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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

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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 χ^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

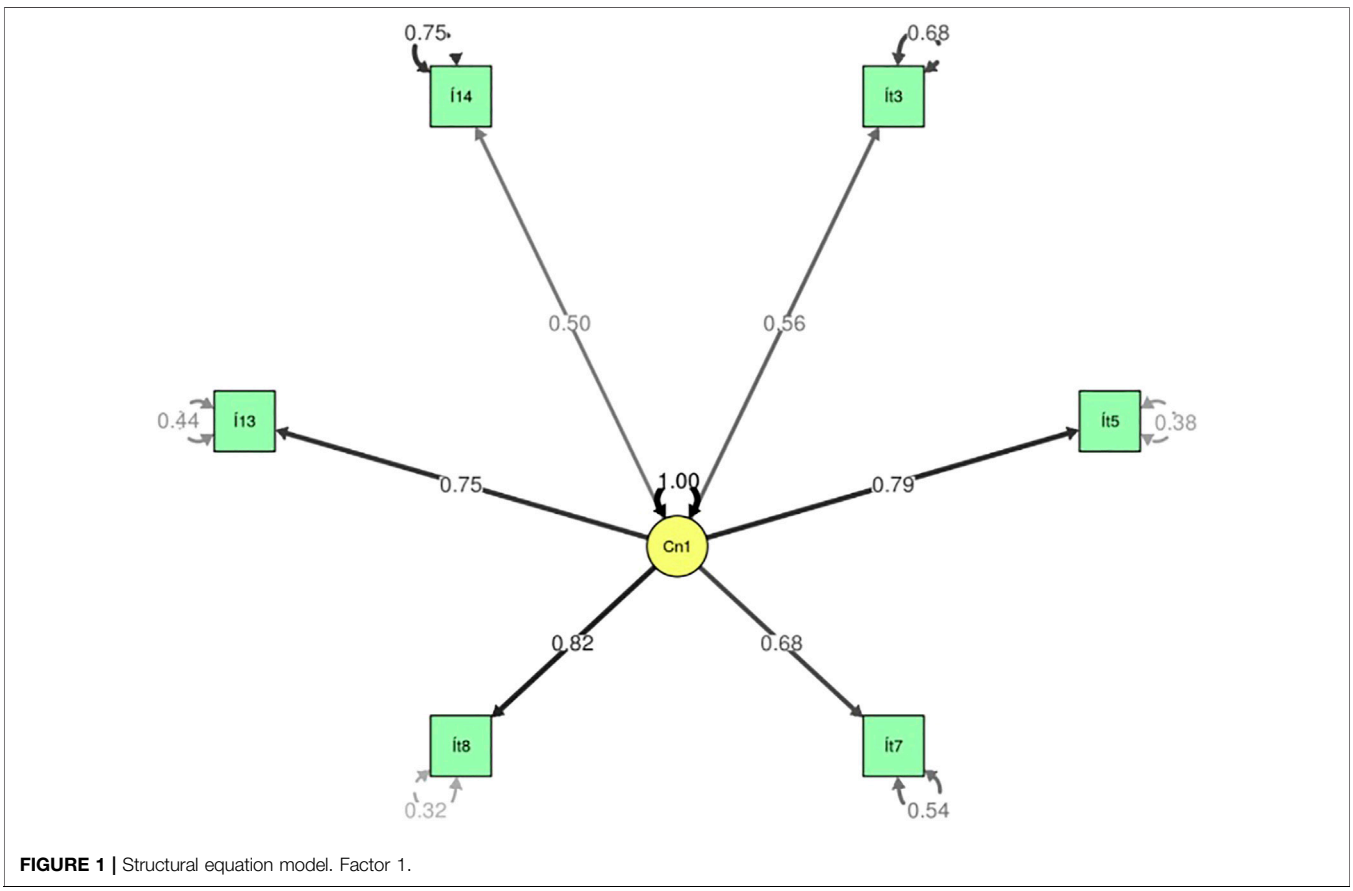

FIGURE 1 | Structural equation model. Factor 1.

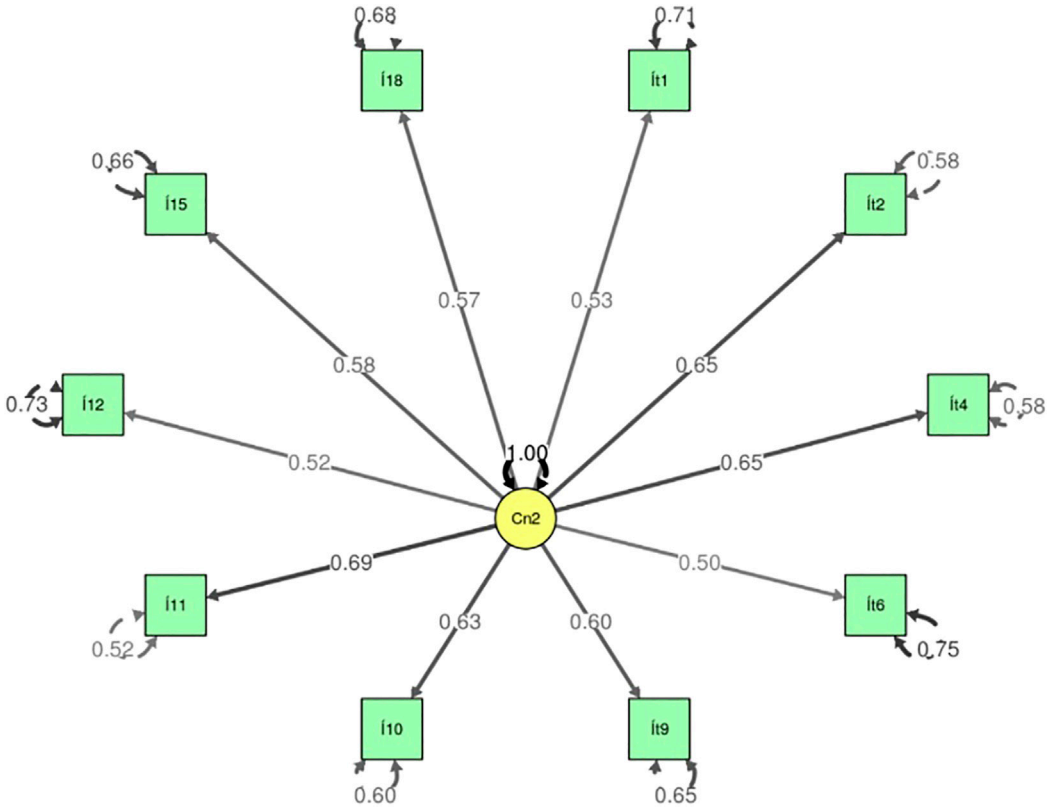

FIGURE 2 | Structural equation model. Factor 2.

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

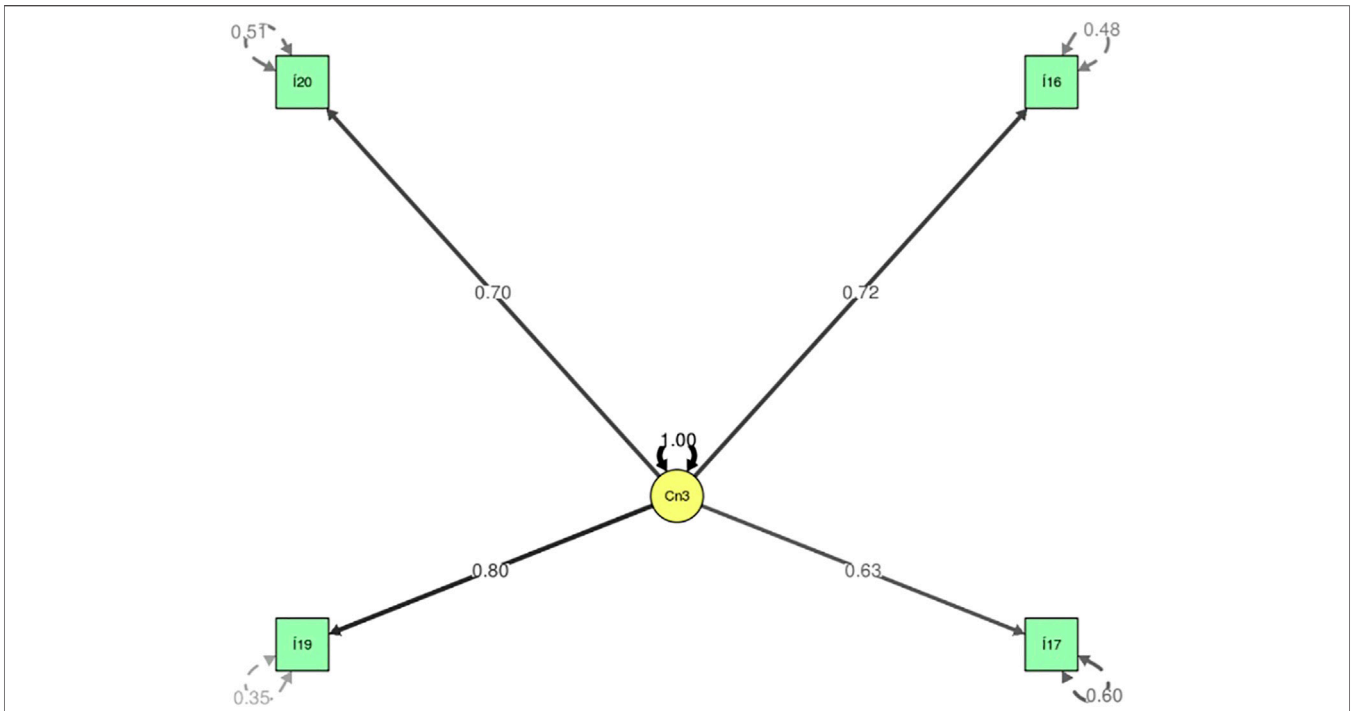

FIGURE 3 | Structural equation model. Factor 3.

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; Sáez 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 G□mez 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 it 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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SUPPLEMENTARY MATERIAL

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