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The photographic heritage as a motivational resource to learn and teach history

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This article, linked to the research of new methods for teaching history, has as its main objective to analyse the motivation of future primary school teachers regarding the use of photographic heritage in the teaching of historical content. This investigation is based on a teaching experience carried out in the 22/23 academic year with 266 primary education student teachers, in which a key episode in the history of Spain is explored via a series of photographs. Data collection was done through a Likert-type questionnaire, which the students answered after the activity, with a response scale of 1 to 4 with some qualitative open-ended questions. Responses were also examined using the SPSS27 statistical programme. The results show how the analysis and interpretation of the photographs, as well as the activities developed from them, are a motivating resource for most of the participants. The latter consider photographs suitable, on the one hand, for their personal development, and on the other, for their professional training, since it allows them to design innovative and creative history teaching-learning programmes.

KEYWORDS

photography, heritage, teaching-learning, motivation, historical thinking

1 Introduction

One of the most distinctive features of society and, undoubtedly, one of the key characteristics of current lifestyles, is the mass use of photography in both the public and private spheres (Batchen, 2004). It is curious, however, that in our visual world we continue to overlook the fact that the photographic image uses a language that conveys a certain type of information that must be interpreted and decoded (Kossov, 2014); although they currently play a passive role, photographs could become an active agent in the transformation of our cultural system. Yet, as noted by various authors (Iglesias, 2009; Pantoja, 2010; Rodríguez De Las Heras, 2010; Sáiz, 2013; Gómez and López, 2014; García, 2016), there are as yet few educational programmes that include the study and understanding of the complex phenomenon of the image in real teaching and learning scenarios, at least, in the Spanish educational context, where this study was conducted. However, as we will try to show in this study in the case of history teaching, photographic heritage can be used as a learning resource, as long as teachers have the capacity to provide students with the necessary tools.

The photographer and historian Freund (1974) put forward an argument, of relevance here, about the impact of the image on all spheres of reality, writing that since its inception in the mid-nineteenth century, the influence of photography on our society “lies in the fact that it is not just a creation, but, above all, one of the most effective means of shaping our ideas and

influencing our behaviour” (10). Thus, taking as a starting point this intriguing proposal by Freund which still resonates today, we can argue that photography has gradually modified our behaviour, not only in terms of our relationship with images, but also in terms of how we use them to narrate our past, present, and future (Sontag, 2008; Benjamin, 2013; Kossoy, 2014). It is therefore appropriate to reflect as teachers on the necessity and benefits of incorporating photographic documents into standard classroom practice.

Photography is analysed as a means of artistic expression and, at the same time, as testimony of a context and a culture of production (Pantoja, 2010; Rodríguez De Las Heras, 2010; Kossoy, 2014; García, 2016) that place observers in a specific moment, showing them in a particular manner how and where they can look. Thus, it can be argued that when we work with and analyse a photographic image, we find ourselves before a document—a heritage item and a historical source, as De Las Heras (2015) notes—that certainly ought to be researched, investigated, and contextualised in order for its full iconic and iconological significance to be understood. Furthermore, it may be studied not just as the medium of an image, but also as the medium of memory, given its key feature (distinguishing it from other historical sources) of having the “technical ability to suspend time and centre space in an instant” (Pantoja, 2010, 186), in such a way that allows us to continually recover, or perhaps just evoke, events or moments that we wish to preserve. Visualising these memories in a photograph is, therefore, one more way of remembering, of not forgetting a past that has unobtrusively entered these images, which the person who is aware of this presence can interpret or read.

Thus, photographic heritage undoubtedly has enormous educational potential, arising from its nature as a graphic document and historical source, as Pagès (2021). We therefore believe that history teaching ought to incorporate photography and develop a range of methodologies to respond to the inevitable particularities of each image. Above all, these teaching practices ought to be motivating for students, given that, as described in various studies (Sáiz, 2013; Gómez and López, 2014; Bel, 2017; García-Vera, 2019; Muñoz, 2019; Ponsoda López de Atalaya and Blanes Mora, 2020), it is not enough to simply project a collection of photographs onto the board, or comment briefly on what is depicted in this or that photograph. If the aim is to teach history in the classroom through photographs, what is really meaningful is to ask ourselves what we want from them, how we can make them talk, that is, how our students can activate their knowledge, their experience and their curiosity so that photographs recover their documentary and informative value (Fontcuberta, 2016). Thus, in order to motivate our students to correctly interpret a photograph, and use it in the future as a resource in the classroom, as Pantoja (2010) points out, it is essential to provide them with a previous formative experience where they have had contact with the photographic image in a reflective and active learning context.

For Riego (2019), who has worked on this subject for decades, interpreting a visual source correctly depends on the ability of teachers to get their students to relate the image to the culture that produced it, which ultimately involves visual documents being understood as vestiges or signs of a past that requires appropriate treatment. In this respect, and with a view to making interdisciplinary connections with other educational studies on the use of images in higher education, we adopt the model proposed by Arqué i Bertran (2002) having observed that, in the analysis and contextualisation of photographs in the classroom, it is crucial that the role of the

student—who in this case is an observer—is active. An active role influences students’ motivation when analysing the document, as they will be responsible for accessing the value system that each photo symbolises. The way they view it will determine the decisions made as they interpret both visible and invisible elements, and also the different dialectic relationships that can be identified, such as identity-otherness, change-continuity, and cause-consequence, to reveal the emotional weight that any historical document is capable of transmitting, assuming it has been adequately preserved and, above all, is accessible in order to be interpreted again.

Yet photography, as a mass phenomenon of contemporary culture, has generated a new vernacular language that needs to be labelled in order to be understood, has become saturated—and in many cases eclipsed—by a form of memory that cannot be read critically (Sánchez Moreno, 2011). Its message and even its documentary value has been cancelled out as it has been influenced by new social practices and, of course, by ignorance of the medium itself, by “that cloud of futile instantaneity” (Sánchez Moreno, 2011, 43). Moreover, Didi-Huberman’s (2020) convincing and illustrative description of this context, which ought to put us on our guard, holds that “never has the image suffered so many ruptures, so many contradictory claims, and so many interlinking rejections, immoral manipulations and moralising condemnations” (29). In such a context, as a discipline that subscribes to new forms of critical teaching, the field of social science teaching must ask itself what the meaning of photography is, what we can understand by the photographic act today, and of course, what relationship it has with memory and critical thinking (Sáiz, 2013; Gómez and Miralles, 2015; Muñoz, 2019). Put another way, and in reference to Fontcuberta, (2016) well-known thesis, in our current context shaped by the iconic universe, a minimal understanding of the power of the photographic image is only possible if one adopts a participatory attitude, that is, if we look in order to reflect. Thus, a particularly urgent issue, and one which our students must know how to respond to, does not concern what “we conceive of as fiction, but rather what we perceive as truth (De la Nuez, 2010, 14).

In this sense, Gudín and Chávarri (2019) find that if historical research is based on a holistic and transversal perspective—whether analysing written or object sources—photography, as described here, ought to be seen as a source to be studied and analysed in the same critical way as other historical sources, that is, applying a rigorous critical reading technique, as described by Burke (2001). It could be argued that the possibility of bringing history closer by means of photographic heritage will depend on how useful this historical document is for the construction of a future historical narrative (De Las Heras, 2015). Seeing and treating the image as a source of memory thus allows a particular approach to the historical events depicted and studied in the image, and, as noted by Santisteban et al. (2010), “puts the student in direct contact with the past” (120). This visualisation of history thus facilitates critical understanding among students, and therefore their motivation may also increase—a key concern of this paper—by allowing them to acquire historical thinking skills since, as already noted, the student will be the main author of this narrative. In reality, the photographic image encourages reflection and analytical and critical thinking (Ponsoda López de Atalaya and Blanes Mora, 2020) when it is used in an interdisciplinary, participative, and active context, as we will attempt to demonstrate here. We agree with Company (2004) that

thinking about photographs “must therefore address the ways in which these different points of view and places are always assimilated, conveyed and combined—consciously and unconsciously—by creators and spectators” (12). Consequently, this research will attempt to relate different studies (Kossov, 2014; Chicote, 2020; Ponsoda López de Atalaya and Blanes Mora, 2020) with the objective, not only to demonstrate how photographic heritage can be a didactic tool, but also how it can be a motivating resource for the classroom, stimulating creativity and critical and empathetic thinking.

The teaching experience described in the following sections took place in a teacher training context, specifically in a master’s degree programme in primary education. We consider it important to carry out innovative teaching experiences such as these, in which student teachers are given models for reflection and practice that allow them to adequately internalise the methodological knowledge that they will have to apply themselves in the classroom (López Facal et al., 2017). Concepts such as memory or heritage, and familiarity with visual sources, will help them in this important task (Sáiz, 2013; Gómez and Miralles, 2015; Muñoz, 2019; Chicote, 2020; Cotán Fernández et al., 2022). Therefore, we aim to discover how these university students learn and what motivates them to learn, and whether this experience increases or has little impact on their motivation. The great pioneer of photography Mathew Brady suggested that the camera is the “eye of history,” and it will play this role if given a place in the classroom, bringing historical testimony to stand before the eyes of the present. We believe that teachers will use photography correctly and appropriately if they understand its status as a visual source, if they reflect on its characteristics and possibilities for history teaching and, above all, if they look with the intention of understanding both what a photograph shows and its context.

2 Materials and methods

2.1 Objectives and hypothesis

The main objective of this teaching experience is to discover and study the impact of using photographic heritage as a teaching tool on the motivation of student primary school teachers. To meet this objective, four specific objectives (SOs) were developed:

SO 1: To evaluate the motivation of the sample group with regards to the strategies and processes of the training programme.

SO 2: To analyse the motivation of the student teachers when they use photographic heritage as a resource for teaching history.

SO 3: To establish what the student teachers feel is their motivation for using photographic heritage in relation to history learning aims.

SO 4: To highlight the benefits and difficulties associated with the use of photography for history teaching and learning.

This study is based on the hypothesis that photographic heritage is not being used or valued by student primary school teachers as an additional resource for history teaching, that they do not see it as a useful and motivational tool for innovate teaching. Therefore, we ask the following research questions: Do student teachers see photographic heritage as a motivating teaching tool for history lessons? What is their perception of their own motivation to teach using photographic heritage in the social sciences?

2.2 Participants and context

The research presented here is based on a purposive sample selection of third-year student teachers on a bachelor’s degree primary education programme at the University of Alicante.

The sample comprises 266 student primary school teachers ($n=266$) taking the course “Social Science Teaching: History.” We conducted our study in the framework of this course. The sample was made up of 80 men (30.1 percent) and 185 women (69.5 percent), and the average age was 21.1 years.

2.3 An educational programme using photographic heritage to learn history

The aim of our educational experience was for the students to start valuing photographic heritage as a useful and motivating resource for history teaching. To this end, we designed an activity with three distinct phases.

In the first phase, we presented a specific historical context through the use of seven iconic photographs documenting the coup d’état that took place in Spain in 1981, organised in a sequence that the teachers had already seen. The task we proposed was a descriptive and systematic analysis of the images through questions such as: What do you see in each image? What do you see in each image to make you think like that?

Once the visual analysis had been completed, the second phase began, which involved carrying out an investigative discussion-based activity, based on a series of questions focusing particularly on conceptual and historical aspects. The aim in this case was for the students to investigate and reflect not just on the images, but also on the historical, cultural, and political context captured in the photographs. In this way, by analysing this sequence of photographs it was possible to access the deeper meaning of the images. As the photographs were the only historical source available to the students at that moment, they had to critically analyse and interpret them, infer ideas, and read the photographs as historical evidence, as Riego (2019) describes.

The third and final phase of the educational experiment involved participants working individually to narrate the historical events studied in the photographs. Students could choose the perspective they considered best, based of course on the knowledge acquired in preceding phases, and using the photographic sequence they had analysed. The objective was for the students to take an active role in their own learning and appreciate the possible pedagogical benefits of using photographs to teach history in an authentic and meaningful way.

2.4 Instrument design and validation, and the research process

Once the participants had completed the training on using photography as a tool for teaching history, they filled in a questionnaire on the teaching and learning process that had been designed for this study. Both qualitative and quantitative, the questionnaire design is similar to that used in recent studies in the field of social science teaching (Moreno-Vera et al., 2021; Moreno-Vera and Martínez-Leguízamo, 2022).

The questionnaire comprised 22 items divided into three blocks. Blocks 2 and 3, which are quantitative, were based on Likert scales of 1 to 4 (from “not useful at all” to “very useful,” and from “strongly disagree” to “strongly agree”).

The first block, which is qualitative, concerns the training programme, and the second block focuses on the utility of the activity presented. Finally, the third block—which is the focus of the present paper—contains items relating to the motivation of the participants (item 9 and items 13 to 22) with reference to three aspects: motivation in relation to the training programme (SO 1), to the teaching resources (SO 2), and to educational objectives (SO 3).

Here, we list all the items included in the instrument to provide an overview of the study:

- Item 1 (open). Explain why you think this activity has been useful for your training.
- Item 2 (open). Explain why you think this activity has been useful for your professional future.
- Item 3 (open). Explain what you see as the positive aspects of using photography in history teaching and learning.
- Item 4 (open). Explain what you see as the negative aspects of using photography in history teaching and learning.
- Item 5. I think analysis of the photographic sequence has been: 1 – not useful at all, 2 – somewhat useful, 3 – useful, 4 – very useful.
- Item 6. I think the research on the causes and consequences has been: 1 – not useful at all, 2 – somewhat useful, 3 – useful, 4 – very useful.
- Item 7. I think that giving my opinion on the coup d'état (why it failed, what it means, etc.) has been: 1 – not useful at all, 2 – somewhat useful, 3 – useful, 4 – very useful.
- Item 8. I think that narrating the event has been: 1 – not useful at all, 2 – somewhat useful, 3 – useful, 4 – very useful.
- Item 9. The activity analysing the photographic sequence has been motivating.
- Item 10. The activity researching the causes and consequences has been motivating.
- Item 11. The activity giving an opinion on the coup d'état (why it failed, what it means, etc.) has been motivating.
- Item 12. The activity of narrating the event has been motivating.
- Item 13. The way of presenting and working on the topic has motivated me to discover more about it.
- Item 14. Working with photographs has improved my motivation to learn and apply myself in class.
- Item 15. My motivation has improved because I understand my social, political, and cultural context better.
- Item 16. The topic and the way of working on it through photography has improved my motivation to get better grades.
- Item 17. I felt motivated because I could contribute my point of view or own knowledge.
- Item 18. I felt motivated because we used resources other than textbooks.
- Item 19. I felt motivated because I was able to take the lead in my own learning.
- Item 20. I felt motivated to design my own activities based on photography when I become a teacher.
- Item 21. I felt motivated because I think the activity is useful for my professional future.

- Item 22. I felt motivated because I think the activity is useful for my current teacher training.

In terms of the validation of the construct, Cronbach's alpha test gave a result of 0.908, which indicates a high level of reliability and therefore a high level of internal consistency (0.9 > 1 represents an outstanding level of reliability according to studies by [Oviedo and Campo-Arias, 2005](#)).

Furthermore, the Guttman split-half coefficient test was carried out, giving a result of 0.839, which supports the high level of internal reliability of each of the items on the evaluation scale, as also seen in other mixed studies in the field of social sciences, for example [Gestsdóttir et al. \(2018\)](#) and [Gómez-Carrasco et al. \(2019, 2020\)](#).

Since the questionnaire is a mixed instrument, with open and closed items, Friedman's chi-square validation test was carried out to establish the validity of the quantitative items, and if these affect the qualitative responses. In this case, the result was 186,377, showing that there is no dependence between items, as also shown in other mixed studies, where a result of >0.05 is considered positive in qualitative items ([Satorra and Bentler, 2010](#); [Sharpe, 2015](#); [Moreno-Vera et al., 2020](#)).

Finally, in relation to the research process, it is important to note that participation in the study was voluntary, questionnaire responses were anonymised, and the study followed the ethical guidelines set out by the University of Alicante, where it was carried out. All participants were informed of and gave consent to the statistical processing of the data. The training programme was carried out during social science classes, under the aegis of appropriately qualified teachers. Data collection and the analysis of results was carried out using the statistical software package IBM SPSS v. 24, in the case of the descriptive statistical results of the questionnaire, while the qualitative items were analysed using the programme AQUAD 7 ([Huber, 2013](#)), with the variables developed based on the narratives of the participants. Regarding the qualitative analysis, a coding structure was carried out based on the variables that appeared in the narratives of the participants in the study. For their analysis, the Absolute Frequency (AF) and the percentage of this (% AF) have been taken into account.

3 Results

3.1 Motivation of participants in relation to the training programme (items 9, 13, 17 and 19)

Results related to SO 1, analysing the motivation of the student teachers in relation to the training programme, were generally positive. In fact, a descriptive statistical analysis of mean and standard deviation (all items have a SD <1) shows that the first variable (Item 9. The activity analysing the photographic sequence has been motivating; [Table 1](#)) has a mean of 3.26 (Likert scale of 1 to 4), meaning that participants do see the teaching experience as motivating. Results show that 42.5 percent of participants agreed, and a further 42.5 percent strongly agreed, that this activity was motivational, while only 13.9 percent and 1.1 percent disagreed and strongly disagreed, respectively.

Similarly, for the second variable (item 13. The way of presenting and working on the topic has motivated me to discover more about it;

TABLE 1 Item 9. The activity of analysing the photographic sequence has been motivating.

VAR00001					
		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válido	1	3	1,1	1,1	1,1
	2	37	13,9	13,9	15,0
	3	113	42,5	42,5	57,5
	4	113	42,5	42,5	100,0
	Total	266	100,0	100,0	

TABLE 2 Item 13. Working from photographs has improved my motivation to learn and work harder in class.

VAR00002					
		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válido	1	4	1,5	1,5	1,5
	2	28	10,5	10,5	12,0
	3	92	34,6	34,6	46,6
	4	142	53,4	53,4	100,0
	Total	266	100,0	100,0	

Table 2), in reference to the structure and planning of the teaching activity, the mean is also positive, at 3.40. In this case, the percentage of participants who strongly agree is even higher, reaching 53.4 percent of the sample, while 34.6 percent agree.

The mean of item 17 (I felt motivated because I could contribute my point of view or own knowledge; Table 3) is also positive at 3.30. Thus, 45.1 percent of participants agreed strongly and 41.7 percent agreed that it was motivational to contribute their point of view and make historical arguments throughout the exercise. These data are in line with studies in which historical thinking skills are applied together with the method of source-based investigation (Prats Cuevas, 2001; Cooper and Chapman, 2009).

Finally, the mean for item 19 (I felt motivated because I was able to take the lead in my own learning; Table 4) was 3.39, with 49.1 percent of participants strongly agreeing with this statement, 41.1 percent agreeing, and just 9.4 percent disagreeing. This result shows that, in general, student teachers feel motivated when they themselves investigate and build their own historical knowledge via sources and active learning methodologies (Gómez-Carrasco et al., 2018).

3.2 Motivation relating to teaching resources used in the activity (items 14, 18 and 20)

In terms of SO 2 of this study, concerning analysis of motivation relating to the materials—mainly photographs—used in the teaching activities, we also find positive results. Again, standard deviation was positive as none of the items exceeded the value of 1, which allows us to confirm the coherence of the participants' responses.

In relation to item 14 (Working with photographs has improved my motivation to learn and apply myself in class; Table 5) the mean was a positive result of 3.32 points, with almost half of the sample

(48.5 percent) strongly agreeing that they felt motivated when using photography as a teaching resource in history lessons, and a further 36.5 percent agreeing.

Item 18 (I felt motivated because we used resources other than textbooks; Table 6) gained the best results of the study: a mean of 3.56, with 61.7 percent of participants strongly agreeing, and 32.3 percent agreeing, meaning only 6 percent disagreed.

Last, item 20 (I felt motivated to design my own activities based on photography when I become a teacher; Table 7) is pertinent as it reflects that the learning will be applied in the future when they start working as teachers. The mean value is 3.35, with 87.9 percent (47.7 percent strongly agreeing, and 40.2 percent agreeing) of student teachers feeling motivated by being able to design their own practical activities using photography as the main teaching resource, since it helps them to generate an active learning context, as we will try to exemplify in the following sections.

3.3 Motivation relating to the teaching objective (items 15, 16, 21 and 22)

The last block of results relates to SO 3, which analyses teachers' motivation in relation to the aim of carrying out teaching activities based on photography.

Here, standard deviation again shows a positive and coherent result, with all variables at <1.

Item 15 (My motivation has improved because I understand my social, political, and cultural context better; Table 8) shows good results and offers interesting potential. The mean value is 3.38, and 89.4 percent of participants agree (40.2 percent) or strongly agree (49.2 percent) with this statement. This shows that working with sources in the classroom helps students to think historically and develop cognitive associations between materials from the past and

TABLE 3 Item 17. I was motivated because I could contribute with my own point of view or knowledge.

VAR00006					
		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válido	1	6	2,3	2,3	2,3
	2	29	10,9	10,9	13,2
	3	111	41 m7	41,7	54,9
	4	120	45,1	45,1	100,0
	Total	266	100,0	100,0	

TABLE 4 Item 19. I have been motivated because I have been able to be the protagonist of my own learning.

VAR00008					
		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válido	1	1	,4	,4	,4
	2	24	9,0	9,0	9,4
	3	110	41,4	41,4	50,8
	4	131	49,2	49,2	100,0
	Total	266	100,0	100,0	

TABLE 5 Item 14. Working from photographs has improved my motivation to learn and work harder in class.

VAR00003					
		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válido	1	5	1,9	1,9	1,9
	2	35	13,2	13,2	15,0
	3	97	36,5	36,5	51,5
	4	129	48,5	48,5	100,0
	Total	266	100,0	100,0	

TABLE 6 Item 18. I have been motivated because we have used resources other than the textbook.

VAR00007					
		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válido	2	16	6,0	6,0	6,0
	3	86	32,3	32,3	38,3
	4	164	61,7	61,7	100,0
	Total	266	100,0	100,0	

events occurring in the present day (Moreno-Vera and Sánchez-Ibáñez, 2022).

Item 16 (The topic and the way of working on it through photography has improved my motivation to get better grades; Table 9) confirms a high level of motivation among participants to gain higher grades with a mean of 3.07 (though this is the lowest mean of the study), and 45.1 percent agreeing with this statement. It is striking that, compared to the other items, a relatively high proportion (22.5 percent) of student teachers disagreed with this statement, since

their motivation did not depend on the final grade received for the course.

In relation to item 21 (I felt motivated because I think the activity is useful for my professional future; Table 10) the mean value of responses is 3.50 out of 4, with 59.4 percent of students strongly agreeing with this statement. This result is in line with responses to item 20, where they indicated feeling motivated by learning how to design their own activities with a view to using photography as a classroom resource in the future.

TABLE 7 Item 20. It has motivated me to design my own activities based on photography when I become a teacher.

VAR00009					
		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válido	1	3	1,1	1,1	1,1
	2	29	10,9	10,9	12,0
	3	107	40,2	40,2	52,3
	4	127	47,7	47,7	100,0
	Total	266	100,0	100,0	

TABLE 8 Item 15. My motivation has improved because I have a better understanding of the social, political and cultural reality with which I am in contact.

VAR00004					
		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válido	1	2	,8	,8	,8
	2	26	9,8	9,8	10,5
	3	107	40,2	40,2	50,8
	4	131	49,2	49,2	100,0
	Total	266	100,0	100,0	

TABLE 9 Item 16. The subject and the way of working on it through photographs has improved my motivation to get better grades.

VAR00005					
		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válido	1	8	3,0	3,0	3,0
	2	52	19,5	19,5	22,6
	3	120	45,1	45,1	67,7
	4	86	32,3	32,3	100,0
	Total	266	100,0	100,0	

TABLE 10 Item 21. I have been motivated because I consider the activity useful for my professional future.

VAR00010					
		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válido	1	2	,8	,8	,8
	2	20	7,5	7,5	8,3
	3	86	32,3	32,3	40,6
	4	158	59,4	59,4	100,0
	Total	266	100,0	100,0	

Finally, item 22 (I felt motivated because I think the activity is useful for my current teacher training; Table 11) is also in line with the two previous responses. In this case, the mean value is very high at 3.55, with 94 percent of student teachers either agreeing (32.3 percent) or strongly agreeing (61.7 percent). Just 6 percent think that the activity will not be useful as part of the teaching training they are receiving.

3.4 Positive aspects of using photography to teach history

In relation to the open questions used in the instrument, the first focused on student teachers' opinions regarding the positive aspects of introducing photography in history teaching and learning (Positive

TABLE 11 Item 22. I have been motivated because I consider the activity useful for my personal development.

VAR00011					
		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válido	1	1	,4	,4	,4
	2	15	5,6	5,6	6,0
	3	86	32,3	32,3	38,3
	4	164	61,7	61,7	100,0
	Total	266	100,0	100,0	

TABLE 12 Positive aspects of using photography for teaching history.

Aspectos positivos	FA (Frecuencia absoluta)	Porcentaje
Facilita la comprensión de conceptos históricos	132	30.5
Posibilidad de trabajar con fuentes históricas	60	13.8
Trabajar la empatía y la perspectiva histórica	57	13.2
Aproxima al alumnado a la historia	47	10.8
Facilita la implementación de metodologías activas	41	9.7
Aumenta la motivación y el interés del alumnado	38	8.8
Permite el análisis y desarrollo del pensamiento crítico	22	5
Permite superar los contenidos del libro de texto	13	3
Permite trabajar conceptos de cambio y continuidad	11	2.5
Facilita llevar a cabo un aprendizaje significativo	8	1.8
Permite trabajar conceptos de causa y consecuencia	4	0.9
	433	100%

aspects of using photography to teach history; Table 12). A total of 433 responses were obtained (see Supplementary material). These were categorised according to 11 codes or variables relating to working on concepts associated with the development of historical thinking (change and continuity, causes and consequences), critical thinking, the possibility of developing active methodologies, and improving on established textbook-based content, among others.

Of the variables accounting for a higher number of responses, that relating to photography facilitating understanding of historical concepts stands out, representing a total of 30.5 percent of all coded responses. The response of student P.0156, for example, states that the use of photography “helps you to understand and remember events in a more precise and concrete way, because they are very visual images which you can remember easily, especially when you study them and look for the information you need to write about the photographs.”

Then, 13.8 percent of the responses singled out the potential of photographs as a means of working with primary historical sources in the classroom, allowing teachers to tackle issues of empathy and historical perspective. For example, participant P.038 notes that “photography puts you in direct contact with historical sources, the student works in an active way, it is a way to boost their motivation, allow them to be researchers, and improve their critical thinking.” Meanwhile, participant P.204 highlights that photography allows students to understand historical events through “empathy, being able

to feel part of that moment, understand how things were, much more than just listening to a lesson.” Of the responses obtained, 10.8 percent show, importantly, that images bring history closer to students; as participant P.049 notes, they “let you bring the boys and girls closer to the period and the event [...]”

Another of the study’s codes relates to the main topic of this paper, it is closely linked to the study and to analysis of photographs as a resource for improving students’ motivation. Nonetheless, this code represents only 8.8 percent of the responses obtained. A good example is the response of participant P.0231: “Using photographs in the classroom leads to increased motivation and interest among students, since the visual aspect of the images is more intriguing than any other resource. Also, this pedagogical tool is highly versatile thanks to its easy incorporation into all subjects on the curriculum.” Similarly, P.075 notes that “photography is a good methodology to motivate and incentivise students, because the vast majority of schools work with textbooks, and so using a different kind of material could be positive for students.”

3.5 Difficulties and limitations of using photography to teach history

The second of the qualitative items focused on responses relating to the difficulties and limitations of working with photographs in the classroom (Difficulties and limitations of using photography to teach

TABLE 13 Difficulties and limitations in using photography to teach history.

	Dificultades y limitaciones	FA (Frecuencia absoluta)	Porcentaje
1	Análisis e interpretación de la fotografía	77	28.9
2	Ninguno	43	16.2
3	Selección de imágenes en relación al contenido y al nivel del alumnado	33	12.4
4	Contextualización de la fotografía	24	9
5	La necesidad de complementar la información con otras fuentes y/o recursos	20	7.5
6	La parcialidad de la información que proporciona	13	4.8
7	Las diferentes interpretaciones	13	4.8
8	La calidad de la fotografía	11	4.1
9	La necesaria formación docente	11	4.1
10	La fotografía condiciona el pensamiento previo	9	3.8
11	Imposibilidad de trabajar etapas previas a la contemporánea	7	2.6
12	El tiempo que requiere su trabajo en el aula	5	1.8
		266	100%

history; Table 13). There were 266 responses, which were classified using 12 codes. The code with the highest proportion of responses was related to the difficulty in adequately analysing and interpreting the images, accounting for 28.9 percent of responses. For example, participant P.060 wrote: “[...] it should be noted that the photographs must be accompanied by guidance and explanations from the teacher, since students may not know how to interpret them well,” while P.094 suggested that students “may not know how to interpret and analyse the photograph and the elements it contains.” However, 16.7 percent of respondents do not see any problems with using photographs to teach history.

Following these two codes, which have the highest percentage of responses, one of the main difficulties reported (with 12.4 percent of responses) was selecting images appropriate for the topics to be worked on and for the educational level of the students. Participant P.068, for example, highlights that “you have to know how to choose age-appropriate images.” Another key aspect is the need to contextualise the photograph in order to work on it properly (9 percent of responses); as P.0145 notes, “the context of the images must be explained very well and from different perspectives.” Then, 7.5 percent of participants noted the importance of supplementing the information provided by the images with other types of sources and resources. Participant P.0179 commented that “a historical source like a photograph may not be enough to study certain concepts or historical events, and it should be accompanied by other sources or types of documents.”

The variables with lower numbers of responses relate to the diversity of interpretations that an image can generate, the quality of the images, the teacher training needed to be able to use this resource well, the possibility that an image could condition the students’ thinking, the inability to study periods prior to the invention of photography, or the time needed to adequately use the methodology in the classroom.

4 Discussion

Firstly, this research is exploratory in nature and we have chosen to develop a qualitative methodology from an interpretative approach, since this method is one of the main research strategies in educational

contexts (Atkins and Wallace, 2012). It should also be noted that data are also quantified for a better understanding of them. We can say that this study has achieved its main objective of analysing the motivation of student teachers when using photography as evidence and a teaching resource in history lessons. Although the main hypothesis of the research has been tested, given that the photographic image can be a motivating resource for teaching history, the limitations of this type of research, since it is circumscribed to a single activity and, above all, to a small sample of students, in fact, this study is the first step in a broader investigation that should be related to active learning methodologies that make possible a critical teaching of history. At the same time, the present study is an approach to a complex subject and we consider that it requires further qualitative research, not only with the use of questionnaires, but also with other qualitative methodologies.

Anyhow, the tests carried out have shown that the research instrument had a high level of reliability, both internal and between items, and the results obtained in relation to the specific objectives have been generally very positive.

In relation to SO 1, concerning the motivation of student teachers in relation to the training programme, it is notable that all the items analysed had a positive mean greater than 3 out of 4. It is interesting to see that participants were motivated by two aspects in particular: on the one hand, being able to give their point of view as part of the learning process while researching via historical sources (Prats Cuevas, 2001; Cooper and Chapman, 2009; Seixas and Morton 2013), and on the other hand, being able to actively create their own knowledge, going beyond standard history lessons where the unidirectional, passive transmission of knowledge predominates (Gómez-Carrasco et al., 2018; Gómez et al., 2023).

SO 2 concerns the motivation of student teachers in relation to the kind of resources used in the classroom experience, mainly photography as a historical source. Here, the results were also positive, with the means of all items surpassing 3 out of 4. Item 18 (I felt motivated because we used resources other than textbooks; Table 6) stood out: students see working with teaching resources other than a textbook as especially motivating. This is important given that textbooks remain the most widely used resource among social science teachers (Bel-Martínez and Colomer-Rubio, 2018).

In terms of SO 3, which aimed to analyse the motivation of participants in relation to learning goals, it should be highlighted that, again, mean values are positive and surpass 3 out of 4, with items 15 and 21 standing out (My motivation has improved because I understand my social, political, and cultural context better; [Table 8](#); I felt motivated because I think the activity is useful for my professional future; [Table 10](#)). The first shows that the use of photography has motivated participants by allowing them to apply historical knowledge acquired in daily life, and so to establish relationships between past and present, and to understand the different political, social, and cultural situations of each period ([Moreno-Vera and Sánchez-Ibáñez, 2022](#)). Furthermore, in general, participants reported feeling motivated by the training programme, seeing it as a positive and innovative resource that they will draw on when designing activities for their history classes.

In relation to the last objective, SO 4, which focuses on the benefits and limitations of using photography in the classroom for history teaching and learning, it has been demonstrated that motivation is one of the most positive aspects when using photographic heritage in history teaching, possibly because it allows a greater understanding of the phenomenon under study thanks to its visual language—a hypothesis in line with outcomes for other resources such as comics ([Moreno-Vera et al., 2021](#)). Thus, we argue that students will feel more motivated to learn history through images, as some of the accounts collected in this study suggest. Yet we believe that there is no single reason for this motivation; multiple factors contribute to it, such as using active methodologies, going beyond the rigid content offered by some textbooks, and prioritising understanding of historical thinking concepts such as the use of historical sources, empathy, and historical perspective. It is of note that the student participants did not find using photographs well in the classroom to be straightforward, therefore, we see the need for a trained body of teachers who are able to guide the students to analyse and interpret photographs, and who are also able to select materials well. In other words, visual literacy acquires great relevance for the training of future teachers, because, in order to understand a photographic image, in a teaching context, we need to recognise its main characteristics.

Finally, the results reflect motivation and a positive predisposition on the part of the student teachers towards using photography as a historical source and as a learning tool in the classroom. Using this methodology would allow their future students to understand history through evidence ([Seixas and Morton, 2013](#)) and by investigating and working in groups ([Prats Cuevas, 2001](#)), while also identifying complex relationships through which they may understand the multiple connections that exist between past and present events.

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 Comité de Ética de la Universidad de Alicante. The patients/participants provided written informed consent to participate in this study.

Author contributions

SP-LA: Data curation, Investigation, Methodology, Writing – original draft. RB-M: Conceptualization, Investigation, Methodology, Writing – original draft. JM-V: Formal analysis, Methodology, Software, Writing – review & editing.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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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.2023.1270851/full#supplementary-material>

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