bringing to the surface the pre-service teachers' often implicit system of beliefs—rather than their theoretical historiographical knowledge—which they use to work effectively when thinking about the curriculum. After a first phase of exploratory analysis based on existing models, an *ad hoc* theoretical framework of analysis combining epistemic and educational beliefs is proposed; its application will result in a series of categories showing the belief system Spanish pre-service teachers employ to think about the history curriculum at the start of their teacher training.

## TWO WAYS OF CONCEIVING THE HISTORY CURRICULUM

The history curriculum is always subject to controversy in most contemporary societies (Berg and Christou, 2020). In these history wars, the focus of the debate is not so much—or not only—which version of the past to teach, but whether a certain account (typically a standardized national account serving as a social cohesion tool) should be taught, or whether, in contrast, students should learn to inquire and interpret as a historian does (critical analysis of evidence and discourses, exploration of change processes, analysis of the tapestry of causes of events, inquiry into the diversity of perspectives supporting decisions and human actions, and so on). This is not a debate between “knowledge” and “capacities,” or “content” and “method” as some authors have suggested (Seixas, 1999; Fordham, 2012), but the contrast between school history understood as learning the “true facts” of a single account and a curriculum rooted in the historical discipline, its essential problems, methods, and concepts, its critical questioning, and its necessary diversity of perspectives.

Dunn (2010) talks about “two world histories”: history “A,” exploring how to take “debates over evidence, interpretation” (p. 184) to the classroom; and history “B,” in which the debate, now political, focuses on which (single) history must be explained depending on “national values and purpose” (p. 185). Wansink (2017) summarizes it as the confrontation between two forms of understanding history, “factual” against “interpretive.” It is a closed conception of history that has to be learned against a problematized conception in which students come across open historical issues they must debate and construct interpretations for. In other words, knowledge of the “facts” that every resident (of this country) should know compared with what Lee (2005) defined as “historical literacy.”

In our opinion, the debate between these two forms of conceiving history instruction must be present at the core of any training of pre-service history teachers. We have found that the starting point for the majority of the pre-service teachers studying the Master's Degree in Teaching in Secondary Education at the University of Zaragoza is their direct experience in the classroom of that “great tradition” of history instruction, that account with no visible author that descends on students as the truth of past events. Consequently, the program tries to make them critically consider other curriculum possibilities, particularly what we synthetically call in this study an *interpretive history curriculum*.

The issue that has led to this study is the systematic observation of how hard it is for these pre-service teachers to think about secondary-school history within this curricular approach, even though they deem it fascinating and realize it is supported by research. They often do not completely understand it, or they do not accept it as possible in practice. That is particularly paradoxical when we have found that almost 90% of them have an overly critical view of the traditional history curriculum, which they experienced when they were at school (Paricio and García-Ceballos, in press). If they think this encyclopedic curriculum accumulating data and facts is boring and does not make sense, why is it so hard for them to be open to an alternative?

## HYPOTHESES ON THE SOURCE OF THE PROBLEM

Barton and Levstik (2010, p. 35) asked the question: “Why don't more history teachers engage students in interpretation?” After decades of research, argument, and training in this “new history,” a considerable number of teachers opt to continue telling their students a single account of events that subsequently the students repeat in their work and tests, even when, as these authors point out, many of them are excellent teachers, engaged with their pupils and devoted to preparing their curricula and activities. In their case study on how brilliant pre-service teachers implemented what they had learned in their training program, Van Hover and Yeager (2004) found that, once in the classroom with their students, they seemed to forget the interpretive history they had explored on their course and, instead, concentrated on “covering” the textbook. They describe this problem as “the ‘disconnect’ that may take place between what pre-service

history teachers learn in their social studies methods courses and what they actually encounter and do in the “real world” of the history classroom” (p. 19). Along the same lines, Mayer (2006) talks about “resistance” to teaching historical reasoning and interpretation despite decades of teacher training, research, and even laws dictating its inclusion in the curriculum.

Therefore, it is not a specific problem of our pre-service teachers, but rather a difficulty observed in general. Criticism of this traditional curriculum focused on reproducing a single account is understood and even shared by the majority. As Cornbleth (2010) mentioned, no one is opposed to seeking a more significant and valuable history instruction, yet this search occurs relatively infrequently. Why? What prevents it?

Prior literature has formulated a series of hypotheses on the origin and nature of this difficulty in what is still an open research process. The first and most obvious is that a considerable number of teachers has a limited knowledge of historical inquiry and interpretation processes or an insufficient theory of history teaching and learning (Yeager and Davis, 1996; Seixas, 1998). As solving these shortfalls in historical or educational knowledge is usually found at the heart of history teacher training, we could consider it the predominant implicit or explicit theory. Barton and Levstik (2010), however, question this hypothesis given the evidence that even when teachers have a good knowledge of history as a discipline and know appropriate educational approaches and practices, they do not necessarily apply this type of curriculum in the classroom: “In study after study, what teachers know has little impact on what they do. In fact, sometimes teachers are well aware of this mismatch. Why is this? If teachers know that history is interpretive and involves multiple perspectives, and if they know how to engage students in the process, why don’t they do so?” (Barton and Levstik, 2010, p. 37–38).

These same authors suggest a second hypothesis: this type of curricular approach would endanger the two priority objectives in the classroom, namely, keeping control of the class and covering the syllabus. Van Hover and Yeager (2004) had already suggested the issue of classroom control as an objective that influences teachers’ decisions and prevents the practical application of an interpretive curriculum. In addition to control, they consider two other key factors: the importance of context (influenced by the approaches of more experienced colleagues and the school’s curricular culture) and the belief that students are unable to perform these inquiries.

The crucial aspect we observed, without belittling the importance these other factors may have, is the generalized feeling of being obliged to teach the syllabus, usually expressed as the need to “provide a grounding of fundamental knowledge.” Barton and Levstik (2010) give a perfect explanation for the North American context of what we have observed in the Spanish context:

Everything else—primary sources, multiple perspectives, student interpretation—is extra, and there is rarely time for extras. Learning how to construct historical accounts from evidence might be nice, but it will almost always take a back seat to coverage of textbook or curriculum content, because that is what many

people think history teaching is all about (Barton and Levstik, 2010, p. 38).

If our pre-service history teachers actually *feel* that their first obligation is to teach the facts in the textbook, we want to know where this idea comes from and how deep-seated this feeling is because the truth is that “knowing the facts” is virtually endless, and everything else will always be reduced to mere desires or isolated experiences, at best.

## APPROACH TO THE RESEARCH

The general objective of this research is to identify and characterize the beliefs on which pre-service history teachers base their conception of the curriculum and instruction of this subject. The focus is on their epistemic conceptions of history and their beliefs about teaching and learning history, on the now widely accepted hypothesis that it is not the knowledge but the beliefs teachers hold that influence the way they act (Pajares, 1992; Richardson, 1996; Norton et al., 2005) and that understanding these beliefs is crucial to designing effective teacher training (Kember, 1997).

The starting premise is that most of the beliefs and conceptions we employ as teachers can be implicit (Pozo, 2001, 2003). Formed through direct experience, without critical reflection of any kind, they have the force and the rootedness of what is seen as simply “the way it is.” Our pre-service teachers have experienced a certain way of understanding history and the history curriculum as students themselves and this conception has become emblazoned in their minds. For that reason, although we also ask them about their explicit ideas on history instruction, we are especially interested in the epistemic and educational beliefs they actually deploy when they tackle the specific task of designing the instruction of a particular historical subject for their future students. We understand there could be significant dissonance between what the pre-service teachers “know” declaratively (on historiography or teaching methods, for example) and the beliefs they employ to actually conceive and implement their teaching (Van Hover and Yeager, 2004).

The entire study is structured around a single question based on the abovementioned statement by Barton and Levstik (2010, p. 38), “Coverage of textbook or curriculum content. that is what many people think history teaching is all about.” Is this statement true for our pre-service teachers? What do our pre-service teachers believe should be learned in secondary-school history subjects? And, if applicable, what makes them think their first obligation is to finish that “syllabus”? What are the arguments or beliefs behind that decision? Is it really a decision or simply something that is taken for granted?

This is a relevant issue since, if a deep-seated belief exists that this set of contents defined in the “syllabus” of the textbook is compulsory, all the efforts made during the training program to introduce the development of historical thinking to guide the curriculum will collide with that glass barrier repeatedly. As Barton and Levstik pointed out, these pre-service teachers can end up thinking that historical reasoning activities are a fascinating extra, but still just an extra there is rarely

any time for. Investigating this issue involves exploring the epistemic and learning beliefs behind this form of thinking about the curriculum.

Here we need to make two points. Firstly, we believe it is possible that these pre-service history teachers have parallel conceptions: a more advanced epistemic conception for the “professional” history practiced by historians, and a far more simplistic and naive conception for school history, backed by their own experience. Secondly, it is also possible that explicit conceptions arising from their study of historiography overlap with implicit conceptions rooted in their experience that come to the surface naturally when they have to make a decision about the school curriculum. The possibility of having several simultaneous conceptions surfacing in different contexts and with varying degrees of predominance has already been consistently demonstrated (Smith et al., 1994; Ohlsson, 2009; Shtulman, 2009; Nadelson et al., 2018). In this case, although the explicit conception to a direct question can be learned while studying contemporary historiography, the operational conception—the one actually used to make decisions about the curriculum—could be a naive conception produced implicitly during the school experience and activated when thinking about what should be learned at secondary school. In other words, using the general epistemic model by Baxter-Magolda (2002) as a reference, we can position ourselves irreflexively in an “absolutist knowing” conception when talking about school history and, surprisingly, think about history as “contextual knowing” when positioning ourselves in the role of historians. In the first case, the curriculum would be decided under the “assumption that knowledge is certain and people designated as authorities know the truth” (p. 93) and, in the second, it would be assumed “that knowledge is constructed in a context” (p. 96); therefore, (a) several valid interpretations can be made of the same past based on different perspectives and contexts, and (b) we need to know how to critically analyze the validity of every historical “construction.”

This twofold play between explicit and implicit beliefs and beliefs associated with professional history and school history poses interesting problems: Could they be rejecting the traditional curriculum but not be capable of thinking outside the historical canon imposed by tradition? And, if that were the case, how can this contradiction be resolved? It also poses the methodological problem of direct questions or questionnaires on epistemic or educational beliefs proving insufficient. For that reason, as we will see below, we have chosen to complement the direct questions with a practical exercise in which the participants have to reflect and make decisions that we will later analyze.

## MATERIALS AND METHODS

Our research falls into an interpretive paradigm and its method is set in a framework of phenomenographic studies of learning and teaching approaches, which were pioneeringly begun by the famous Gothenburg group (Marton, 1986). The qualitative research analyzes through categorization the reflections and decisions of pre-service teachers when answering the questions

and problems we posed. This study conducts an exhaustive analysis and coding of the responses of the  $n = 72$  pre-service teachers of the Master’s Degree in Teaching in Secondary Education at the University of Zaragoza at the start of their course and in the subject Curriculum and Instructional Design, the first they take in the master’s degree within their specialty during the academic year 2021–2022. Even though a total of  $N = 109$  pre-service teachers attend to the Master’s Degree specialty in Geography and History—having previously get a Degree in History, Art History or Geography—, only the  $n = 72$  who have specifically studied a History Degree have been selected as statistical sample.

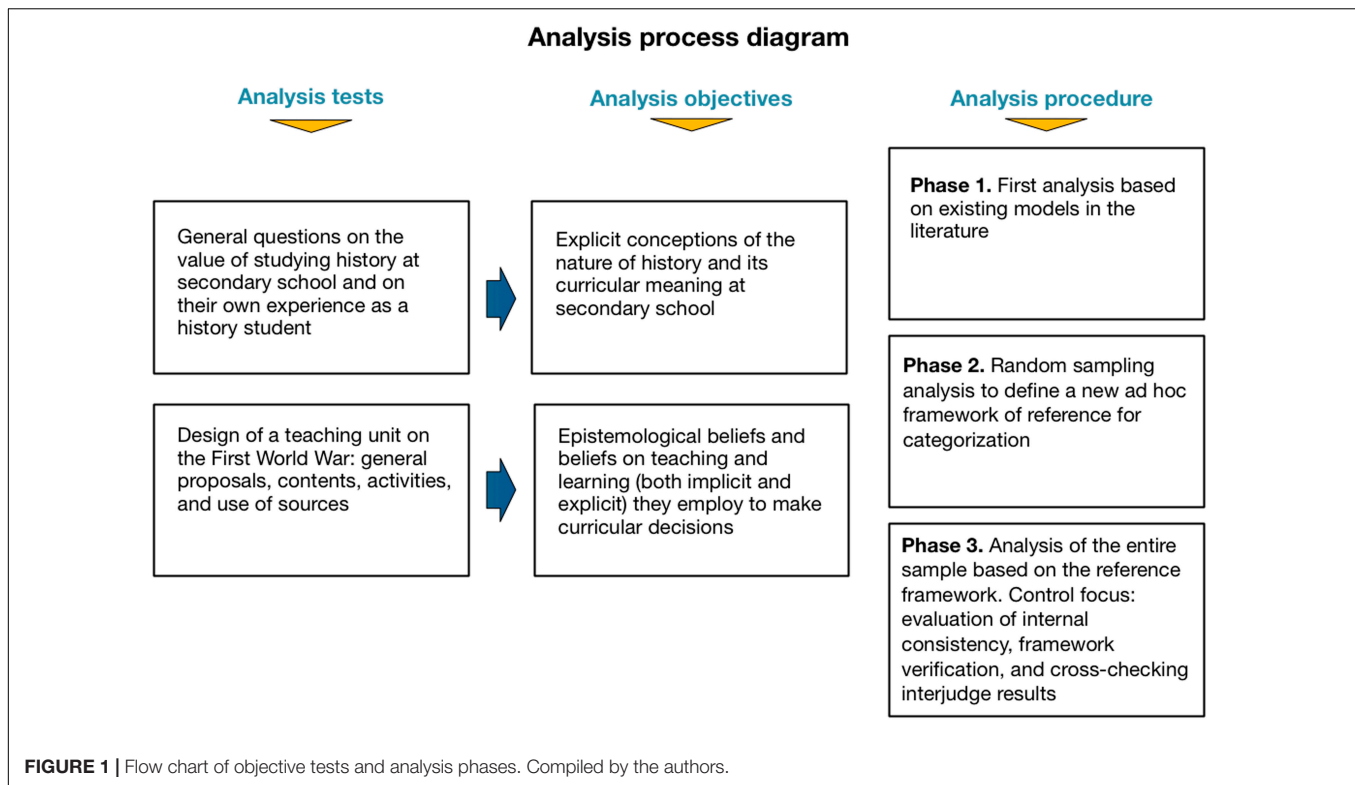
To explore their epistemic and curricular conceptions, in a first conceptual phase pre-service teachers were asked two direct questions on the purpose of history in secondary education and their personal experience of it. Next, in an instructional phase, they were given the specific exercise of devising a teaching unit on the First World War. The aim was to capture both their explicit general ideas on the history curriculum and the conceptions from which they actually operate when making decisions about this curriculum. They were asked to reflect on the curricular meaning that could be given to the unit and analyze both the official curricular document and one of the most usual textbooks. They were then asked to talk about whether they would include the contents of the textbook in their curriculum or whether they would opt for something completely different, and to detail what they would include. They were also given several primary sources that differed in tone and subject and they were asked if they would integrate them into the unit and how.

Their responses were analyzed qualitatively and categorized from both an epistemological and an educational perspective. The first categorization took as a reference—tentatively as open hypotheses—the general epistemic models by Kuhn (1991; Kuhn et al., 2000, Baxter-Magolda, 2002) and Kuhn and Weinstock (2002), and the specific history models by Jenkins and Munslow (2004), Maggioni et al. (2009), VanSledright and Reddy (2014), and VanSledright and Maggioni (2016). The models by Kember (1997), Trigwell and Prosser (2004), Trigwell et al. (2005), and Postareff and Lindblom-Ylänne (2008) were the starting point—also tentatively—for the curricular categorization. The responses were analyzed as a whole, in an attempt to holistically clarify each student’s position, including possible incoherencies. The analysis was conducted in parallel by the authors of this paper, and any possible inconsistency was subsequently contrasted and solved (Figure 1).

## RESULTS

### Phase 1. Tentative Use of Existing Models

The texts containing the pre-service teachers’ reflections and decisions were subject to a series of analyses until the information was saturated. A first tentative categorization was made by projecting the epistemic and curricular models described above and studying whether any of them could consistently account for the belief system from which our pre-service teachers reflected



and made their decisions. To our surprise, the models could only very partially capture these beliefs and they never sufficed to describe them and establish categories among them.

The common ground between the abovementioned models on teaching conceptions by Kember (1997) and Trigwell and Prosser (2004) is that they establish two major types that function as categorization poles: teaching to transmit knowledge (focused on contents and instruction) as opposed to teaching to facilitate students' conceptual change. In the analysis conducted, the distinction between these two categories is highly relevant but only slightly determining, to the extent that no case was found that we could categorize as focused on students and on their conceptual change.

Concerning epistemic conceptions, the model by VanSledright and Maggioni (2016) distinguishes between *copier*—"the past happened as it actually happened and history simply narrates it" (p. 266)—, *subjectivist*—"history is whatever we knowers make it to be" (p. 267)—and *criticalist*—"the balance between the objects of understanding and the subject. . . judgment is constrained and refined by the objects and the community in which they converse about the past" (p. 267). Although the vast majority of our pre-service teachers take it for granted that their task will be to offer a single version of the past in the classroom with no hesitation about what kind of truth they are offering about what happened, it is hard to categorize them as copiers since many express their willingness to provide their students with comprehensive interpretations that give meaning to the facts and extend beyond the simple chronicle of them. They are even less likely to fall into the subjectivist category, since none of our pre-service teachers

thinks all opinions are valid in history. As very few of them talk about exploring with their students the process of producing historical accounts based on sources and evidence, the criticalist category would only group a small number of cases. The result is that, except for a few that could fall into the categories of copier (10%) or criticalist (7%), most of our pre-service teachers do not seem to fit into any of the three model categories (83%).

Nor does the almost generalized insistence on engaging in a sense-making interpretation of the present fit with the emphasis on factual objectivity that characterizes the category of reconstructionist proposed by Jenkins and Munslow (2004) ("narrative as simply the vehicle for the truth of the past because the image in the narrative refers (corresponds) to the reality of the past"). Their *constructionist* category, viewing history as a process that tries to uncover the structures and processes behind facts, seems to fit far better with the majority's ideas: "the key constructionist idea that historians deploy concepts and arguments in order to make generalizations, but not ones that are absolute." This emphasis on historical explanations or interpretations beyond the facts represents the main current of historiography, as Jenkins and Munslow mention, and our student teachers have undoubtedly had occasion to steep themselves in it during their university education. However, constructionism also underscores two essential issues that almost all our pre-service teachers seem to have overlooked in their curricular proposals. Firstly, none of these "constructed" explanations is considered "absolute"; the aim is to discover the meaning of the facts and construct interpretations with a certain level of truth, although the barriers to doing this are



critically recognized. Secondly, and consequently, this category emphasizes historians' efforts to be as objective as possible, surgically separating themselves from the history they attempt to recount; a critical warning about the method and evidence is the guarantee of this level of truth given to good accounts and historical explanations.

That critical fundamental component of constructionism completely disappears in almost all the texts we analyzed, which pre-service teachers talk in absolute terms about the history that must be taught. As historians, and when answering a direct question, they may have replied in a more genuinely "constructionist" manner, but when they focus their attention on the school curriculum, that view of history completely vanishes, although it is not reduced to "reconstructionism." It is anchored in something that we could call "naïve constructionism": there is a true history that has to be taught and which indifferently includes facts and interpretations, with no epistemological reflection or critical stance of any kind. Only on a few occasions (5.5%) do pre-service teachers mention something about their students briefly examining the process professional historians follow to construct history and, when they do this, it is as added knowledge, a type of venture into historiography on the fringes of the history (seen as absolute) that students must learn.

Only one of the cases can be categorized as *deconstructionist*, the last of the positions in the model by Jenkins and Munslow (2004), which states that "there is no original or given meaning that history can discover. The fact that something happened does not mean that we know or can adequately describe what it means." This epistemic position necessarily involves recognition that every meaning and interpretation stems from a certain perspective (interests, conceptions, beliefs, experiences, and so on) and not from the facts. That means placing emphasis in the analysis on the diversity of histories on the same past and the perspectives used to construct those histories. This single case among the  $n = 72$  pre-service teachers analyzed actually plans to introduce students to the diversity of perspectives on the subject, although no *deconstruction* of these perspectives is proposed.

If we take as a reference the general epistemic models of Kuhn (1991) and Baxter-Magolda (2002), the result is clearer: the vast majority is in an *absolutist* epistemic position, to use the term both researchers mention for the first stage of their models. Baxter-Magolda perfectly describes the epistemic and curricular position we observed in most of our pre-service teachers:

...absolute knowing, characterized by the assumption that knowledge is certain, and people designated as authorities know the truth. Based on these epistemic assumptions, absolute knowers believed that: (a) teachers were responsible for communicating knowledge effectively and making sure students understood it (b), students were responsible for obtaining knowledge from teachers (c), peers could contribute to learning by sharing materials and explaining material to each other, and (d) evaluation was a means to show the teacher that students had acquired knowledge (Baxter-Magolda, 2002, p. 93).

However, this description of our pre-service teachers as absolutist is quite imprecise, even though it is highly revealing.

These results led us to conclude that we had to think of a specific epistemic model that could provide a more conclusive analysis. The lack of fit of the historical models used in this first phase of the analysis may lie in the samples giving rise to these models: VanSledright and Maggioni's (2016) was produced on the basis of the analysis of secondary students' responses, and Jenkins and Munslow's (2004) is a theoretical model born of the analysis of the work by some of the best professional historians. Neither fitted our sample, mostly comprised of recent history graduates.

## Phase 2. Definition of a New Analysis Framework Suitable for the Sample

As the results of the first phase were quite inconclusive, a second round of analysis was necessary to find key aspects (emerging categorization) that discriminated and characterized the various positions. The result of this second attempt was the definition of a new conceptual framework for the categorization (**Figure 2**) based on two essential ideas.

- The first is the need to combine epistemic and educational conceptions in the analysis. We observed that our pre-service teachers' curricular reflections and decisions could not be identified and characterized using only one of the two areas and, therefore, both types of beliefs had to be integrated for that purpose.

- The second idea stems from seeking a more precise criterion for the categorization. The most comprehensive approach to the texts made us realize there was a major dividing line between the sample in both the epistemic and educational aspects: whether (or not) the basic premise for interpreting and teaching history was problematic.

Taking an epistemologically problematic starting premise fully influenced the way a small group of our pre-service teachers talked about the teaching of the First World War and set them completely apart from the others. This division largely corresponds to the dual model proposed by Yilmaz (2008): "(a) history as the past and (b) history as an interpretation of the past" (p. 165). In parallel, opting for a curriculum focused on historical problems that students have to investigate also divided the curricular thinking between (1) teaching seen as transmitting contents compared with (2) teaching that facilitates students' conceptual change (Kember, 1997; Trigwell and Prosser, 2004), and (1) learning as reproduction (surface-level learning) compared with (2) learning as understanding and competence (deep-level learning) (Marton and Säljö, 1976a,b; Entwistle and Ramsden, 1983; Marton et al., 2005). The result is a contingency table—a type of categorization matrix—with four boxes (**Figure 2**) in which epistemic and educational aspects are divided equally into an objectivist and reproductive conception and an interpretive and problematic conception. This integrated view of epistemic conceptions and conceptions of teaching and learning on the basis of a single criterion is possibly the fundamental decision in this study and the key to its relevance.

Starting (or not) with a problematic conception indicates a twofold parallel threshold—epistemological and educational—that we can summarize three ideas.



# Reference framework of the categorization

	Operational epistemic conceptions on history as a discipline	Operational conceptions on what it means to learn and teach
Objectivist and reproductive conception of knowing (knowledge as a mirror of the real world)	<p><b>A</b></p> <p><b>Historical problems are issues that are “still” unresolved. There is an “already solved” history, a historical truth (written in books by renowned specialists) that relates the past as it was.</b></p> <p>The central epistemological problem of the discipline of history is finding the necessary evidence and ensuring the objectivity of the inferences, which, based on the evidence, allow the truth to be told of how things happened or how they were.</p>	<p><b>1</b></p> <p><b>Learning is receiving (internalizing, assimilating) knowledge (curriculum as a thing)</b></p> <p><b>Teaching is explaining</b> knowledge (clarity of the explanation and arousing interest as central problems)</p> <p><b>Knowledge is something that “is out there” (in books, articles, etc.) containing the truth about how things are: really knowing means “internalizing” that knowledge—truth (which moves from outside to inside; representing it again -in an examination, for example- shows we now “have” it inside us). Transmissive conception: knowledge is something that is “transmitted” and “acquired”, something we “have” or “do not have” (like an object).</b></p>
Problematic and interpretive conception of knowing (knowledge as construction)	<p><b>B</b></p> <p><b>Historical problems will always be open; new, valid interpretations will always be possible. All knowledge responds to a certain paradigm or perspective (it is knowledge “for us” based on our concepts and prior interests).</b></p> <p>The central problem of the discipline of history is the very process of interpreting the past: the validity criteria of the interpretations, paradigms, or perspectives they stem from, the nature of the “facts,” the relationship between present and past in the interpretation of history (e.g., the “history wars,” presentism, identity, patrimonialization), and so on.</p>	<p><b>2</b></p> <p><b>Learning is reasoning</b> (better and better) on certain problems or issues (curriculum as an encounter)</p> <p><b>Teaching means asking good questions and making it possible for students to investigate them</b></p> <p><b>Knowledge is the competence to interpret, reason, and act appropriately</b> when faced with certain issues or situations. Understanding, reasoning, cannot be “given” or “transmitted”, it is something that everyone has to do by himself (although it can be guided and supported): constructive conception. External representations of knowledge (books, graphs, etc.) are inert until they are reworked in a flexible way in these reasoning processes.</p>

**FIGURE 2 |** Cross-reference framework of epistemic conceptions of history (A: “history as the past” and B: “history as an interpretation”) and conceptions of teaching and learning (1: “teaching as transmission of contents and learning as reproduction” and 2: “teaching as facilitating conceptual change and learning as understanding”).

(1) *Problematicization*: The basic premise of history (as a discipline and as a curriculum) is determining a historical problem. Compared with a “descriptive” position (history as a supposed neutral description of the past), an interpretive position starts with the idea that the basic premise of history is not the past but a certain question about that past, asked from a particular perspective. That is a historian’s first strategic decision. Consequently, the basic premise of the curriculum must be determining the historical problem that will be the most appropriate and valuable for students to investigate. When the epistemic and curricular aspects converge in this way, a crucial threshold has been crossed in history instruction.

(2) *Perspective*: Historical problems are always open. Compared with a closed and complete idea of knowledge, this is a dynamic and open idea in which new viewpoints are always

possible and multiple perspectives evolving over time constantly intertwine. The deconstruction of perspectives (for example, interests, questions, conceptions, and emotions) giving rise to the diversity of historical interpretations, as well as the exploration of own interpretations, are consubstantial with this curricular and epistemic conception. The idea of “perspective” is thus configured as a threshold concept that has to be crossed to be positioned in this interpretive conception of history (Paricio, 2021).

(3) *Inquiry*: Inquiry is the central way of learning history, as it is of the historian’s work. This is not simply a methodological choice, but a true conception of what it means to teach/learn history and a “curricular principle” (Bihrer et al., 2019). Inquiry as a learning process is the inevitable consequence of historical problems as a curricular focus. As opposed to a transmissive–reproductive conception (learning as receiving and internalizing knowledge

that is out there), a constructive conception understands learning as being able to reason (increasingly better) about certain types of problems and questions. In other words, rather than the *curriculum as a thing* (to be internalized), we have the *curriculum as an encounter* (with certain problems and certain methods to deal with them), to develop understanding and competence (Den Heyer, 2014). Inquiry is not only the means, but the end itself: one learns to reason by reasoning (with appropriate scaffolding) when confronted with a particular type of problem.

By placing epistemic and educational conceptions in parallel, we focus on how the discipline is transmitted in the classroom. An absolutist conception of history, understood as a single and supposedly true account, can result in nothing but a reproduction of that account in the classroom by teachers and students. Similarly, implementing an interpretive and problematic curriculum is the logical consequence of a conception of history as an inquiry into and questioning of the past, using agreed methods and diverse perspectives. However, the analysis of our pre-service teachers' reflections shows that this correspondence is far from automatic, and that reality is substantially more complex. Some of our pre-service teachers have a perfect understanding of that interpretive nature of history, but their decisions and reflections on the curriculum correspond to a "reproductive" position. Although the epistemic conceptions seem to establish a framework—limits on possible thinking concerning the curriculum—they do not determine it at all. In fact, it seems their conception of the nature of history changes depending on whether they talk of history as a discipline or the history curriculum in secondary education. The first categorization tests confirmed that this complexity can be addressed more precisely using the new reference framework, analyzing epistemic and educational conceptions in parallel.

### Phase 3. Categorization of Pre-service Teachers' Positions Using the New Reference Framework

Based on the boxes in the new reference framework, the analysis enabled us to identify the following categories in how our pre-service teachers approach the history curriculum.

#### A + 1. "Chronicle": 7/72 (9.5%)

Students **must learn** (= reproduce) the (objective) facts of **history** (interpretations are doubtful or controversial). Only 10% of pre-service teachers identify past and history (history as a true account of the past) and view teaching it as a description of the essential facts that students must learn and reproduce. The curriculum is limited to the facts, either simply due to following the textbook's traditional direction, or due to a conscious attempt to avoid entering into interpretations that can become polemical.

#### A + 1. "Interpretation": 60/72 (83.5%)

Students **must learn** (= reproduce) a **certain interpretation of the past** (understood as *the* history that reveals the *true* meaning of the facts). Out of the 72 pre-service teachers, 60 think they should present their students with a single version of the past, identified as a true history. However, they reject only "giving" the facts and they opt to offer global interpretations (causal linking, change processes, and so on) in which the facts gain

some meaning and relevance. Out of these 60, 13 show signs of having an interpretive conception of history as a discipline, but they abandon that conception when thinking about the secondary curriculum.

To prevent the subject from becoming a mere list of facts, this group of pre-service teachers tries to structure them into major historical processes or connect them with the present in some way. Most (40) opt to work on the causal concatenations as way to link and give meaning to the facts.

"The most important aspect is that they understand long historical processes. In this respect, I would give priority to understanding the causes and consequences"; "above all, I would emphasize causes and consequences that would help them better understand the progression of events in the twentieth century."

Many (28) also insist on linking historical processes or events with the present.

"Teaching the structures and contexts that appear and evolve throughout history, giving students a critical view or perspective of the past that they can use to analyze and intervene in their present reality."

Lastly, there is also an important group (31) seeking to make sense of the facts by linking them with the democratic values of the present.

"[The First World War enables us to debate] why interaction and cooperation between countries is necessary. make [them] think about the role of nationalisms."

#### A + 2. "Null": 0/72 (0%)

It does not seem possible to devise a problematic curriculum (2) using an absolutist epistemic conception (A); therefore, the presence of zero people in A + 2 is not at all surprising.

#### B + 1. "Historiographical Process": 4/72 (5.5%)

Students **must learn** (= reproduce) a **certain version or account of the past, but they must also know the process of interpretation that has made it possible to produce that history based on certain sources**. This group talks about exercising critical thinking for any interpretation of the past and how the sources are analyzed and interpreted to construct histories, and they want their students to participate in these ideas. Their conception of history as a discipline falls within category "B," but they do not ask their students to do any active inquiry work using (and based on) these sources; neither do they propose a critical deconstruction process of the possible historical discourses. At the same time as they teach a certain interpretation of the past, they want to teach their students how a historian works.

"The purpose of history taught in secondary schools should be to show students how a historian's work unfolds"; "I think it is very important for students to learn how historians interpret primary sources historically to construct historical accounts and what we know as history"; "working with sources can be very interesting so they discover that history is not something historians invent, but rather that they have their "laboratory" and do their "experiments" with these small fragments of the past that are documents. We also have to explain that sources are not the absolute truth and that they can contradict each other. . ."

In other cases, this also includes the awareness that diverse interpretations are always possible but without ever realizing that their students can become involved in an active work of inquiry.

“My main challenge would be to show my students that these historical events do not necessarily have to be as they are narrated in the textbook. In other words, I would try to convey to my students that a critical stance is required to study history. Consequently, the greatest difficulty would be changing their pre-established idea that history is simply a narration of past events. To do that, I would try to demonstrate, for example, using various sources, that the same event can be recounted and interpreted in different ways with differing objectives.”

#### **B + 1. “State of the Historiographical Art”: 1/72 (1.5%)**

Students **must learn (= reproduce) the various competing historical interpretations** of the same historical event or process. In this category we have included a single student whose curricular focus is on providing a range of interpretations of the First World War: “My biggest challenge is preventing the students from limiting themselves to only understanding the conflict from a single viewpoint. It is important to generate this questioning of the truth, trying to approach a phenomenon or event from different viewpoints or angles.” However, this person always talks about the students *knowing* different versions, never about investigating them to deconstruct the perspectives on which they are constructed.

#### **B + 2. “Historical Reasoning”**

Students **must investigate certain historical problems** by analyzing sources, constructing their own hypotheses, debating their interpretation proposals, and so on.

#### **B + 2. “Critical Thinking”**

Students **must critically analyze a certain interpretation of the past**, reinterpreting their sources and/or revising the process that has enabled it to be produced and validated.

#### **B + 2. “Multiperspective”**

Students **must investigate the various histories and deconstruct them** by analyzing the different perspectives that gave rise to them.

The last three categories do not appear in the analysis of our pre-service teachers’ curricular decisions and reflections. They stem from proposals and experiences often published in the literature and which would correspond with the B + 2 combination. They have been highlighted because they are objectives we want to achieve with our teacher education program.

## **DISCUSSION OF THE RESULTS**

In our opinion, three essential ideas can be gleaned from the results of the analysis phases.

1. *History graduates do not necessarily have a sufficiently advanced or mature epistemic conception of their own discipline.*

We have observed that the predominant conceptions are quite naive and associate history with a true account corresponding to the reality of the past. This does not necessarily imply that the same results would be obtained using instruments such as the Beliefs about Learning and Teaching History Questionnaire,

BLTHQ (Maggioni et al., 2009), which asks direct questions about these beliefs. Our method investigates operational conceptions, in other words, those actually used for reasoning about a certain type of task or situation. Our results show that when pre-service teachers have to plan a secondary-school history subject and are asked to determine their curricular goals, the approach to key issues, or the use they will make of sources, an identification between past and history prevails in the majority of cases.

In most cases (all the pre-service teachers categorized as “A,” 67/72), the decisions and reflections respond to this conception of a single and objective history. They do not question the interpretation of the First World War given in the textbook in any way. In fact, they do not seem to perceive that there is any interpretation at all, but simply an account of “the facts,” that are deemed completely necessary to know (although the information on military operations is less detailed). The assurance some feel that the history subject they are going to teach represents the reality of events and a real shield against fake news is striking:

“These days there is an abundance of fake news and here they have the best tool to protect themselves against that”; “a citizen that does not know their history is far easier to manipulate and will not have the tools to discern falsehoods from real historical facts”; “[in this subject] they will have the tools to discern falsehoods from historical facts.”

For the vast majority of the pre-service teachers, the textbook seems to be a simple description of the past and they only propose to complete this information or contextualize it in more general frameworks in order to make it more understandable.

Primary sources are almost always understood as a kind of direct window onto the past that is “necessary to supplement teachers’ explanations in class” and that confirms the history they relate.

“They are a way of showing what the teacher is saying”; “I would use them to explain. in a verifying way”; “I would use them at the end, as reflection, with the purpose of making students see that imperialism was just as it was explained”; “I could use it to revise content and conclude”; “it is the best way for students to see the issues raised throughout the classes”; “they help to consolidate the theoretical information”; “they complement the theoretical classes”; “they can help to considerably improve learning”; “essential complementary materials so that students can consolidate the theory and the teacher’s explanations.”

This way of understanding sources and their role in history instruction is very revealing of the conception of the discipline that pre-service teachers actually activate to think about the curriculum, beyond historiography courses we know they have received.

It is important to clarify that the naïve realism of these pre-service teachers has little to do with the philosophical debate on history between objectivism and relativism. A critical objectivist stance asserts that an objective history can be constructed with a method ensuring appropriate distance between the historian and their history (Newall, 2009), but in this case the textbook version is assumed to be true simply due to authority or tradition. Our pre-service teachers seem to have completely forgotten the



old maxim that “any history is someone’s history” (Levstik, 1997, p. 48).

In other cases (categorized as B- > A, 18%), pre-service teachers way of talking about sources or possible interpretations clearly reveals a more mature understanding of history as a discipline. This understanding, however, seems to fade away when they start to outline their curricular proposal. The course of reasoning of some of them suggests that this is not so much an intentional curricular decision, but rather an automatic change of register, the unintentional emergence of a more naïve epistemic conception of history, specifically associated with school history. However, there are also those who explicitly argue for this decoupling of school history from academic history.

“Although it is true that I think one of a historian’s tasks is to question all inherited knowledge, perhaps students doubting everything, while positive, could prove counterproductive as it would create a great deal of confusion; therefore, we must prioritize them obtaining a minimum level of safe and stable content so that later, in higher academic grades, they can explore and shape their rational and reasoned stance in this regard.”

Only in students categorized as “B” (7%) can we see how an advanced conception of sources or a certain critical analysis of historical interpretations is incorporated into the curriculum:

“They could contextualize each of the sources, explaining the moment, the figures, and the intentions of each of the authors. in other words, learn what a primary source is and different ways of processing it”; “more attention should be paid to studying the sources, as it would help students approach historical investigation and learn more about history as a discipline”; “my main challenge would be to show my pupils that these historical events do not necessarily have to be as they are narrated in the textbook”; “[where the textbook] fails is not in that approach alone, but in the lack of other equally valid interpretations.”

The epistemic shortcomings observed in the conceptions through which the vast majority of future history teachers reason about the curriculum are extraordinarily relevant for the design of teacher education. An interpretive curriculum cannot be put into practice, or even truly understood, if it is based on naïve realism associating history with a description of what *actually* happened. Our proposals simply make no sense to them. As we have seen, the sources have a mere confirmatory or revision value of the history that has already been explained. They invariably consider that the inquiry activities based on the sources we have been proposing for years are mere “active” methods that will help their students “learn” *the* history. Often, to prevent the monotony of the teacher’s single discourse, they propose “debates” to end units, but these are not spaces for inquiry and reasoning about historical problems, but mere breaks for students to give their opinion about “what happened” (now that they already know).

## 2. A Non-problematic and non-inquiry-based conception of the curriculum

We understand inquiry-based learning (IBL) as a type of activity in which students independently tackle (but with appropriate support) problems or issues in the discipline and produce explanations based on evidence thus learning to reason with concepts and methods that are characteristic of that

discipline (Pasternack, 2019). The methods can be diverse, but the essential idea is always to develop the reasoning capacity through suitable problems. Previous studies have shown that a history curriculum understood as a mere supply of information that students must then reproduce is very well-established (Samuelsson, 2019; Boadu, 2020). Our pre-service teachers have undoubtedly experienced that tradition, and, despite their criticism, they do not seem to have broken away from it.

Faced with planning a didactic unit on the First World War, none of them consider which relevant historical issues related to the Great War their pupils could work on. The First World War does not seem to be a problematic issue to take to the classroom but rather a “syllabus” or a series of contents that students must learn. Their decision as teachers seems to be limited to deciding where to place more emphasis in their explanations (social, cultural, military, and so on).

It is significant that the main difficulty the teachers highlight, mentioned by 37% of them, is that there is not much time available for the large amount of “essential” information: “the main challenge is the time we have to teach the subject, and as it is a rather important area that we have a lot of information about, this fact is even more evident.” The way they talk about the time problem perfectly illustrates this majority “informative” conception of history instruction.

“Despite the teachers, the subject must be taught quite quickly. it must cover as much as possible, but always using coherent and comprehensible discourse and exposition”; “the chief challenge is the amount of important information I will not have time to mention in enough detail, or barely touch on, for example, the progress made by the working class or votes for women. . .”

Some pre-service teachers recognize that rather than supplying information, it would be interesting to perform other activities in class, but they doubt it will be possible to “make time for them.” For the vast majority, further information means more learning. This quantitative conception of learning, deep-seated in most, is an enormous barrier to implementing an interpretive curriculum. Year after year, our pre-service teachers have argued that there was no time to ask their students about historical problems, however interesting they might think such activities are. The sample in this study—graduates beginning their education program as pre-service history teachers—confirm that same idea: the majority feel they would not be fulfilling their obligation if they did not explain all the information in the textbook, as learning history is, above all, knowing these historical data about First World War; everything else is non-essential add-ons.

The study by Keiser et al. (2014) concludes that, in any subject, the necessary prerequisite for adopting an inquiry-based learning strategy is sharing the ideas and principles of epistemological constructivism. In the case of history, this means conceiving the curriculum on the basis of the distinction between past and history, and accepting the interpretive nature of the discipline (Voet and De Wever, 2016). On this premise, for all of our students categorized as “A,” the idea of an inquiry-based curriculum simply does not make sense (which our data confirm). This offers a first level of explanation to the original question

of why our pre-service teachers find it so hard to understand it and put it into practice despite the education they have received. Undoubtedly, adequate knowledge of inquiry-based learning is a necessary condition (Yilmaz, 2008), but it does not suffice. It makes no sense to talk about a problematic and inquiry-based curriculum without an appropriate epistemic conception.

However, none of the five pre-service teachers categorized as “B” plan for their pupils to tackle any problems or issues, even though they talk about addressing a variety of interpretations or working on sources “to approach historical investigation” in their classrooms. Knowledge and appropriate epistemic beliefs seem insufficient as well. And it is at this point that we see, in line with the work of Voet and De Wever (2016, 2018), how tacit beliefs about what it means to learn and teach also come into play, acting as filters that shape teachers’ decision-making. Focusing the curriculum on inquiry into historical problems requires embracing the idea that knowledge is not something external that is “internalized” (and reproduced later), but a skill that is developed. Really knowing something (understanding it in depth) means knowing how to think about the subject with some autonomy, which cannot be achieved without addressing issues and reasoning. The fact none of our pre-service teachers even approaches this conception of learning is a clear example of how difficult it is. An extremely long tradition and experience of explanation followed by reproduction have resulted in deeply rooted implicit conceptions on what it means to teach and learn, to the extent that even pre-service teachers with clear ideas on the constructed nature of history find it hard to conceive an inquiry-based curriculum on historical problems.

This is an important conclusion since it confirms those Barton and Levstik (2010) arrived at on historiographical epistemological education not sufficing to change teachers’ curricular approach. It also aligns with the conclusions reached by McDiarmid and Vinten-Johansen (2000) and Mayer (2003) that epistemic beliefs and teaching and learning beliefs need to be addressed in an integrated way in the education of pre-service history teachers.

### *3. Rejection of an encyclopedic history as a mere fragmentary accumulation of facts*

If, in the main, pre-service teachers identify past and history in their curricular decisions and view history instruction as essentially “reproductive” and not inquiry-based, does this mean they consider their fundamental curricular objective to be “covering” the textbook, as Barton and Levstik point out? We observed an explicit generalized rejection (60 out of the 67 pre-service teachers categorized as A + 1) of the traditional encyclopedic conception of textbooks and the way they reduce history to an accumulation of events and figures, often presented in such an artificial and fragmentary manner that no comprehension is possible (Loewen, 1996). Most of the pre-service teachers emphatically state they want their students to “understand” the history they explain to them. As mentioned above, they plan to do this by integrating textbook details into broader narratives or explanations linking the events together to ensure they make some kind of sense. Therefore, although they do not completely reject the textbook, they somehow consign it to having a secondary role after their explanations in class. By

distancing themselves from this supposedly neutral descriptive encyclopedia—their history manuals—they instead opt for major history books in which historians aim for the past to gain a certain meaning, and, probably, also a value in the present. In short, it is a particular way of making the discipline accessible to students.

However, their reflections let us glimpse a contradiction that will most likely ruin their intentions in practice: their desire to offer these grand narratives and simultaneously meet the obligation they feel to cover almost all the textbook’s content does not seem viable in the available time. That is why there is a generalized insistence on the problem of time. When they discover that a comprehensible narrative often requires mentioning details, testimonies, or specific situations embodying general interpretation, as it does in history books, and they face the dilemma of opting between the narrative or the synthetic data in the textbook, what will their choice be? Will they actually manage to rid themselves of that feeling of obligation for the textbook content and choose the narrative?

In any case, this result qualifies the findings of Barton and Levstik (2010) which are the basis for the central question of our study: “Coverage of textbook or curriculum content. that is what many people think history teaching is all about.” Most of our pre-service teachers do not think in terms of “covering” the textbook, at least not in their initial intentions. Their experience as history students themselves warns them against that encyclopedic vision of history that the manuals encompass. This leads to the following question: Does that distancing from textbooks and turning to history books interpreting the past also mean they embrace interpretive history in the classroom? Might it represent a bridge facilitating understanding of what that interpretive and inquiry-based history curriculum means? Our hypothesis, which will need further research, is that it does not necessarily. The reproductive conception of learning is deep-seated and finding a solution that can improve on encyclopedic history without challenging those fundamental beliefs on learning can actually help consolidate them.

## **CONCLUSION**

This study is based on observing the difficulties pre-service history teachers face in understanding and accepting an interpretive history curriculum. Its aim is to better outline the nature and origin of these difficulties to tailor their education program better. The starting hypothesis is that their epistemic beliefs on history as a discipline and their beliefs on what learning and teaching means somehow block that comprehension. These beliefs were analyzed at the start of their education as part of a more overarching project whose purpose is a longitudinal monitoring of these pre-service teachers’ beliefs throughout their entire year of training. Furthermore, this project is meant to be continued over the coming years with the aim of observing potential changes in the history teaching conceptions of pre-service teachers.

The use in the analysis of existing models of epistemic progression and of beliefs on the nature of learning and education



has not sufficiently clarified the system of beliefs pre-service history teachers employ to make their curricular and teaching decisions concerning a practical exercise related to teaching the First World War. For that reason, starting with an exploratory analysis of their reflections, we propose an *ad hoc* model interrelating epistemic and educational beliefs based on the same discrimination factor or criterion, which we could define as the presence of a problematized conception of history as a discipline and as a school curriculum.

Categorization using this integrated model has enabled us to observe the complexity of relationships between epistemic and educational beliefs; we can therefore rule out the idea that sophisticated ideas about the nature of history directly lead to acceptance of an interpretive curriculum in which students have an inquiry-based approach to historical problems. This conclusion is consistent with observations published on the results of including epistemological education in the training programs of history teachers.

We can conclude from this joint observation of epistemic and learning-teaching beliefs that there is indeed a twofold threshold that prevents pre-service teachers from understanding and implementing an interpretive history curriculum. Not only must they overcome implicit naive realism (history as a simple description of the past), which abounds when they design the secondary-school curriculum, but they must also begin to think about learning (and, consequently, teaching) using a very different conception to that kind of “absorption” of knowledge inferred in their reflections. Both thresholds are critical and form real glass walls that prevent thinking about a problematic history in the classroom.

Observing this twofold threshold, which we could term specular-reproductive, broaches the need to further explore the links between both belief dimensions by studying how they mutually integrate into a single system and mutually condition and support each other. We believe it is essential to integrate both aspects into the education of pre-service teachers. This is not just because both epistemic and educational conceptions are appropriate, but because they mutually illumine each other where they intersect. In the end, practicing interpretive history in the classroom is nothing more than actually transmitting

the discipline in the curriculum, in other words, following the old proposal put forward by Bruner (1966), integrating epistemology and education.

## DATA AVAILABILITY STATEMENT

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

## ETHICS STATEMENT

Ethical review and approval was not required for the study on human participants in accordance with the local legislation and institutional requirements. Written informed consent for participation was not required for this study in accordance with the national legislation and the institutional requirements.

## AUTHOR CONTRIBUTIONS

JP and SG-C: conceptualization, methodology, formal analysis, and visualization. JP, SG-C, and AR-N: investigation, writing—review and editing. SG-C and AR-N: data curation. JP: writing—original draft preparation and supervision. All authors have read and agreed to the published version of the manuscript.

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# Heritage Resources and Teaching Approaches. A Study With Trainee Secondary Education History Teachers

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At present, there is a great deal of research demonstrating the educational potential of heritage for the teaching of history. However, relevant studies have shown that, although it is a resource which is widely valued by teachers, its incorporation into the classroom remains limited. The aim of this study is to analyze the opinions of teachers in initial training regarding the use of heritage in the classrooms and to inquire about their relationship with their own teaching approaches, given that these may influence the use or evaluation they make of this resource. This study, which is non-experimental and quantitative in nature, has employed as a research tool a questionnaire with the participation of 646 students of the master's degrees in Teacher Training in Geography and History of 22 different universities, representing 70% of the universities that offer this degree in Spain. The most significant results show a broad interest in heritage among future secondary education and baccalaureate level teachers, although there is a preference for heritage resources more linked to their undergraduate studies (History, History of Art, Archeology) compared with heritage resources of a technological nature. Regarding teaching approaches, it has been observed that those who present a student-based approach (CCSF) value heritage more highly. Given these results, we consider it necessary to improve the initial training of teachers regarding existing heritage resources and to adapt teaching approaches in order to achieve a greater integration of heritage in history education.

**Keywords:** cultural heritage, teaching approaches, initial teacher training, secondary school, history education, baccalaureate

## INTRODUCTION

The performative dimension of heritage in the context of education is based on the possibility it affords students to become aware of the dialectics which exist between the past and the present (Soininen, 2017), confirmed as one of the fundamental elements in ensuring the development of historical thinking among students (Miralles et al., 2017). Over the past 20 years, this situation has led to a considerable increase in scientific production analyzing the

use of heritage in formal contexts (Martínez, 2016; Monteagudo-Fernández et al., 2021), which has become consolidated as one of the most prolific lines of research on an international scale (Fontal and Ibáñez-Etxeberria, 2017).

In this regard, being aware of the opinions of future secondary teachers in Spain regarding the teaching of history *via* the use of heritage acquires considerable importance, given their capacity for renewing the methodological and epistemological scenario of the teaching of the social sciences (Cuenca, 2002; Fontal, 2003; Davis, 2007; Copeland, 2009; Calaf, 2010; Martín and Cuenca, 2011; Estepa, 2013; Pinto, 2013; Fontal et al., 2015; Fontal and Ibáñez, 2015; Semedo, 2015; Van Bostel et al., 2015; Vicent et al., 2015; Fontal and Gómez-Redondo, 2016; Gosselin and Livingstone, 2016; Cuenca-López et al., 2017; Cuenca et al., 2018; Chaparro and Felices, 2019; Van Doorselaere, 2021). It is well known that trainee teachers confer great value upon heritage, be it tangible or intangible, although they lack the necessary skills to propose its implementation in the classroom (Felices et al., 2020). This situation is understandable due to the fact that these students' approach to heritage in their experience of education has relied on factual knowledge, i.e., it has been linked to their scientific discipline (History, History of Art, Archeology, etc.). Consequently, teacher training in cultural heritage issues requires improvement (Jagielska-Burduk and Stec, 2019) in order to implement a critical and reflexive education in heritage which distances students from ethnocentric thinking (Roll and Meyer, 2020).

Research focusing on secondary education reveals that, in this stage, the traditional model of history teaching, disconnected from the everyday life of present-day and past societies and new historiographical trends (Miralles and Rodríguez, 2015), plays a greater role (Rodríguez et al., 2017). The predominance of traditional methodologies in the classroom implies that teachers attribute a passive role to students (Merchán, 2005), particularly when they adhere to an expository methodology. In this context, the use of the textbook and the application of a summative evaluation become the strategies of preference (Miralles, 2015; Martínez-Hita and Gómez, 2018; Valls, 2018), over the implementation of more innovative teaching strategies which attribute an active and critical role to students (Gómez et al., 2019). Aware of this fact, future secondary education teachers desire an approach to history teaching which combines conceptual elements with procedural and behavioral aspects, and which ensures that students acquire skills, learn to think historically and become critical and democratic citizens (Gómez and Miralles, 2016; Rodríguez-Medina et al., 2020).

With this diagnosis, there are many heritage resources which can be transferred to the classroom and which have great educational potential. This is the case, for example, with mobile applications and virtual recreations (Chih-Hong and Yi-Ting, 2013; Suominen and Sivula, 2013; Luna et al., 2019; Malegiannaki et al., 2020; Torsi et al., 2020; Andrés and Checa, 2021; Edwards et al., 2021), although, as demonstrated by some studies, their level of integration in all levels of education and in the context of teacher training is extremely low (Monteagudo et al., 2020).

The scarcity or total lack of these resources in teaching and learning processes is sometimes due to deficiencies in the training

of future teachers of history, impeding the development of the necessary skills for integrating them into their teaching and, consequently, leading to a low evaluation of their educational possibilities for the teaching of history (Felices et al., 2020). Faced with this situation, it is understandable that trainee teachers do not see these heritage resources as facilitators of learning, an opinion which, in our view, will have an influence on their future approach to teaching and professional identity.

In this regard, from the field of social sciences teaching and, specifically, history teaching, it is essential to identify the teaching approaches of trainee teachers regarding the subject of history, as well as the epistemological approach which they apply to this subject and the aims which they consider should be achieved in the present day and age. Being aware of these aspects will make it possible to improve their teaching skills in order to encourage new ways of teaching and learning. It is of particular interest to discover their opinion of the use of heritage elements for the teaching of history and to verify whether these opinions are related with their teaching approaches as, nowadays, these are considered to be one of the main educational reference points for teachers when teaching historical contents.

Ultimately, with the continued existence of traditional teaching methods in the classroom, it is essential to investigate the mental representations of both trainee and active teachers regarding the use of heritage in educational contexts, particularly in the interest of improving the teaching of social contents (Gómez et al., 2020b; Guerrero-Romera et al., 2021) and reducing rote learning processes (Gómez et al., 2018, 2020c). We consider it particularly necessary to research the teaching approaches of current trainee secondary education teachers in Spain due to the fact that their future teaching identity is built based on their experiences in their training period (Martínez et al., 2009). This diagnosis should, without a doubt, oblige university teachers to seek to change their students' conceptions to encourage a change in educational routines (König et al., 2017).

Among the studies which focus on the teaching perspectives of teachers, those which focus on teaching approaches have gained greater notoriety and particular relevance over recent years (Yunga-Godoy et al., 2016). In this regard, the ATI (Approaches to Teaching Inventory) developed by Trigwell and Prosser (1996) stands out as a valid tool for addressing this type of study. In this context, recent research (Dejene et al., 2018) has determined that there are basically two approaches to teaching: one focused on the transmission of information by the teacher (ITTF) and another focused on the students' conceptual change (CCSF).

These teaching approaches are closely linked, not only with teachers' methodologies, but also with the epistemological principles which the teacher introduces in his/her classes (Yunga-Godoy et al., 2016; Dejene et al., 2018; Miralles et al., 2019). Thus, a teaching approach focused on the teacher (ITTF) is linked with superficial learning, whereas an approach focused on the student (CCSF) is assimilated preferably to a deep learning approach (Trigwell and Prosser, 1996).

This conclusion concerning teaching approaches is related with three variables which should be taken into account when carrying out this type of study: the students and their learning path, the teachers and their teaching path and, lastly, the context



in which this education process takes place (Guillermo et al., 2018). Along these lines, some research on the teaching and learning processes of contents has shown that the teaching approach adopted by teachers influences how students learn and, in turn, the learning approach adopted by students can also define their education (Gargallo et al., 2015).

## METHODOLOGY

### Objectives

The general objective (GO) of this research is to analyze the opinions of trainee teachers regarding the use of historical and cultural heritage in the classroom and its relationship with their own teaching approaches. This GO can be broken down into the following specific objectives (SO):

1. To define trainee teachers' opinions on the use of heritage-based resources for the teaching of history in secondary education.
2. To analyze the response profiles and their differences with regard to the teaching approaches shown in the ATI questionnaire.

### Design

A descriptive-explanatory design of a quantitative non-experimental nature has been employed with data being collected *via* a questionnaire with a Likert (1–5) scale (Hernández and Maquilón, 2010). This type of design was chosen as it is able to respond to problems in descriptive terms and in relation to the variables when data is collected systematically (Sapsford and Jupp, 2006).

### Sample

A total of 646 students of master's degrees in teacher training specializing in Geography and History from 22 different universities took part in this research: Murcia, Alicante, Valencia, Jaume I, Barcelona, La Rioja, Zaragoza, Oviedo, the Basque Country, Santiago de Compostela, Complutense University of Madrid, Autonomous University of Madrid, Valladolid, Extremadura, Castilla-La Mancha, Huelva, Seville, Córdoba, Málaga, Almería, Jaén and Granada. 70% of the universities which offer master's degrees in Geography and History teacher training participated in this research.

The sample consisted of 358 men (55.41%) and 280 women (43.34%). 51.7% of the students consulted were, at the time of completion of the questionnaire, between 18 and 24 years of age; 37.92% were between 25 and 34; and 7.58% were over 35 years of age.

### Data Collection Tool

The study was carried out using the tool known as "Approaches to history teaching," a set of tools consisting of two parts. On the one hand, there is an initial 20-item questionnaire based on the Approaches to Teaching Inventory (Trigwell et al., 2005) in the version translated by Monroy et al. (2015). In a similar way to Stes et al. (2010), items were reformulated where ambiguity as to whether they conveyed an ITTF or a CCSF notion was suspected (Table 1). On the other hand, there is a set of tools on the opinion of trainee teachers regarding the topics, methods, resources and techniques of evaluation most suited to the teaching of history in the secondary classroom. In the development of the present study, the ATI questionnaire has been used, along with Set II.3 (Table 2) of the second part of the tool.

**TABLE 1 |** Approaches to teaching inventory questionnaire.

- 1.- It is recommendable for students to focus their study of history on what is provided by their teacher
- 2.- In order to evaluate students, they should be asked to describe all the historical contents which correspond to the specific objectives and which they must use to respond in their assessment
- 3.- The teacher should discuss the topics being studied with the students
- 4.- In the teaching of history, the most important aspect is presenting students with extremely complete information
- 5.- Part of the time should be reserved for students to discuss concepts and key ideas of history among themselves
- 6.- History classes should focus on teaching information available in texts and key readings
- 7.- Students should be encouraged to restructure their prior knowledge in order to be able to develop a new way of thinking about history
- 8.- In class sessions, debates and discussions should be planned and encouraged
- 9.- History classes should help students to pass their exams
- 10.- Students should be provided with a good set of notes to learn history
- 11.- Students should be provided with the information they need to pass the subject of history
- 12.- It is important to respond to any questions about history that students may ask
- 13.- An attempt should be made so that students can discuss their changes of opinion and understanding of history
- 14.- A large part of the time dedicated to the teaching of history should be used to question the students' ideas
- 15.- The history teaching model should be focused on a good presentation of the information for the students
- 16.- I understand the teaching of history as a way of helping students to develop new ways of thinking about the topics studied
- 17.- When teaching history, it is important to supervise students' changes in understanding in relation to the topics studied
- 18.- The way of teaching history is focused on transmitting my knowledge to the students
- 19.- The teaching of this subject should encourage students to question their own understanding of history
- 20.- The teaching of history should include helping students to find their own learning resources

*Approaches to Teaching Inventory (Trigwell et al., 2005).*

**TABLE 2 |** Set II.3. In your opinion, which materials and resources are most suitable for the teaching of history?

Item	Resource
50	Textbook
51	Websites of historical contents and with resources for history classes (other teachers' blogs, etc.).
52	Primary documentary sources
53	Oral sources (interviews with grandparents, family members, neighbors, etc.).
54	Printed or digital press
55	Teacher's notes
56	Museums and other places of heritage interpretation
57	Films and documentaries on historical topics
58	Historical novels, comics and children's literature
59	Reports in popular science magazines on historical topics
60	Videogames
61	Festivals and local and regional traditions with historical content
62	Virtual recreations of museums and other centers of heritage interest
63	Mobile telephone and tablet applications with historical and heritage content
64	Artistic productions (paintings, architecture, sculptures, contemporary art, etc.)
65	Local historical and cultural heritage

Own.

The validation of the contents of Set II.3 regarding opinions on the most relevant materials and resources for history classes was carried out by seven experts. This validation was carried out *via* a questionnaire in which the experts were asked to evaluate the sufficiency, clarity and relevance of the items on a scale of 1–4. In the case of the items from Set II.3, the results were satisfactory in terms of sufficiency ( $M = 3.57$ ;  $SD = 0.12$ ), clarity ( $M = 3.85$ ;  $SD = 0.13$ ) and relevance ( $M = 3.85$ ;  $SD = 0.23$ ). The Bangdiwala's Weighted Agreement Coefficients (BWN) (Bangdiwala, 1987) proved to be excellent in the mentioned variables (sufficiency BWN = 0.929; clarity BWN = 0.901; relevance BWN = 0.931), as well as on an overall level (BWN = 0.920).

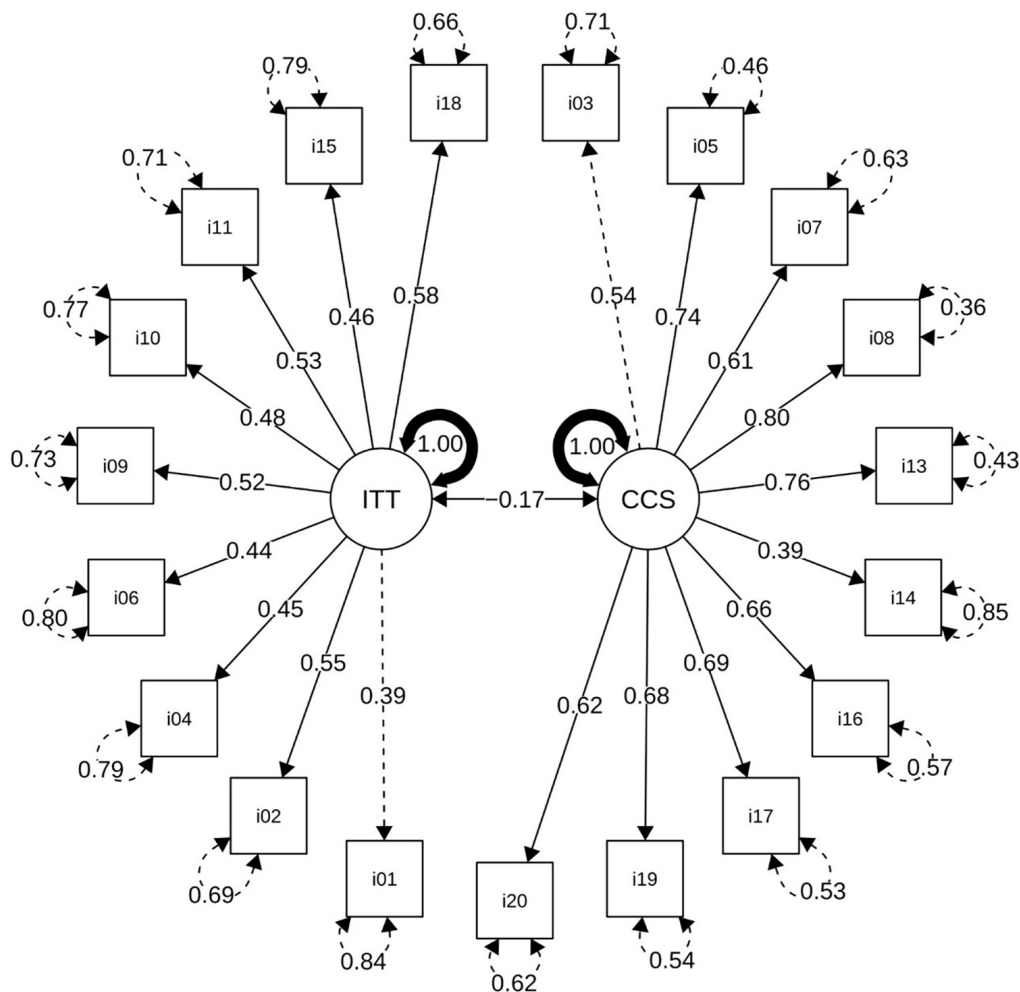
To carry out the reliability analysis of the ATI questionnaire, the method of internal consistency based on Cronbach's alpha was employed. As a general criterion, the coefficient must be higher than 0.70 (George and Mallery, 2011). In the case of the ATI questionnaire, on an overall level, it was 0.78. Therefore, the coefficient can be considered to be acceptable (Extremera et al., 2017). On the other hand, with regard to the coefficient of Set II.3, a Cronbach's alpha value of 0.82 was obtained, which can be considered to be adequate. In this regard, other authors propose the omega coefficient, also known as Jöreskog's rho (Ventura-León and Caycho-Rodríguez, 2017), taking as a general criterion a coefficient greater than 0.70. In our case, the overall McDonald's omega coefficient for the ATI scale is 0.79, which is an acceptable value (Robles et al., 2020). As far as the McDonald's omega coefficient of Set II.3 is concerned, a value of 0.83 was obtained, which is also considered to be adequate.

To examine the construct validity of the ATI scale in more depth, structural equation modeling (SEM) was carried out in order to confirm the existence of a series of constructs in the questionnaire. As a Likert scale was used, the assumption of normality is not fulfilled and the decision was taken to make a robust estimation of the  $\chi^2$  statistic *via* the Diagonal Weighted Least Squares (DWLS) estimator, that is, a weighted estimator of least squares (Beaujean, 2014).

Bartlett's test was carried out to verify that the matrix was not similar to an identity matrix. A  $p$ -value  $< 0.05$  was obtained, indicating that the matrix was not similar to the identity matrix. Furthermore, a KMO value of 0.84 was obtained, showing that the matrix is factorizable.

After separating the two scales, their reliability was reviewed, obtaining adequate results. For the CCS scale, an ordinal alpha = 0.87 and  $\omega_t = 0.87$  were obtained. In the case of the ITT scale, an ordinal alpha = 0.72; and  $\omega_t = 0.74$  were obtained. The relationship between the two scales is low negative ( $-0.15$ ), but significant. The adjustment index of this model is acceptable [ $\chi^2(169) = 674.68$ ,  $p < 0.001$ , CFI 0.936, TLI 0.928, RMSEA 0.07]. However, although the model has an acceptable fit, the decision was taken to eliminate item 12, because this item does not reach the minimum saturation of 0.3 (McDonald, 1985) in either of the two factors. Consequently, item 12 contributed very little to the ITT factor. As a consequence, the indices improved notably [ $\chi^2(151) = 478.93$ ,  $p < 0.001$ , CFI 0.957, TLI 0.951, RMSEA 0.059]. As far as reliability is concerned, for the CCS scale, the ordinal alpha was still = 0.87 and  $\omega_t = 0.87$ . In the case of the ITT scale, there was an improvement toward an ordinal alpha = 0.74; and  $\omega_t = 0.75$ . In **Figure 1**, the graphic representation of the model can be observed. The relationship between the two scales is negative and significant, albeit with a low factor loading ( $-0.17$ ). There is no single bipolar continuum between the subject-based and student-based approaches. In fact, the preference for one function or another as a combination of two different factors which are not very dependent, in such a way that people can be observed who prefer the items of one factor but do not reject those of the other. These results are similar to those obtained in other studies which have analyzed the metric properties and the factorial structure of the ATI scale (Prosser and Trigwell, 2006; Monroy et al., 2015).

As far as Set II.3 is concerned, in order to guarantee the quality of the measurement, exploratory and confirmatory factor analyses were carried out. First of all, the original sample was divided into two random sub-samples of  $n = 323$  participants each and an exploratory factor analysis (EFA) was carried out on the polychoric correlation matrix among the items (Hair et al., 2010). After verifying the fit of the data for the factor analysis by way of the Kaiser Meyer Olkin (KMO) test and Bartlett's test of sphericity [KMO = 0.852; Bartlett's test of sphericity,  $\chi^2(120) = 4316.1$ ;  $p < 0.001$ ], the dimensionality of the scale was analyzed *via* parallel analysis (Timmerman and Lorenzo-Seva, 2011). Subsequently, the confirmatory models were estimated on the polychoric correlation matrix obtained with the second random sub-sample ( $n = 323$ ). In order to evaluate the appropriacy of the model's fit, the previously mentioned indices were employed (TLI, CFI, RMSEA).



**FIGURE 1 |** Representation of the structural model. Own.

**TABLE 3 |** Principal component analysis.

Items	F1	F2	F3
Textbook	0.071	-0.281	<b>-0.666</b>
Web sites of historical contents and with resources for history classes (other teachers' blogs, etc.).	0.406	<b>-0.429</b>	-0.231
Primary documentary sources	<b>0.488</b>	0.333	-0.173
Oral sources (interviews with grandparents, family members, neighbors, etc.).	<b>0.584</b>	0.218	0.072
Printed or digital press	<b>0.509</b>	0.147	-0.235
Teacher's notes	0.219	-0.029	<b>-0.524</b>
Museums and other places of heritage interpretation	<b>0.744</b>	0.132	-0.071
Films and documentaries on historical topics	<b>0.682</b>	-0.074	0.018
Historical novels, comics and children's literature	<b>0.631</b>	-0.287	0.138
Reports in popular science magazines on historical topics	<b>0.551</b>	-0.100	-0.029
Videogames	<b>0.503</b>	-0.487	0.275
Festivals and local and regional traditions with historical content	<b>0.660</b>	-0.033	0.206
Virtual recreations of museums and other centers of heritage interest	<b>0.729</b>	-0.083	0.099
Mobile telephone and tablet applications with historical and heritage content	<b>0.552</b>	-0.357	0.079
Artistic productions (paintings, architecture, sculptures, contemporary art, etc.)	<b>0.727</b>	0.298	-0.020
Local historical and cultural heritage	<b>0.755</b>	0.439	0.015

**TABLE 4 |** Descriptive statistics regarding opinions on the use of resources.

Item	N	Mean	Median	%1	%2	%3	%4	%5	SD
50	644	2.93	3.00	9.01	23.40	38.20	23.90	5.43	1.02
51	645	3.61	4.00	1.86	7.44	32.90	43.30	14.60	0.89
52	645	4.27	4.00	0.16	4.19	11.20	37.40	47.10	0.83
53	645	4.11	4.00	0.62	4.19	18.10	37.50	39.50	0.89
54	643	3.82	4.00	1.09	4.82	27.10	45.10	21.90	0.87
55	642	3.64	4.00	1.25	7.94	34.10	39.10	17.60	0.90
56	643	4.49	5.00	0.00	0.78	6.22	35.80	57.20	0.65
57	643	4.19	4.00	0.16	2.02	14.00	46.70	37.20	0.76
58	644	3.74	4.00	2.64	7.30	27.00	39.40	23.60	0.98
59	644	3.87	4.00	1.71	5.28	24.40	41.90	26.70	0.93
60	645	3.24	3.00	7.13	16.70	34.90	27.30	14.00	1.11
61	644	3.86	4.00	1.40	5.28	27.20	38.70	27.50	0.93
62	641	4.12	4.00	0.62	3.28	16.40	42.60	37.10	0.84
63	644	3.65	4.00	4.19	7.14	27.60	41.30	19.70	1.01
64	644	4.45	5.00	0.31	0.47	8.70	34.50	56.10	0.70
65	645	4.61	5.00	0.00	0.46	5.58	26.80	67.10	0.62
Total	643.35	3.91	4.06	2.01	6.29	22.10	37.58	32.02	0.87

The parallel optimization analysis on 1,000 random replies reached an optimal solution of three factors when the 95th percentile of the proportion of random variance was considered, and of four factors when considering its mean (Table 3). The solution of four factors selected explains 63.7% of the common variance. The first factor, with an eigenvalue of 5.8, explains 36.3% of the common variance and has been called *heritage resources*. It is made up of 5 items (56, 61, 62, 64, 65). The second factor, with an eigenvalue of 1.65, explains 10.3% of the common variance and has been called *sources*. It is made up of 3 items (52, 53, 54). The third factor, with an eigenvalue of 1.56, explains 9.75% of the common variance and has been called *traditional resources*. It is made up of 2 items (50, 55). Last of all, the fourth factor, with an eigenvalue of 1.17, explains 7.3% of the common variance and has been called *digital resources/mass media*. It is made up of 6 items (51, 57, 58, 59, 60, 63). Finally, the goodness of fit of four alternative models of one, two, three and four factors was compared. The result was extremely favorable to the four correlated factors [ $\chi^2(99) = 282.83$ ,  $p < 0.001$ , CFI 0.956, TLI 0.947, RMSEA 0.054]. As far as the reliability of each of the subscales is concerned, the results obtained were also adequate (*heritage resources*  $\alpha = 0.87$ ,  $\omega = 0.84$ ; *sources*  $\alpha = 0.75$ ,  $\omega = 0.68$ ; *traditional resources*  $\alpha = 0.68$ ,  $\omega = 0.67$ ; *digital resources/mass media*  $\alpha = 0.79$ ,  $\omega = 0.74$ ).

## Procedure and Data Analysis

The research was carried out following approval by the ethics committee of the University of Murcia. A letter explaining the objectives of the project was sent to the coordinators of the master's degrees and a link to the website was provided *via* which the students were able to take part in the study. On the first page of this link an informed consent agreement was included for the participants before beginning the survey, which they could complete between November 2019 and February 2020.

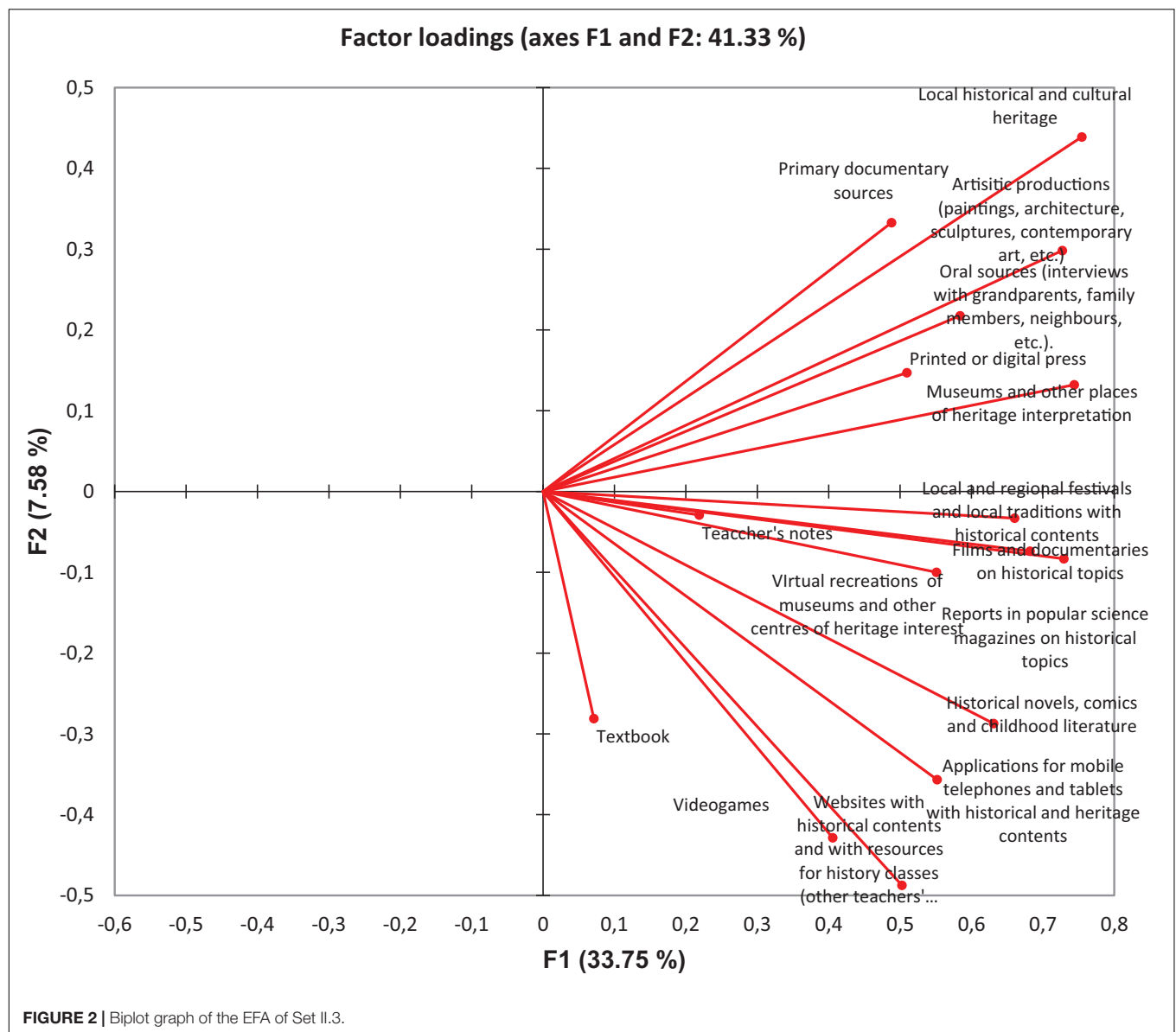
The data analysis was carried out in three phases: (a) a descriptive analysis of Set II.3 of the questionnaire in order to discover the teachers' responses regarding the most suitable resources and materials for the teaching of history; (b) an agglomerative hierarchical cluster analysis to establish the response profiles of trainee teachers regarding the most suitable historical and cultural heritage resources for the teaching of history; and (c) an inferential analysis (one-way ANOVA) between the response profiles and the mean scores of the CCSF and ITTF factor. All of these analyses were carried out using the R lavaan library (Rosseel, 2012) and the XLSTAT program in its 2020.3.1 version.

## RESULTS

### Descriptive Analysis

Table 4 presents the descriptive statistics of Set II.3 of the questionnaire, in which the trainee teachers evaluated which resources they considered to be most appropriate for the teaching of history. Thus, if the mean score awarded by the participants in the survey to each of the items is taken as a guideline, the three resources considered to be most suitable were: local historical and cultural heritage (Item 65), with 4.61; Museums and other places of heritage interpretation (Item 56), with 4.49; and artistic productions (Item 64), with 4.45. On the other hand, the resources which proved to be least suitable for teaching historical contents were as follows: websites of historical content (Item 51), with 3.61; videogames (Item 60), with 3.24; and the textbook (Item 50), with 2.93.

In the biplot graph of the EFA of Set II.3 of the questionnaire (Figure 2), it can be observed how the resources linked with heritage mark two trends with opposite directions. On the one hand, resources such as museums, local cultural heritage and artistic productions can be identified located around

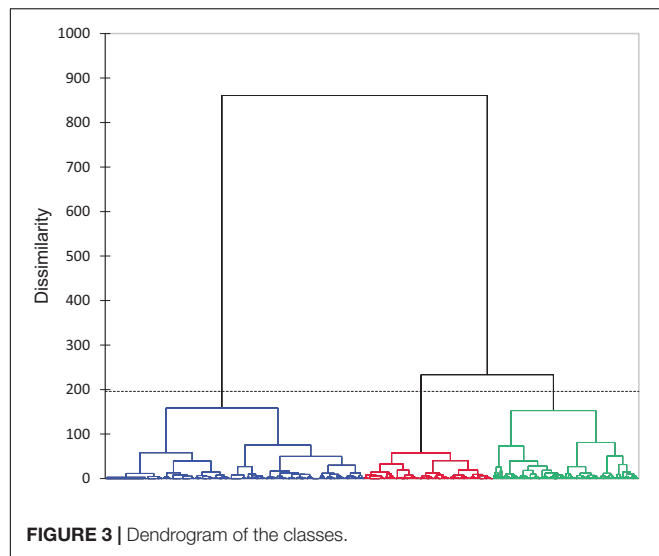
**TABLE 5 |** Agglomerative hierarchical clustering of the items related with heritage.

Variable	Sample	Mean	Standard dev.
Museums and other places of heritage interpretation.	646	4.495	0.648
Local and regional festivals and traditions with historical content.	646	3.856	0.928
Virtual recreations of museums and other centers of heritage interest.	646	4.123	0.838
Mobile telephone and tablet applications with historical and heritage content.	646	3.652	1.007
Artistic productions (paintings, architecture, sculptures, contemporary art, etc.).	646	4.455	0.697
Local historical and cultural heritage.	646	4.606	0.615
Fieldwork (data collection, exercises) during a visit to a museum or other site of historical interest.	646	4.365	0.763
Investigation of local and family history.	646	4.196	0.804

factor 1. In other words, they are related with aspects of a procedural nature (primary documentary sources, oral sources and printed and digital press resources) and, consequently, with the students' original scientific disciplines. On the other

hand, heritage elements appear with characteristics which are particularly digital (virtual recreations of museums and other centers of heritage interest and applications for mobile telephones and tablets with historical and heritage contents), more related





traditional approaches can be found, such as the textbook and the teacher's notes.

### Profile Analysis

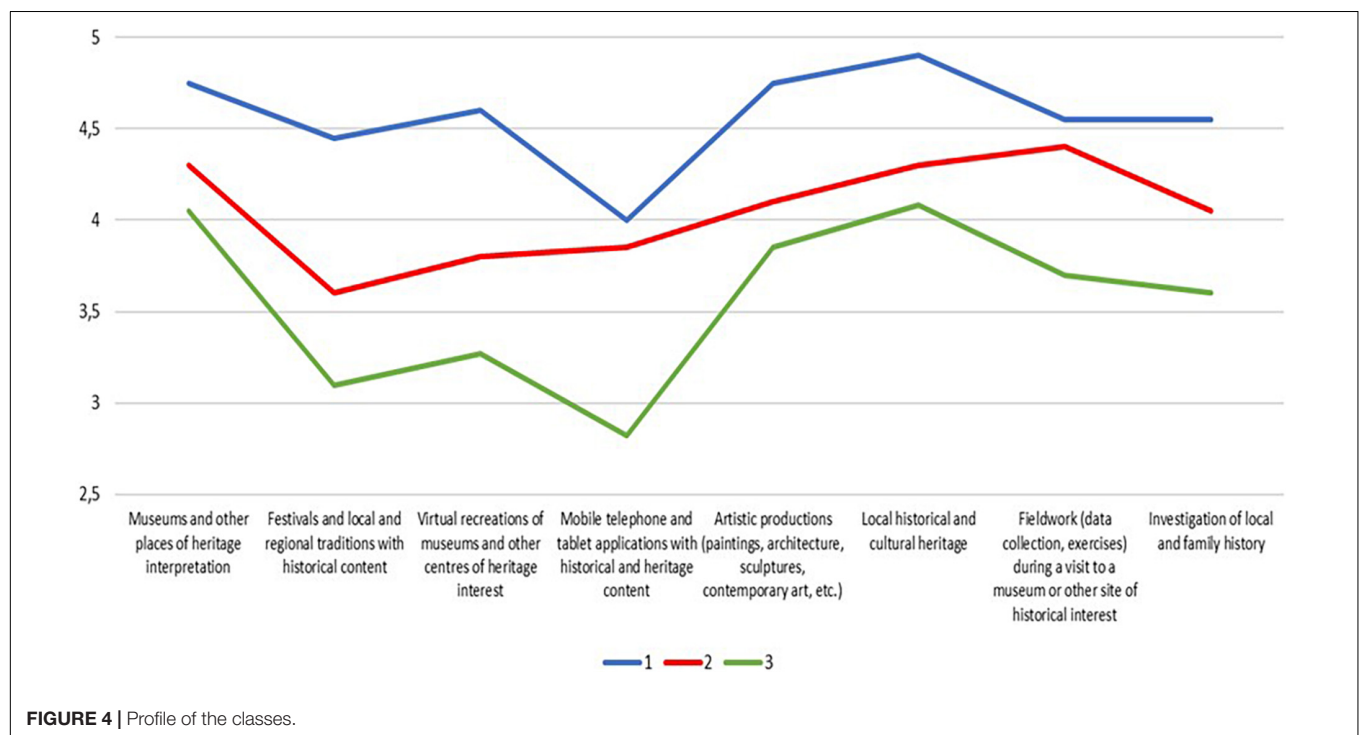
In order to define the response profiles, the decision was taken to employ agglomerative hierarchical clustering (AHC) of the items of the questionnaire related with heritage (Table 5), obtaining three classes as a result. The data indicate that class 3 (314 participants) was the most numerous, followed by class 1 (176) and class 2 (156). Class 1 is that with the most variance (5.6) and that with the greatest distance from the centroid (2.2). As can be observed in the dendrogram (Figure 3), this class (green) is in the corner of the figure.

As far as the profile of the classes (Figure 4) is concerned, it can be seen that class 3 is that which scores significantly higher for resources linked to the use of heritage in the classroom, for example, local historical and cultural heritage, artistic productions and fieldwork during visits to a museum or site of historical interest.

with factor 2, while being grouped preferentially with resources such as films, documentaries and videogames. Also in factor 2, in addition to resources linked with the mass media, more

### Inferential Analysis (ANOVA)

In order to identify the differences which exist between the different profiles according to the teaching approaches



**TABLE 6 |** Analysis of variance (ANOVA) between the subject-based (ITT) approach and the classes on the use of heritage.

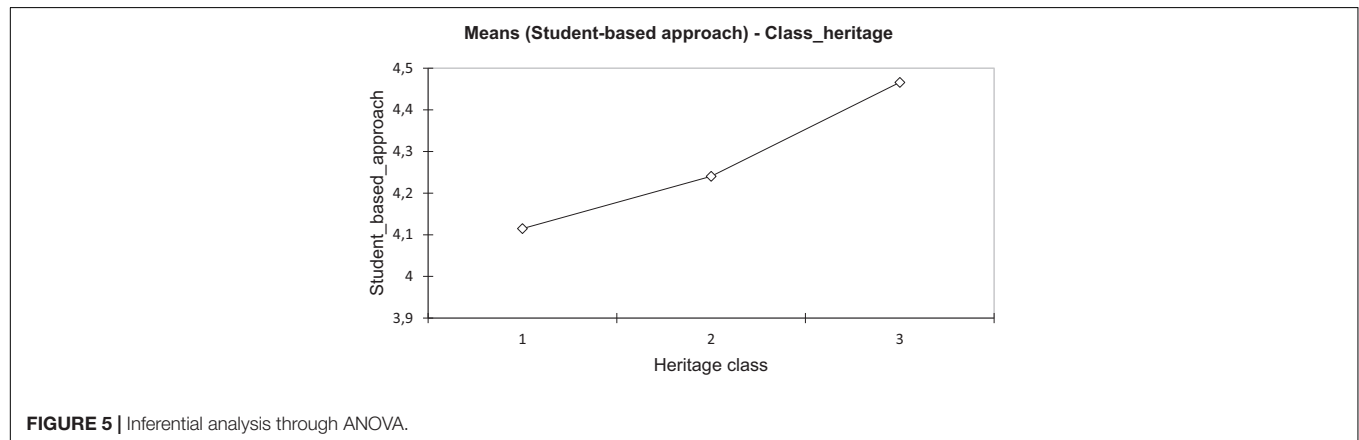
Source	GL	Sum of squares	Mean squares	F	Pr > F
Model	2	0.469	0.235	0.758	0.469
Error	643	199.080	0.310		
Corrected total	645	199.549			

Calculated against the Y model  $Y = \text{Mean } (Y)$ .

**TABLE 7** | Analysis of variance (ANOVA) between the student-based approach and the classes on the use of heritage.

Source	GL	Sum of squares	Mean squares	F	Pr > F
Model	2	15.076	7.538	32.513	<0.0001
Error	643	149.083	0.232		
Corrected total	645	164.159			

Calculated against the model  $Y = \text{Mean}(Y)$ .

**FIGURE 5** | Inferential analysis through ANOVA.**TABLE 8** | Class\_heritage/Tukey (HSD)/analysis of the differences between the categories with a confidence interval of 95% (Student\_based\_approach).

Contrast	Difference	Standardized difference	Critical value	Pr > Diff	Significant
3 vs. 1	0.351	7.745	2.349	<0.0001	Yes
3 vs. 2	0.226	4.782	2.349	<0.0001	Yes
2 vs. 1	0.126	2.372	2.349	0.047	Yes
Critical value of Tukey's d			3.322		

manifested in the ATI questionnaire, an inferential analysis was carried out *via* one-way ANOVA with the factor scores of the CCST and ITTF factors. No significant differences were found between the classes and the subject-based approach (Table 6).

On the other hand, with regard to the factor referring to the student-based teaching approach, in the ANOVA inferential analysis of the CCSF factor, significant differences were found in the classes with a factor of 32,513 where  $Pr > F$  is  $< 0,0001$  (Table 7).

It was observed that the profile of class three (in blue) is that which scored the items of the student-based approach (CCSF) most highly. Thus, the class which scored heritage resources most highly is also that which scored the items of the student-based approach most highly (Figure 5).

Finally, Tukey's range test was carried out in order to verify the differences between classes. The main differences arose between class 3 with classes 1 and 2, although there were no significant differences between classes 1 and 2 in their mean scores for the CCSF factor (Table 8).

## DISCUSSION AND CONCLUSION

Taking into account the first specific objective of the research, it should be highlighted that the opinions manifested by the

trainee teachers regarding the use of resources linked with heritage for the teaching of history show a tendency to use cultural assets linked with their academic disciplines (History, History of Art, etc.) due to their nature as evidence or historical sources. Thus, local historical and cultural heritage was the most valued item, along with places of heritage interpretation and artistic productions compared with websites of historical content, videogames and the textbook. In this regard, it should be highlighted that there was a lack of consideration on the part of the students for resources with a heritage dimension of a technological nature, a field which is particularly suited for accessing heritage and its elements from the field of education (Chih-Hong and Yi-Ting, 2013; Suominen and Sivula, 2013; Luna et al., 2019; Malegiannaki et al., 2020; Torsi et al., 2020; Andrés and Checa, 2021; Edwards et al., 2021).

As for the response profiles of trainee history teachers on the use of historical and cultural heritage in secondary education and its relationship with teaching approaches (the second specific objective), it was observed that class 3 (the most numerous with 314 individuals) is that which scores heritage resources most highly. Likewise, this class values most highly the student-based teaching approach (CCSF), which, as mentioned above, is related with deep and significant student learning (Trigwell and Prosser, 1996).

Consequently, in response to the general objective of this research, it is clear that future teachers who have a higher consideration toward a student-based teaching approach and its importance within the teaching and learning process are also those who value more highly the use of heritage resources linked particularly to local historical and cultural heritage, artistic productions and fieldwork during visits to museums or places of historical interest.

As Estepa (2017) states, the main points of reference which guide teachers' teaching approaches are their own memories. It is also known that prior conceptions and school memories have a notable effect on the teaching approaches which trainee teachers develop later in their classes (González and Fuentes, 2011). Consequently, it is important to be aware of the epistemological principles held by trainee teachers and their teaching approaches in order to establish plans of action which contribute toward adapting these representations with the aim of seeking improvement in educational contexts (King et al., 2019; Thompson, 2019). It is also essential to reflect on the training offered to future teachers and the methodological strategies and resources which they are given to face the new challenges of history education, which imply, among other aspects, shaping a critical and democratic citizenship which is capable of interpreting its present and participated in it.

It is well known that the introduction of new teaching resources in secondary education is a necessity, along with the implementation of new teaching methodologies, which are more active and innovative and encourage an appropriate training in historical thinking. In this context, heritage has, undoubtedly, been revealed as a tool with great educational potential (Cuenca and Delgado, 2020). New strategies, supported by new resources, will improve learning processes and academic results (Gómez et al., 2020a). However, without appropriate initial teacher training in this sense, there is a risk that this trend will not be continued, and that deeply rooted routines within school culture will be perpetuated.

In conclusion, in relation with the educational implications of this study, we highlight the need to reinforce teacher training programs regarding the use of heritage resources of all kinds and characteristics, in such a way that the preparation that future secondary education teachers receive can be improved. In this context, the importance of broadening the knowledge of trainee teachers regarding heritage resources with technological characteristics, such as videogames, mobile applications and virtual recreations, becomes clear (Kortabitarte et al., 2018; Martínez et al., 2018; Núñez-Barriopedro et al., 2020). Both elements, heritage and technology, are revealed as great allies which can foster history learning *via* the use of resources which activate the motivation and involvement of students in their own learning processes. Therefore, training processes which help future teachers to be aware of the educational potential of all heritage tools (be they physical or virtual) for the teaching of historical contents should be encouraged. Furthermore, teaching practices are required in teacher training which capacitate students for the use of these resources in their future careers. In this context, including heritage in classes as a resource for

the teaching of historical contents may influence the teaching approaches of trainee teachers. In this regard, we consider it necessary to deepen, in future studies, about why there is little interest regarding technological heritage resources, concretely, we need to confirm if it is due to the inadequate quality of these resources, if the reason is that they do not know how to use these resources or, finally, if exist another different reason.

Finally, in terms of the main limitation of this study, we would highlight the need to contrast the data presented with others of a qualitative nature, collected *via* interviews and discussion groups, which would enable us to gain a greater insight into the quantitative part already carried out. In terms of future research, it is considered of interest to reinforce teacher training programs in order to improve the use of heritage in secondary education and, at the same time, to investigate the impact of these programs on the preparation of students to implement these resources and approaches in their teaching practice.

## DATA AVAILABILITY STATEMENT

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

## ETHICS STATEMENT

The studies involving human participants were reviewed and approved by the Research Ethics Commission of the University of Murcia. The patients/participants provided their written informed consent to participate in this study.

## AUTHOR CONTRIBUTIONS

CG-C was the primary author of the manuscript. CG-C and JR-M conceived and designed the project of which this study was part. MF-D and ÁC-S wrote the first draft of the manuscript and contributed to revisions, read, and approved the submitted manuscript. All authors contributed to the article and approved the submitted version.

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# Teaching History in a Post-pandemic World: The Perceptions of Teachers on Training

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The purposes of the study were (1) to identify the level of knowledge that teachers in training have on globalization and the world health situation in recent years, with the aim of discovering the critical knots that exist; and (2) to understand the perceptions that teachers in training have on the foundations and purposes of history teaching on the current context of globalization and the health situation. The study is part of the project Proyecto FONDECYT Regular No. 1221872 titled *El Desarrollo de habilidades de pensamiento histórico para vivir en sociedad. Tensiones, desafíos y propuestas para el sistema escolar chileno* (Historical thinking abilities development to live in society. Tensions, challenges, and proposals for the Chilean school system) and part of the project *El desarrollo de habilidades, pensamiento histórico de estudiantes de Pedagogía en Historia y Geografía de la Universidad de Concepción: un estudio de caso para la mejora de la formación inicial docente* (Skills development, historical thinking of History and Geography teaching students of the Universidad de Concepción: A case study for the improvement of initial teaching training) (UCO-1798). The information was collected through in-depth interviews with 30 teachers in training of both sexes from the last five cohorts. The results show that teachers in training recognize the importance of teaching history in order for people to know their culture and their past, and to commit themselves in the construction of democratic societies. Moreover, and despite the fact that they perceive their university training to be deficient, which is associated with globalization and the pandemic, teachers in training are able to identify elements and characteristics of both phenomena. This enables them to conduct historical analyses that highlight the existence of skills associated with the development of historical thinking.

**Keywords:** history, teaching initial training, globalization, pandemic, historical thinking

## INTRODUCTION

The world has never been as interconnected as it is today, and that has to do not only with the massive exchange of goods and services but also with the information circulation flow throughout increasingly complex systems and the presence of the media, which makes political, economic, and cultural events, in their broadest sense, occurring anywhere in the world, known in real time on the other side of the world. In addition, our society has been a privileged witness of other important phenomena whose effects can be seen simultaneously in different territories, such as climatic and

environmental phenomena, as well as those associated with the health of the population, with the COVID-19 pandemic and its many variants as a privileged protagonist (Agamben et al., 2020).

Today's hyper-connectivity has caused concepts such as globalization and interdependency to be redefined, both conceptually and factually. This obliges educators to broaden the analytical scenarios of reference and, at the same time, to generate more direct links between what is local and what is global. This is if their aim is to promote meaningful learning and situated learning among students.

Nowadays, a young person from any Ibero-American country can interlink his or her present with events occurred in China, Columbia, Venezuela, the United States or Spain and, at the same time, has the opportunity to access various pieces of evidence that allows that person to comprehend that; beyond the variety of territorial, social, and cultural scenarios, there is an increasingly close and evident interrelationship between the reality that a person experiences on a daily basis in her or his living spaces and what happens or fails to happen in other parts of the world in political, social, economic, and cultural matters. Even by expressing herself or himself on issues that directly grab her or his attention, such as those related to the fields of music, sports, health, commerce, religion, environment, respect for human rights, diversity, among others. Therefore, and just to mention a few examples, the presentation of a new Korean K-Pop album, Messi's leaving Barcelona, the detection of a new strain of COVID-19 in Africa, a strike by Amazon or Aliexpress workers, the Pope's opinion on homosexual unions, the falling of the Amazon forest, and human rights abuses in Chile demand the teachers a set of epistemological and methodological challenges that should be studied and analyzed in, with, and for the school, with the purpose of offering learning proposals situated in the context in which students live, with methodologies and strategies that claim and reaffirm their condition as historical subjects, as well as subject of rights.

In the scenario previously described, there is no doubt that history teaching plays a fundamental role, especially because of the fact that it promotes a set of intellectual abilities that allow the comprehension and better appraisal of the phenomena of the present and, at the same time, the interaction with other disciplines, languages, and social science methods (Archila, 2004, in Aguilera, 2017). Regarding history and social science teachers, in 2004, Adler already warned that their initial and ongoing training was at a time of change and challenge; that it was necessary to train teachers to be capable of satisfying a complex and changing system of demands so that they can prepare their students to work with the thinking (Adler, 2006).

Taking into consideration the importance of history teaching in a changing scenario at the level, with its respective demands on the training of teachers of the specialty, this study has been intended to achieve two objectives: (1) to identify the level of knowledge that teachers in training have on globalization and the world health situation in recent years, with the aim of discovering the existing critical knots and, (2) to know the perceptions of teachers in training on the foundations and aims pursued by the teaching of history in the current context of globalization and the health situation.

## School and Education in COVID-19

The school closure as a consequence of the COVID-19 pandemic has challenged the world of education to reflect on its traditional ways of functioning, the existence of an uncertain post-pandemic world, and the need to deepen the training of people with a set of strong skills in accordance with the need that the new reality demands. To all this should be added yet other challenges, given that recent studies have shown that territorial, gender, social, and cultural differences have aggravated the educational gap due to the existing digital divide (Cannellotto, 2020; Lloyd, 2020; Salinas, 2020; Arenas, 2021; Ballén et al., 2021; Jiménez et al., 2021).

It is also interesting to note how literature recognizes that the institutionalism of schools, which is expressed through rituals, practices, and spatiality, was not only a contextual element of education but also was an essential aspect of it, and the absence of which brings about substantially different results in the teaching-learning process, even if the contents to be covered are the same (Plá, 2020). In this regard, the focus has shifted from digitalization efforts to pedagogy of emergence, understood as an answer born out of solidarity, adaptability, and social justice (Cannellotto, 2020; Plá, 2020).

## History Teaching and Historical Thinking

Over the last decades, the teaching of history has been submitted to in-depth reviews. Discussions that have promoted the shift from episodic — or *événementiel*— history to a teaching of history focused on the development of historical thinking abilities are a testimony of this. In the traditional method of the teaching history, historical events have been addressed from an isolated, static, fragmentary, rote learning perspective, focused on heroes, dates, and school text, with unchanging representations of chronology of historical time and a deep emphasis on the development of national identity (Gómez et al., 2014; Aguilera, 2017; González, 2018; Plá, 2020). On the one hand, a characteristic of this case is the limelight of substantial content or of first order, that is to say, factual and conceptual knowledge that answers to questions like what? who? where? when? On the other hand, strategic knowledge — or of second-order—, meaning, those that involve the competences of the historical method, such as the management of sources or the historical perspective, has become only in recent years more and more relevant in the curricula of many states (Wineburg, 2001; Lee, 2005; Barton, 2010; Vansledright, 2014, in Gómez et al., 2014). It is on these curricular instruments where the importance of developing historical thinking in the promotion of interpretative abilities beyond specific facts in the school system has been slowly introduced in order to comprehend how past times were produced, understood, and taught (Ashby and Lee, 1987; Wineburg, 1999, 2001; Lévesque, 2008; Carretero and López, 2009; Prats and Santacana, 2011; Seixas and Morton, 2012).

The concept of historical thinking has been thoroughly developed by Seixas and Morton (2012). They have been argued that it refers to the type of reasoning that results from the study of history, dimensions of which are translated into historical relevance, analysis of sources, change and continuity,

causes and consequences, a historical perspective, and the ethical dimension of history. This way of approaching historical knowledge stimulates the development of structured abilities on the basis of four central areas: historical problem posing, analysis and gathering of evidence from historical sources and evidence, development of historical awareness, and the construction or narrative representation of historical past (Sáiz, 2013, in Gómez et al., 2014). There is awareness that history education is not the same as professional historical research, nor does it claim to be; hence, the purpose of history teaching is not to train little historians but to promote a set of tools for students to think historically and to be able to explain reality and its context (Gómez et al., 2014; Aguilera, 2017; Plá, 2020).

The internalization of disciplinary knowledge and abilities has thus become fundamental pedagogical disciplinary knowledge in the educational practices for teachers, as well as for the management of the curriculum and the elaboration of didactic proposals based on the development of thinking, associated with a reflexive, critical, and pedagogical praxis and constantly under construction (Shulman, 2001; Restrepo, 2004; González, 2018; Da Silva et al., 2021).

Nevertheless, the importance that knowledge associated with historical knowledge, in studies such as the one by Gómez et al. (2014), is indicative of the lack of clarity that teachers in training have and, in some cases, practicing teachers, regarding the objectives of teaching history, mainly, as a consequence of the lack of consideration of the topic and the associated epistemological knowledge in the formative processes of future teachers, where there are traditional beliefs and conceptions related to the teaching of the specialty. Those beliefs and conceptions are understood as “personal forms of knowledge, implicit assumptions that teachers have about students, teaching, classes, and content” (Kagan, 1992, in Martínez et al., 2019, p. 13). In this regards, Evans (1990) categorized five types of teachers: the storyteller, the scientific historian, relativist/reformer, cosmic philosopher, and eclectic. Each of these categories emerged as a product of case studies from around the world, as in the case of the study by Martínez et al. (2019). The authors of this paper show how most published research gives the nature and depth of disciplinary knowledge an importance that is not comparable to that attributed to the teaching of history itself.

However, this is not to deny the importance of study of historical knowledge, far from it, since its importance is undeniable in order to situate, for example, the social reflections of the present, and it is especially useful in the context of challenges of teaching history in the 21st century.

In another context, and despite the fact that the consolidation of Latin American democracies has made possible to rethink the didactics of history, there is no shortage of research that highlights another no-less-important variable, associated with teacher autonomy. There is evidence demonstrating how certain antipartisan manifestos limit the democratic, social, and political problematization inherent of history classes, such is the case of the *escolas sem partido* since 2014 in Brazil (Gilherme and Picoli, 2018; Cannellotto, 2020; Plá, 2020; Da Silva et al., 2021).

The autonomy of schools and the deliberative capacity of teachers' judgement are called into question in scenarios as

the one described above; therefore, the deployment of teaching competences to educate in a globalized world is a task that becomes essential.

Finally, it is necessary to note that the history and social sciences curriculum faces yet another tension, linked to the hegemony of one historical memory project over another. This has meant that a school historical discourse, according to Acevedo and Salazar (2011), has remained with traditional teaching practices, responding tepidly to the challenges of globalization itself, such as the awareness and reconstruction of local cultural identities in the face of global identity and virtual displacement of the spatial-temporal borders of the territory. Conversely, reality indicates that globalization has formed generations that are no longer related temporally or spatially to concepts, procedures or knowledge previously assumed as every day and widely known, such as planting and crops, to such an extent that students are totally alien and useless to establish links with previous knowledge of more complex historical content (Álvarez, 2011).

Hence, we maintain that the current health situation offers a valuable opportunity for the restoration/reconstruction of pre-pandemic school dynamics and the redesign of an institutionalism that responds to the challenges of a post-pandemic world, in particular, because, in our opinion, this health situation provides an opportunity for the social sciences in general, and history, specifically to help the students to resolve a number of critical issues: tension between the excess of information and the lack of capacity to make sense of it; to recognize the value of rational knowledge vs. irrationalism; to counter the cultural domination through the claiming of equality of dignity of all cultures; local, national, and international articulation; to promote the relational principle as a defense against essentialism; to overcome the monopoly of the present and the ideology of the end of history; and, finally, to overcome the traditional temporal chronology of present, past, and future (Tenti, 2020).

There is no doubt that continuities and changes can be observed in the evolution of teaching history, from their epistemic conceptions to didactic practices. Nowadays, it is possible to recognize in it permanencies, emergencies, inertias, breaks, latencies, legacies, contradictions, mixed temporalities, practices without a model or linear condition, a strong sense of democracy, inclusion toward cultural diversity, with a formative sense toward critical, democratic citizens, endowed with an agency as a historical subject, and competent to face the problems of the time and historical events and with interpretative tools. Hence, we agree with González (2018) in stating that it is a discipline in movement under constant construction.

## MATERIALS AND METHODS

The methods and techniques used in this investigation were qualitative. The sample consisted of voluntary participants, and the criterion for self-selection was to be studying the program of History and Geography at the Universidad de Concepción-Chile during 2021. Data were obtained through semi-structured



in-depth interviews with 30 students from different cohorts. Following the qualitative approach, the research opts for an instrumental case study that does not seek generalization but, rather, the understanding of a concrete phenomenon of interest and little investigation (Coleman and Unrau, 2005; Stake, 2007), such as the set of perceptions held by teachers in training of the field on the teaching of history in a post-pandemic world.

The investigation was conducted in four stages. The first stage included a review of specialized literature. The second stage involved the collection of data by means of interviews, consisting of six opinion, knowledge, and background questions (Mertens, 2019), and their further transcription. This second stage was followed by the start of analytical tasks through the initial deep immersion (Hernández et al., 2014). The interview script, previously validated by three experts, included the following questions.

- i Do you think you have received adequate university training to deal with the teaching of globalization and the pandemic in the school world?
- ii What effects do you distinguish from globalization in the way we understand the teaching of history in the school world?
- iii What effects of the current health reality influence the way we understand the teaching of history in the school world?
- iv Why should children and adolescents learn history in school?
- v What is history (or learning history) in today's society or reality?
- vi What should the teaching of history develop or enable children and adolescents to do?

Because of the health context, the interviews were conducted by video call, with the consent of the participants, and lasted an average of 30 min. In order to maintain and safeguard the identity and opinions, it was agreed to refer to each participant by a generic sentence that would identify them and in which their sex, interview number, and year in which they are in their training process would be recognized. Thus, for example, the expression EH5.5 means that this participant is a male student, interviewed in the fifth place and in the 5th year of his career.

In the third stage, a detailed analysis of data through grounded theory and concept maps supported by the software of quality data analysis *in vivo* (*ibid.*) was carried out. For this purpose, the emerging categories were described by means of conceptualization and meanings in order to, subsequently, cluster and relate categories according to topics and patterns in accordance with the developed analysis.

Lastly, the resulting categories, together with their relationships and interconnections, were described by means of narrative proposition, which implied a conceptual elaboration of the collected data. The weight of the analysis was on the symbolic material of the data, expressed through the actor's own language. In order to maintain and safeguard of his or her identity and opinions, it was agreed that he or she would be referred using a generic term that would identify him or her.

## RESULTS

When analyzing the empirical material available, intended to know the perceptions of teachers in training on the foundations and purposes of the teaching of history in relation to globalization and the pandemic, the first aspect of the qualitative analysis that stands out in their responses given by all the interviewees is that globalization seems to be a subject that is not addressed in the course curriculum. This highlights the need to update the curriculum in which the teachers of the specialty are trained. However, as the teachers in training continue their narrative, they establish relationships that show the development of a set of thinking abilities that allow them to analyze the subject under study, regardless of the greater or lesser depth in which the matter has been addressed during their training process.

It is important to note that, although future teachers initially associate globalization with a purely economic phenomenon, the health situation we are experiencing has forced them to rethink the term conceptually and factually, using their previous knowledge and their ability to search, organize, synthesize, analyze, and communicate information. These abilities are undoubtedly linked to their historical training. This means that, from the students' narratives, a set of foundations and purposes emerges, which pursues the teaching of history in an applied way, both in the matter of globalization and the pandemic. In fact, some students become aware of this process and end up softening their initial perceptions about the responsibility they had placed on the university for their apparent lack of mastery of the matter by saying. . . "well, the university was not going to do everything" (EM3.1) or "luckily, we were given tools so that everyone could find his or her own information, study, and come to some plausible conclusions" (EH5.5).

When analyzing in depth the answers given by the future teachers, other categories that are important to note emerge, especially because of their relation with some thinking abilities for teachers who intend to teach. These are:

### The Perception of the Importance of Events Over Time, Making Distinctions According to Regions or Groups

In one of the categories that most strongly emerge in the discourse of the interviewees, for example, is the important relationship they make between the New York Wall Street Crash and the installation of the model of Import Substitution Industrialization (ISI) and their repercussions in different parts of the world, to the point of bringing their analysis to Chile and then to our own region.

*"... the stock market crash in the United States and the later installation of the ISI model in Chile are good examples of globalization and its effects in different countries. . . also, it was not the same if you were a businessman or a worker. . . the famine was severe, for example, in Santiago and in the main cities of the country. If we add to this the current effect of the existing economic interconnection between countries, with an abundant and disparate exchange of goods and services. . . and also disparate effects of the pandemic in*

*different parts of the world, there is no doubt that the scenario is certainly much more interesting to analyze and highlights the existence of more than just an economic interconnection” (EH3.1).*

There is no shortage of people who reiterate to the disparity in the production and consumption of goods to explain the phenomenon:

*“... I have always said that this is fiction, because, from everything I have read... It is clear to me that globalization is linked to the exchange of goods... but that is unequal... depending on the region and the country in the world that produces, consumes, or that, fatally, does neither one nor the other... because that does not exist. This highlights the existing disparity and how some regions and countries are able to actively participate in the globalizing model, and others only see how other countries or regions exchange a large amount of goods and services” (EH5.1).*

### **Appreciating the Importance of Contextualizing the Sources Used According to Their Date, Author, and, Especially, Their Nature**

With regard to the variety of information about globalization and the pandemic and the effects on the economy, and, above all, on people's lives, teachers in training insistently emphasize the importance they give to meticulously recording and corroborating each and every one of the sources they consulted to give an opinion or to give an account of the process. They were also able to carry out an interesting metacognitive exercise aimed at verbalizing both the information available to them, the way they accessed to it, and the cognitive processes involved.

*“... when one sees especially how much information there is about globalization and its positive effects, as well as the abundant lies circulating about the coronavirus, about its origin, development, consequences, variants, statistics, etc..., one can certainly not overlook the importance of checking the data and the origin of those sources, on which website the information is... etc... I value that more today. I feel that we have been privileged witnesses of a historical process that will be studied in texts and for which there is no doubt that the quality of sources used will, undoubtedly, be a very important issue to be considered” (EM2.1).*

*“It is important for me to identify the origin of the sources, but also, and at the same time, to be able to contextualize them, date them, know their origin, their authors, and their intentions. That is why if there is one thing I would emphasize, it is precisely that” (EH5.1).*

### **Comparison, Corroboration, and Contrast of Different Sources**

This is one of the issues that is closely connected to the idea of knowing the origin of sources, since teachers in training show how the era of globalization and, especially, the health situation, has forced them to know exactly where the sources of

information come from and how essential it is to corroborate them with official international sources. The purpose of this is to provide the students that they will be responsible for teaching in the educational system, with truthful and verifiable information, minimizing error, inaccuracy, and confusing messages. For teachers in training, this is a legacy of their historical training, recalling how their initial training has insisted on the importance of mastering the historian's method:

*“...with regard to what we are going through, I think that, in some way, our historical training has helped us, especially when it comes to not only examining the origin of sources of information we use but also to corroborate and compare them with other official and responsible sources, avoiding repeating lies or falsehoods that, with so much information available, even contribute to the creation of a post truth. I believe that is when one's professional training comes out, especially when it is related to what we have seen of how a good history teacher should present the sources and help her or his students constantly to use the historian's method, as my professor said” (EM1.1).*

### **Analyzing the Perception of Progress or Decline According to Different Groups**

On the issue of globalization, on the pandemic and on the effects of the latter on the former, future teachers are able to notice how the same historical event can be questioned in different ways, depending on the person or group. They indicate that, even though the interface of markets can bring benefits, it can also bring detriment to both producers and consumers and even the environment so that historical events and processes affect people unequally; what may bring a tremendous economic benefit to some can mean ruin to others. They do the same when reflecting on the pandemic, as they are able to note that, while there are millions of people around the world affected, those who have the means to produce or buy vaccines, see the pandemic differently from those groups who cannot produce or buy them:

*“I...keep an eye on the fact that, behind every economic catastrophe, there are people who benefit and others who are affected, as in war... because they need the war industry to function, and they are the ones who do business with destruction and death... with the globalization and with this pandemic that something similar happens, there are groups for whom both globalization and the pandemic have brought them economic benefits, while, for others, it has been pure suffering. There are many examples of this throughout history; we could make a long list, and we would realize that there are people who have not benefited from globalization, others who have benefited from globalization, and others who have not even been aware of its existence” (E3H.1).*

### **Comprehending the Multiplicity of Causes and Consequences From the Same Historical Event**

This is one of the abilities most frequently expressed by teachers in training, being able to clearly verbalize how no historical

phenomenon has only one cause, nor can its consequences be lightly studied, since there are effects that can even be noticed and assessed with the passage of time. They are foolish to say that they have studied a long list of variables, which are needed to know in order to explain an economic fact (which for them is the most recurrent example when talking about globalization), or the pandemic itself, and that the comprehensibility of these requires exhausting all the possibility of investigation, both their causes and their consequences.

*“... if one analyzes the economic history of Chile, it can be noted that it has been closely connected to globalization since the dictatorship because there were a set of variables that influenced this to happen; [these variables] are neither fortuitous nor a coincidence, which can be seen more clearly as time goes by and new and more varied sources of information emerge. Of course, that is valid for any historical event that one wants to study; that is why there is still much to say about the pandemic, because, now, we are seeing its most immediate consequences: death, suffering, prohibitions, restrictions; but as the time goes by, there will surely be other consequences in the economy, in culture, in people, etc” (EM3.4).*

## Valuing Aspects of the Past That Can Help the Comprehension and Action in the Present

This is one of the favorite phrases of teachers in training when asked about the foundations and purposes of history teaching in the era of globalization, in particular, in a post-pandemic world. In this sense, they recognize that, when they heard the first information about the advancement of the pandemic in the world, they automatically remembered the Black Death and some of the pandemics that had been studied, turning to books and sources to update knowledge that had been studied, but, in the light of the events they were experiencing, they felt the need to review again, mainly, to establish particularities and similarities between them, but above all, extract the best lessons from the past and take advantage of the information available to better illustrate and understand what was happening.

*“The pandemic has forced us to be pandemic experts and to look to the past to try to understand what we were going through. I remember that, in a group of friends, I was in charge of telling them how pandemics had been like in the past and what to expect from this one. In fact, I remember that I read a lot about the effects of the Black Death in Europe and Asia, but also about other plagues and pandemics that followed in order to know and understand more, but I was not the only one because we all felt the need to do so. Of course, I also checked the WHO website every day and tried to help explain... all locked up, because I could not go outside” (EM5.3).*

Finally, the last category that emerges from the study is related to the reflections made by the teachers in the training on the importance of:

## Analyzing the Intention and Motivation of Authors and Institutions When Giving Their Opinions on the Same Historical Event

This is one of the questions posed by the group of teachers in the training as essential questions to ask when talking about globalization and the pandemic, especially because the information available to them is disparate in one way or another, and they have experienced how important it is to verify the provenance and verisimilitude of the historical sources consulted. In addition, it is crucial to go a step further and assess the intentionality and motivation of both informants and institutions to disseminate information on the subject under study.

They consider that it is of particular relevance to take the time to open up spaces for the analysis of these intentions and motivations as a way of advancing transparency and comprehensibility, with others advocating that teachers' own intentions and motivations should also be made known when reporting one or another historical event or process, also taking into account their own biases:

*“There is no doubt that verifying why such and such a person say such and such a thing, what his or her interest is, why associations are concerned about such and such an aspect, what the interests of WHO or IMF are, why do businessmen consider that some taxes are bad, etc., are necessary and urgent questions that one should always ask himself or herself, because beyond a paper, a letter, a public statement, a press point, there is always an explicit and an implicit discourse that gives an account of the reasons that motivate people to speak; therefore, it is not only important to be aware of messages, news, information, data that are there, but also to ask oneself whether there are vested interests created in himself or herself or not” (EH6.1).*

When analyzing the set of categories that emerged from the answers given by the interviewees, it is necessary to note that, although our initial purpose was to question them directly about their knowledge about globalization and about the pandemic, and also about the foundations and purposes of history teaching in the era of globalization and in a post-pandemic world, in the interviews, we realized that they were not only capable of accurately outlining some answers associated with those foundations and purposes, but that they were also capable of applying those foundations and purposes to the chosen subject. This is in spite of the fact that the teachers in training in unison recognized that both globalization and the health situation that the world was facing had not been explicitly addressed in their training processes to become teachers.

## DISCUSSION

The results demonstrate that all teachers in the training that were interviewed value the knowledge of disciplinary content when teaching history, as in literature (Shulman, 1987). This



can be seen in their critical analysis of the scant consideration of the subjects under study in their initial training, which they considered as a problem. There is no doubt that, the study of other historical topics during this training, and, above all, the work with methodological and analytical procedures that these entail, allow them to overcome the prominence that first-order contents have traditionally had in the teaching of history, moving toward those of the second order that involves competences that are proper to the historical method (Wineburg, 2001; Lee, 2005; Barton, 2010).

The study and work using such methodological and analytical procedures enable them to better comprehend how the past is produced, understood, and taught and, more importantly, the many links between the past and the present (Lévesque, 2008; Carretero and López, 2009; Prats and Santacana, 2011; Seixas and Morton, 2012). This corroborates Pantoja's (2017) finding for the case of Colombia regarding the need for training programs to relate in their teaching processes the wisdom that sustains the fields of knowledge with the formative intentions that guide the processes.

The students interviewed approach the study on globalization using abilities of historical thinking, which, on the one hand, are the key in the discussion of the subject and, on the other hand, demonstrate their perceptions of the reasons and purposes of teaching history in the era of globalization and its contributions to the health crisis we have experienced. In this way, the students construct a story that is consistent with the proposals made by Limón (2008), who highlights the need for the teaching of history to go beyond the disciplinary content and move toward "a general reflection on how knowledge is acquired and constructed" (Limón, 2008, 99). And that is what students do, beyond what they have received in their formative processes. This confirms the findings of Éthier et al. (2010) that the progressive acquisition of the essential components of historical thinking is possible, independently of the more traditional contents. Therefore, as Sáiz and Fuster (2014) state, students resort to their knowledge of the past "from substantive or first-order contents but also from strategic skills to signify them, understood as second-order contents, or historical metaconcepts" (Sáiz and Fuster, 2014, 47).

When analyzing these perceptions on the basis of their narratives, important dimensions associated with historical meaning become visible, such as their assessment of the perceived importance of events over time, according to regions and groups, the use of evidence in contextualizing, comparing, corroborating, and contrasting sources; the continuity and change when considering the importance of analyzing the progress or decline according to different groups; the need to comprehend the multiplicity of causes and consequences of historical events and processes; the historical perspective when striving to understand the multiple perspectives existing in the same epoch; and, finally, the ethical dimension by stating the importance of an analysis of the past that can help in understanding and acting in the present. This is coherent with the thinking abilities proposed by Seixas and Morton (2012). At the same time, it is consistent with the purposes associated with

the development of historical thinking described by Santisteban (2010), in which it is emphasized the importance of providing students with a series of instruments of analysis, understanding or interpretation, which allow them to approach the study of history with autonomy.

As a result of the above, students demonstrate these abilities in the proposed context of globalization. They are able to make sense of information, recognizing its value, but they are also able to assess cultures, relating the local to the national and international, making a reality of what Tenti (2020) calls the overcoming the monopoly of the present. These abilities of teachers in training act as strategic knowledge, very characteristic of the historical method, and which show that their historical thinking has been developed both in university and school experience. In the matter we have studied, teachers in training are capable of putting these second-order concepts into practice, such as the management of sources or the historical perspective, in order to confront and respond to the questions or little knowledge they may have—or believe they have—about the pandemic and globalization.

## DATA AVAILABILITY STATEMENT

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

## ETHICS STATEMENT

The studies involving human participants were reviewed and approved by the Universidad de Concepción. The patients/participants provided their written informed consent to participate in this study.

## AUTHOR CONTRIBUTIONS

CM and BT were the primary authors of the manuscript. RM and OC contributed to discussion and revisions of manuscript. All authors contributed to the article and approved the submitted version.

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# Critical Global Citizenship Education: A Study on Secondary School Students

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This article describes a study conducted in Catalonia (Spain) that examines the dimensions of global citizenship education (GCE) that emerge when secondary school students analyse images taken from the digital platforms of the mainstream media. We followed a mixed methodology for the research. To analyse the data, we employed content analysis, in the form of descriptive and inferential statistics. The results show that students in the final year of compulsory secondary education (aged 15–16) have great difficulty with analysing the information and images contained in media from a global citizenship perspective. While students tend to adopt a perspective of social responsibility, they do not have the tools necessary for critical interpretation of social facts and problems; they are still less able to formulate arguments or make decisions relating to actions within the parameters of social justice.

**Keywords:** global citizenship education, critical citizenship, social studies education, secondary education, controversial issues

## INTRODUCTION

Since the winter of 2020, people around the whole world have experienced how their lives have been conditioned because of the COVID-19 pandemic. This context has clearly demonstrated struggles and interrelations between local and global situations: such a planetary problem, experienced in very personal circumstances.

Inequalities, indeed, have increased and become unsustainable both on local and global scales: on the local, people have remained attached to personal situations, marked by gender, economic, social, and age unevenness. In the global, unfair inequities among countries and regions emerged explicitly when referring to health care and vaccination opportunities. Virus transmission knows no borders, but health policies do.

The pandemic context has also given rise to major reflections about citizenship: struggles between freedom and social control policies, social commitment, rights and responsibilities, public services, and national and global political agreements. In addition, facing increasing discriminatory narratives along with racist hate acts and speeches (Griergson, 2020; Joubin, 2020; Nhiem and Morstatter, 2021) have become a social and political core problem, which again raise the question of whether *we are all global citizens, or only some of us are global citizens* (Dower, 2008).

These social challenges are not new, but they have intensified during the recent global situation. There is increasing awareness among citizens that there are local and global problems which affect

their daily lives, and that those problems are increasingly inter-related. This awareness on the part of citizens is a consequence of the economic, political, and cultural globalisation that has been taking place over the last three decades (Pak, 2013). According to Castells (2005), the effects of globalisation have been amplified by information technologies, not least the internet, which has contributed to creating a world that is ever more connected. The media have a direct influence on how society and participation are understood. The ability to read those media critically is crucial for education (Santisteban and González-Valencia, 2013).

A range of interpretations of the globalisation process have been produced. Four distinct approaches can be taken from analysis of the theoretical frameworks constructed by Sklair (1999); Spring (2004), and Torres (2015): neoliberalism, global culture, global systems and post-colonialist interpretations. For her part, Shultz (2007) talks about three perspectives: neoliberal, radical and transformationalist. Those diverse interpretations of globalisation are related to different ways of understanding the world, social relationships or citizenship itself, which can also be translated into teaching on or research into global citizenship education (Stromquist, 2009).

Globalisation has led to the concept of citizenship being called into question if it is considered to be associated with the schema of the nation-state. Gun Chung and Park (2016) reviewed the theoretical frameworks developed by Kymlicka and Norman (1994); Faulks (2000), Janoski and Gran (2009); Delanty (1997), Arthur et al. (2008); Reysen and Katzarska-Miller (2013), and Tully (2014) to demonstrate that citizenship goes beyond legal recognition, since possession of an official document certifying that a person is a “citizen” does not mean that this individual accepts the rights and responsibilities associated with that recognition. Citizenship goes beyond legal recognition and should be associated with the values of a person seeking to improve coexistence within a community. As such, citizenship is linked to the right to participation in order to improve the society surrounding you because, as Cortina argues, citizens are those who try to construct a functioning polis, striving for the common good through their political participation (2009, p. 48).

According to Rauner (1999) and Delanty (1997), citizenship can be constructed in relation to national and post-national models, such as the supranational, the international, the global and the virtual. Citizenship can also be understood as worldwide or global/local (glocal) (Bromley, 2009). We share the view of Osler and Starkey (2003) that consideration must also be given to state-level citizenship, in other words, local, regional and, in some cases, national. Borders have played a very important role in the reconfiguration of the citizenship concept, both when they are opened for the free movement of goods and capital, and when they are opened or closed for crossing by people or certain groups. Supranational government bodies have also played a crucial role and have been increasing their influence over people’s lives through agreements between states (OECD, European Union, NAFTA, Pacific Alliance, Mercosur, etc.).

There has also been a less positive side to the advance of the globalisation process in the last three decades, in which economics becomes central to everything, to the cost of

politics; this has brought about increased poverty, inequality, and pollution, among other things, across the world. In contrast with the negative effects of globalisation, however, there has been the emergence and growth of international charitable organisations, such as Save the Children, Oxfam, Amnesty International, Human Rights Watch, Transparency International, and Greenpeace. These are supranational bodies that work with the idea of global citizenship and open up new avenues for action at the international level.

For Tully (2014), when we try to connect citizenship with globalisation:

We are already thrown into this remarkably complex inherited field of contested languages, activities, institutions, processes, and the environments in which they take place. This conjoint field is the problematisation of global citizenship: the way that formerly disparate activities, institutions and processes have been gathered together under the rubric of “global citizenship,” become the site of contestation in practice and formulated as a problem in research, policy and theory, and to which diverse solutions are presented and debated (p. 4).

Social, cultural, political, and economic changes “hold special significance in educational settings, where preparing students for a global world has come to play an important role in citizenship education” (Szelényi and Rhoads, 2007, p. 25). Schools and teachers should consider the new setting because, according to Felices et al. (2016, p. 236), they have the task of equipping people with the ability to interpret the reality that surrounds them, to engage with global problems and to play their part in building a better, more democratic future. The goal is for students to develop “the skills, values and attitudes that enable citizens to lead healthy and fulfilled lives, make informed decisions, and respond to local and global challenges through education for sustainable development and global citizenship education, as well as human rights education” (UNESCO, 2018, p. 1).

Although the concept of citizenship is associated with the nation-state, new forms of citizenship are growing in the face of globalisation, such as planetary citizenship (Sant et al., 2018a). “This means that new forms of education need to be developed. It is unlikely that new forms of education will be achieved by attempting to bolt very different formulations together” (Davies et al., 2005, p. 83).

In the light of this situation, education, and particularly social sciences instruction, must contribute to the understanding of these new citizenships and the new forms of participation (Goren and Yemini, 2017; Goren et al., 2019). Critical global citizenship education (CGCE) fosters greater understanding of the interrelationships between citizenship, politics, democracy and the globalisation process, and of the consequences of political, economic, cultural, social, and environmental decisions that impact on people’s lives (O’Meara et al., 2018; Bruce et al., 2019), emphasising the ethics of participating for the common good and social justice (Akkari and Maleq, 2020). In that context, this paper seeks to answer the following question: do secondary school students apply the various dimensions of CGCE when analysing social facts or problems?

## FRAME OF GLOBAL CITIZENSHIP EDUCATION

Global Citizenship Education (GCE) has emerged from reflections on citizenship in relation to the global world and the challenges of globalisation and its implications for the field of education (Kerr, 1999). Since education, citizenship, and globalisation are core concepts in GCE, all of them complex issues, and there exist a wide multiplicity of visions, interpretations, objectives and conceptions of education for global citizenship (Sant et al., 2018a; Akkari and Maleq, 2020; González-Valencia et al., 2020; Sant and González Valencia, 2018). As Sant et al. (2018a, p. 21) explain: “Since there are different views on globalisation, citizenship and education, the views on GCE are, probably, even more diverse.”

As such a contested and diffuse term, Sant et al. (2018a) argue that it would be understandable if it lost meaning and use. However, its use is not only maintained, but consolidated and increased. The literature on education for global citizenship has an extensive corpus, which has increased remarkably over the last decade (González-Valencia et al., 2020). All of these studies agree on the importance of including global citizenship education in social studies programmes. Some authors claim new study perspectives; for example, those who do not deny that there are alternative ways of doing GCE, such as the existence of peoples and nations beyond the concept of the state (Avery, 2004).

Within the great diversity of approaches, two major trends are revealed in considering education for global citizenship (Dill, 2013; Akkari and Maleq, 2020). The first is instrumental, geared to the acquisition of competences to be successfully developed in the globalised world, with a significant influence on neoliberal visions. The second is a critical trend (see Section Critical Global Citizenship Education) which includes attention to different perspectives, awareness of being part of a global community and ethics to act for the common good, change and social justice (Akkari and Maleq, 2020). Nancy (2007) explains this duality from the choice between globalisation, on the one hand, and the creation of the world, on the other. They are understood from an exclusive dichotomy, as “one implies the exclusion of the other” (Sant et al., 2018a, p. 14).

### Critical Global Citizenship Education

A definition that serves as a general framework to understand global citizenship is that proposed by UNESCO (2018), which states that it refers to the sense of belonging to a broader community and to a common humanity, where there is political, economic, and social and cultural interdependence, in interconnection with the local, national and world levels. This institution defines GCE as:

Essentially, GCE addresses three core conceptual dimensions of learning: for education to be transformative, knowledge (cognitive domain) must touch the heart (socio-emotional domain) and turn into action to bring about positive change (behavioural domain). This framework emphasises an education that fulfils individual and national aspirations and thus ensures the well-being of

all humanity and the global community at large (UNESCO, 2018, p. 2).

The UNESCO’s definition, an institution that is part of the global governance framework, emphasises aspects closer to the psychology of learning and, to a lesser extent, to the political dimension or post-colonialist discourses (Oxley and Morris, 2013). An approach close to a critical dimension of GCE is that of Reysen and Katzarska-Miller (2013), for whom GCE is understood:

as awareness, caring and embracing cultural diversity while promoting social justice and sustainability, coupled with a sense of responsibility to act. Prior theory and research suggest that being aware of one’s connection with others in the world (global awareness) and embedded in settings that value global citizenship (normative environment) lead to greater identification with global citizens (i.e., prosocial values and behaviours) (p. 858).

This definition puts aspects such as social justice, diversity and awareness at the centre of its approaches; essential aspects in a critical approach: a Critical Global Citizenship Education (CGCE). Although it is true that there are a large number of definitions of CGCE, some authors such as Stromquist (2009); Dill (2013), and Pak (2013) suggest that despite the lack of consensus, it is necessary to develop a greater global awareness among citizens. Following in the line of Dill (2013, p. 50):

The global consciousness element of global citizenship (...) creates lofty moral expectations: it consists of an awareness of other perspectives, a single humanity as the primary level of community, and a moral conscience to act for the good of the world. The global citizen in this discourse is a moral ideal, a vision of a person who thinks and acts about the world in specific ways: as a universal community without boundaries whose members care for each other and the planet.

UNESCO definitions leave these aspects aside or at a secondary level. Along these lines, Tawil (2013, p. 5), states that:

In “softer” approaches, the starting point for global dimensions of citizenship education is of a more moral variety based on the notion of a common humanity and a global or world ethic. In more “critical” approaches, the ethical starting point is the concept of social justice as farmed by the international normative instruments of human rights.

Our research assumed the goal of Oxley and Morris (2013) on CGCE:

Our goal is to develop a typology that includes both normative and empirically grounded conceptions of GC in terms of their ideological underpinnings (...). It is thus intended as a device to explore the critical features of a construct that is understood in diverse ways and is changing overtime” (p. 305).

Critical global citizenship education requires critical literacy to identify the ideological dimension of social problems and their stories, on a local and global scale, as well as making invisibilised people and groups visible (Santisteban et al., 2016). It is necessary for CGCE to be accompanied by the teaching of plurality, by the understanding that there are people and groups with different ways of thinking, with different ideologies and



interests. CGCE sets out from the imperative that people and peoples have to learn to live together, within ethnic, cultural and religious diversity (UNESCO, 2018). Social studies must serve to teach us to organise ourselves locally and globally, to solve social conflicts and build a future together.

The project also took as reference points the approaches of Oxley and Morris (2013) who consider that there is a direct relationship between global citizenship, cosmopolitan citizenship, and advocacy types. Cosmopolitan citizenship is specified in: political global citizenship, moral global citizenship, economic global citizenship, and cultural global citizenship. For its part, advocacy types are specified in: social global citizenship, critical global citizenship, environmental citizenship, and spiritual global citizenship. Along these lines we find the proposal of the project “Putting the World into World-Class Education” (Department for Education and Skills, 2004), in which it is proposed that in order to work on the global dimension in students the following aspects should be considered: Citizenship, Social Justice, Sustainable development, Diversity, Values, and perceptions and Interdependence, Instilling a global dimension into the learning experience of all children and young people.

From the perspective raised, CGCE is a type of education that seeks to train citizens who recognise, understand social problems and are willing to think and act globally. This perspective transcends the nation-state and is oriented to the search for the highest moral imperatives (Cortina, 2009); that is, to the construction of social justice on a global scale (Davies, 2006; Torres, 2017; Sant et al., 2018b). On the other hand, faced with social problems, people have to analyse the historical, geographical, political, legal, sociological, anthropological, economic, and legal aspects, so that GCE serves to “Empower individuals: to reflect critically on the legacies and processes of their cultures and contexts, to imagine different futures and to take responsibility for their decisions and actions” (Andreotti, 2006, p. 169). In this perspective we identify ourselves with the idea of an education for critical citizenship (Andreotti, 2006; Tully, 2014).

For Scheunpflug and Asbrand (2006) GCE oriented to social justice is considered an appropriate framework to analyse educational proposals, because it includes the central concepts of global citizenship and, in turn, those related to other aspects of education for the critical citizenship. This conception of GCE echoes one of the roots of GCE theoretical framework which is Freirean pedagogy (Scheunpflug and Asbrand, 2006). Because as Freire puts it: “For a more equitable and just society, at the heart of the development educational objectives, people must be able to critically reflect on the world, challenge assumptions that create oppression and reconstruct understanding based on this collaborative inquiry” (Freire, 1970, p. 53).

The CGCE must have as its final objective the commitment to social justice and not only have international awareness, according to Davies (2006):

What seems to happen with global citizenship education is a confirmation of the direct concern with social justice and not just the more minimalist interpretations of global education

which are about ‘international awareness’ or being a more rounded person (p. 6).

Can CGCE be a possible answer to what Sant et al. (2018a, p. 14) wondered: “Will global citizenship be part of a creating world for all or will it serve a more destructive project of mono-economic, mono-cultural and mono-political engagement that serves only a small elite?” In this case, it is essential to reflect on the challenges and commitments implied in social studies education to achieve it.

## Critical Global Citizenship Education in Social Studies

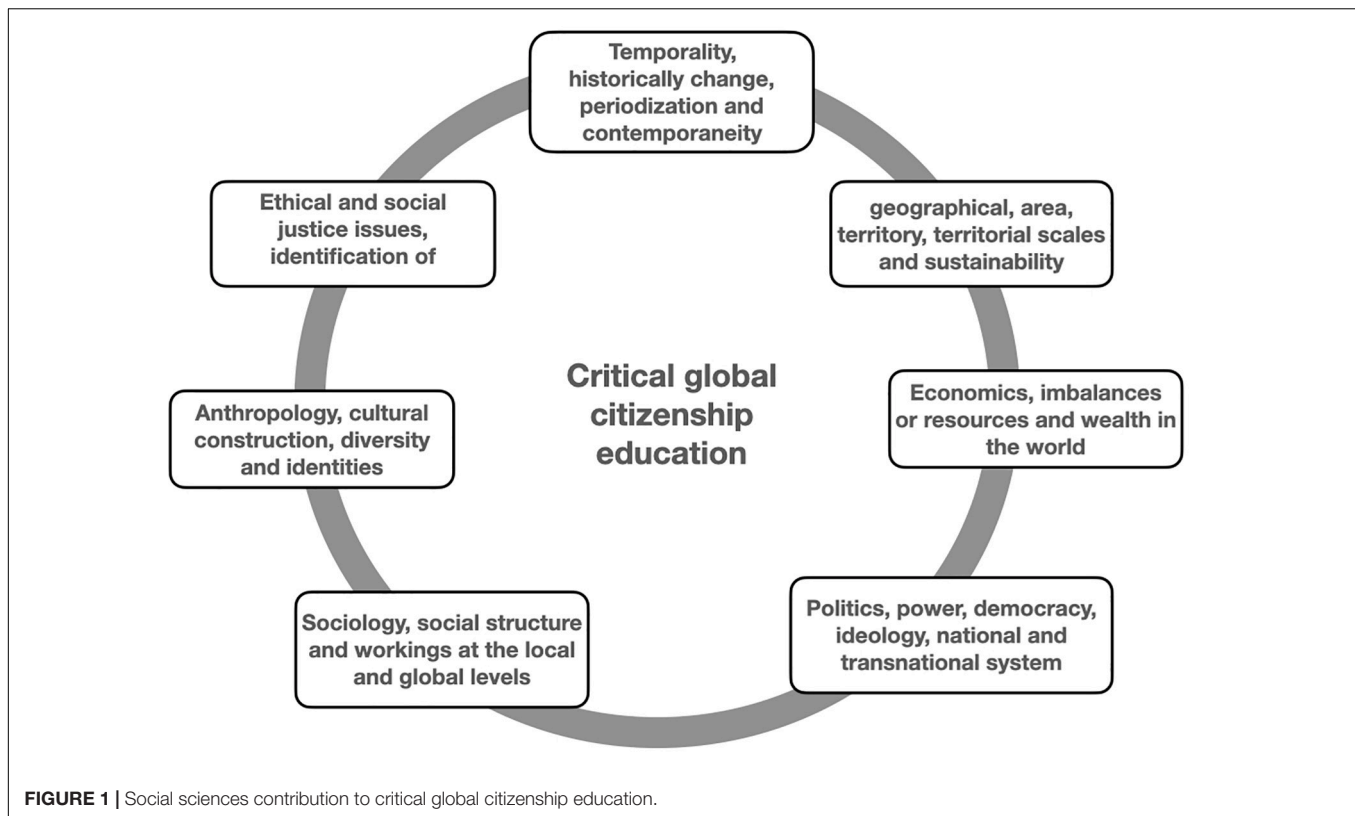
Despite the reviewed literature, there are authors who consider that the term is still very broad and difficult to specify for teaching (Tawil, 2013), since it does not include an identifiable area of educational theory or practice (Myers, 2006). In this sense, Grossman (2017) considers that GCE would be related to different perspectives, such as multicultural education, peace education, environmental/sustainable education, human rights education and development education. These realities raise the need to define in our research what we understand by GCE.

In the review of the global citizenship frameworks, Stromquist (2009) and Tully (2014) identify three types of approaches: social, political and economic. For Oxley and Morris (2013) there are social, political, economic, cultural, environmental, and moral perspectives. These interpretations are made from the theory of world culture, social and critical citizenship, and world systems framed in post-colonialist theories of globalisation (Andreotti, 2006). That is why they have been especially focussed on in Social Studies Education.

In the literature review on GCE and CGCE in social studies, there are studies that analyse their purposes (Bruce et al., 2019), the evaluation of proposals or methodologies for teaching (O’Meara et al., 2018), the influence of global education to train global citizens (Larsen and Searle, 2017); the importance of educating in the plural concept of identities and a global identity (Santisteban and González-Monfort, 2019); GCE from teaching history (Metzger and Harris, 2018; Santisteban et al., 2018) and heritage education (González-Valencia et al., 2020).

The teaching of social sciences, geography and history, from a critical and interdisciplinary perspective, helps people understand and participate in the solution of social problems. These problems are increasingly global and affect differently depending on which people and groups (Torres, 2009; Pagès and Santisteban, 2014; Anguera et al., 2018). Ultimately, it is about understanding the relationship between citizenship and globalisation (Rapoport, 2009). Different social sciences contribute essential elements to CGCE, which we summarise below (Figure 1):

- History shows the different ways of periodising history and temporal concepts such as simultaneity or contemporaneity.
- Geography helps to understand the interdependence between the different territorial scales and to defend sustainability throughout the planet.



- Political science reflects on local, national and international power, and transnational organisations in defence of democracy.
- The economy interprets exchanges at the local and global level, and imbalances in the distribution of resources and wealth.
- Sociology helps us to understand the structure and functioning of societies and their interrelationships at the local and global level.
- Anthropology interprets the processes of cultural construction and identities in contexts of diversity.
- The ethical and social justice aspects offer the necessary tools to identify injustices, as central themes of the social sciences.

Social studies education on a global scale is an obvious and yet unresolved challenge. It has been thought about for decades, for example from history education, as the teaching of history has traditionally been linked to the monolithic views of national history. Some attempts have been made to adopt multicultural approaches to world history projections. In these, however, there are some dangers and resistance (Kocka, 2012; Brett and Guyer, 2021), such as the need for some minority groups to maintain identity spaces (Sabzalian, 2019). Currently, diversity and multiperspectivity seem to be core concepts for history education from global perspectives (Fontana, 2013; Kropman et al., 2021), attending Fillafer's consideration: "If we want to dislodge the structuring assumptions connected with globality,

interrogating the premise that the world has one history is a good way to start." (Fillafer, 2017, p. 37)

Rüsen (2004), for example, understands that historiographical ethnocentrism is characterised by an asymmetric assessment, theological continuity and centralised perspective, and proposes to address it through a "culture of recognition" (2004, p. 118) focussed on (1) normative equality; (2) the reconstruction of concepts from contingency and discontinuity, and (3) the multiperspective and polycentric approaches to historical experience. Fontana (2013) left some indications for the construction of a global approach on "people's history":

- 1) To abandon the narrative form and opt for a polyphonic account through life histories from choosing "the sufficient number of the high and low, large and small voices of history to articulate them in a more meaningful chorus" (2013, p. 192).
- 2) To learn from concrete events and not from pre-established solutions.
- 3) To abandon linearity, which should allow "not only to overcome Eurocentrism, but also determinism" (2013, p. 195).

Guldi and Armitage (2016) understand that the great challenge of building historical knowledge is to regain the public mission with future projection, from recovering experiences and alternative models that serve as inspiration to imagining a possible alternative future. They consider it essential to apply transnational and transtemporal perspectives. This would be

achieved through (3) the articulation of the micro- and the macro-visions, through (4) the construction of macro-narratives that respond to current problems.

Proposals from decolonial perspectives raise the issue of epistemological deconstruction on which academic historical knowledge has been based (Massip, 2021). De Oliveira (2018) proposes questioning all epistemological bases of the discipline from the silences of the gender at intersection with the ethnic and social class. Also, Alderete (2018) opts for the deconstruction of some basic premises of academic history, such as the conception of historical time. He argues that “the experiential recovery of sub-altered sectors” cannot be given from a conception of historical time “which attributes such as linearity, homogeneity and monoculture come directly from European philosophy” (p. 141). He stands for (1) questioning the hegemonic notion of time, showing different ways to live and understand, and to (2) altering the micro- and macro-scales so that we can deal with atypical issues and obtain a general picture of historical realities, including non-hegemonic realities.

Renner (2009) also proposes “connecting the curriculum with personal and local histories,” which relates to the importance of starting from recent history and explaining the experiences of oppressed people, their experiences, emotions, etc; (2) Participating from school in situations where action can be taken for social justice, and (3) favouring such participation outside the school centre. Ross (2018) also emphasises this (1) political participation from school. At content level, it raises the need (2) to address issues such as power, imperialism, marginalisation or exploitation from critical thinking. Finally, (3) emphasising the agency from intentional actions. Santisteban et al. (2018), insist on the need for

- 1) the teacher being free to project global visions of the topics treated from independent decision-making;
- 2) breaking with national, nationalist and Eurocentric approaches, understanding that “global subdivision, we argument, is uncomfortable the antithesis of national consciousness” (p. 461), and that Eurocentric approaches to school history are what make most of the population excluded;
- 3) being based on the histories of humanity as a whole: “History Education for Global Expire shall look at the histories of the whole humanity and challenge any narratives of Western Supremacy” (p. 461);
- 3) the content being selected from relevant social problems. The proposal in the solo article by Pagès (2019) goes in the same direction: (1) to break with nationalist and Eurocentric approaches, and (2) to stem from relevant social problems. In this case, however, it adds an interesting nuance as regards the concept of relevant social problems, which is mentioned in many proposals, but which often does not specify just what type of problem is referred to. In this proposal by Pagès (2019), they would be specified as common human problems.

The current study places the emphasis on problem-based projection on global perspectives, and the assumption that

sociohistorical facts are analysed from the interaction of different sciences or disciplines.

## MATERIALS AND METHODS

Understanding the interaction between CGCE and the curriculum takes as reference the approaches of various authors (Andreotti, 2006; Shultz, 2007; Oxley and Morris, 2013) and provides a teleological and conceptual structure for data analysis. This structure results from the assumption that social facts are analysed from the interaction of different sciences or disciplines, with which causal or multi-causal explanations can be built (O'Meara et al., 2018). This enables the research team to keep track of the different dimensions of GCE in the responses of the research participants.

The study is comprehensive. The information has been obtained from students in the final year of compulsory secondary education (Ministerio de Educación and Cultura y Deporte [MECD], 2015), which corresponds to an age between 15–16 years ( $n = 253$ ), from educational centres in Catalonia (Spain) in the 2018–2019 academic year. Regarding the educational stages to which GCE has been directed, Reynolds (2015), in a review of 1,110 articles on global citizenship and global education, points out that 46% are higher education studies, 33% from secondary school, 17% from primary education, and 3% from early childhood education. These data indicate that more research is needed in non-university educational stages, bringing the research closer to what happens in school classrooms and clearly linking research and innovation.

The collection of information has been carried out by means of a questionnaire in which students are presented with a series of cases, based on the theoretical framework, which they must analyse and on which they must express their opinions. The central case, which explicitly represents the relationship between the local and the global, is a photograph of the G20 meeting taken on 7 July 2017 in the city of Hamburg, Germany (**Figure 2**). The case, according to Santisteban (2019), corresponds to a controversial issue, since it presents the international leaders at the same time that it makes evident a series of cultural conventions, the lack of diversity, the invisibility of people or groups and the gender imbalance.

The study is positioned on the methodological principles of quantitative content analysis and a qualitative and quantitative interpretation of the data is carried out. Descriptive and inferential statistical analyses of the students' texts are carried out, and the appearance-absence and textual density of the theoretical attributes of the proposed conceptual model (Krippendorff, 1990; Bardin, 2002).

The data obtained have been transcribed and organised in a matrix for analysis (Miles et al., 2014). A thematic coding has been carried out (Flick, 2004; Schreier, 2014). The codes are defined based on the theoretical approach presented: temporality, territories, politics/democracy/ideology, economies, social structures, cultural practices, ethics, and social justice. In the analysis of the responses, it is identified whether or not the reference to the dimensions of the model appears, whether the

presence is classified with a point, its absence with zero, in the case of appearing more than one reference to the same code, and the number of occasions that it does. This allows us to identify the frequency in which the dimensions of GCE appears.

With the results of the thematic coding, people are classified on a scale of three levels, which correspond to what the project assumes as levels of literacy. This is understood as “the ability to read between the lines and go beyond them; that is, to identify the socio-historical, ideological background and the intentions behind the books, images, videos or the media” (Castellví et al., 2019, p. 25). Similar scales have been used by Bruce et al. (2019) in their work. The scale proposed in the research is:

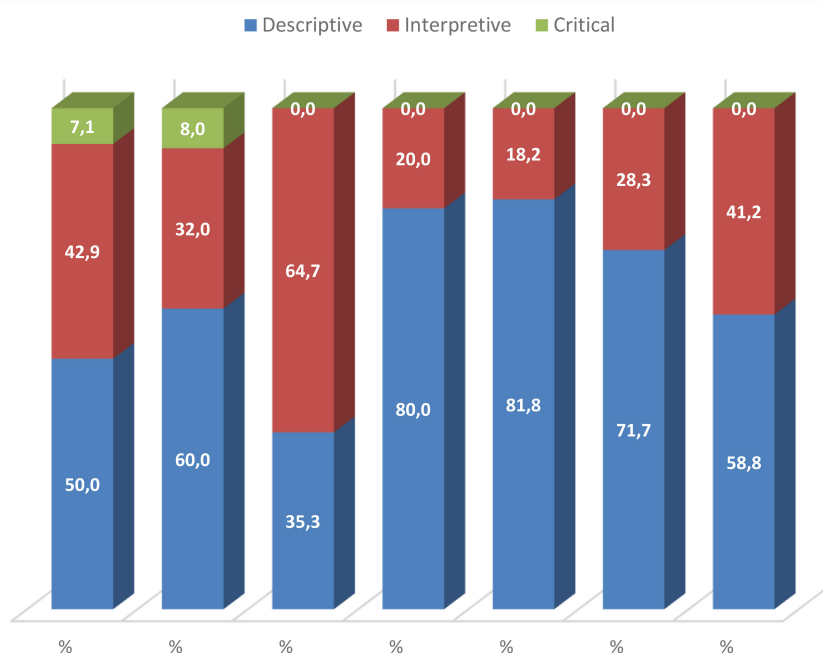
1. Students oriented to the description of the facts, who mention 1 or 2 codes.
2. Interpretation-oriented students with a certain social commitment, who mention 3 or 4 codes in their story.
3. Students oriented to critical appraisal and mention four or more codes and propose social actions.

## RESULTS

The questionnaire was answered by 171 students in the 4th year of compulsory education (15–16 years), from seven secondary



**FIGURE 2 |** Central image on research instrument: G20 meeting, July 2017.



**FIGURE 3 |** Descriptive, interpretive, and critical answers.



schools in Catalonia, all of them in the city of Barcelona and its metropolitan area. In the first phase of the analysis, the students' responses are read and placed in one of the three proposed levels of analysis: focussed on description, oriented toward interpretation or with a critical perspective. The results show that in the case presented, the majority (61.4%) are located at the level of description, there being almost twice the number of students with an interpretive orientation in their answers (33.3%). The critical level is only present in 1.1% of the total. This information shows that the group of participants identifies the factual characteristics of the image, without actually reading beyond what is evident, without taking into account the possible readings of the implicit meaning at the political, cultural, economic level, etc.

When analysing the data by educational institution, it is found that the descriptive level is the highest in six of the seven institutions (**Figure 3**). In two of them, the difference between the descriptive and the interpretive levels was 63.6 points, the highest difference in all the institutions. In general, the dispersion of the data is wide and ranges between 7.1 and 63.6 points of difference. In the institution where the interpretive level is the highest, there is a difference of 29.4 points from the descriptive one. Only two institutions have critical levels, but the values do not exceed 8%. These data reflect a significant weight of the descriptive level in the student responses.

The students' responses have been processed through content analysis with two analytical procedures. The first is a process of coding the responses. The second is the identification of the words that appear most frequently. The first process consists of reading the responses and assigning one or more codes (political power, ways of dressing, annually, male power, strong economies, inequality, gender, Germany, injustice, etc.), and each one of these codes is associated in one of the dimensions of the CGCE (temporality, spaces, politics/democracy/ideology, economies, social structures, cultural practices, ethics, and social justice). In this phase, 264 codes were identified, taking into

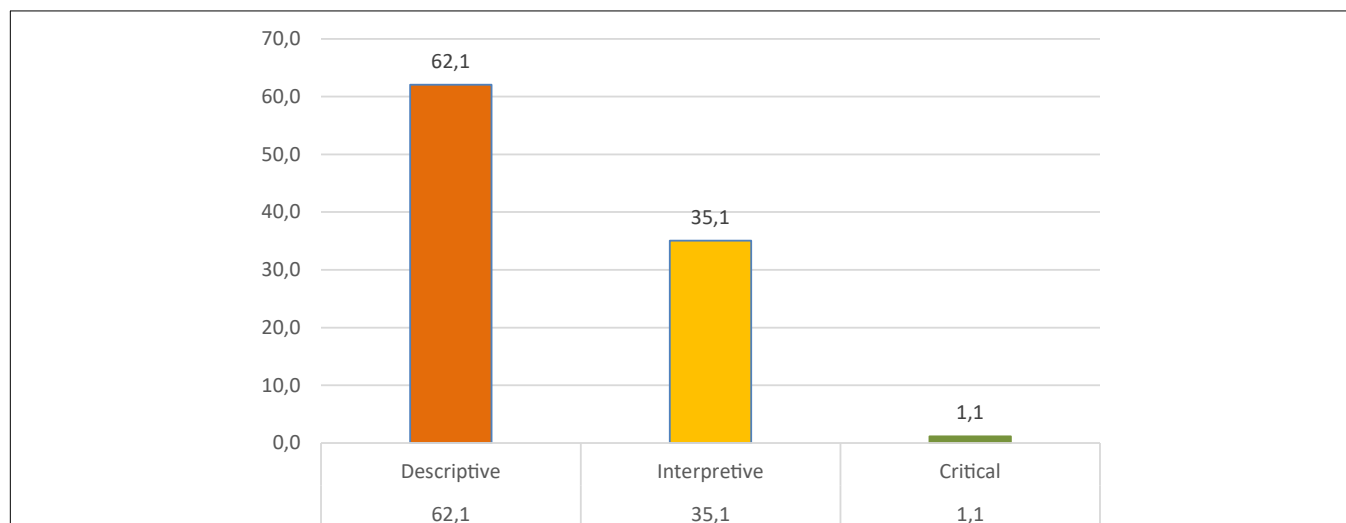
**TABLE 1 |** Analysing codes.

Codes	No	%
Social structures	118	44.7
Politics, democracy, and ideology	96	36.4
Ethics and social justice	20	7.6
Cultural practices	16	6.1
Economic aspects	7	2.7
The spaces of the facts	5	1.9
Temporality of the events	2	0.8
<b>Total</b>	<b>264</b>	<b>100.0</b>

account that each student response could refer to different codes (**Table 1**).

The coding of the responses shows that the dimension "social structures" and "democracy, politics and ideology" are the ones with the highest incidence (81.1%). This shows that the descriptive level is characterised by relating these two dimensions which, on the other hand, are also central dimensions in critical citizenship education. At this point in the analysis, a possible relationship emerged between the critical level and the ethics and social justice dimension (**Figure 4**). In the educational institution that obtained the highest score on the interpretive level, its students focus on aspects related to social structures and ethics and social justice. This last dimension is also the majority in one of the institutes that stands out at the critical level. For these reasons, it seems that students at the interpretive and critical levels are more likely to take into account aspects of social structures and social justice. The responses of the other school that achieved better results at the critical level focus on the dimensions of politics and democracy, social structures, and the economy.

These results can help in the construction of educational proposals for critical citizenship. In fact, this is what Andreotti (2006) suggests, considering that critical citizenship education



**FIGURE 4 |** Percentage of descriptive, interpretive, and critical answers, per school.

must be oriented to the values that promote critical analysis of societies and social justice. If we make a general balance, according to the data obtained as a whole, we can suggest that the interpretive and critical levels require an increasingly complex outlook, which includes significant references to a maximum number of dimensions of GCE and, especially, to the defence of social justice.

To identify the words that appear more frequently, the TermoStat software has been applied to carry out a lexicographic analysis of the response corpus. As a result of this analysis, we observe that the word that appears most frequently is “woman,” which occurs 113 times, in 100 responses out of a total of 171; that is, 58.5% of the responses used this word explicitly. It is followed by the word “man” that appears 85 times. When the words “woman” and “man” appear together, it is always to indicate the low presence of women in the photograph and, especially, the lack of women in the organs of representation or political power, as reflected in the image. These are the comments of two students:

“Both society and the government have to start accepting that as women we also know about politics... In this image you can see that the rulers of most countries are men, and I think this should change over time since women increasingly make themselves heard more and at least there are representatives, not like in the past when you were not allowed to govern as a woman.”

“Only one woman appears in the entire meeting. I observe that there are only four women, and the one that stands out the most since she is in the middle and wearing a distinctive colour is Angela Merkel, all the rest of the people are men.”

The responses reflect an analysis from the gender perspective, which is very significant in sociological terms, because it shows that the new generations identify, from a global perspective, the existence of inequalities between men and women in all political and social settings and, in a specific way, in the organisms or institutions of representation and power in the world. However, these results contrast with the high presence of responses that are located at a descriptive level, without looking deeper into the causes or consequences of the invisibility of women in certain areas.

In secondary education institutions in which the critical level is reached, even if it is a minority, the codes with the greatest presence are those of gender inequality (41/68) and that of male power, which has just confirmed the importance of the references to the situation of women within the set of responses. These references focus on pointing out the existence of inequalities that are reflected in the social structure.

This pattern of responses is common to all secondary education institutions in which we have carried out research; therefore, it can be noted that there is a significant number of responses that indicate the need to give more prominence to women in the social structure, politics and democracy. This is also associated with the idea that the greater the presence and participation of women the more social justice there will be.

“It seems to me a macho image, because only th

ree women appear in it and I at least understand by that that only men should govern and it does not seem fair to me.”

“This image when looking at it generates a lot of injustice to me when I see that in the countries of the world only three or four women govern as presidents and the other 25–30 are men.”

The analysis shows us that, although the descriptive level is the majority in the responses, the students manage to identify that the photograph reflects the inequality between men and women in political decision-making, where women are always in the minority. Identifying this situation in the image, which is evident, can be interpreted as a first level of analysis, but that does not go beyond the obvious, which is that it does not reflect what causes this situation or what consequences are derived from this marginalisation of women. Nor does it take into account that in these central spheres of power, decisions can be made against the injustices suffered by women in the world. Getting to establish this type of relationship is what could give more quality to the students’ stories, to go beyond the obvious or factual.

Given these results, we ask ourselves: what should characterise an education for critical global citizenship? The results offer us some revelations; for example, that students approaching the responses from the critical level prioritise ethical and social justice implications in their analyses. It seems clear that the critical level demands a critical citizen consciousness in the face of social problems, and requires capacities to identify inequalities or social injustices, and also that students are capable of proposing alternatives to these problems. We have obtained information that we find useful to make advances in critical global citizenship education and, in this sense, the dimensions described can help us to think about new educational proposals.

## DISCUSSION AND CONCLUSION

The theoretical perspective that frames the research is critical global citizenship education (CGCE) (Oxley and Morris, 2013; Davies et al., 2018), which places the education of people to identify and act at the centre of teaching against injustices on a global level. To this end, it is necessary to identify the ideological and hegemonic dimensions of the events or social problems, in order to work for global social justice (Sant et al., 2018b). In this process, progress must be made in improving critical literacy, developing cognitive skills in the critical interpretation of information, but also to intervene in society and produce social changes as global citizens (Curley et al., 2018). It is about orientating students’ work toward a global transformative change, as O’Connor and Zeichner (2011) state.

In the students’ responses there are very few references to elements that we could relate, directly or indirectly, to post-colonial discourses. This may be due to the excessive presence of the Eurocentric perspective in the history and social sciences curriculum. Post-colonial discourse is in the centre of the theoretical approaches of GCCC (Davids, 2018), as a response to the Eurocentric discourses, which are often hegemonic. It is important to make teaching proposals about the consequences of globalisation in different parts of the world (Andreotti, 2006; Oxley and Morris, 2013).

The analysis shows that the students establish some relationships between the global and local scale, as demonstrated

by Goren and Yemini (2017) or Çolak et al. (2019), in their research. But this relationship, according to our results, remains in the statement of some dimensions of GCE to describe the facts or social problems, but only a small minority is capable of establishing the interdependence between territorial scales. The two research works cited agree on the need to educate on the implications of being a global citizen.

Our findings showed, in terms of literacy, that the majority of students are located at the descriptive level of social facts, although they are aware of the negative elements of some aspects of globalisation or of the social facts analysed, making mention of aspects such as inequality, injustice, marginalisation, poverty, exploitation, etc., which coincides with the results of the works of Torres (2015). The interpretative level accounts for almost half of the descriptive level, and the critical level is only slightly more than 1%, although in two centres it is between 7 and 8%.

The textual dimension suggests that students place at the centre of their stories firstly social structures, then politics, democracy and ideology, and at a greater distance, ethics and social justice, and somewhat less cultural practices. The absence of references to temporality and territorial context is striking. The allusions to economic aspects were also scarce. This last aspect is surprising in the analysis of a fact that refers precisely to economic power. But the results are consistent with what is stated by Goren and Yemini (2017) in their research. We also agree in this sense with authors such as Hedtke (2018), who considers an economic education essential to understand the logic of globalisation and sustainability, and to make decisions from a critical and social justice perspective.

The students who are located at the critical level have in common that in their answers they made reference to aspects associated with social structures and, especially, with ethics and social justice. This last dimension is the essential difference between those who were at the critical level and those who were not. These dimensions appear explicitly in the approaches of Andreotti (2006); Davies (2006), Oxley and Morris (2013); Sant (2018), and Sant et al. (2018b), who coincide in pointing out the importance of an education for social justice in CGCE, with explicit attention to this dimension.

Let us remember the question that guided the research: Do secondary school students apply the CGCE dimensions when analysing events or social problems? These findings lead us to ask ourselves a new question: What and how should we educate students in the complexity of the various dimensions of CGCE in the analysis of facts or social problems? It is necessary to create more proposals and materials that facilitate the work of teachers to address CGCE, we need educational intervention proposals, especially from the teaching of social sciences, which address the different dimensions raised.

The data show that there is a certain global citizen awareness and a certain social commitment, given the fundamental problems that globalisation can pose, but the levels of critical literacy are very low, coinciding on this point with the study by Delacruz (2019). We also agree with this author that young people are digital natives, but they need explicit work to train critical thinking. The causes of these needs detected may be, among others, the lack of practical teaching proposals aimed at

critical reading of the media from GCE (Tawil, 2013; Culver and Kerr, 2014; Pathak-Shelat, 2018; Kim, 2019).

On the other hand, more specific training of teachers at university or in their professional development, on the content of GCE is necessary (Howe, 2012; Larsen and Searle, 2017; O'Meara et al., 2018; Sant, 2018; Tarozzi and Mallon, 2019). In this last aspect, we have to accept that without a teacher capable of teaching CGCE in secondary education, any type of educational change is impossible, which is why a new training in citizenship education is essential (Yang et al., 2017), and that education contemplates historical, geographical, political, economic, socio-anthropological aspects and an ethical and social justice approach (González-Valencia, 2013; González-Valencia and Santisteban, 2016).

The data show that ethics and social justice are two dimensions that are present at the critical level. This data is very important for thinking about educational proposals; for example, from the study of controversial issues, social problems or existing social issues on a local-global scale, as proposed by Davies et al. (2005); Davies (2006), and Santisteban (2019), from critical pedagogy, as an alternative to teaching social sciences, history, geography and new proposals for education for citizenship.

We know that the concept of education for global citizenship has different readings and meanings in each region of the world, as shown by studies on the representations of students and teachers from different continents or countries (Davies et al., 2018). In Europe, for example, young people know and value human rights as an essential good for the development of humanity, but there are important differences between countries on what citizenship education should be and how it should be practiced and how it should be understood. In Catalonia our students show their commitment to social justice, but they lack critical literacy tools to move on to responsible social action. It seems that this situation could be common to many other countries and that it would be necessary to work together, as stated for example by Lee (2015), for Asian countries.

The results obtained in this research lead us to subscribe to the reflection of Merryfield and Subedi (2001):

In the new millennium, even a multicultural American centric curriculum will be inadequate. For no matter whether Americans choose to ignore or reject the realities of globalisation, they will increasingly be affected by the world's human diversity, the acceleration of inequities from economic, ecological and technological dependence, and the repercussions of global imperialism, human conflict, poverty, and injustice. If we are to educate young Americans for effective citizenship in today's global age, the social studies curriculum must go beyond European or American constructions of knowledge and also teach the experiences, knowledge, and perspectives of diverse peoples in Africa, Asia, Latin America, and the Middle East. A world-centred global education removes the nationalistic filters that only allow students to see events, ideas, and issues through the lens of their country's national interests and government policy. It also challenges colonialist assumptions of superiority and manifest destiny (p. 277–278).

We also agree with other authors, such as Girard and McArthur, 2018, who propose a teaching of history that sets

aside Eurocentric approaches and that is an instrument at the service of social change. They propose that young people be helped to develop a global historical consciousness. On the other hand, the foundations of a national identity do not contradict the acceptance of belonging to a global citizenship, as also shown by various studies on identities and global citizenship (Sant et al., 2015; Leek, 2016).

In short, we propose a CGCE to educate people with the skills to identify injustices and inequalities in the world, and act accordingly, which are part of a citizenry that Banks (2008) calls “transformative citizenship,” based on an education that: “helps students to develop reflective cultural, national, regional, and global identifications and to acquire the knowledge and skills needed to promote social justice in communities, nations, and the world” (p. 137).

Will this global world be a host home for everyone, or the disputed land? (Garcés, 2018). The results of our research, contrasted with other international studies, lead us to consider that education for critical global citizenship can be defined with new criteria and dimensions, with special emphasis on the teaching of social sciences, based on research that we are aware of. Perhaps the time has come to rethink our goals, experiences and innovations as researchers, teachers and students, as global citizens, committed to education for social justice, to make sure this global world will be a host home for everyone.

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## DATA AVAILABILITY STATEMENT

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

## ETHICS STATEMENT

Ethics aspects are under good practices guidelines from University Autonomous of Barcelona agreement (Consejo de Gobierno, el 30 de enero de 2013). Written informed consent to participate in this study was provided by the participants’ legal guardian/next of kin.

## AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct, and intellectual contribution to the work, and approved it for publication.

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# Primary and Secondary School Teachers' Perception of the Assessment of Historical Knowledge and Skills Based on Classroom Activities and Exercises

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The aim of this paper is to identify the most suitable activities and exercises for the development of historical knowledge and skills and their subsequent evaluation. On this basis, a quantitative study has been carried out among primary and secondary school teachers in several Spanish regions in which their perception of what types of exercises and activities (of those proposed in their History or Social Science classes) are most suitable for assessing the historical knowledge and skills that students are expected to acquire has been extracted. The results show that exercises involving the interpretation of texts and images which require students to think about and apply the historical knowledge acquired are very useful, as are questions which seek historical explanation and causal reasoning; however, objective tests (multiple-choice tests, linking dates with events, etc.) or short questions about historical events or characters are not considered to be very suitable for the adequate development of historical knowledge and, therefore, of historical competences. Broadly speaking, it is recommended that this line of research be continued so that other authors can replicate these findings, deepening their knowledge of these instruments, whose didactic commitment could serve as an argument in the face of the excessive time pressure faced by today's teachers.

**Keywords:** assessment, competences, historical thinking, social sciences, teacher training, didactic commitment

## INTRODUCTION

The didactics of the social sciences -understood as an area of knowledge- takes on special relevance in the current competency-based teaching model, in which it is made clear that learning lasts and helps the development of knowledge thanks to the putting into practice of different capacities, skills, strategies or resources leading to the development of reflective and critical thinking, capable of training autonomous people who are committed to society. Specifically, in our country, competences appear -for the first time- in national legislation through Organic Law 2/2006 (2006), of May 3, on Education (OLE) and, subsequently, they continued to be present in Organic Law 8/2013 (2013), of December 9, for the Improvement of Educational Quality (OLIEQ) and in the

current Organic Law 3/2020 (2020), of December 29, which modifies Organic Law 2/2006 (2006), of May 3, on Education (OLMOLE).

In Spain, these changes have been promoted not only at the curricular level, but also with regard to improvements in teaching models in history education and, therefore, the very practice of education professionals, teaching strategies and tasks, as well as the type of activities or exercises proposed to ascertain the learning outcomes of pupils in history, will enable progress to be made toward the development of competences specific to the field of history, as well as adequate historical knowledge. In order to achieve an improvement of the teaching-learning process through key competences, the European strategy 2006/962/EC [Recommendation of The European Parliament and the Council of the European Union (2006) of December 18 on key competences for lifelong learning] comes into play, as well as the content of Royal Decree 1105/2014 (2015), of December 26, establishing the basic curriculum for compulsory secondary education and baccalaureate, which aims to favour learning by competences by including them among the different curricular elements in a progressive sequence and in accordance with European interests. In this sense, through Order ECD/65/2015 (2015), of January 21, which describes the relationships between competences, contents and assessment criteria for primary education, compulsory secondary education and baccalaureate; competences are defined as “what all people need for their personal fulfilment and development, as well as for active citizenship, social inclusion and employment” (p. 6,986).

So much so that knowledge is no longer based solely and exclusively on knowing; in order for the information received by students to generate the necessary learning to produce the desired historical knowledge and, therefore, to favour the much-needed competence learning, it is not only enough to know about something (or about something), but traditional knowledge must be accompanied by three other types of knowledge: knowing how to do, knowing how to be and knowing how to be: Knowing how to do, knowing how to be and knowing how to be, which obliges us to require students to demonstrate this knowledge with the most appropriate evidence -and their teachers to teach them the best way and procedure to achieve it- (Gómez et al., 2014; Álvarez et al., 2020).

## From Conceptual Teaching to Historical Thinking. A Road Ahead

From this paradigm, it is therefore necessary to abandon the teaching of history from a merely conceptual approach in order to move toward a competence model in which students acquire historical thinking. Because knowing history does not consist only in memorising a past concretized in temporal elements or factual events. As long as the memory of past events and names continues to be reproduced as a closed knowledge that links history to the past, students will not understand the discipline as a useful and contemporary knowledge with which to address the problems of the present (Guerrero et al., 2019).

Specifically, this work is developed within the current of Canadian historical thinking based on the studies carried out by Seixas and Morton (Seixas, 2006; Seixas and Morton, 2013).

Based on the above, Seixas and Morton (2013) expose the six main characteristics of historical thinking that the student should acquire. The first of these is historical evidence (which makes the student understand that history is an interpretation based on inferences from primary sources -Sáiz, 2014-). In addition, they also highlight historical relevance (by virtue of which it is necessary to discriminate between historical events that have marked the evolution of society), change and continuity (which allows understanding change in the past as a process -with different rhythms and patterns-, and historical continuities such as the imitation of festivals, traditions and cultures-), cause and consequence (which questions the student about the justification for making decisions in the past and judging them in the present), the ethical dimension of history (making value judgments in light of the discernment granted by the present), together with the historical perspective (knowing how to occupy the place of those who lived in the present time our history). VanSledright (2014) also positions himself with this current, providing an approach that emphasises deep thinking and procedural and analytical concepts when posing historical questions.

In recent decades, it is worth highlighting the evolution of studies in educational innovation in the social sciences, and in particular those focused on the development of historical thinking. Such studies aim to change the memoristic and conceptual teaching of history for learning based on analysis, understanding and historical interpretation (Seixas and Morton, 2013). The aim is for students to be able to understand the past in a more complex way. As Santisteban (2010) indicates, the training of historical thinking aims to provide students with analytical tools to be able to interpret or understand history autonomously, being able to obtain their own representation of past events; and - in turn - to contextualise or judge these events, understanding the temporal distance between them and the present. In this way, the aim of this current is to change the memorisation and accumulation of information for the understanding of the construction of historical narratives, interrelating events, characters, contexts, etc. Demonstrating that historical discourse is not something closed, but something that is under permanent construction. This way of thinking, precisely, is justified by the need to know what happened in the past, but also raising questions to understand how the events occurred and the causes that fueled their actions; that is, to ensure a teaching that allows students to access knowledge from the investigation of historical sources, the deepening of the causes and consequences, and the evolutionary processes of a temporal nature (Domínguez, 2016).

Within cognitive studies on historical knowledge, some authors establish that two types of knowledge should be highlighted: conceptual and procedural. Among conceptual knowledge, in turn, they distinguish between first and second order, the latter being closely linked to the competences of historical thinking established by Seixas and Morton, given that they try to answer questions that require a historical interpretation going beyond the classics: what, who, how, or when. Historical knowledge is related to historian skills such as empathy, historical perspective, the search for and selection of information or the treatment of evidence (Gómez et al., 2017).



## Assessment of Historical Thinking. A Pending Subject

For Santisteban (2010), the formation of historical thinking in students is a complex task. The didactics of history has to offer proposals that would not be expected from historiography, since it is something that - it could be said - does not fall within its remit. Therefore, the didactics of history must ask itself what has to be taught in order to form historical thinking. But starting from this question, it is also fundamental to ask oneself how to know if students have really acquired the competences of historical thinking and, from there, to analyse through which exercises or activities historical thinking can be assessed. In other words, which exercises or activities are the most appropriate for assessing certain specific competences related to historical thinking. These are undoubtedly questions that we will try to answer in this article.

There are various research studies that have focused on the assessment of historical thinking; among them, we should highlight the study carried out by Gómez and Miralles (2015) in which they analysed 3,127 questions asked in exams in the Region of Murcia in the third cycle of primary education and in compulsory secondary education, with the supremacy of the exam as the main assessment instrument being evident. These authors carried out an analysis of the content and cognitive skills required in the exams, showing that most of the questions required memorised knowledge of a conceptual-factual nature, demonstrating a great lack of questions involving procedural concepts, more linked to the formation of historical thinking, given that this requires more varied instruments to be able to assess the different capacities of pupils in the interpretation of the past and the development of historical competences.

On the other hand, Domínguez (2016) highlights the importance of the correct assessment of history in order to improve the teaching of history, dividing this assessment into three main competences: explaining historically, using historical evidence and understanding the logic of historical knowledge. In addition, he establishes a series of cognitive skills to work on each competence of historical thinking, which he then sets out in tables specifying the skill, the concept and the competence to be assessed.

Likewise, González et al. (2011) evaluated the process of the formation of students' historical thinking through the design and implementation of didactic materials, relying mainly on the understanding of the past and causal explanation, in which students had to construct a historical narrative through evidence, obtaining positive results, hence the interest in carrying out our study and now presenting the interesting results obtained.

## OBJECTIVES

The main aim of this research is to find out - through a comparative study - the importance given by teachers to different types of assessment activities for the acquisition of historical knowledge and skills. The following specific objectives emanate from this main objective:

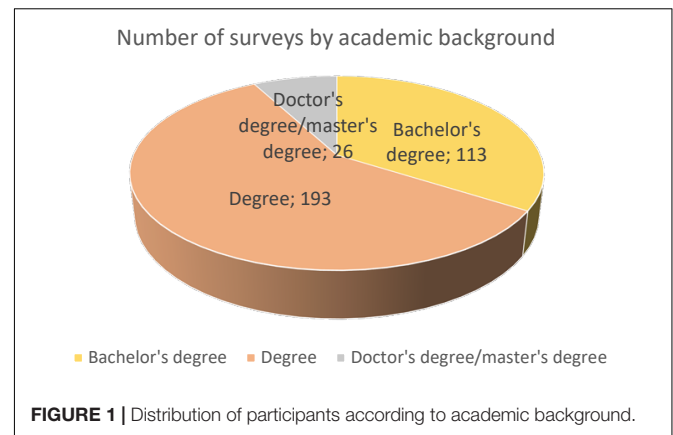


FIGURE 1 | Distribution of participants according to academic background.

Specific Objective 1: To find out the importance attached by teachers to different types of assessment activities for the acquisition of historical knowledge and skills.

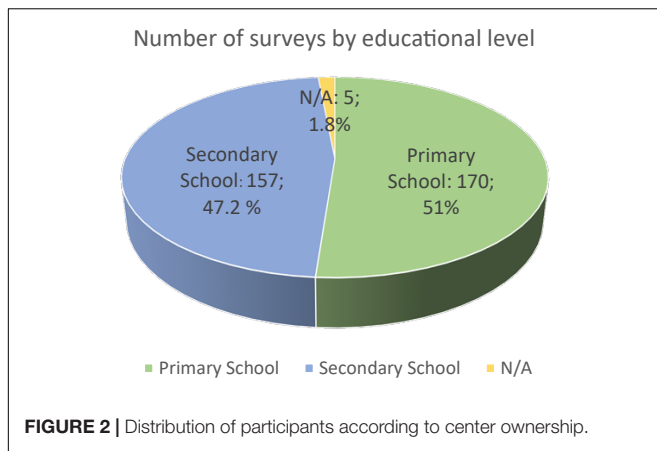
Specific Objective 2: To analyse the time commitment involved for students in responding to the types of activities and tasks set (depending on the type of response).

## MATERIALS AND METHODS

### Sample

In order to constitute the sample, a non-probabilistic, accidental or casual national sampling process was used. Specifically, and in order to give it the maximum level of representativeness, 332 teachers who teach in the different autonomous communities of Spain ( $n = 332$ ), including Andalusia, Asturias, the Canary Islands, Castile and Leon, Extremadura, Galicia, Madrid, the Basque Country, the Region of Murcia, and Valencia, took part in the study. It is worth noting the balanced and balanced nature of the sample, as the number of women and men surveyed was similar (52% women and 48% men - cf. **Figure 1**). Similarly, a distinction was also made between the level of education at which they taught, with primary education being the most common stage of education (51% of respondents, and 47.2% at secondary education), minus the 1.8% who did not specify the level at which they taught (cf. **Figure 2**). Similarly, a distinction was also made between those teachers who - on at least one occasion during their entire career - participated in educational innovation projects (67%) and those who had never done so (33%).

The participants were also categorised according to their administrative situation: 67% were civil servants, 17% of the teachers belonged to private education (private initiative subsidised by the client) or subsidised education (private company that receives subsidies from the State and is paid by the client); and 16% of the sample corresponded to those teachers in one of the situations of temporary employment contemplated by the Administration. In line with this data, it was deemed necessary to know the ownership of the center in which the surveyed teachers worked, being the public centres (State-dependent and free education) the most representative (83%). Finally, and in relation to the level of studies of the participants



(Figure 1), 58% are graduates, 34% have only a diploma, slightly more than 5% have completed a master's degree (or have a Diploma of Advanced Studies -DEA-), and almost 3% have a doctorate degree.

## Instrument

The instrument used for this research was a Likert-type scale with five response options, asking the teaching staff to indicate the one that best represented their opinion and teaching experience (with the following key: 1 = very irrelevant; 2 = not very relevant; 3 = neither relevant nor slightly relevant; 4 = somewhat relevant, and 5 = very relevant).

For the validation of this questionnaire, an expert validation process has been carried out, for which professionals of recognised prestige in the field of knowledge of this study have been consulted, being constituted - finally - by three university lecturers in the area of social sciences, three secondary education teachers of the subject of Geography and History, as well as three primary education teachers, giving this process - according to the specialised literature consulted (Hastad and Lacy, 1998; Hair et al., 2010)- a high degree of reliability and validity. Following this expert evaluation, the questionnaire is made up of a total of nine questions. In these, teachers were asked about the exercises and activities which - according to their training and teaching experience - they considered most suitable for assessing the historical knowledge and skills acquired by students. Specifically, the first item refers to exercises requiring the interpretation of texts and images which involve thinking about and applying the historical knowledge acquired. On the other hand, the second item deals with short questions referring to historical events or characters. The third and fourth items question teachers as to whether essays and developmental questions on historical processes; and fieldwork (gathering information, carrying out exercises) in the form of a visit to a museum or other place of historical interest were considered the most appropriate exercises for the assessment of students' historical thinking. The fifth item deals with empathy, simulation or historical perspective exercises, while the sixth item focuses on local and family history research. The seventh item refers to questions seeking historical explanation and causal reasoning; and finally, the eighth and

ninth items of the instrument deal with objective tests (multiple-choice tests, linking dates with events, etc.) and the definition of concepts, respectively.

Finally, it is important to point out that the instrument was applied in two ways: *via* the Internet and on paper (chosen by the participants), with an estimated completion time of 15 min.

## Data Analysis

For the analysis of the data, a descriptive and quantitative methodology was used, valid according to the specialised bibliography for a non-experimental cross-sectional study in which descriptive and relationship studies are combined. As we know, non-experimental research is based on the search for empirical and systematic information in which the scientist has no direct control over the independent variables, because their manifestations have already occurred or cannot be manipulated (Kerlinger et al., 2002). This type of design has been chosen because the survey technique allows us to learn about people's demographic characteristics, attitudes, beliefs, behaviours, opinions, habits, ideas, values or desires (McMillan and Schumacher, 2005).

In this sense, for the analysis of the objectives set for this study, the tasks have been grouped according to the students' time dedication for their resolution and the commitment to the cognitive skills required, which leads to a greater or lesser didactic commitment on the part of the students. Furthermore, in the analysis of this study, we have taken into account the time required by students to respond to each of the types of tasks that teachers may ask them, understanding this time in two ways (in terms of temporal organisation and spatial organisation), and grouping the questions into three areas:

- Longer time and extensive response: items 1, 3, 4, 5, 6, and 7.
- Medium time and short response: items 2 and 9.
- Use of little time and space for response (choosing one of the given options, linking with arrows, etc.): item 8.

## RESULTS

In order to follow a logic that ensures the coherence of this research, the results are presented as a direct response to the specific objectives set out:

In order to respond to this first specific objective (SO1), teachers individually answered the questionnaire described above, specifically the construct related to those exercises and activities most suitable for assessing the historical knowledge and skills acquired by students. Table 1 shows the distribution of the sample's responses, according to frequencies and percentages, as well as the indices of central tendency.

According to the data obtained (Tables 1, 2), teachers believe that the activity that most contributes to assessing historical competences are exercises in interpreting texts and images that require them to think about and apply the historical knowledge acquired (item 1). In this item, 91.5% of respondents state that this activity is somewhat relevant or very relevant for

**TABLE 1** | Importance given by the teacher to different types of assessment activities.

N	Min	Max	Average	Median	%1	%2	%3	%4	%5	Sd	
Item 1	330	1	5	4.46	5.00	0.30	0.91	7.27	35.50	56.10	0.70
Item 2	329	1	5	3.63	4.00	3.65	11.60	25.20	37.40	22.20	1.06
Item 3	328	1	5	3.76	4.00	1.52	4.57	24.70	54.90	14.30	0.81
Item 4	328	1	5	4.24	4.00	2.13	3.35	11.60	34.50	48.50	0.93
Item 5	331	1	5	3,92	4.00	1.81	8.76	17.80	39.30	32.30	1.01
Item 6	331	1	5	4.05	4.00	1.51	5.44	20.20	32.00	40.80	0.98
Item 7	329	1	5	4.30	4.00	0.30	1.22	13.10	38.60	46.80	0.76
Item 8	331	1	5	3.31	3.00	9.06	15.10	26.30	35.00	14.50	1.16
Item 9	330	1	5	3.73	4.00	3.03	8.79	25.50	37.90	24.80	1.03
Total items	329	1	5	3,93	4.00	2.59	6.64	19.07	38.34	33.37	0.94

N: Sample; Min: Minimum; Max: Maximum; %1: Very little relevant; %2: Little relevant; %3: Neither relevant nor little relevant; %4: Somewhat relevant; %5: Very relevant.

**TABLE 2** | Importance given by the teacher to different types of assessment activities according to time and length of response.

		%1	%2	%3	%4	%5	Sd	Response time	Extent of the response
Item 1	330	0.30	0.91	7.27	35.50	56.10	0.70	1	1
Item 2	329	3.65	11.60	25.20	37.40	22.20	1.06	2	3
Item 3	328	1.52	4.57	24.70	54.90	14.30	0.81	1	1
Item 4	328	2.13	3.35	11.60	34.50	48.50	0.93	1	1
Item 5	331	1.81	8.76	17.80	39.30	32.30	1.01	1	1
Item 6	331	1.51	5.44	20.20	32.00	40.80	0.98	1	1
Item 7	329	0.30	1.22	13.10	38.60	46.80	0.76	1	2
Item 8	331	9.06	15.10	26.30	35.00	14.50	1.16	3	3
Item 9	330	3.03	8.79	25.50	37.90	24.80	1.03	2	3

N: Sample; %1: Very little relevant; %2: Little relevant; %3: Neither relevant nor little relevant; %4: Somewhat relevant; %5: Very relevant.

the assessment of historical knowledge or training in historical competences. Other well rated items are item 4 - referring to fieldwork during a visit to a museum or other place of historical interest - where 83% of teachers state that this activity can be used to observe the acquisition of historical knowledge and skills, and item 7 - referring to working with questions seeking historical explanation and causal reasoning - where 85.4% of cases report a favourable opinion of the contribution of this type of questions in assessing historical skills. In fact, historical explanation and causal reasoning, embodied in the concept of cause and consequence, is one of the six Anglo-Saxon historical thinking skills (Seixas and Morton, 2013).

On the negative - or less positive - side, item 8, which refers to the use of objective tests (test type, linking arrows with events, etc.), should be noted. In particular, 24.2% of the sample consider this activity to be of little or very little relevance if the aim is to assess historical knowledge or analyse the historical competences acquired, with 26.3% in a medium position (neither relevant nor not very relevant).

**Figure 3** shows in graphical terms the mean, median, and standard deviation of the answers given, in order to be able to visualise better and more clearly the answers described by the teachers surveyed.

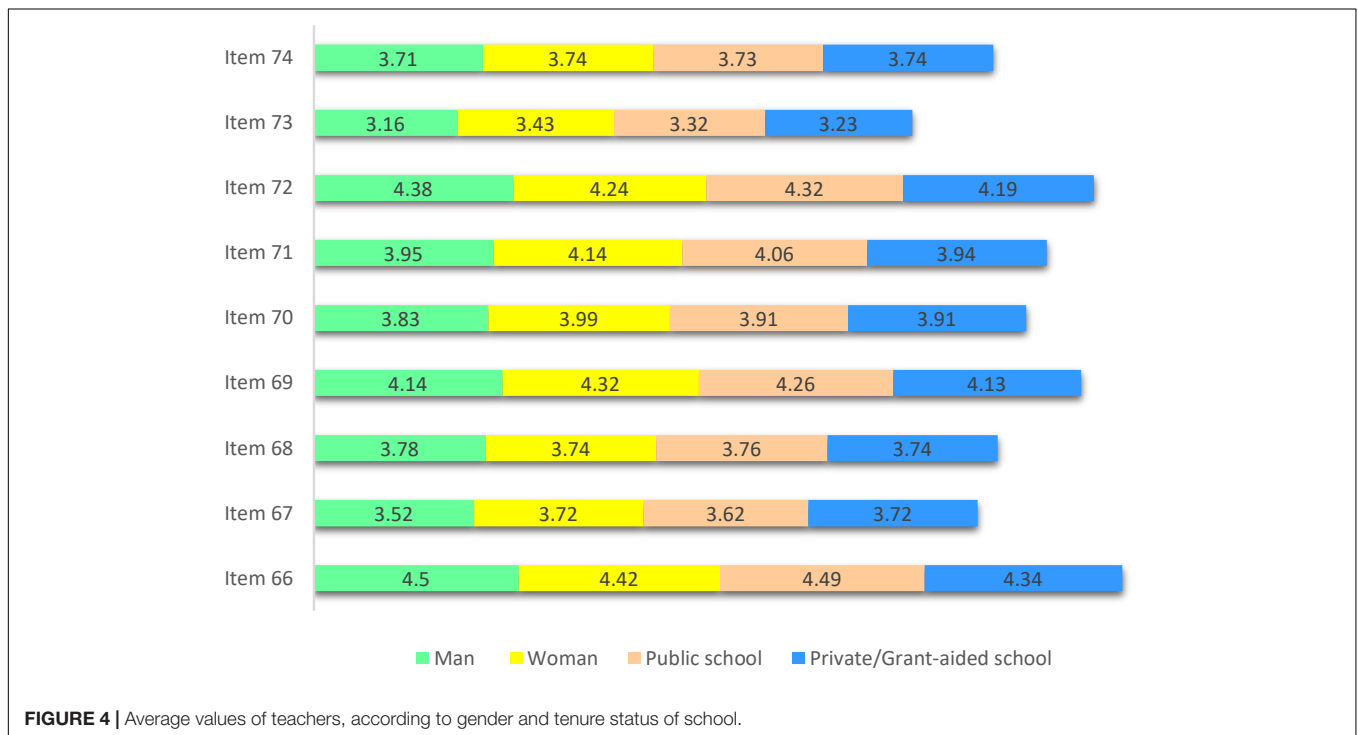
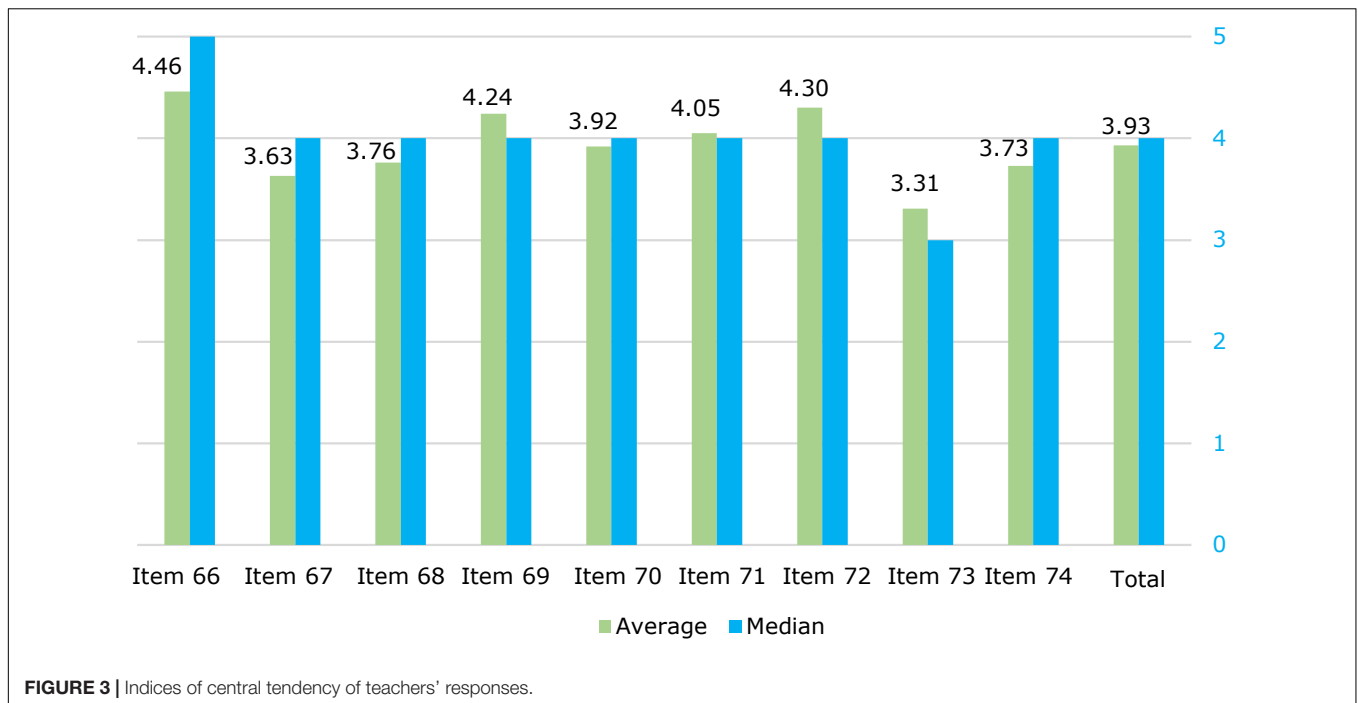
As shown in **Figure 3**, item 1 is the item with the highest mean trend ( $M = 4.46$ ;  $Sd = 0.70$ ), followed by item 7 ( $M = 4.30$ ;  $Sd = 0.76$ ), and item 4 ( $M = 4.24$ ;  $Sd = 0.93$ ), which means that in global terms these are the three items whose activities have been best rated for assessing historical knowledge and competence acquisition. With regard to the median, a value of 4.00 points

out of 5.00 is observed for all the items of the construct, except for item 1 ( $Md = 5.00$ ) and item 8 ( $Md = 3.00$ ), which means that more than half of the teachers surveyed were above these values, as the median is a distribution axis that divides the sample into two halves. **Figure 4** shows the mean values of the teachers' responses according to gender and school title.

As can be seen in the graph (**Figure 4**), the results are homogeneous, and no significant differences are found between the sexes or according to the ownership of the centres investigated. The highest values for men ( $M = 4.5$ ;  $Sd = 0.63$ ) and women ( $4.42$ ;  $Sd = 0.75$ ) are found in item 1, referring to exercises in interpreting texts and images, among which the contribution of public school teachers ( $M = 4.49$ ;  $Sd = 0.66$ ) stands out, compared to those of private or subsidised schools ( $M = 4.34$ ;  $Sd = 0.83$ ), with slightly lower values. The rest of the items scored over three points, thus confirming the high value of the teaching staff.

In order to analyse the time required by students to respond to the types of activities and tasks posed (SO2), the items have been classified according to the time commitment involved in each of the activities presented in the items, categorising the questions into three areas of didactic commitment:

1. High didactic commitment: long time and extensive response 2.
2. Medium didactic commitment: Medium time and response.
3. Low didactic commitment: Short time and short response.



In the light of the results, the three highest rated items (item 1, item 4, and item 7) show a high didactic commitment in terms of response time, as they represent complex activities which usually take a long time to complete. In relation to the length of the response, it is high in item 1 (exercises involving the interpretation of texts and images which require thinking and applying the historical knowledge acquired) and in item 4 (fieldwork during a visit to a museum or other place of

historical interest), but not in item 7 (questions seeking historical explanation and causal reasoning), where it is average. For items 68 and 71 (which refer to essays and developmental questions on historical processes, as well as local or family history research, respectively), the level of didactic engagement is high in terms of time and also in terms of length. However, this is not the case for items 67 (short questions on historical events and personalities) and 74 (definition of concepts), where the response time implies



a medium didactic engagement and the length of both activities is short. To this must be added the values of indecision found on the evaluative function of these activities, since 25.20% (item 2) and 26.30% (item 9) considered them to be neither relevant nor not very relevant, thus showing the coherence between the answers provided by the teachers and the commitment to the task. On the low side, item 8 (objective tests) stands out, with a low degree of didactic commitment, both in terms of response time and in relation to the length of the response. This is confirmed by the fact that it is the lowest rated item (24.16% disapproval of the statement). It is evident, therefore, that objective tests involving multiple-choice questions, exercises involving matching with arrows, filling in gaps, true or false, etc. do not involve a great didactic commitment and can hardly develop knowledge in full or contribute to training in historical competences as do the rest of the activities described, particularly the exercises involving the interpretation of texts and images of thought, fieldwork or causal reasoning questions.

## DISCUSSION AND CONCLUSION

Having analysed and described the objectives set out in this study, it is necessary to discuss and conclude the most interesting findings, as well as to try to justify the contributions of the teachers surveyed.

One of the aims of the subject of History is to provide students with an insight into history and, at the same time, to provide them with the necessary tools so that they can analyse and interpret the past. The aim is that both teachers and students should be able to free themselves from the excessive preponderance of learning which only enables the accumulation of knowledge (dates, historical figures, biographical data, events, etc.), with a lack of concern for the past, with the nonchalance of relating -only- what has happened throughout history (of course, this is closer to historiography than to the didactics of history), but with the setback of not giving value to that knowledge which allows students to interpret and manage -based on the knowledge of history- their own historical thinking. This thinking is that which – consciously – should provide an overview of historical reality, giving young people (in the words of Santisteban, 2010) social models and social representations related to democratic values (p. 5). And it is only in this way (by promoting meaningful teaching for students) that a transfer of knowledge based on learning by competences would be favoured.

In this sense, finding out the importance given by teachers to the different types of assessment activities has allowed us to find that exercises involving the interpretation of texts and images that require thinking and applying the historical knowledge acquired are highly valued by the teachers surveyed. It is clear that they are part of activities whose complexity is beyond doubt, since they involve a greater cognitive load. Likewise, after analysing the didactic commitment of these exercises, we found the relationship between this task and the length of time and extension involved in their appropriate development, a reason which could serve to justify the fact that teachers value them as relevant or very relevant, making it clear that the traditional assessment tests given to pupils (generally adjusted to

the knowledge which the teacher imparts in class and which is contained in a textbook) are not representative of that know-how which – as far as competences are concerned – they are intended to transmit and consolidate.

Consequently, the assessment systems selected by teachers should make it possible to measure the knowledge that students have managed to be able to transfer, concentrating on what they are able to achieve procedurally through their learning. Moreover, these assessments should also be carried out longitudinally; that is to say, they should be carried out in different contexts and at different times in order to know faithfully (and give continuity) to what the student has been able to learn.

On a second level, although with very high scores, are also the exercises on fieldwork or the questions that seek to work on causal reasoning or historical explanation. Firstly, fieldwork involves collecting information and carrying out complex exercises, either during visits to museums or in other places of tourist interest. Teachers have understood the cognitive complexity of this task, which involves several phases and, consequently, carries a greater time burden and a longer response time, since most of the time it involves complex tasks lasting several days, weeks or even months. Secondly, the high evaluation of historical explanation and causal reasoning means that teachers see it as feasible to learn competences and improve students' historical knowledge through the development of this activity. It is worth remembering, as Seixas (2017) points out, that the articulation of competences and the response to conflicts allow historical knowledge to be shaped, and for this reason they are defined as generative. Moreover, to the extent that events are connected by articulating causes and consequences, the chronological gap between two historical stages disappears significantly (if not completely), and this could be seen in this research.

The main point of this study that should be highlighted is that the importance given by the teacher to the activities included in the items decreases as the degree of didactic commitment decreases, since the shorter the time it takes to complete the exercise or activity, and the shorter the length of the exercise or activity, the less time it takes to complete it, The shorter the time taken to complete the exercise or activity, and the shorter the length of the written response, the lower the percentage values obtained by the group of teachers surveyed, until the lowest value was obtained in relation to the objective tests, which in parallel are the ones that involve less response time and less length in terms of content when answering. It is clear that this reality affects the way of assessing, so that, with the exceptions mentioned above, the degree of importance given by teachers to all the activities is sufficiently positive to affirm that, with the exception of the objective tests (where the results show greater variability), all the other activities can contribute to the assessment of historical knowledge and the assimilation of historical competences.

Undoubtedly, studies such as the one cited above by Gómez and Miralles (2015) show that, sadly, assessment continues to be reduced to a numerical result with which students and their families do not know what has happened in the process, how much they have managed to learn or how they could improve (Álvarez et al., 2021a,b,c). Simply put, it is being said that learning will be competency-based as long as students know how to be, learn to learn, and know how to do; and yet, all of this is not

assessed, as no one seems to have taught teachers (in their initial or ongoing training) to assess all of this through an indicator: how is it possible to measure through a common indicator -for all-knowing how to be when it is a particular and specific fact of each student? We are definitely faced with an administrative stance in which the superficial continues to be evaluated. As an example, the quote from Álvarez et al. (2021a) is useful here when - from the perspective of didactics - they make this interesting reflection on this issue:

Because in the end (...) the following question gravitates in our mind: if in the end for the Administration everything must be reduced to a numerical expression, if that is the only important thing, why entertain -and bother- the teaching staff with all that tangle of sterile conceptualisations, inconsistent rubrics and procedures as exhausting as they are empty, if in the end what -unhappily- everyone is waiting for (Administration, parents and -even- children) is a ridiculous numerical grade? If this is the case (and we are very much afraid that it is), then for such a journey there was no need for so many saddlebags. Undoubtedly, teachers deserve greater respect (for their time) and sublime consideration (for their dedication, for their training, and because in their hands rests our greatest treasure: our children) (p. 55).

Undoubtedly, studies such as the one cited above by Gómez and Miralles (2015) show that -sadly- assessment continues to be reduced to a numerical result with which students and their families do not know what has happened in the process, how much they have managed to learn or how they could improve (Álvarez et al., 2021b). Simply put, it is being said that learning will be competency-based as long as students know how to be, learn to learn, and know how to do; and -however- all this is not evaluated, since no one seems to have taught teachers (in their initial or ongoing training) to evaluate all this through an indicator: how is it possible to measure through a common indicator -to all- knowing how to be when it is a particular and specific fact of each student? Definitely, we are faced with an administrative posture in which the superficial continues to be evaluated. As an example, the reflection of Álvarez et al. (2021a) is useful here when -from didactics- they reflect on the reality that occurs in the Administration that everything is reduced to a numerical expression. In this sense, if that is the only important thing, why entertain -and bother- teachers with all that tangle of sterile conceptualizations, inconsistent rubrics and exhausting and empty procedures. If what everyone (administration, parents, and even children) subsequently -and unhappily- expects is an empty numerical grade, there is no need to allude to so many saddlebags and absurd detours. We believe that professionals dedicated to teaching deserve more respect (in their own time) and their perspectives should be taken into account, given the dedication, training and epistemological tenacity they await, as a formative guide for the development of our children (Martínez et al., 2019).

In short, and as we have seen, the teacher becomes a key figure in carrying out all of the above. For this reason, it is essential to underline that the functions that teachers must carry out in order to achieve -successfully- a quality education, involve facing a continuous debate, since through this, learning spaces will be projected with which to give value to the teaching processes, thanks to the constant - and necessary - educational innovation.

Of course, when we try to delve into how teachers should carry out their work, we can conclude that there are many and very varied characteristics (or particularities) that they are expected to be able to put into practice in their daily work, but they will only be truly effective if - in the end - they foster historical thinking (Álvarez et al., 2021c).

As can be seen, it is surprising that although those activities which involve a lower degree of didactic commitment also achieve a greater understanding -among the teaching staff- that such tools are not the most suitable for the development of competences in this area, if we take into consideration the example of objective tests (which would fall into this category), analysing the frequency of their use -as extensive and exorbitantly generalised among the teaching staff-, it would be feasible to venture the conclusion that they are not the most suitable tools for the development of competences in this area, it would be feasible to venture to conclude that it is probably the time variable (implied in these instruments and referred to above) which could be making the difference in the choice of this type of instrument to the detriment of others which, although it is true that they involve a greater time commitment, also ensure the development of those much-vaunted competences which, supposedly, we should raise to the altars of all curriculum design processes (Lévesque, 2011).

Broadly speaking, this article has room for improvement, such as its statistical structure, from which more complex analyses should be considered, or the allusion to a qualitative approach that would enhance the value of the results found. Likewise, enlarging the research sample should be a major objective in order to contrast and discuss the results of this study with a greater degree of specificity.

In other words, it would be very interesting to continue this line of research so that other authors can try to replicate this approach with the aim of finding out whether the use of these instruments (which involve a low didactic commitment) is really used in the face of the excessive time pressure to which teachers are subjected (due to a lack of time to develop a delirious amount of content), or if in addition -or on the contrary- there are other variables that could be installed at the frontier of the justification of this use, and that would open the door to a rigorous approach to certain aspects related to the use and design of these instruments; among them, initial teacher training, training of trainers, and in-service training. Undoubtedly, these elements are of great value in trying to delimit the most beneficial path for teachers who dedicate their professional lives to the development of this branch of knowledge, and who - apparently - seem to need specialised training in general assessment (from the point of view of didactics), and in specific assessment (on the use of effective instruments in this area). This is the subject of our forthcoming work, which we hope will again be of interest to teachers.

## DATA AVAILABILITY STATEMENT

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

## ETHICS STATEMENT

The studies involving human participants were reviewed and approved by the Research Ethics Committee University of Murcia. The patients/participants provided their written informed consent to participate in this study.

## AUTHOR CONTRIBUTIONS

JÁ-M-I and JM-S: conceptualization and formal analysis. JÁ-M-I: data curation. FT-C and AL-G: funding acquisition and methodology. FT-C, JÁ-M-I, and JM-S: investigation. AL-G: project administration. FT-C: resources. JÁ-M-I, AL-G, and JM-S: writing—review and editing. All authors have read and agreed to the published version of the manuscript.

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# The Training Needs of In-Service Teachers for the Teaching of Historical Thinking Skills in Compulsory Secondary Education and the Baccalaureate Level

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In a context of change such as that which is currently taking place in the field of social sciences education, the ongoing training of in-service teachers is an essential element. Only by bringing about a true change in their teaching practice can teaching approaches and the processes of history education be improved. The present paper aims to contrast a theoretical model with a questionnaire designed to identify the training needs of secondary and baccalaureate teachers with regard to the teaching of the historical thinking skills. A quantitative research methodology has been employed with a non-experimental design in which an exploratory and confirmatory factor analysis and a hierarchical clustering analysis have been carried out. After carrying out and applying the analysis, a questionnaire (NFPA) was elaborated. Its construct validity and reliability were satisfactory and appropriate. The results will make it possible to detect and identify needs and deficiencies in ongoing teacher training. Furthermore, it will become possible to discover new elements in order to improve training processes from the point of view of in-service teachers.

**Keywords:** training needs, teacher training, compulsory secondary education, baccalaureate, historical thinking skills, questionnaire, validity, reliability

## INTRODUCTION

The new frameworks of reference in the field of social sciences education advocate the development of historical thinking skills. There is also a decreasing preference for a history teaching model based solely on factual and conceptual knowledge which must be memorized by the students and in which the use of the textbook persists as the main teaching resource (Sáiz and López Facal, 2012; Valls, 2012; Gómez and Miralles, 2017; Carretero, 2019). A form of history education is proposed which extends beyond theoretical aspects and focuses more on the skills needed to access, understand, interpret, and explain the past. This model presents history as a reality which is open to research and can be studied in an autonomous way in order for students to build their own representations of the past (Lee, 2005; Barton, 2008; Santisteban, 2010, 2019; Sáiz and Fuster, 2014; VanSledright, 2014; Sáiz and López Facal, 2015).

The development of these historical thinking skills has led to progress being made toward a less traditional and transmissive teacher-based model, focusing rather on student learning and on the



implementation of strategies and resources which permit the development of these skills (Lévesque, 2008; Van Drie and Van Boxtel, 2008; Seixas and Morton, 2013; Domínguez, 2015; Soler et al., 2018).

The demands which derive from these changes are linked, on the one hand, with a teaching model which is centered on the historical thinking skills, focusing not only on the acquisition of knowledge, but also on the skills, attitudes, and values which are useful and sought-after in the current social and cultural context. On the other hand, these demands are linked with the implementation of active learning methods involving the use of appropriate strategies and resources (Barton and Levstik, 2004; Gómez and Miralles, 2016; Fuentes et al., 2019). Different studies have shown that the teaching methods adopted are heavily influenced by the teachers' approaches to teaching and their relationship with their students' learning approaches and academic results (Kember and Gow, 1993; Trigwell et al., 1999; Kember and Kwan, 2000; Gibbs and Coffey, 2004; Trigwell and Prosser, 2004; Postareff et al., 2008; Gargallo et al., 2015). Likewise, the use of a specific teaching approach may be related with the use of a specific model, strategy, or resources in the classroom (Gómez et al., 2016; Guerrero-Romera et al., 2021, 2022; Gómez-Carrasco et al., 2022).

Furthermore, the diversification of teaching resources for History and Geography education (digital resources, heritage, written, and oral sources, etc.) has demonstrated the importance of employing resources which encourage the students' participation and involvement (Colomer and Sáiz, 2019). Indeed, there are many studies which explore the use and effects of such resources in both learning and training (Gómez and Miralles, 2016; López Facal et al., 2017; Gómez and Sobrino, 2018; Estepa, 2019).

In addition, some authors have shown that there is a close link between the positive evaluation of certain resources and the use of active learning methods (Cózar-Gutiérrez and Sáez-López, 2016; Miralles et al., 2017; Gómez and Sobrino, 2018).

In this new scenario, the teacher's performance is a key aspect as this change in perspective from which the teaching process of history is conceived and managed requires a teaching profile that enables the educator to successfully face these challenges. Salazar (2016) stated that there does not appear to be a positive correlation between what teachers consider to be appropriate for teaching with the reality in the classroom. This is because practices and routines of a traditional nature still persist today and there is still a gulf between knowledge-based teaching and skills-based teaching (Sáiz and Fuster, 2014; Prats, 2016; König et al., 2017; Colomer et al., 2018b; Parra and Fuertes, 2019). Indeed, only through a true change in the teaching activity of in-service teachers improvements can be made in terms of teaching approaches and processes (Lévesque and Zanazanian, 2015).

Some studies have stated that one of the greatest difficulties when employing innovative methodologies and resources into the classroom can be found in the level of training received by teachers (Engen et al., 2015; González-Fernández et al., 2015; Gisbert et al., 2016; Instefjord and Munthe, 2017; Colomer et al., 2018a; Ibáñez-Etxeberria et al., 2019). Gómez et al. (2020), have also pointed out that it is necessary for there to be a process of

updating in terms of the methodology, strategies, and teaching resources employed in the classroom.

Authors such as Cabero (2014), Girón et al. (2019), and Colomer et al. (2018a) have stated that teacher training and the lack of a model of teaching skills based on digital technologies are the main disadvantages for putting these types of resources in practice. García-Martín and García-Sánchez (2017), in a study on pre-service teachers, have also related these competencies with the implementation of active learning methods and with the use of innovative strategies and approaches.

Most research insists on the importance of teacher training in the improvement of the learning process for history and the other social sciences in compulsory education (Cochran-Smith and Zeichner, 2005; Darling-Hammond and Bransford, 2005; Comisión Europea, 2012; Barnes et al., 2017). However, it is often stated that there is still a need for a deeper understanding of this issue (Schmidt et al., 2011; Pollock, 2014; König et al., 2017; De Groot-Reuvekamp et al., 2018).

In addition, teacher training has been highlighted as a key factor in improving the quality of education and academic results (EURYDICE, 2008, 2012; OCDE, 2010, 2019; Comisión Europea, 2012; Manso et al., 2019). Teacher training activities have also been pointed out as an extremely influential factor in the quality of teaching (Cid et al., 2013).

However, in spite of these considerations and the fact that, in recent years, there has been a growing interest in studies on teacher training and the development of the historical thinking skills, especially those relating to initial teacher training (Miralles et al., 2019; Gómez-Carrasco et al., 2020; Gómez et al., 2020), studies focusing on ongoing training and the training needs of Secondary Education Social Sciences teachers are less common (González and Skultety, 2018; Parra and Fuertes, 2019). Indeed, authors such as Oliveira et al. (2019), and Miralles et al. (2019) have stated that it is necessary for research to be carried out on the training needs which stem from classroom practice. Thus, there is a need to gain a deeper understanding of this area and to develop alternatives and training proposals that will contribute toward the updating and development of teachers' professional competencies. This will enable them to be trained in historical thinking and the use and implementation of new teaching and methodological strategies and will provide students with an active role in their own learning (Soler et al., 2018).

The previous studies on history and social sciences teachers have shown that optimization of pedagogical content knowledge among teachers and how the subject is understood and represented is key to being able to exploit curricular materials in a much more effective way for the design of classroom activities and to improve the effectiveness of learning (Bolívar, 2005; Gudmundsdóttir and Shulman, 2005). Meschede et al. (2017) and Van Straaten et al. (2018) have stressed the importance in teacher training of the improvement of knowledge, skills, and teaching competencies related with the fields of methodology and epistemology (Floden, 2015; Barnes et al., 2017).

All of this leads to a reflection on teachers' training needs and, particularly, on what contents should be included in training programs from the identification and prioritization of the needs expressed by teachers in relation to their own practice and

regarding the elements described with the aim of adopting less traditional teaching strategies and resources in the future.

In this regard, some validated tools exist for the assessment of teaching approaches, methodologies and resources of social sciences teachers, although there are still few which assess the training needs of in-service secondary education teachers (Monroy et al., 2015; Miralles et al., 2019; Sánchez Ibáñez et al., 2020; Sánchez-Ibáñez et al., 2021; Gómez-Carrasco et al., 2022).

This research, therefore, seeks to provide a questionnaire aimed at in-service teachers in order to obtain information on the most relevant training needs for teaching. The issue to be addressed explores and analyses the training needs that teachers who teach Geography and History in secondary education in Spain consider to be most relevant and urgent. This will make it possible to investigate the extent to which teachers consider that they are prepared to incorporate into their teaching practice the advances in research on the teaching and learning of the social sciences and new didactic proposals.

## MATERIALS AND METHODS

### Research Design

In order to achieve the proposed aims, a quantitative methodology with a non-experimental design was employed which was cross-cutting and correlational in nature. Data were collected *via* a questionnaire with the Likert scale (1–5).

### Participants

The study is based on a convenience sample consisting of 68 in-service teachers from different schools in the Region de Murcia. The sample was equally balanced according to sex with 48.5% women and 50% men (1.5% did not respond to either of these options). Approximately, 80.9% of the sample was aged between 40 and 59 with only 21.9% of the participants being between 21 and 39 years of age (Table 1). As far as the level of education in which the participants teach is concerned, 56.55% taught in secondary education and 39.8% in baccalaureate, with 3.7% teaching in other levels of education.

### Instrument

The questionnaire entitled “Training needs of in-service Secondary Education teachers in Spain” (NFPA in its Spanish acronym) has been created based on a review of the existing literature and the adaptation of the CUMECISO instrument on approaches, methods, and resources for history teaching

and the NEFOPRO structured interview on teacher training needs. It consists of a Likert-type evaluation scale (1–5) with eight socio-demographic questions and 24 items grouped into three dimensions.

The first part of the tool, concerned with identification, gathers data of a socio-demographic nature (sex, age, academic education, level of education in which the participant teaches, and other levels of education in which the participant has taught). The second part of the questionnaire consists of three dimensions. The first and second dimensions are concerned with training needs related with methodologies and digital resources and other teaching resources for the teaching of History and were adapted from the CUMECISO and NEFOPRO, in their Spanish acronyms. The third dimension addresses “other skills” and takes into account the key and cross-cutting competencies identified in the teaching profile for the compulsory Secondary Education by Martínez-Izaguirre et al. (2018) and the factors and competencies identified by the Comisión Europea (2015).

Following the creation of the tool, the contents of the dimensions were validated by five experts (researchers and teachers in the area of the social sciences) who were required to assess the sufficiency, clarity, and relevance of the items on a scale of 1–5. A mean of more than 4 was obtained in all cases. Therefore, after the interpretation of the results of the validation, the statements of the questionnaire’s items were not modified. Subsequently, a pilot test was administered to 68 teachers. The aim of this test was to discover their degree of understanding of the different items and to analyze the construct validity (factor analysis by way of the extraction of main components with the Varimax rotation).

### Procedure and Data Analysis

The content validity of the initial questionnaire was determined by way of E-mail contact with five experts. Once validated, it was applied to the participating teaching staff online using the University of Murcia’s survey platform.

The data analysis process was carried out in two phases: (a) the internal reliability analysis of the tool *via* Cronbach’s alpha and McDonald’s omega coefficient. In order to discover the construct validity, exploratory, and confirmatory factor analyses were also performed, employing Bartlett’s Test of Sphericity and a principal component analysis (PCA) and (b) hierarchical clustering was performed in order to establish the groups. For this purpose, the IBM SPSS (v. 19) and Jamovi 1.1.0 were used.

## DESCRIPTION OF THE RESULTS

The results obtained are presented below. Firstly, with regard to the analysis of the reliability and validity of the questionnaire on the training needs of in-service Secondary Education teachers, the method of internal consistency based on the Cronbach’s ordinal alpha and McDonald’s omega coefficient based on factor loadings (which are the weighted sum of the standardized variables) has been employed. In the case of the NFPA questionnaire, an overall ordinal alpha coefficient  $\alpha = 0.904$  was obtained, which can be considered to be excellent. The overall McDonald omega coefficient of the scale was  $\omega = 0.900$ ,

**TABLE 1** | Age ranges of participating teachers.

Age	N	Valid percentage
21–29	2	2.9
30–39	11	16.2
40–49	39	57.4
50–59	16	23.5
60 and over	0	0
Total	68	100

which can also be considered suitable. **Table 2** shows the coefficients according to dimensions.

In order to discover the construct validity, exploratory, and confirmatory factor analyses were carried out to determine the dimensions or sections of the tool. After verifying the suitability of the data for the factor analysis *via* the Kaiser Meyer Olkin test (KMO) and Bartlett's Test of Sphericity (KMO = 0.760; Bartlett's Test of Sphericity,  $\chi^2 = 1,227.871$ ; df 276,  $p < 0.001$ ), an optimized parallel analysis was performed (Lorenzo-Seva et al., 2011). After carrying out these prior verifications, the optimized parallel analysis attained an optimal solution of five factors which explain 73.12% of the variance of the original data (**Table 3**).

After employing the Varimax with Kaiser Normalization rotation method, the principal component analysis reveals the convergence in three factors which explain 61.73% of the variance; the items show appropriate values, situated between 0.304 and 0.882 (**Table 4**). Comparing the relative saturations of each variable in each of the three factors, it can be appreciated that the first factor, with an eigenvalue of 7.7, explains 32.1% of the common variance. It has been named "methodologies" and is composed of seven items (1; 2; 3; 4; 5; 6; and 7): *Flipped classroom; Cooperative learning; Gamification; Problem-based and challenge-based learning; Design skills and educational programming and research-innovation in the classroom; Artistic productions (paintings, architecture, sculptures, etc.); and Competencies for the development of an intercultural and community-based approach.*

The second factor, named "other teaching resources," with an eigenvalue of 4.2, explains 17.6% of the common variance and is composed of seven items (15; 16; 17; 18; 21; 22; and 24): *The use of historical sources; Museums and other centers of interpretation and heritage interest; Cinema,*

*documentaries, historical novels, comics, literature; Disciplinary updating (Geography and History); The creation of videos, and digital printing, etc.; The development of tutorials and guidance; and Assessment strategies and techniques.*

The third factor, with an eigenvalue of 2.8, explains 11.8% of the common variance. It has been named "digital resources" and is composed of seven items (8; 9; 10; 11; 12; 13; and 14): *Project-based learning; Virtual learning environments (VLE); Video games; Role playing; Augmented and expanded reality; Geolocation devices (Google Earth, digital maps, etc.); and Service learning.*

In relation to the analysis of the in-service teachers' response groups and their differences with regard to the factors shown in the NFPA questionnaire, a hierarchical clustering analysis has been carried out according to the mean response to each of the factors. As can be observed in **Figure 1**, the items which are closest together are grouped into clusters. This would mean that each of these groups of items could form part of the same factor and that these factors are related to among themselves. The line indicates the given limit for creating the groups. Of the three sections of contents contained in the tool, the representation by clusters indicates a grouping into three factors, two of which can be clearly identified and a third which contains two sub-groups (**Figure 1**).

As can be seen in the analysis of the rotated components (**Table 3**), the third factor encompasses resources that can be considered to be digital, displacing items from the theoretical

**TABLE 2 |** Reliability indices.

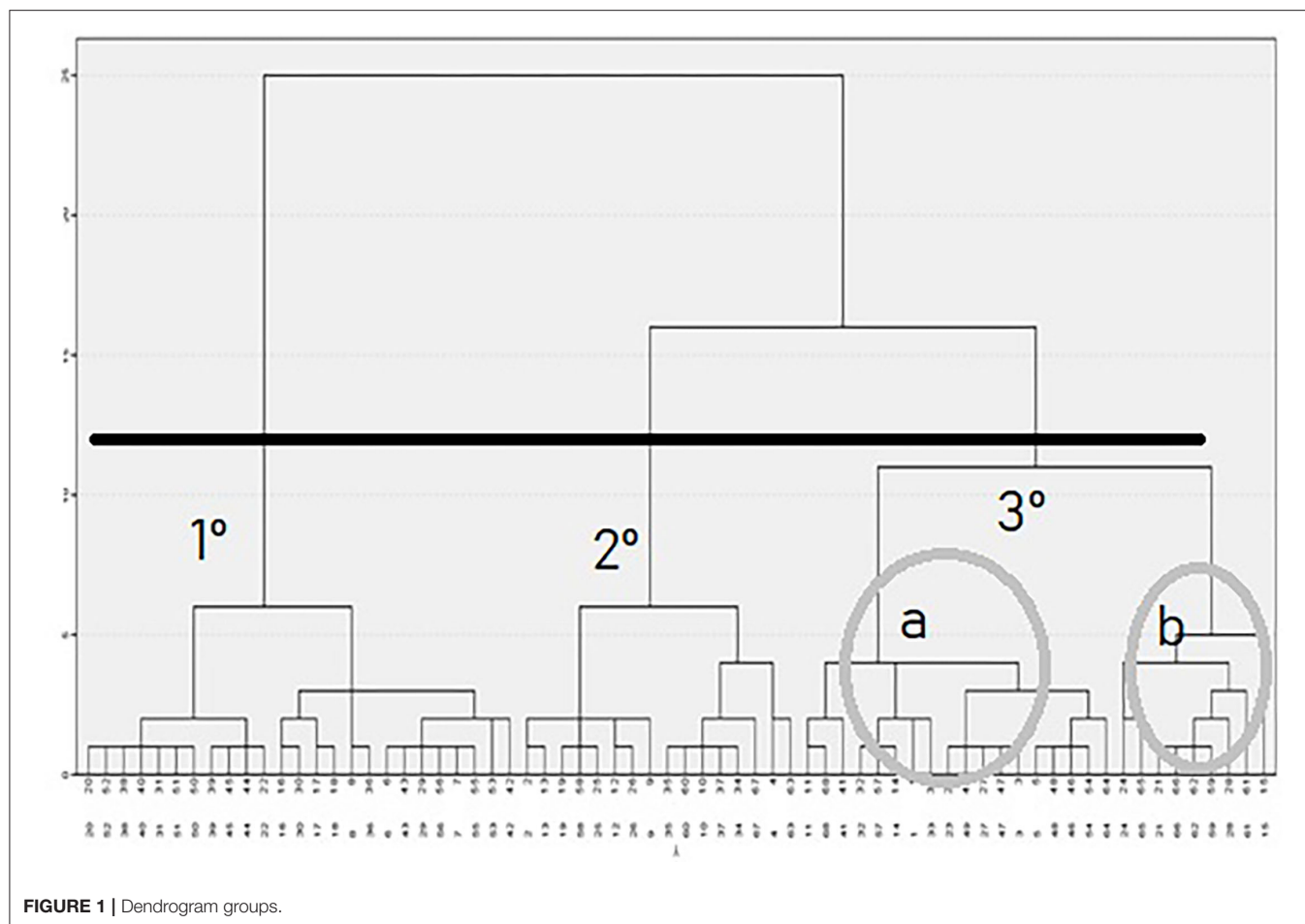
Dimensions		Alpha	Omega
Methodology	1	0.910	0.910
Resources	2	0.839	0.848
Other competencies	3	0.786	0.790
Total		0.904	0.900

**TABLE 3 |** Principal component matrix—analysis of the principal components.

Total explained variation									
Component	Initial eigenvalues			Sums of the saturations to the square of the extraction			Sums of the saturations to the square of the rotation		
	Total	% of the variance	Accumulated %	Total	% of the variance	Accumulated %	Total	% of the variance	Accumulated %
1	7.725	32.187	32.187	7.725	32.187	32.187	5.202	21.677	21.677
2	4.245	17.687	49.874	4.245	17.687	49.874	4.368	18.201	39.878
3	2.847	11.862	61.736	2.847	11.862	61.736	4.269	17.788	57.666
4	1.567	6.531	68.267	1.567	6.531	68.267	2.387	9.945	67.612
5	1.167	4.863	73.130	1.167	4.863	73.130	1.324	5.518	73.130

**TABLE 4 |** Distribution of the items into three components.

Component 1		Component 2		Component 3	
Item	Value	Item	Value	Item	Value
Item 1	0.801	Item 15	0.86	Item 8	0.76
Item 2	0.76	Item 16	0.88	Item 9	0.66
Item 3	0.80	Item 17	0.85	Item 10	0.69
Item 4	0.79	Item 18	0.82	Item 11	0.57
Item 5	0.81	Item 21	0.61	Item 12	0.83
Item 6	0.74	Item 22	0.51	Item 13	0.79
Item 7	0.60	Item 24	0.69	Item 14	0.79



**TABLE 5 |** Sub-groups 3rd cluster.

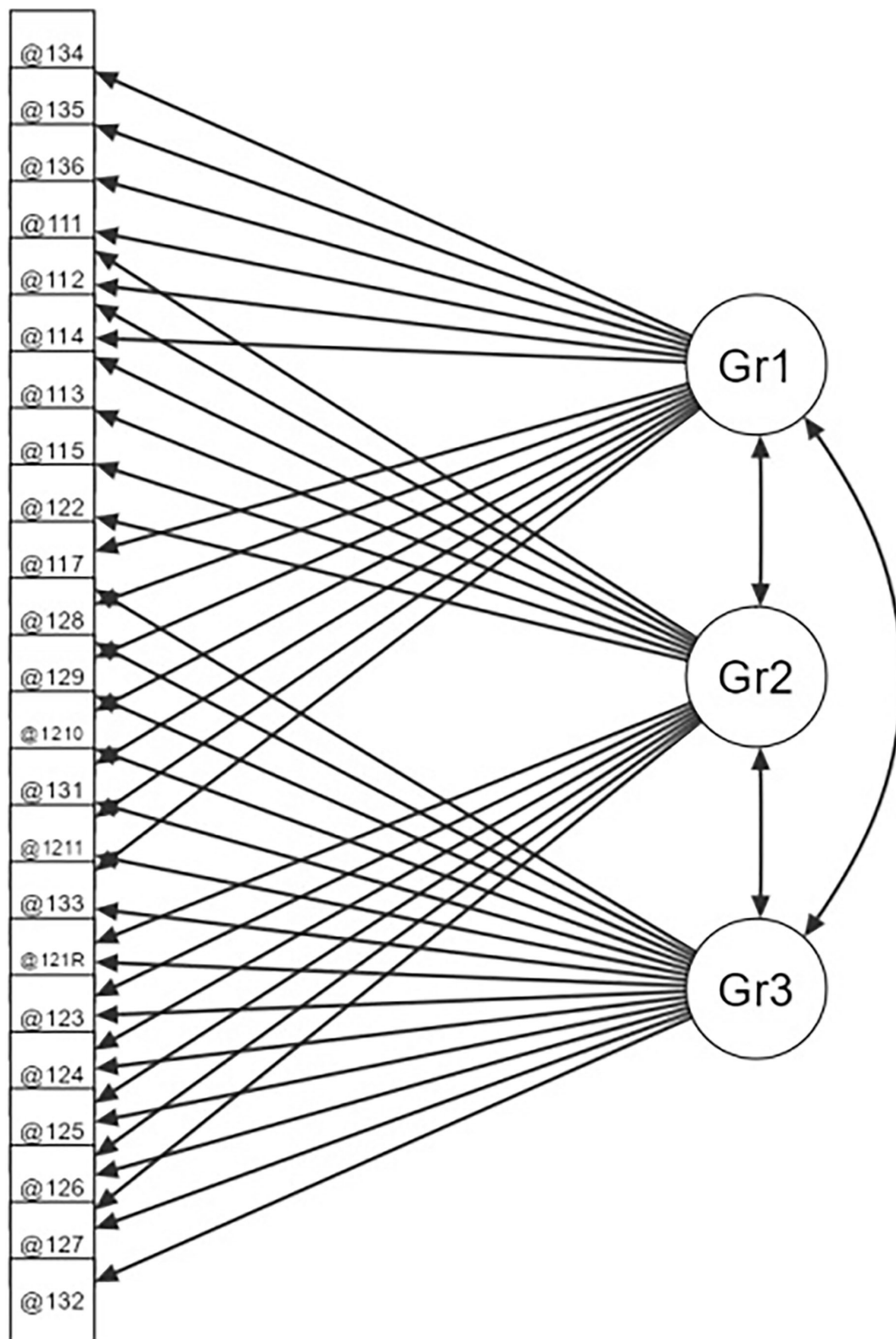
a: Digital resources	b: Other teaching resources
1. Videogames	1. Use of historical sources
2. Virtual learning environments (VLE)	2. Museums and other centers of interpretation and heritage interest
3. Geolocation devices (Google Earth, digital maps, etc.)	3. Other resources such as cinema, documentaries, historical novels, comics, literature
4. Mobile applications	4. Artistic productions (paintings, architecture, sculptures, contemporary art, etc.)
5. Platforms for the creation of contents: websites, blogs, etc.	
6. Creation of videos, digital printing, etc.	

section of resources to the second factor, which encompasses other types of teaching resources considered to be more classical or traditional in the teaching of the social sciences. It was verified that the third cluster, due to the higher number of items grouped and their division into two sub-groups, makes it possible to differentiate between a first sub-group, named “a”, in which the items are more related with “digital resources”, and a second sub-group, named “b”, the resources of which are more related with “other teaching resources” (Table 5).

In order to verify the relationships in which these items maintain among themselves within each cluster, the analysis was repeated and its characteristics were analyzed *via* the comparison of means, which indicates the true distribution of the items in the three groups. The first group prioritizes other teaching resources which can be considered to be more “traditional” and the items belonging to the “methodologies” section and gives lower scores to items relating to “digital resources.” The second group prioritizes digital resources and the items belonging to the “methodologies” section and gives lower scores to items from the group of “other digital resources” (which encompass other teaching resources and “other competencies”). The third group evaluates all of the “digital” resources, “other teaching resources” and “other competencies” extremely high, with the exception of two belonging to the latter group which are particularly striking (tutorials and guidance and disciplinary updating). In addition, for this group, the items relating to the “methodology” section are the least valued.

This grouping can be appreciated in the Path Analysis (PA) (Figure 2). The graph makes it possible to verify the fit of the theoretical models proposed in the tool, as well as to identify the direct and indirect contributions made by





**FIGURE 2 |** Path diagrams and visual analysis of various SEM.

the independent variables to explain the variability of the dependent variables.

## DISCUSSIONS AND CONCLUSIONS

The research provides an extremely positive instrument of psychometric quality for the detection and assessment of the training needs of in-service secondary education teachers, with an adequate degree of reliability and validity. The questionnaire has good internal consistency and the factor analyses carried out indicate that the data fit the model well, also corresponding with key analytical dimensions in the field of the teaching of the social sciences (Miralles et al., 2019; Parra and Fuertes, 2019; Gómez-Carrasco et al., 2022).

As for the factors and response groups of the in-service teachers established in the research, there is still a group of teachers who, despite showing an interest in training in digital resources and innovative methodologies, continue to prefer other teaching resources. With regard to teachers undergoing their initial training, Chaparro et al. (2021) and Chaparro and Felices de la Fuente (2019) found divergencies in positioning in relation to resources, with digital resources on the one hand and those relating to heritage and the use of sources on the other.

Similar results were also found by Miralles-Martínez et al. (2020) and Sánchez-Ibáñez et al. (2021) in two studies on the in-service training needs of teachers in the field of secondary social sciences. Specifically, the results of these studies demonstrated that teachers attribute a high level of priority to training on different types of resources such as heritage, cinema, museums, and artistic productions, in addition to training on other digital resources such as mobile applications, geolocation devices and the creation of videos and digital printing, although some such resources, such as videogames and augmented reality, obtained a lower evaluation. These results also coincide with those of Guerrero-Romera et al. (2021) on the importance and relevance attributed by teachers to these types of resources, although they are not always those which are most used for teaching (Cuenca, 2009; Cózar-Gutiérrez and Sáez-López, 2016; Gómez et al., 2016; Roblizo et al., 2016; Gómez and Miralles, 2017; Chaparro and Felices de la Fuente, 2019).

This is particularly important if it is taken into account that the use of certain resources is associated with approaches and methodologies which are more student-centered and those in which the teaching strategies and resources serve to achieve learning which is more comprehensive and critical of History (Gómez and Miralles, 2017; Landers and Armstrong, 2017; Özden, 2018; Sánchez Ibáñez et al., 2020; Guerrero-Romera et al., 2021). However, a change can be perceived even if it does not affect all teachers in equal measure as some demonstrate an interest in training in more traditional teaching resources and do not express an interest in being trained in active methodologies or have a moderate level of interest in digital resources.

The previous studies on the teaching profiles of primary and secondary education teachers reveal that although progress is being made from a traditional profile to a more innovative approach that occasionally puts active learning strategies and

methodologies into practice, the presence of teachers with a critical attitude who problematize contents, prioritize the teaching of historical processes, and encourage the learning of the scientific method in the social sciences is still extremely low (Estepa, 2012; Sant et al., 2015). Furthermore, there are numerous studies in which the predominant use of traditional practices by secondary education teachers in history education is observed (Martínez et al., 2006; Molina and Muñoz, 2016; Gómez-Carrasco et al., 2018). In relation to pre-service secondary education teachers, Dejene et al. (2018) found that they place greater emphasis on a traditional teaching approach which is more focused on the teacher than on student learning.

A recent study by Miralles et al. (2019) on pre-service teachers also showed that there is no single continuous dichotomy between traditional and innovative processes and it is possible to observe individuals who prefer innovative proposals but do not, for this reason, reject traditional processes. Indeed, they may even show that the higher they evaluate the use of digital resources, the lower their preference for the use of traditional procedures. In addition, these authors noted that there is a clear correlation between the evaluation of innovative methodological processes and the evaluation of certain resources such as videogames in the history classroom. This has been confirmed in other international studies on gamification, which have demonstrated the close relationship between the use of video games in the classroom and an increase and stimulus of innovation in teacher training (Landers and Armstrong, 2017; Özden, 2018). Buzo (2014) and De la Calle (2015) stated that digital resources can contribute toward achieving a real change with regard to teaching methodology in the social sciences. The majority of these studies propose teacher training as a tool for achieving a skills-based model of History education employing active learning methods (Gómez and Miralles, 2016).

To conclude, the ongoing teacher training is a key element for introducing in-service teachers to new models of social sciences education (Ramírez, 2015). Indeed, in Spain, the new education law (LOMLOE) and the secondary education curriculum express (RD 217/2022) the need to adapt the education system to the emerging demands of society and education and emphasize active learning methods which foster student learning and the development of key skills as potentially favorable strategies for improving the quality of education in all areas of knowledge, including the social sciences. This adaptation of the education system to a skills-based approach requires ongoing teacher training, which is a key to facilitating teaching innovation in the classroom, both in compulsory secondary education and baccalaureate education.

The creation of this instrument makes it possible to identify the training needs of in-service teachers in the area of social sciences at the secondary level and provides new keys to improving training processes. However, it is necessary to continue making progress in terms of statistical correlation with a larger sample size and the use of other qualitative data collection tools or a mixed-methods approach which would make it possible to explore other competencies and examine teachers' motivations and the reasons for the results obtained in more depth. As far

as the implications of this study are concerned and with a more prospective vision, some ideas which could help to improve and enrich the results of this research could be: incorporating some of the needs identified by the teachers and originating from the demands of their professional activity into the training process and encouraging similar research in other national and international contexts with the aim of increasing the sample and comparing results.

This research can contribute toward analyzing the extent to which in-service secondary education teachers value training needs relating to innovative teaching proposals from the principles closest to those defended by the new teaching models, from a more practical perspective, taking the needs identified by the teachers as a basis and, above all, to identify and reflect upon the different teaching profiles.

## DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author/s.

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## ETHICS STATEMENT

Ethical review/approval and written informed consent were not required for the study on human participants in accordance with the local legislation and institutional requirements.

## AUTHOR CONTRIBUTIONS

Conceptualization, writing of the manuscript, review and editing, and supervision: CG-R. Methodology and analysis: CG-R and AP-O. Both authors contributed to the article and approved the submitted version.

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