



Spanish high schools as dynamic hubs for media and information literacy: the case of inFORMADOS as an educational experience taught by journalists

Los institutos españoles como centros dinamizadores de la alfabetización mediática e informacional: el caso de inFORMADOS como experiencia educativa impartida por periodistas



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Abstract:

Social media is the main source of information –and disinformation– for the younger generations, whose immersion in digital life begins at an increasingly early age. Media and information literacy (MIL) has become a key tool in this context in combatting disinformation and ensuring the health of democracy. This paper analyses the inFORMADOS programme, implemented in Castilla y León, which trains 4th-year secondary education students in critical thinking to counter disinformation. The research has utilised a satisfaction survey to gather data from 525 students and 34 teachers who participated in the workshops during the 2023-24 academic year. The results reveal a positive reception to the programme, making clear the effectiveness of the methodology employed and emphasizing the role of journalists as the ideal people to teach the workshops. The findings reinforce the need to incorporate media literacy into educational curricula, as is already the case in some other countries.

Keywords:

Media and information literacy; disinformation; digital natives; secondary education; inFORMADOS.

Resumen:

Las redes sociales constituyen la principal fuente de información, aunque también de desinformación, para las generaciones más jóvenes, cuya inmersión en la vida digital comienza a edades cada vez más tempranas. En este contexto, la alfabetización mediática e informacional (AMI) emerge como una herramienta clave para hacerle frente y garantizar la salud democrática. Este artículo analiza el programa inFORMADOS, implementado en Castilla y León, que capacita a estudiantes de 4º de Educación Secundaria en pensamiento crítico frente a la manipulación informativa. A través de un cuestionario de satisfacción, la investigación recoge datos de 525 alumnos y 34 docentes encargados del aula que participaron en los talleres durante el curso 2023-2024. Los resultados revelan una valoración positiva del programa, destacando la efectividad del diseño empleado y subrayando el perfil del periodista como idóneo para impartir los talleres. Los resultados refuerzan la necesidad de incorporar la alfabetización mediática en los currículos educativos, como ya hacen otros países.

Palabras clave:

Alfabetización mediática e informacional; desinformación; nativos digitales; Educación Secundaria; inFORMADOS.

1. Introduction

1.1. Media and information literacy and its instrumentalization towards critical thinking

Online media, including social media, is the chief means of accessing news in Spain, with a penetration rate of 74%. This trend has been evident since 2014, according to the Digital News Report (Vara et al., 2024), and is particularly notable among Generation Z (born from 1995 to 2010) and Generation Alpha (2010 onwards), both characterized by having been born and raised in a digital environment (Szabó & Dani, 2022). Their preference for obtaining information and education visually, along with their access to ICTs from the age of 10 (INE, 2023), is leading to a rapid introduction to social media at increasingly young ages.

During this stage in which their personality and cognitive abilities develop (Lara-Alberca, 1996), it is essential that teenagers learn to surf the internet and put their critical thinking to use (García-Ortega, 2023), since their status as digital natives (Prensky, 2001) does not necessarily mean they possess the innate skills needed to make proper use of the media environment (Crovi, 2010). It is important that students “learn to analyse expressions of mass and popular culture, such as music videos, television and cinema” (Triviño & Vaquero, 2020, p. 376), but also informative content of various characteristics such as news or publications related to issues concerning the public and political life of their country, in which they tend to show less interest (Melro & Pereira, 2019).

The lack of techno-information skills when interacting with the digital context is a challenge in the current social media information landscape, since these are presented as one of the main sources of disinformation (Aparici et al., 2019; Rastogi & Bansal, 2023) in a context where relevant information is diluted due to infoxication (Caldevilla-Domínguez, 2013).

Secondary school students, just like the elderly (Sádaba et al., 2023), are one of the groups most vulnerable to disinformation (Mata et al., 2021) as they are unable to distinguish fake news from real news or data from opinion (Herrero-Curiel & La Rosa-Barrolleta, 2022). To address this problem, it is essential to promote access to 'information pills' that educate and allow them to use available technological tools confidently and skilfully, thus facilitating the identification of quality information (Notley et al., 2023; Aguaded et al., 2015).

This approach becomes increasingly urgent at a time when disinformation, understood as "verifiably false or misleading information created and disseminated for profit or to deliberately deceive the population" (European Commission, 2018, p. 4), is recognized as one of the greatest risks to democracies, according to the Global Risks Report (World Economic Forum, 2024). The threat is particularly worrying for young people, who face, at the same time, new challenges arising from the advance of artificial intelligence, which implies new tools and channels for generating and disseminating malicious information. Such systems, if not properly managed, can impair their ability to think critically and lead to the circumvention of meaningful information (Hirvonen, 2024). It is therefore essential to develop educational strategies that strengthen their capacity for discernment in the digital environment.

Given this double panorama in which, on the one hand, young people obtain news through social media and, on the other, those platforms become spaces where disinformation prevails, media and information literacy (MIL) is presented as an effective strategy to equip students with the resources to confront disinformation and malicious intent (Rodríguez, 2023; Loh et al., 2023; Ramón-Reyero & Gil-Martín, 2021), but also with which to develop skills aimed at problem-solving and increasing creativity (Szabço & Dani, 2022).

MIL, close to the idea of educommunication (Aparici & García-Matilla, 1998; Aguaded, 2009), refers to the development of the skills and competencies called for to interpret the media (Buckingham, 2003). All of this in a context of multiliteracy that involves the understanding and analysis of the information provided by the media, reflective thinking aimed at making reasoned judgments, and knowledge of news in its context, as well as knowing how to handle digital tools (Valverde-Berrocoso et al., 2022). Thus, classrooms should become trial and error laboratories where students explore their critical thinking and "understand the role of the media in today's society" (Triviño & Vaquero, 2020, p. 378).

It is for this reason that some authors argue that media and information literacy should be formally incorporated into primary and secondary education as a strategy to break the cycle of institutionalized disinformation (Magallón-Rosa, 2024). This is not a new development in cases such as the United Kingdom, which has included Communication and Television Studies in what would be the Spanish Baccalaureate (16 - 18 years of age) since the 1970s (Buckingham, 2003), or Finland, where literacy programs are integrated from the age of six (Rodríguez, 2023). Previous studies also advocate for MIL to be a cross-curricular subject taught throughout the entire academic curriculum through activities such as reading and writing. Such an approach calls for the commitment of the corresponding teaching staff, requiring an effort that often goes unrecognized (Herrero-Curiel & La Rosa-Barrolleta, 2023).

Although these proposals are not yet included in the Spanish curriculum, certain initiatives are indeed taking place, such as *AulaCheck*, which involves students in the 3rd and 4th years of secondary education, as well as in the 1st year of Baccalaureate, creating an online newspaper (Ibercivis, 2022), or (*In*)*fórmate*, which also promotes critical thinking in adolescents aged 14 to 16 (Sánchez-Sobradillo, 2023). These activities focus on the transfer of knowledge through content accessible online and with materials prepared for teaching staff to apply in a practical way in the classroom. The importance of transferring media literacy to the classroom (Valverde-Berrocoso et al., 2022) is also reflected in the growth of programmes in collaboration with public institutions, such as *Desenreda* in Andalusia, organised by the Ministry of Education and the Association of Journalists of Andalusia, or *La Prensa en mi Mochila*, an initiative of the Malaga Press Association and the Malaga Provincial Council (Cucarella & Fuster, 2022).

It is in this context that *inFORMADOS* has emerged, a programme launched in the 2022-2023 academic year thanks to collaboration between the Department of Education of the Regional Government of Castilla y León and the Association of Journalists of Castilla y León. The project constitutes the object of study on which this study focuses, aimed at deepening the analysis of literacy as the main weapon against the growing problem of disinformation, especially among secondary school students, the backbone of future democracies.

The regional government's commitment to collaborating with a professional organisation of journalists (Blanco-Alfonso et al., 2024) aligns with the broad consensus among European organisations concerning the central role of journalism and news professionals as a structural brake on disinformation (Rodríguez, 2023; Oficina C., 2023; Buitrago et al., 2017). This suggests that journalism is moving toward greater specialisation in the field of public literacy, especially digital literacy (Usher, 2019).

1.2. *The inFORMADOS programme as an object of study*

Media literacy has taken on a central role in the fight against disinformation, and Castilla y León is one of the Spanish regions that has a specific proposal to foster it. The *inFORMADOS* programme is described below with the aim of examining its implementation from different perspectives:

- a. Implementation: schools and start dates.
- b. Dynamics and methodology: length, resources and materials used with students.
- c. Training blocks: 'Journalism and Disinformation', 'Social Media and Committed Journalism', and 'We are Journalists'
- d. Objectives: competencies and skills to develop.

The programme was put in place for the first time in the 2022-2023 academic year in 34 high schools (IES) across the nine provinces of Castilla y León, with a second edition in 2023-2024 (*inFORMADOS*, 2023).

Figure 1. Presentation image of the *inFORMADOS* programme

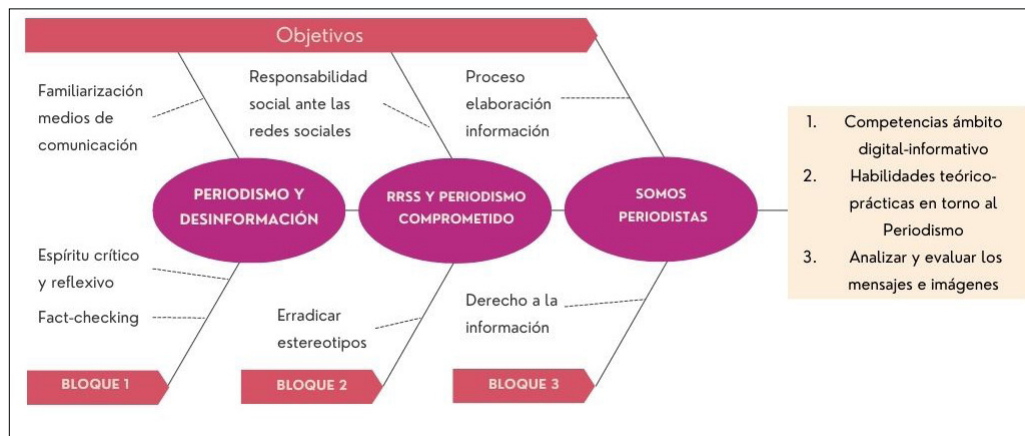
Source: *inFORMADOS*

Each workshop focuses on fostering critical thinking in secondary school students, so that they learn how to interpret information and distinguish between the truth and disinformation. The main objective of these workshops is “to provide students in the second half of secondary education with the tools they need to understand the world they live in, to think more deeply about global development issues, critically analyse reality, and use the media and social media to debunk prevailing stereotypes” (*inFORMADOS*, 2023, p. 4).

The dynamic in both editions of these workshops involved journalists with experience in media and training, all members of the Professional Association, travelling to the schools to offer a six-hour training program with varied theoretical and practical content. The goal from the very beginning has been for the participants to not only understand how to effectively consume news, but also to be able to create their own content. Once that content is ready, the hope is that the school will share it through its channels of communication, whether that be their website or social media. Thus, the dual function is fulfilled: reflecting the experience from the perspective of the protagonists, the students themselves, and putting into practice what they have learned as journalists, thus continuing the prosumer role inherent in a society characterized by techno-digital transformations (Scolari, 2013).

The project is divided into three thematic blocks (Figure 2). The first two are theoretical- practical, and the last focuses on drawing up the final product.

Figure 2. Thematic axes of inFORMADOS: objectives and expected effects



Source: created by the authors

The first block, “Journalism and Disinformation” (2 hours), aims to familiarise students with the media and develop critical news consumption habits. The module seeks to show students how to be more reflective when faced with news, to identify key concepts such as censorship, and learn how media ownership or journalists’ ideology can influence content. They also discover the impact this has on democratic society and acquire practical fact-checking skills, especially relative to social media (inFORMADOS, 2023).

The second block, “Social Media and Committed Journalism” (2 hours), seeks to help students understand the differences between social media, messaging platforms, journalism, and the media. It also aims to raise awareness about the risks and misuse of the internet and social media, and to explore how new technologies can be a channel for the rapid spread of fake news, especially on sensitive topics such as immigration, gender-based violence, and poverty. Critical reflection is also fostered to help debunk stereotypes perpetuated by the media and promote debate on gender inequality and the reality faced by migrants.

Finally, the third block, “We are Journalists” (2 hours), focuses on assessing the importance of journalism in ensuring a pluralistic society. The students learn about journalists’ different roles, the importance of their training in producing truthful, high-quality content, and understanding the processes behind the news. This block also emphasizes the importance of ensuring the right to truthful information in a democratic society (inFORMADOS, 2023).

The goal is that on finishing these workshops the students have acquired competencies in three areas. First, competencies related to the field of digital information so they can select, evaluate, and manage information from digital sources and the internet. Second, media literacy competencies related to theoretical and practical skills in the profession of journalism that equip students with the necessary tools to develop their own, informed judgment regarding the content and information

published in the media and shared on social media. Finally, the ability to access, analyse, and critically evaluate messages and images received through the media in their various formats.

To make the most of the training, each thematic block is designed to be delivered in a single two-hour session. However, the workshop presenter needs to adapt to the schedules and student distribution in each school. The sessions employ an active and participatory methodology aimed at promoting individual and collaborative work among students, integrating references to everyday life and the student environment. Furthermore, simple, engaging, and relatable language is used to connect as much as possible with the young audience.

The first two blocks combine lectures, videos, and in-class practice. The dynamic is highly diverse and includes organising debates, writing journalistic content, analysing news stories, and activities to detect false information, among others. All sessions try to reserve some time for preparing the final practice, linking it to what has been presented in class that day.

1.3. Objectives, research questions and hypotheses

Media literacy is presented as one of the most effective tools to guarantee healthy democracy and provide new generations with critical thinking (Sádaba & Salaverría, 2023), which makes it essential to continue conducting empirical exploratory studies as to which literacy techniques are most effective for different target audiences. Thus, the main objective of this research is to analyse the *inFORMADOS* initiative as an extrapolatable experience (O1), with three specific objectives: first, to verify the information habits of students regarding disinformation (O1.1); second, to determine the degree of satisfaction with the program among both students and the teaching staff in charge of the classrooms and involved in carrying it out (O1.2); and third, to corroborate whether news professionals are the most suitable group to deliver these training workshops (O1.3).

Based on these objectives, the following research questions were posed to guide the collection and analysis of empirical data:

- Q1. How do students access news and how do they respond to disinformation?
- Q2. Do adolescents feel that their learning to deal with disinformation has increased thanks to the workshops?
- Q3. Do the teachers in charge of the classroom where these workshops are taught consider it a worthwhile task for their students?
- Q4. According to students and teachers, what aspects of the workshop could be improved to enhance their literacy skills?
- Q5. Is it appropriate for journalists to provide this content?

After defining the general and specific objectives of this research, as well as the questions guiding the empirical analysis of these literacy workshops promoted by the Regional Government of Castilla y León and the region's Professional Association of Journalists, it is proper to proceed with the formulation of hypotheses that will allow for the subsequent interpretation of the results. In this regard, the two main hypotheses are:

- H1. The *inFORMADOS* program has a positive impact on improving students' media literacy skills, especially in relation to their behaviour when faced with disinformation and the acquisition of tools for the development of critical thinking.
- H2. Students and teachers perceive that professional journalists are the most suitable profile to teach media literacy workshops, in line with findings from previous studies (Buitrago et al., 2017; Rodríguez, 2023).

2. Methodology

In order to meet the objectives set and answer the research questions posed, this paper analyses the results of the satisfaction questionnaire given to students and staff during the 2023-2024 academic year. This marks the first time empirical data has been collected in an exploratory study. Given the experimental nature of this year's edition, some key sociodemographic variables, such as the age and gender of the study participants, were not included in the questionnaires.

Therefore, a simple and descriptive results analysis is used, as has been applied in previous studies (Feltretero et al., 2023). Within this framework, we examine the results of the satisfaction questionnaires related to the second edition of the *inFORMADOS* programme, introduced in a total of 34 high schools –which volunteered to participate in the workshops– and aimed at the 4th year of compulsory secondary education. These 34 educational centres are distributed across the nine provinces of Castilla y León, a sample that covers both rural and urban settings. 19 of the schools are located in municipalities with fewer than 20,000 inhabitants –which gives them a marked rural or semi-urban character– and the remaining 16 are in larger urban centres, including provincial capitals such as Valladolid, León, Salamanca, or Burgos¹.

Two different questionnaires were used to carry out the study (Vinuesa, 2005), in person and on paper for the students (N=525), and self-administered, via email, for the tutors in charge of the classrooms (N=34).

The two documents used in the field work present two types of questions (García-Alcaraz et al., 2006):

- Semi-closed and categorized questions that specify the possible responses in advance. Some are multi-choice, allowing more than one option to be selected; some are dichotomous, allowing only one possible response; and others are Likert scale questions that measure the degree of agreement or disagreement with a statement.
- Open questions with free responses from the user

Below is a table showing a selection of the main questions that made up the student questionnaires, along with the response types considered for each one.

¹ List of schools participating in the 2023-24 edition of the *inFORMADOS* project: [see Annex I]

Table 1. Categories and questions applied in the student questionnaire²

CATEGORY	QUESTIONS	TYPE OF RESPONSE
C1. Information habits	How do you follow the news?	Media
		Social media
		Information leaders
	What do you do when you receive content that may be fake news?	Turn to the media
		Turn to social media
		I don't bother to check it.
		I share it without checking the information.
	Which media outlet do you consult the most?	Radio and podcast
		Television
		Press
		Digital Press
		I do not consult any media
C2. Satisfaction and usefulness of the workshop	How do you rate the workshop?	Interesting *
		Important *
		Essential *
	Has this workshop helped you to learn about...	The profession of journalist? *
		The risks of social media? *
		The dangers of disinformation and fake news? *
	Did you find the information shared by the journalist during the workshop interesting?	Scale of 0 to 10 where 0 is the lowest score and 10 the highest
	Was there any journalism-related topic not covered in the workshop that you would have liked to have discussed? What was it?	Free format
	Do you think journalism is a good tool to fight disinformation?	Yes
		No

Source: created by the authors

² The asterisk indicates that the answers are formulated on a scale of 0 to 10 where 0 is the lowest score and 10 the highest.

The study is completed with a questionnaire filled in by the teaching staff in charge of each group in the classroom. The following table includes the categories and questions used in the empirical study.

Table 2. Study categories and questions applied in the teachers' questionnaire

CATEGORY	QUESTIONS	TYPE OF RESPONSE
C1. Assessment of the workshop	What is your overall rating of the <i>inFORMADOS</i> project?	Negative
		Neutral
		Positive
	Assessment of the contents worked on	Very bad
		Neutral
		Very good
	Most valued session	Journalism and disinformation
		Social journalism and social media
		We are journalists
	Do you consider it appropriate for journalists to provide this content?	Yes
No		
C2. Projection	Has it motivated you to work on media literacy with students afterwards.	Yes
		No
	Would you like to participate with your students again?	Yes
		No

Source: created by the authors

Thus, taking into account the two questionnaires used to measure satisfaction with the *inFORMADOS* programme, this work covers a total of four study categories and fourteen questions, designed to identify areas for improvement and optimise the media literacy experience in the classroom.

Furthermore, it is useful to observe student behaviour during the workshops in the academic year studied, in order to adopt a qualitative approach that allows us to supplement the results of the questionnaire. However, this observation does not follow the formal methodological standards required for a systematic analysis (León & Montero, 2002), therefore its results cannot be extrapolated to other contexts or educational centres.

3. Results

In order to properly understand the *inFORMADOS* programme and the students' and teachers' levels of interest, responses were collected from 525 students from 34 4th-year secondary school classes, aged between 14 and 16 years –the age range corresponding to this educational cycle– as well as from the 34 teachers in charge of the groups. The results are then broken down according to the study categories proposed in the methodology: information habits (C1) and satisfaction with and usefulness of the workshop (C2).

3.1. Main habits of news consumption

In line with other studies into young people's news consumption habits, one of the main results obtained in this study refers to the type of information source most used by these students. 55% percent of students admit to using social media as their primary news source, followed by the media (32%) and opinion leaders such as YouTubers or influencers (8%), while 5% admit they don't follow any news at all. This situation demonstrates the shift of young audiences to the digital environment, turning to social media and internet personalities instead of the media, which do have a deontological obligation to verify and check the information they publish. The situation is especially worrying given the vulnerability associated with the participants' age. While the media is not their primary news source, it is still of value to look into what their favourite media are when they do consult them. 53% point to television as the platform they consume most, a percentage very close to that of young people who get their information through other types of platforms, such as social media (55%). Other traditional media such as radio (including podcasts) barely exceed 10%. However, this data confirms what has been explored in studies such as the *Digital News Report* (Vata et al., 2024): radio and podcasting, despite having stagnated in their growth since 2018 (from 11% to 13%), continue to attract young audiences between 18 and 24 years old, maintaining a positive projection. Print media is clearly in the minority (2%), while digital media reaches 21%. In contrast, 12% of students do not consult any media.

Despite this last fact, in times of uncertainty some young people do turn to traditional media again. 27% say they turn to them when they detect a hoax or disinformation. However, the results show that this is not a common practice, but rather infrequent among this population group, since most of them prefer to access social media when they encounter false content (42%). Others are rather more lackadaisical, not even bothering to check such disinformation (27%), some even share content without verifying it (4%), contributing to the spread of the informational din circulating online.

These initial findings indicate that the media have largely lost their role as mediators between audiences and news. However, although it is clear that the media are not the primary source of information for these students, when asked whether they believe journalism is a good tool for combating disinformation, 73% believe that journalism is useful for that purpose and does not contribute to its spread.

3.2. Students' degree of satisfaction with and involvement in *inFORMADOS*

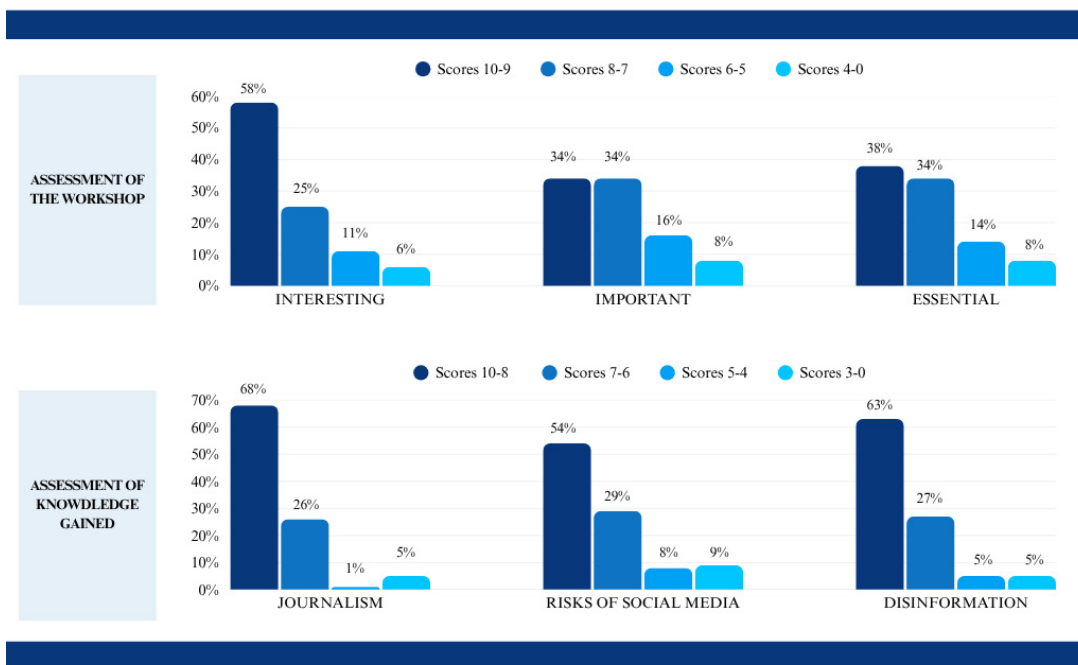
Over half of the students (58%) rate the *inFORMADOS* workshop as interesting, giving it a score of 9 or higher. In contrast, only 6% give it a score of 4 or lower in this category. Such student interest is also reflected in the importance they attach to how the programme is organised: 68% of students consider the workshop important, with scores above 7, compared to 8% who place

it below 5. Although interest is high, the perception of necessity –how essential they consider these workshops are to their critical training– shows a slightly more moderate distribution. Thus, 38% consider the workshops essential for gaining critical knowledge, giving them scores of 9, while a mere 8% do not consider them useful, failing to exceed the threshold of 4.

Taking these scores into account, the *inFORMADOS* programme is useful for the protagonists themselves (Graph 1): the averages of 8.33 (interesting), 7.43 (important) and 7.33 (essential) underline a solid, positive reception where students not only enjoy the experience, but also recognize it as valuable for their development.

Furthermore, over half of the students surveyed consider that the workshop has helped them understand the risks of disinformation (63% gave marks above 8), to discover journalism as a profession (68%), and to detect the risks involved in social media (63%), all of which contributes to the participants’ critical training.

Graph 1. Student evaluation of the workshop and the content learned



Source: created by the authors

Despite these high scores, which indicate a positive perception of the knowledge gained on the topic, 6% of students also declare a low level of usefulness for the three blocks taught, giving them marks below 5. That may be a symptom of a lack of basic knowledge, since during these workshops, students were observed to have certain difficulties in understanding some

concepts related to or inherent to current affairs, such as the idea of “stereotype”, which is necessary for understanding the basis of many examples of disinformation.

In summary, it can be confirmed that the average scores consistently above 7.3 in these three areas—8.03 for knowledge of journalism, 7.86 for the risks of disinformation, and 7.31 for the risks associated with social media—reflect a positive balance. The data not only confirms the effectiveness of *inFORMADOS* in raising students’ awareness of current information disorders, but also in providing them with learning and tools that encourage constant self-questioning of the information they receive.

3.3. Level of satisfaction of the teaching staff in charge of the classroom with *inFORMADOS*

Finally, this section analyses the level of satisfaction of the 34 teachers who participated in the second edition of the *inFORMADOS* programme. The overall ratings were positive (64.3%), with particular emphasis on the content covered (78.6%) and the session dedicated to Journalism and Disinformation (35.7%).

92.9% of the teachers expressed interest in participating in a similar workshop with their students again, while 78.6% stated that the sessions conducted within the *inFORMADOS* programme motivated them to work on literacy with their students in their own classrooms.

The question regarding which aspects of the workshop could be improved has been left unanswered, as neither the students nor the teachers provided responses. However, a potential avenue for improvement is seen through shorter sessions and updating some content, such as the examples of hoaxes used, given the participants’ youth.

There was no suggestion from students or staff that other journalism-related topics should have been covered in the workshop, implying that the content of these training sessions was very comprehensive. However, for future editions, the inclusion of emerging issues that are generating growing interest and social concern could be considered, such as the impact of artificial intelligence on information processes. That topic, which is receiving attention from both European and national organisations, could enrich students’ critical reflection on the present and future of news.

Finally, one of the most striking results of the study concerns the professional profile of the workshop presenters. One hundred percent of the teachers surveyed considered it appropriate for a journalist to teach these types of literacy sessions to secondary school students, which highlights the importance of using experts in the classroom.

4. Discussion and conclusions

Media literacy is positioned as one of the fundamental tools for combating disinformation in a scenario marked by infoxication (Ramón-Reyero & Gil-Martín, 2021), where critical analysis of the news panorama is essential for strengthening and guaranteeing healthy democracy (Rodríguez, 2023). That capacity must be fostered among younger generations (Aguaded et al., 2015), whose main news source is social media (Vara et al., 2023), which constitutes one of the main sources of false information (Aparici et al., 2019).

This study provides a detailed description of the *inFORMADOS* media literacy programme with the aim of making the project an experience transferable to other fields (O1), studying its application from four different perspectives: implementation,

methodology, training blocks, and skills to be developed. The project runs parallel to other similar initiatives taking place in Spain, such as *Desenreda* in Andalusia (Cucarella & Fuster, 2022), which are of interest for encouraging the future implementation of MIL in formal education (Magallón-Rosa et al., 2024). This is a necessary challenge in a context where the majority obtain news through social media (55%) and only 27% of students turn to traditional media to verify the information they receive (O1.1), reflecting a minority use of such media (P1).

Both the participating students and the teachers in charge of the classrooms (O1.2) express a high level of satisfaction with *inFORMADOS*. In fact, more than half of the students state that the workshop has helped them better understand journalism as a profession and appreciate the risks of disinformation (P2), while, in the case of the teachers, it is the informative block on Journalism and Disinformation that generates particular interest (35.7%), with 92.9% saying they would repeat similar training courses (P3).

Furthermore, neither of the two groups mentioned areas for improvement in the workshops, which leads to the assumption that the workshop's content is quite comprehensive (P4). However, through observation of the students during the workshops, it was clear that the sessions would be improved by updating the examples to make the content more accessible to a teenage audience.

Finally, 100% of the participants (both students and staff) stated that journalists are the ideal people to teach these workshops (P5). Therefore, and following the lead of other authors (Rodríguez, 2023; Oficina C., 2023; Buitrago et al., 2015), it is considered that news professionals, specifically trained in critical thinking regarding the world around them and accustomed in their professional life to dealing with various sources and detecting rumours and disinformation, are among the most appropriate collectives to teach this type of specific workshops for young students (O1.3).

Having satisfied the objectives and answered the research questions posed, the observation of the results leads us to finally accept the two hypotheses proposed, since the responses of students and teachers show that the *inFORMADOS* programme is an effective way to share information about the functioning of the media system, thus contributing to improving media skills (H1). Furthermore, these results confirm that, in the opinion of both groups, media professionals are the most suitable experts to deliver this type of training (H2).

Although this research is based on a descriptive study, the results are considered relevant for understanding how to advance media literacy in secondary education settings, taking on board the ideas of teachers, who are responsible for supporting young people throughout their learning process. That collective, along with journalists, is also essential for strengthening students' skills (Herrero-Curiel & La Rosa- Barrolleta, 2023).

Nevertheless, some limitations of this project should be noted, particularly regarding its methodological approach. The study is part of a professional initiative by the Association of Journalists of Castilla y León, which limits certain methodological aspects to academic research standards. Data collection has primarily been on paper and processed manually as the students could not use electronic devices during the training sessions. This has made it difficult to obtain individualised and segregated data, limiting the study to frequency analysis and basic descriptive data. This exploratory study has laid the groundwork for future projects of greater scope and rigour, which could add refinements to the instruments of measurement and address the shortcomings identified in this initial phase.

Regarding possible future lines of research, it is important to continue analysing how students perceive these workshops through year-on-year comparisons, along with comparisons between regions that carry out similar initiatives. Such an approach would allow for the development of a practical foundation based on trial and error, aimed at developing comprehensive literacy programs that meet students' basic educational needs. Furthermore, given that the study has shown that students of this age group are already active news consumers, primarily through social media, it is concluded that these workshops need to be started at earlier ages, as was suggested by previous research (Herrero-Curiel & La Rosa- Barrolleta, 2022).

Furthermore, although the study did not conduct a specific comparative analysis between rural, urban, and semi-urban centres, the geographical diversity of the participating schools has allowed for a certain homogeneity in student assessments of the *inFORMADOS* programme. Both interest in and overall reception of the program were positive regardless of the setting, suggesting that educational deficiencies in media literacy are not limited exclusively to one type of context. While factors such as access to technology or the sociocultural environment may differ, the data obtained suggests that educational needs in critical thinking in the face of disinformation are shared by young people from different backgrounds. Future research might perhaps look more closely into more systematic comparative analyses to assess whether it is necessary to adapt pedagogical strategies to the territorial context, or whether, on the contrary, it is advisable to maintain a common approach.

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6. Specific contributions of each author

	Name and surname
Conception and design of the work	Iris Sánchez-Sobradillo, Rosa Masegosa-Sánchez
Methodology	Iris Sánchez-Sobradillo, Rosa Masegosa-Sánchez
Data collection and analysis	Iris Sánchez-Sobradillo, Rosa Masegosa-Sánchez
Discussion and conclusions	Iris Sánchez-Sobradillo
Writing, formatting, reviewing and approving versions	Iris Sánchez-Sobradillo

7. Conflicts of interest

The authors hereby declare that they have no conflicts of interest.

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Annex I. List of schools participating in the 2023-24 edition of the *inFORMADOS* project

<i>Informados</i>		
PROVINCE	MUNICIPALITY	SCHOOL
ÁVILA	ÁVILA	IES ALONSO DE MADRIGAL
ÁVILA	AREVALO	IES EULOGIO FLORENTINO SANZ
ÁVILA	ÁVILA	IES JOSÉ LUIS L. ARANGUREN
BURGOS	QUINTANAR DE LA SIERRA	IES TIERRA DE ALVARGONZÁLEZ
BURGOS	ROA	IES RIBERA DE DUERO
BURGOS	SALAS DE LOS INFANTES	IES ALFOZ DE LARA
BURGOS	BURGOS	CC NIÑO JESÚS
BURGOS	BURGOS	CC JESÚS REPARADOR
LEÓN	SANTA MARÍA DEL PÁRAMO	IES VALLES DEL LUNA
LEÓN	VILLABLINO	IES VALLE DE LACIANA
LEÓN	LA POLA DE GORDÓN	IESO DE LA POLA DE GORDÓN
LEÓN	BOÑAR	IES PABLO DÍEZ
LEÓN	LEÓN	IES JUAN DEL ENZINA
PALENCIA	PAREDES DE NAVA	IESO TIERRA DE CAMPOS
PALENCIA	VENTA DE BAÑOS	IES RECESVINTO
PALENCIA	VILLAMURIEL	IESO CANAL DE CASTILLA
SALAMANCA	SALAMANCA	IES MARTÍNEZ URIBARRI
SALAMANCA	SALAMANCA	IES F. GARCÍA BERNALT
SALAMANCA	SALAMANCA	IES FERNANDO DE ROJAS
SALAMANCA	VILLAMAYOR	IESO TOMÁS BRETÓN
SALAMANCA	LA FUENTE DE SAN ESTEBAN	IES CAMPO CHARRO

SEGOVIA	SEGOVIA	IES MARIANO QUINTANILLA
SEGOVIA	SEGOVIA	NUESTRA SEÑORA DE LA FUENCISLA
SEGOVIA	EL ESPINAR	IES MARÍA ZAMBRANO
SORIA	SORIA	IES CASTILLA
SORIA	ALMAZÁN	IES GAYA NUÑO
VALLADOLID	ARROYO DE LA ENCOMIENDA	CEO ATENEA
VALLADOLID	CIGALES	IESO CIGALES
VALLADOLID	VALLADOLID	IES ANTONIO TOVAR
VALLADOLID	VALLADOLID	IES LEOPOLDO CANO
VALLADOLID	VALLADOLID	IES DIEGO DE PRAVÉS
ZAMORA	ZAMORA	IES MAESTRO HAEDO
ZAMORA	BENAVENTE	IES LEÓN FELIPE
ZAMORA	ZAMORA	IES LA VAGUADA