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The influence of transmedia and extra-academic narratives on the formation of the historical culture of high school students

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This paper concerns with the importance of traditional and extra-academic sources of knowledge in the configuration of historical culture of Spanish adolescents. To conduct the research, a descriptive phenomenological approach has been designed by analyzing the responses of forty-eight students to a semi-structured interview in which they had to choose 5 characters of contemporary history and indicate the origin of the information. The results show the high coincidence about who are historical significant characters: males and politicians, coincident with other studies conducted in Spain and other countries of the near sociocultural context. The degree of coincidence can be considered as a homogeneous image of the historical culture of the participants. In that sense, there is a high rate of coincidence in the source where this vision of history is mainly generated: the history classroom. The information obtained leads us to confirm the need to reflect on the important stereotypes generated after many decades of formal history teaching with contents far from a necessary critical review. For this reason, it is necessary to reorient the teaching of history to provide a better critical reasoning about how the past is used to understand current societies (ontological perspective) along with how we know about the past (epistemological perspective).

KEYWORDS

 $history\ teaching,\ formal\ education,\ transmedia,\ historical\ culture,\ secondary\ education$

1 Introduction

For at least three decades, the omnipresence of new technologies and the influence of mass media have brought about significant changes in the societies of traditionally Western cultural countries (Abylkassymova et al., 2019).

One of the areas in which the influence of the mass media can be clearly seen is education: the ease with which every student has access to an enormous amount of information means that, in many cases, informal learning, which is not always adequate, competes with the teachings offered in the formal educational environment (Martín-Barbero, 2001; Souto-Otero, 2021) and becomes mediatized. Recent studies, such as that of Scolari et al. (2020), have shown that the channels of knowledge in the 21st century are not exclusively educational centers and teachers, but that others have gained great relevance, as in the case of transmedia narratives, a recently coined term that alludes to the possibilities of informal learning through different channels where anyone can create and upload their own explanatory materials (YouTube, Google, Wikipedia, TikTok, among others).

In this line, the subject of history serves as a perfect example to measure these issues. This discipline is not only present in all secondary education courses, but also plays an important role in various non-academic channels, such as cinema, radio, television, comics, websites, social networks, etc. This high presence in informal media contrasts with the low motivation that the subject usually shows at the academic level (Fuentes Moreno, 2003; Prats Cuevas, 2017). As a result, in recent decades and in many Western countries, there has been a broad debate about what history should be taught and how it should be taught.

In terms of the characteristics of the approach to historical knowledge, informal and non-academic contexts are becoming increasingly important, leading to a "decentering and spreading of knowledge" (Martín-Barbero, 2001). Decentralization means that much of the knowledge displayed by today's students is produced outside the traditional academic environment. Various studies have shown the presence of historical content in high consumption products such as films, series, video games, novels, comics, etc (Barton, 2008; de Groot, 2018). Their viewing or mass consumption plays a key role in the formation of people's historical culture, which is complemented by the influence of the immediate environment (family members, ascription groups) as well as tourism (visits to museums, interpretation centers, etc.).

All these elements are undoubtedly key to the conceptions that students bring to the subject of history in the academic environment, to which we must add the idea of a participatory historical culture (Grever and Adriaansen, 2019), which fits perfectly with the notion of collaboration and interaction that today's societies demand and that digital resources make possible. The great success of platforms such as Google, Wikipedia, TikTok, YouTube, etc., which allow users not only to consume content but also to create it themselves, is framed in this context; this is what we call transmedia. Transmedia literacy refers to the abilities, skills, competencies, and both social and cultural skills needed to perform adequately in today's digital media (González Martínez et al., 2018). Within this, transmedia narratives (narrative storytelling) have been defined by researchers such as Jenkins (2008), p. 31 as a new aesthetic that has emerged in response to the convergence of media, which depends on the active participation of knowledge communities and is developed through multiple media platforms, with each new text making a specific and valuable contribution to the whole.

Scolari (2019), for his part, defines transmedia narratives as a type of storytelling in which the story unfolds through multiple media and communication platforms, and in which part of the consumers take an active role in this expansion process. The same researcher has launched an extensive project on literacy and transmedia narratives, in which the uses and skills of adolescents in digital media are studied in formal and informal contexts, in a way that has begun to develop the connections of the digital world with the educational field (Scolari et al., 2020). Along the same lines, there are other studies that work with transmedia narratives related to citizenship education (Jover Olmeda et al., 2015), linguistics (Freire, 2020), working with media in the classroom (Scolari, 2018), or literature (Jenkins et al., 2013). All these studies, and others, such as those analyzed in the article of Meyerhofer-Parra and González-Martínez (2023) about the use of transmedia storytelling, are just an example of the pedagogical possibilities offered by the new transmedia concepts in the field of education, which should be taken into account in the formal field for the formation of competent and responsible citizens of the 21st century.

All these challenges, together with the demands of today's students for a more active role, seem to justify the gap between school history and young people, since history has usually been presented as an educational subject in which only the transmissive and unidirectional model ("knower-teacher/learner-student") has a place. However, engagement with these more dynamic or motivating resources does not necessarily imply more critical or different learning in terms of construction of meaning if it is not accompanied by a challenge to the narratives created in the school environment. And indeed, preliminary studies seem to point in the direction that the new digital resources do not contradict or challenge such narratives (Luyt, 2011).

In bearing in mind all these aspects, it is worth asking whether it is possible that transmedia narratives and informal channels controlled by non-educators have gained such importance among today's youth that they have become the most useful and valid source of information in their historical cultural formation. That situation drives us to rise our research question: Which are the influence of formal and informal education in the construction of historical knowledge? By supplementing this question, some several auxilliar research questions emerge, such as Who are the relevant characters of history to students? Where do the students obtain information about those characters? Therefore, the main objective of this research is to analyze the influence of formal and informal education in the construction of historical knowledge. This objective is concretized into two specific objects: (1) To identify the most cited historical characters and events of world Contemporary History; (2) To describe the sources from which they have extracted the information for the construction of this historical knowledge in students in the last stages of pre-university education. To carry out the research, a case study has been conducted in a public secondary school in the city of Murcia (Spain) with forty-eight students from the 4th secondary school (ESO) and the 2nd high school (baccalaureate), the results of which are presented in this article.

2 Materials and methods

2.1 Participants

The fieldwork was carried out in a public secondary school in the northern part of the city of Murcia (Spain), which is more than thirty years old and located in a neighborhood with a medium socioeconomic and cultural level. About 10% of the students are immigrants, mainly from North Africa, Latin America, and Eastern Europe. The more than 600 students are divided into compulsory secondary education (ESO) with multilingual options in English and French, Baccalaureate (including the research program) and Training and Development Studies (T&D).

It was decided to have a purposive sample of these students, selected on the basis of the objectives set in this research; therefore, students belonging to 4th ESO and 2nd year of Baccalaureate of any educational modality were selected. Students in the 4th grade receive the subject "History of the Contemporary World," which includes content related to universal and Spanish history since

the 18th century. In the 2nd year of the Baccalaureate, they take "History of Spain," a subject that ranges from prehistory to the democratic transition and the Constitution of 1978.

Participation was voluntary and a total of 48 complete responses were obtained, of which 25 are in the 2nd year of Baccalaureate and 23 are in the 4th year of ESO. Almost all of them (46) belong to bilingual (English) or multilingual (English and French) groups.

2.2 Instruments

The information was collected through direct and personal interviews with the students selected for this study. This technique is of great importance in the field of educational research because it makes it possible to give meaning to the data obtained, to categorize them (both the data and the interviewees) and to facilitate the nuances of the answers given (Gibbs, 2018). The interviews were organized in a semi-structured manner, with a first question in which the participant had to select 5 figures from contemporary history that he/she considered relevant. The next step was to clarify the origin of the information that had led him/her to select each of the characters. To do this, the respondent had to select the sources of information from 5 possible categories and rate them between 1 and 10 (1 being "not at all" and 10 being "totally"), as shown in the example in Table 1.

As can be seen, the first category ("History classes at my school or high school") corresponds to formal or academic sources of information, while the remaining categories are related to informal or extra-academic contexts. Finally, interviewers were asked to explain their answers.

2.3 Procedure

Considering the proposed objectives, a qualitative and quantitative research methodology is established, a mixed approach that combines the strengths of each in both data collection and analysis (Sammons and Davies, 2017; Rodríguez and Rubia, 2021). This methodology has a broad consensus in the scientific community because "the amalgamation (not just the sum) of quantitative and qualitative data in the same design or research method, is something new, with great potential for more complete studies" (Ramirez-Montova and Lugo-Ocando, 2020, p. 18).

Other authors, such as Schuster et al. (2013), defend this model in educational research for its validity in exploring aspects such as the search for conclusions about the teaching-learning

process, about educational reality (whose protagonists are mainly teachers and students), the evaluation of the impact of a particular methodology, or the contribution that this type of research can make to understanding the socio-cultural characteristics of the educational environment.

Lastly, the research is framed within a phenomenological approach of a descriptive type, with which a description has been made of the answers obtained by the participating students in relation to the origin of their knowledge and their experiences have been identified. This approach allows describing the study phenomenon by reflecting the reality lived by people in their context and individuality and using some instruments such as the survey or the interview (Fuster Guillen, 2019).

Responses were collected on an Excel spreadsheet, and after the five categories were rated, a brief conversation was held with the student to clarify the responses. For example, if they gave a rating above "1" to the category "History classes at my school or high school," they were asked about the course in which they received this information or the content topic to which they related it. In any case, it was an open interview in which the student was free to express, qualify and/or expand the data collected in the questionnaire; at the same time, it allowed the researcher to relate the responses to the previously established categories and even ask new questions to clarify the data (Valles, 2003; Vargas, 2012). The answers were transcribed on the spot by the researcher.

Therefore, the entire data collection can be framed within what Jansen (2010) calls "pre-structured or deductive surveys," in which the categories have been previously defined and, therefore, the diversity expected to be found, with the goal of the research being to observe which of the predefined categories were found in the study population.

3 Results

The participants in the study selected a total of 86 personalities out of the 240 possible options, which represents a high level of saturation in the identification of characters. That is, with only 35.8% of the exclusive cases that could be selected by the students, the total number of answers given by the students (240) was covered. Among them are the 9 personalities with the highest number of choices, representing 52.34% of the total (123 out of 235), as shown in Table 2.

It seems evident that political and scientific issues have prevailed in the choice of these personalities.

The relative index of each personality in relation to each of the sources of information has been analyzed (Table 3). The percentage

TABLE 1 Example of information source categories and their rating.

Person 1. The information I have was obtained from:	1	2	3	4	5	6	7	8	9	10
The history classes at my school or high school.									x	
My personal and social environment (family, friends, etc.).				x						
Historical fiction (novels, series, movies, comics, etc.).	x									
Technological media (internet, social networks).					x					
Museums, exhibitions, tourist visits, etc.	x									

Own elaboration.

TABLE 2 Most selected personalities.

	Personality	Amount
1	Adolf Hitler	27
2	Napoleon	24
3	Albert Einstein	15
4	Francisco Franco	12
5	Marie Curie	11
6	Nelson Mandela	10
7	Charles Darwin	8
8	Christopher Columbus	8
9	Karl Marx	8
	Total	123

Own elaboration.

value of each personality was obtained by taking into account the maximum score that could be obtained by each of them in each of the information sources, taking into account that the maximum value for each one was 10. Consequently, the maximum value for a person chosen, for example, on 5 occasions would be 50 in each source. Therefore, if he or she obtained 25 points, he or she would get an index of 50%. Following this criterion, Table 3 shows the average value of the percentages obtained by the personality in each of the origins. Thus, we can see that the highest value is in "school," the lowest is in "visits," and the remaining values are quite similar. This indicates that the origin "school" is the most valued, globally, for all the characters selected by the respondents.

This tendency is maintained if we analyze these selected individuals a greater number of times. In **Table 4** (the overall position in the origin is indicated in brackets if it is below the first nine), we can see how the origin "school" clearly dominates for these personalities as the main origin to obtain information about them, which is also confirmed by the clarifications collected in the interviews: "I studied him in the 4th ESO" (reg. 203), "in the subject of Ferdinand VII" (reg. 215), "in works on characters in the subject of Physics and Chemistry," "in the English book on historical characters" (reg. 201), or "in Baccalaureate in subjects such as the French Revolution" (reg. 205), are some of the answers obtained for the characters selected on a greater number of occasions.

The exceptions are Hitler and Franco. In the case of the German leader, we can see that his presence is easily traceable in all the areas analyzed. Perhaps the "fiction" source stands out a bit, but in short, his presence is recurrent in all areas. Franco's presence, on the other hand, stands out for its moderate score in almost all areas, except perhaps in "Environment." He is a figure who, despite his continuous frequency, does not seem to have a very prominent profile. It is only in the family environment that access to the figure shows a prominent element, which is also clarified in the interviews:

"My grandfather talked to me about him, he used to talk to me a lot" (reg. 418), "in family conversations where politics are discussed, Francoism is talked about quite a lot, comparing it with the present" (reg. 211), "my grandparents and great-grandparents told me that they were affected in the post-war period" (reg. 208).

Moreover, the decision to consider only "school" as a source of knowledge was reinforced by the students' responses in the interviews. They were asked to be as specific as possible about the origin of the information they provided. Well, none of the respondents, when identifying the provenances of "fiction," "environment" or "new technologies," referred to any website, blog, broadcast, document, person or collective that could be considered a reliable and rigorous source of information, as can be seen in these examples of responses: "I have seen documentaries from *La 2* [a Spanish TV channel]" (reg. 421, reg. 419, reg. 221), "A video game that recreates the Battle of Waterloo" (reg. 225), "I had seen something about him in recommended Instagram and YouTube posts" (reg. 414), "In the series The Simpsons" (reg. 210).

Similarly, those who identified the source as "visits" were not able to name almost any museum, monument, or specific place, nor did they identify any of them as a possible primary source of knowledge. Some examples: "On a trip to Germany they explained to me many things about his life" (reg. 212), "In Paris I made visits in which this figure was named" (reg. 414), or "I visited some museums in which there were paintings about him" (reg. 409). However, we can see a consistency in the fact that personalities that are not usually included in school curricula, such as Steve Jobs, Paco Gento, or drug traffickers such as "Chapo Guzmán," etc., are rated very highly by students in the areas of "fiction or social networks" (values above 80% on average) and very low in "school" (percentages below 30%). In the same way, figures such as Malala Yousafzai, Xi Jinping, Ursula von der Leyen do not score high in the area of "school" (usually below 10%) and high in "new technologies" (above 90%), as some answers in the interviews show: "YouTube videos after the Nobel Prize" (reg. 421), "videos from the VisualPolitik channel" (reg. 203), "on Twitter and Instagram channels" (reg. 205, reg. 219, reg. 407), "on the Narcos series" (reg. 403, reg. 415, reg. 418).

Another rating that increases the importance of the "school" source in relation to the others is the number of times it was selected as the main source of the characters' knowledge, as shown in **Table 5**. Both 4th ESO and 2nd Baccalaureate students chose "school" more often as the main source of knowledge (125 times), of which only 12.8% (16 times) were rated with the same score as another source of knowledge (in these cases, one point was added to each of the sources). The source "new technologies" received less than half as many points as "school"; "personal environment" and "fiction" tied with 1/3 of the votes as the most valued, and "visits" was hardly valued as the main source (6 times).

Finally, another element that reinforces the idea of how a historical culture is generated is the fact that the school reinforces

TABLE 3 Relative index (RI) of personalities in relation to sources of information, in percentage.

RI Personalities at school	RI Personalities at environment	RI Personalities in fiction	RI Personalities at technologies	RI Personalities at visits
56.68%	40.83%	36.37%	47.18%	17.63%

Own elaboration.

TABLE 4 Origin of information about the most voted personalities.

	Personality	School	Environment	Fiction	New technologies	Visits
1	Adolf Hitler	164	142	184	164	48
2	Napoleon	191	64	95	71	71
3	Albert Einstein	102	46	52	74	19
4	Francisco Franco	57	88	45	55	29
5	Marie Curie	81	22	14 (16th)	40	11
6	Nelson Mandela	71	49	26	40	14
7	Charles Darwin	65	18 (12th)	24 (12th)	53	29
8	Christopher Columbus	61	30	26	26	16
9	Karl Marx	65	32	31	33	8 (17th)

Own elaboration.

TABLE 5 Total rating of choices as the most valued source of knowledge and number of times it shares being the most valued source.

Source/level	ESO	Baccalaureate	Total
School	57 (8)	65 (8)	125 (16)
Personal Environment	22 (11)	23 (8)	45 (19)
Fiction	23 (7)	22 (6)	45 (13)
New technologies	23 (7)	30 (10)	53 (17)
Visits	5 (2)	1 (1)	6 (3)

Own elaboration.

its image of historical relevance through the presence of the same content replicated in other areas of access to information. For this purpose, we have taken into account the relative index to the value of each area (school, environment.), quantifying the percentage obtained by each selected personality out of the total given to the source of information (Table 6). As can be seen, it is common to find the same names in the most prominent positions.

4 Discussion

In order to answer the first of our auxiliar research questions, the selection of figures obtained in the answers obtained places this research in line with others such as those of Ibagón Martín et al. (2021) and Rivero et al. (2022) in the Spanish case, and those of Mieres et al. (2022) and Ordóñez and Cerri (2023), in the Latin American case. All of them point out that, despite the great availability of sources of access to historical information and the freedom of choice of historical figures offered, there is a high coincidence in the answers. The characters with the highest number of choices by the respondents of the four studies, which are more comparable due to the participants and the subject matter treated (in the study of Ordóñez and Cerri, 2023, only the history of Mexico is asked about), show quite significant coincidences, as can be seen in Table 7.

Table 7 shows how this study is consistent with that of Rivero et al. (2022) in 6 of the 9 personalities with the highest number of choices by the participants (Hitler, Napoleon, Franco, Columbus, Einstein, and Marie Curie). Of these 6, the 2 referring to the history of Spain appear in the study by Ibagón Martín et al. (2021), whose

survey asked for characters from the history of their own country and not from universal history as in the other two. In the study by Mieres et al. (2022), the responses referring to relevant figures in contemporary world history coincide with Hitler, Marx, Darwin, and Marie Curie. These results, shown in Table 7, allow us to verify the correspondences between the four studies in terms of the affiliation of the personalities, with a clear predominance of those of a political-military nature [something that can also be observed in the study on Mexico by Ordóñez and Cerri (2023)], followed by those linked to the scientific field (Einstein, Newton, Darwin and Marie Curie), although it is true that this last bias does not appear in the study by Ibagón Martín et al. (2021), probably due to the fact that exclusively national data were requested. These results link directly to the uniformizing and stereotyped vision of traditional academic teaching. This vision is generated in classrooms, to a large extent, through textbooks (Grever and van der Vlies, 2017). Studies such as those of Valls (2019) in Spain; Lucy et al. (2020) in USA; Kropman et al. (2020) in Netherlands; or Johnson-Khokar (2021) in Pakistan, reveal school texts focused on a homogeneous collective memory based on a narrative of great characters, mainly male, belonging to the contemporary age and referents of glorious and exemplary events, leaving many other relevant contents in oblivion, giving rise to a narrative that shows a "univocal, uncritical and unidirectional historical identity" (Ibagón Martín et al., 2021, p. 308). Other studies, such as that of Lanoix (2018) have shown the influence of teachers and the contents of educational curricula on such constructions of identities, in this case of a national identity clearly visible in the results of his research in Quebec (Canada), where most teachers, to a greater or lesser extent, transmit to their students the traditional identity values of the history of this territory (Lanoix, 2018). This study reinforces the importance of teachers in the connection between relevance and historical culture; that is, in the ability to interpret the past, understand the present and project the future. Not in vain, as has been shown in different research, teachers are the main element of change in what refers to teaching (Molina Puche and Ortuño Molina, 2018, p. 45).

It is also possible to make an appreciation of the global traits in which most of the selected personalities can be framed and which present an important consonance with the research of Arnoso et al. (2018). There, they show some of the elements that influence the historical significance that has been configured for

TABLE 6 Figures with the highest relative index in school, environment, fiction, technologies, and visits, in percent,

Scho	ol	Environ	ment	Fictio	on	Technology		Visits	
Figure	%	Figure	%	Figure	%	Figure	%	Figure	%
Napoleon	13.0	Hitler	14.7	Hitler	19.9	Hitler	15.1	Napoleon	16.3
Hitler	11.2	Franco	9.1	Napoleon	10.3	Einstein	6.8	Hitler	11.0
Al Capone	6.7	Napoleon	6.6	Einstein	5.6	Napoleon	6.6	Darwin	6.7
Marie Curie	5.5	Mandela	5.1	Franco	4.9	Franco	5.1	Franco	6.7
Mandela	4.8	Einstein	4.8	Hawking	3.6	Darwin	4.9	Einstein	4.3
Darwin	4.4	Karl Marx	3.3	Karl Marx	3.3	Marie Curie	3.7	Columbus	3.7
Karl Marx	4.4	Columbus	3.1	Columbus	2.8	Mandela	3.7	Mandela	3.2
Columbus	4.2	Hawking	2.7	Mandela	2.8	Karl Marx	3.0	Isabella II	2.5
Franco	3.9	Marie Curie	2.3	Pablo Escobar	2.8	Columbus	2.4	Marie Curie	2.5
Isabella II	2.7	Juan Carlos I	2.0	Washington	2.7	Hawking	2.4	Anna Frank	2.3
Mother Teresa	1.8	Darwin	1.9	Darwin	2.6	Tesla	2.3	Juan Carlos I	2.3
J. F. Kennedy	1.4	Isabella II	1.9	Elizabeth II	1.9	Churchill	2.2	Tesla	2.0

Own elaboration.

TABLE 7 Comparison between the most selected personalities of this study and those of Ibagón Martín et al. (2021), Mieres et al. (2022) and Rivero et al. (2022).

Own data		Rivero et al. (2022)	Ibagón Martín et al. (2021)	Mieres et al. (2022)
1	Adolf Hitler	Adolf Hitler	Francisco Franco	Adolf Hitler
2	Napoleon	Christopher Columbus	Christopher Columbus	Lenin
3	Albert Einstein	Francisco Franco	The Catholic Monarchs	Gavrilo Princip
4	Francisco Franco	Napoleon	Carlos I	Karl Marx
5	Marie Curie	Isaac Newton	Carlos V	Bakunin
6	Nelson Mandela	Albert Einstein	Isabella the Catholic	Charles Darwin
7	Charles Darwin	Stalin	Felipe II	Edison
8	Christopher Columbus	Marie Curie	Juan Carlos I	Marie Curie
9	Karl Marx	B. Mussolini	Charles III of Spain	Nikola Tesla

Our own, based on data published in the above studies.

decades in formal educational contexts and that provide valuable information about the reason for the choices that have been collected in this study. Associated with the "biased views" and "violence and traumatic historical pasts" (Arnoso et al., 2018, p. 3-4) that make us consider European and North American history as the most important next to that of our own country, especially when it comes to violent and traumatic events that impact the lives of many people such as wars or revolutions, we have several examples among the most recurrent in our research such as Hitler, Franco or Napoleon. These same examples, and the vast majority of those we see in Table 7, reveal to us the clear dominance of male characters, a clearly androcentric view of the discourse and the exclusion of the voice of women (Lucy et al., 2020). Likewise, the impact of the traumatic is also in a constant in the identification of what is relevant in history, because "people tend to emphasize the role of violence, wars, and military leaders (...). The centrality of wars and conflicts is linked to the emotional impact they generate" (Arnoso et al., 2018, p. 4). This would explain the presence of figures such as Hitler both in the "school" provenance and in "fiction" and "new technologies." Similar case to Franco, except that in this case he has been more silenced in educational channels and appears highlighted in the family environment ("environment") as can be seen in Table 6.

With respect to the second auxiliar question, and going in depth with some of the ideas already aforementioned, our study allows us to recognize that the vision generated by the formal spheres seems to be reinforced by non-academic channels, forming a current toward the same characters, which explains their recurrent selection. It is only from this recurrence that we can speak of the historical culture of individuals, that is, the shared way of interpreting and transmitting the past. In this way, young people see that the contents studied in class are reproduced in the media of consumption more suited to their profile (transmedia and digital resources), so that there is no conceptual change or challenge to the historical narratives consumed, whether in the academic or extra-academic field. And everything seems to indicate that the teaching of or access to history is determined by traditional narratives,

regardless of the resources used (Carretero, 2020). And although this situation seems to favor the fact that adolescents see this subject as a non-interactive knowledge that they should only memorize, or that their most common opinions about the subject are that they find it "easy, boring and not very useful (...) it only requires a good memory" or "it is very uninteresting" (Prats Cuevas, 2017, p. 18), the truth is that the analyzed responses seem to show the high effectiveness of the message offered, since students tend to be consistent in their answers.

Finally, regarding the influence of media and technological channels, there are some interesting studies, such as that of Abylkassymova et al. (2019), which, although contextualized for the case of Russian youth, their conclusions fit perfectly with the Spanish reality.

5 Conclusion

This study has provided examples of what were considered relevant historical personalities for the students in the last stages of pre-university education who participated in this study. The degree of coincidence can be considered as a more or less homogeneous image of the historical culture of the participants, with some identifiable characteristics, let us say, in politics and contemporaneity as keys, and a high rate of coincidence also in the focus where this vision of history is mainly generated. The information obtained leads us to confirm the need to reflect on the important stereotypes generated after many decades of formal history teaching with contents far from a necessary critical review. For this reason, it is necessary to reorient the teaching of history in order to provide a better vision and understanding of historical culture.

If we admit that the subject of history has an important potential for the formation of students' identities and, consequently, for the development of responsible citizenship, we must direct our efforts toward teaching a more critical and reflective history that analyzes their social environment and makes them more sensitive to the multicultural social reality in which they live and with better skills to cope in a globalized society, all without losing their own identity (Molina Puche and Ortuño Molina, 2018). And in this context, what happens in our classrooms has a particular relevance, because despite the undeniable difficulties that the teaching of history finds itself in, it is still this formal context that has the greatest impact on adolescents when it comes to shaping their historical culture. These contributions do not detract from the value of the content taught, but rather seek to emphasize their social and civic competence.

Furthermore, and in parallel, the 21st century has already begun to develop the idea of how the use of new technologies has evolved and what Spanish adolescents and young people know how to do with them, many of whom are integrated in the so-called "millennials" generation (Álvarez Monzoncillo and De Haro Rodríguez, 2017). All this from a social and educational perspective since it is necessary to address the educational implications of a phenomenon as present in postmodern society as digital media.

It is indisputable that we live in a society that has validated other channels of knowledge that are more in line, at least in their forms and procedures, with the interests and skills of the younger population groups; but they do not yet seem to have the weight of what happens in the classroom. The contribution of informal sources, among which are some elements defined in transmedia narratives, is a reality but does not reach the importance of academic teaching.

The results of this research reaffirm the importance of didactics, the importance of continuing to improve and reflect on what and how one teaches, because therein lie the keys to interpreting the past, understanding the present and projecting the future (Rüsen, 2018), which is the basis for the formation of citizens capable of responding to the demands of 21st century society.

Likewise, the results of the informal sources of knowledge, especially "Fiction" and "New Technologies," must be evaluated in order to rethink these didactics and to make it more consistent and binding with the needs and demands of young people, since a coherent combination of these sources, integrating them with meaning in the classroom, could mean a more than interesting advance in the formation of citizens who act responsibly in a society in which they are protagonists of the present and the future.

Regarding the limitations of this research, we are aware that, to analyze the influence of extracurricular narratives on the historical formation of students, it is necessary on the one hand not only to identify the sources of the knowledge about historical characters or events, but to verify the content of the narratives about them. Therefore, it would be advisable to analyze whether both academic narratives and extracurricular ones help to consolidate a certain type of image of the past or if, on the contrary, they present complementary, divergent, or antagonistic visions. An adequate comparison of these narratives, as well as the students' own narrative about these characters or events, would help to deepen how the social representation of what they consider relevant in the history of humanity is generated, as well as the relative influence of the different elements that help create the historical culture of the interviewees. At the same time, it would be convenient to replicate this study in more educational centers, which would allow to have a larger sample that would facilitate a more robust idea of both the social representation and the weight of the different sources that make up the historical culture of the participants.

However, this research opens the door to concrete implications that could improve students' critical capacity about the past. We have shown that the importance of learning history continues to rely on the school environment (formal education). It allows us to be aware of which contents are the most selected and which are the most meaningful for students. The vision given of such historical icons and their values in the educational field is crucial to help to change certain social representations that remain based on a biased perspective of history. The action that can be taken on the values that these contents usually possess is a task that we can do from schools from two areas: developing educational resources deepening against stereotypes and acting on the initial training of teachers to help them to teach a more critical and multivocal vision of that icons (the importance of cultural context, the unvoiced people who influenced on that icons, etc.). With this we would be helping young people who continue to access history through schools to have a more complex and multivocal vision of the past, and therefore, a greater capacity for reflection on the present and the future we want.

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 humans were approved by the Ethics Committee of University of Murcia. The studies were conducted in accordance with the local legislation and institutional requirements. Written informed consent for participation in this study was provided by the participants' legal guardians/next of kin. Written informed consent was obtained from the minor(s)' legal guardian/next of kin for the publication of any potentially identifiable images or data included in this article.

Author contributions

PM-M: Investigation, Resources, Software, Writing – original draft. JO-M: Conceptualization, Formal analysis, Methodology, Supervision, Validation, Writing – review & editing. SM-P: Conceptualization, Data curation, Formal analysis, Funding acquisition, Supervision, Validation, 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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