Making Teenagers Read Newspapers. A Nationwide Experiment in French High Schools*

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Abstract

Despite unprecedented access to information in the digital age, young citizens face growing challenges related to news consumption and misinformation. This large-scale randomized controlled trial examines the impact of two complementary interventions designed to foster media literacy and the consumption of high-quality news among high-school students, implemented in France over the 2024-25 academic year. The study involves 243 high schools (for a total number of 9,628 students), randomly assigned to a control group or to receive one or both of the following interventions: (i) a one-year free digital subscription to the leading national newspaper, and (ii) media education modules implemented by teachers. Exploiting unique data on students' actual online news consumption, we document a very large uptake of the free subscription, which translates into persistent and large increases in news consumption (+0.49 to 0.60 sd) and demand for future news, including an 8pp increase in paid subscriptions nearly a year after the intervention. We also observe a 0.20 to 0.31 sd increase in news knowledge for students enrolled in deprived schools, reducing baseline information inequality by 45-70%. Finally, we show that both free news access and media education improve media literacy skills (+0.08 to 0.26 sd), with larger effects among students taught by teachers with prior experience in media education.

Keywords: information acquisition, media education, media literacy, misinformation, fake news, RCT, information inequality, news anxiety.

JEL No: D8, D83, D91, L82, L86.

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1 Introduction

Young people today are growing up in a saturated and fragmented information ecosystem. While digital technologies have significantly broadened potential access to news and information, this has not necessarily translated into better-informed citizens. On the contrary, studies show that young people are increasingly vulnerable to misinformation, disengaged from traditional political processes, and distrustful of media institutions (Guess et al., 2021; Allcott and Gentzkow, 2017). These challenges raise concerns about the health of democratic life and the ability of new generations to exercise informed civic judgment. In this context, media and information literacy is increasingly recognized as a cornerstone of democratic resilience (Strömberg, 2015). Citizens must be able to access, interpret, and critically evaluate information in order to participate meaningfully in public debates, hold institutions accountable, and make evidence-based decisions (Dewey, 2016). These skills become even more essential when the traditional media landscape is replaced by a complex digital environment.

Yet, there is growing concern that these skills are far from universally acquired. Despite their fluency with digital tools, young people are not inherently equipped to navigate complex media environments (see e.g. OECD, 2022). Furthermore, they may be adversely affected by the increasing price segmentation of the news market: indeed, the highest-quality journalistic content is typically behind a firewall. According to Tomasik and Lipka (2025), only 17% of adult Americans have paid for any kind of news source in the past 12 months. That share goes down to 12% among young people, and to 8% among people in the lower income tercile. This inequality in access to information is reflected in inequality in informational outcomes (Prior, 2007; Angelucci and Prat, 2024).

Importantly, while expanding access to quality news is often presented as a promising response to these challenges – through initiatives offering free or subsidized subscriptions – it remains unclear whether access alone is sufficient. Many young people are unaware of the resources available to them, or do not habitually seek out serious news content. In these cases, lack of exposure may stem not only from financial constraints, but also from gaps in media literacy, weak intrinsic motivation, or a lack of basic familiarity with journalistic formats. While a small number of recent studies have examined the effects of exposing adults to politically biased news outlets (Levy, 2021; Broockman and Kalla, 2025), no research to date has rigorously investigated whether giving young people access to high-quality digital news can make them read the news, thereby enhancing their political knowledge and their ability to resist misinformation. The goal of this paper is to fill this gap.

More specifically, this paper is the first large-scale randomized control trial to offer free newspaper access and media education in a school context. This RCT was made possible by a unique partnership with France's leading national newspaper, *Le Monde*. We uniquely assess the respective roles of financial and cognitive barriers to information consumption.

In practice, we implemented a large-scale experiment during the academic year 2024-2025, with 243 high schools and 379 classes, for a total number of 9,628 students (in the 10th, 11th and 12th grades). The participating high schools are representative of the universe of French high schools (particularly with regard to the socioeconomic and cultural conditions of the students' families enrolled in the schools), and the students come from a wide range of backgrounds. We first provide unique descriptive statistics – given our sample size and the focus on high-school students – on young people's news consumption and interest in news.

Schools were then randomly assigned to one of four groups:[1] (i) the Control group: no intervention, (ii) Treatment group 1 (T1): students receive free digital access to *Le Monde*, (iii) Treatment group 2 (T2): teachers receive training in order to implement media education modules in the classroom, (iv) and Treatment group 3 (T3): students and teachers receive both interventions (i.e. T1 + T2). Our design allows us to evaluate the individual and combined effects of (i) reducing financial barriers to accessing high-quality news and (ii) strengthening cognitive skills and motivation through structured media education.[2]

To guide the empirical analysis, we first present a simple theoretical framework in which students allocate time between (i) their existing news sources and social media, (ii) a digital newspaper with an access cost, and (iii) other activities. Students differ in their interest in news, prior access, and preferences. News consumption competes with other uses of time and generates news knowledge. In the model, the two treatments operate on different parameters: media education aim to increase news interest while free access reduces cost. The model identifies conditions for the first treatment to succeed in raising news consumption. Free access increases consumption only for interested students and may raise, leave unchanged, or reduce total news consumption depending on whether sources are complements or substitutes. The joint intervention can generate complementarities when both treatments are effective. Finally, when free access is effective at increasing news consumption, it also tends to reduce knowledge inequality by benefiting initially less-informed students.

We next turn to the empirical analysis. We first investigate the extent to which the treatments foster high-school students' ability to navigate the media environment. Uniquely, we observe news consumption patterns not only through survey data but also the actual online consumption of those students who were given the free subscription. We first document a very large uptake of the free news subscription, with 70.3% of the students in T1 and T3 who activated their subscription. Furthermore, among them, 98.6% consumed more than one news article during the academic year, 87.7% went on *Le Monde* website at least ten times, and 63.8% fifty times or more. Importantly, they do so during class hour but not exclusively, and

[1] The randomization was done at the school level and, as described in Section 2.2, we stratified by school socioeconomic status, school type (General, Technological and Vocational), grade level, and the intensity of the media education practices of participating teachers within the school before the intervention.

[2] Crucially, reducing the financial barrier in our setup was bundled with institutional support: the free subscription was introduced with explicit school endorsement and a teacher-led classroom activation session.

we also observe them consuming news in the evening or on weekends. We cross-checked this usage data with students' self-reported news consumption in the endline survey and found the two measures to be consistent. This result stands in contrast to the widespread perception, documented for example in the Reuters Digital News Report (Newman et al., 2023), that younger generations feel disconnected from traditional newspapers; when offered free access to one of a highbrow newspaper, we show that students engaged with it at remarkably high rates.

Our analysis then assesses the treatment effects using the survey data to address five sets of questions.

First, does free newspaper access increase news consumption? Both T1 and T3 significantly increase students' reported news consumption: they cite more often a newspaper outlet as their main source of information and report spending more time reading newspapers – in particular *Le Monde* – than students in the control group or those treated only with media education (T2). This does not come at the expense of their other reported source of information, except for social media, most probably reflecting time displacement of social media use: students in T1 and T3 spend more time reading newspapers and so have less time to spend on social media. It may also be an indication that free news access convinces students that traditional media are a more effective source of information than social media. Besides, we observe an increase in the diversity of information sources used by the students. These findings highlight the effectiveness of removing access barriers, especially when this cost reduction is embedded within the school context.

Second, does access to *Le Monde* and/or media education increase (future) demand for news? All three treatments increase students' interest in consuming news from different sources, which we measure in particular by a higher subscription rate to a set of newsletters proposed to students at endline (hard measure). We also show that T2 and T3 students display increased relative trust in newspapers. These effects translate into sustained engagement with news consumption beyond the intervention period. Nearly 20% of the students in T1 and T3 who visited *Le Monde*'s website during the experiment returned to it between November 1 and December 31 2025, several months after the end of the intervention. Consistently, a follow-up survey conducted in April-May 2026 shows a positive treatment effect of T3 on the probability of being a *Le Monde* subscriber one year after the end of the experiment, with a 8pp increase (roughly a 66% increase over the control mean). More generally, the effects on news consumption patterns persist in the long run, pointing to the formation of lasting news consumption habits.

Third, does free access to information and/or media education increase knowledge? We built a News Knowledge Index aggregating three complementary dimensions of students' factual knowledge about public affairs: discernment (ability to identify correct information about

recent current events), political knowledge, and economic knowledge. The overall effect on knowledge is not significant, but as specified in our pre-analysis plan (hereafter, PAP) we find a large increase in news knowledge among students enrolled in disadvantaged high schools (i.e., schools with a high share of students from low-SES backgrounds). When focusing on these students, we find that, compared to the control group, free access to information (respectively the combination of free access and media education) increases news knowledge by 0.20 (respectively 0.31) standard deviation. As a result, information inequality is reduced by 45-70%. We find consistent results when using machine learning methods to study treatment effect heterogeneity (Chernozhukov et al., 2025).

Fourth, do treated students show improved media literacy skills? We construct a Media Literacy Skills Index combining three observed outcomes. The first captures source awareness, measured by students' ability to cite precise news sources (in an open-ended question). The second and third are derived from an experimental social media sharing task involving a false news story. Students are shown a fake-news story and ask whether they would be willing to share it. A randomly selected half of respondents are given the opportunity to verify the story using an official fact-checking tool. We find positive effects of all three treatments on media literacy skills, ranging from 0.08 to 0.26 standard deviation, although the effect of media education alone (T2) is not statistically significant at conventional levels. These improvements are primarily driven by gains in source awareness: treated students are more likely to identify precise news sources, while we also observe positive but statistically insignificant effects on the use of the fact-checking tool. Remarkably, the gains in source awareness persist one year after the end of the intervention, suggesting that the treatments fostered lasting habits of attention to the origin and credibility of information. Furthermore, as specified in our PAP, we show that those effects are stronger for the students whose teachers have high Media and Information Literacy (MIL) teaching experience (as measured in the baseline survey).

Finally, do the treatment effects impact students' political engagement? We find no effect on engagement in the endline survey, a result that may be driven by an observed drop in reported political self-efficacy. However, our follow-up survey – which took place just after local elections in France – shows a small increase in the probability of registering to vote.

Taken together, our results show that both free access to high-quality news and media education can improve young people's relationship with information. Despite the durability of online habits, news consumption can therefore be changed. Free newspaper access generates large and persistent increases in news consumption, while both interventions strengthen future demand for news and media literacy skills and reduce information inequalities. In several dimensions, the combination of free newspaper access and media education yields the largest effects, suggesting that these interventions are complementary rather than substitutes. Furthermore, it is important to note that both interventions are highly scalable. Providing

students with free access to online news requires little additional infrastructure and can be implemented at a relatively low cost.[3] Moreover, a substantial share of these costs would not constitute a deadweight loss but rather a transfer to producers of high-quality information (Cagé, 2015; Cagé and Huet, 2021). The media education intervention is equally scalable: rather than relying on external facilitators or resource-intensive programs, it builds on online teacher training modules and pedagogical resources that are already available within the French education system. As a result, neither intervention relies on scarce organizational capacity, making large-scale implementation particularly feasible. Finally, such policies do not come the cost of well-being. Indeed, we show that our treatments do not affect news anxiety or the overall well-being of the treated students. In other words, our program has great scalability prospects.

Contribution to the literature There is a vast literature on the impact of political information. However, there are only few experimental studies on the effect of providing and encouraging access to high-quality news media. Levy (2021) and Broockman and Kalla (2025) are exceptions, but with a different research question: they focus on the consequences of partisan media and so recruit participants in order to expose them to outlets whose ideology differs from their own.[4] In contrast, the goal of this paper is to investigate how we can increase news consumption among young people and the consequences of such an increase. This is of particular importance given that, as documented by Angelucci and Prat (2024) in the US context, young people are less able to discern a well-crafted true story from a largely disseminated fake news item than the rest of the population.

Our paper also contributes to the literature that relies on media consumption experiments to investigate the impact of information provision on political outcomes. Gerber et al. (2009) conduct a field experiment to assess the effects of exposure to newspapers on political behavior and opinion during Virginia elections in the US, and found that media exposure increases turnout and support for the Democrats. Chen and Yang (2019) conduct a field experiment with $1,800$ college students in Beijing and show that the acquisition of politically sensitive information through exposure to uncensored media leads to substantial changes in their beliefs and attitudes.[5] Ongoing research by Castro and Pugliese (2024) experimentally provides three-month subscriptions and reading incentives for $1,658$ voters recruited on social media at the time of Brazil's 2022 general election.

Compared to these experiments, our contribution is to provide the first large-scale random-

[3] As a reference point, *Le Monde* offers an online subscription to students for €6.99 per month (as of November 2025).

[4] A growing strand of the literature – focusing on the (negative) consequences of social media – also relies on field experiments (Allcott et al., 2022, 2024).

[5] See also Banerjee et al. (2011), who investigate the effects of providing information on politicians before elections in India.

ized controlled trial of free access to a high-quality newspaper and media education among high-school students (with a nationwide experiment involving more than 9,600 students and a subscription lasting one academic year). Besides, we attempt a "real life" experiment and so do not incentivize the participants or recruit them online; our subjects are representative of French high-school students and our treatments could be implemented – at a reasonable cost – by high schools in France or other countries. In addition, we implement a long-term treatment, focusing on the impact of news consumption at a time when preferences and habits around news consumption are not yet formed, and consider a very large range of outcomes (including actual news consumption and information inequality).

Closest to us is Hopkins and Gorton (2024) who performed an RCT in Pennsylvania ($N = 5,059$) to encourage news consumption. However, their uptake is very low. While they offer free online subscriptions to 2,529 individuals, only 44 of them subscribed.[6] In contrast, we were able to reach a 70.3% uptake in our experiment, and also observe a large impact of free subscription. The difference in uptake may be driven by the fact that the focus of Hopkins and Gorton (2024) is on local news provision, while we partnered with the largest French *national* daily newspaper. Furthermore, while Hopkins and Gorton (2024)'s survey respondents were recruited online (mostly on Facebook and Google), our very large uptake may be partly driven by the school context used to implement our experiment: although given individual subscriptions, all the students from a given class were provided with free access. Besides, compared to this previous work, combining a free news subscription with media education allows us to go beyond the price barrier alone and disentangle the different mechanisms at play. We also investigate how free access and/or media education affect news knowledge.

We also contribute to the growing literature on media literacy, which has focused mostly on fake news and misinformation and how to fight against it (see e.g. Guess et al., 2020). A large share of this literature relates to the supply side of the information market and investigates the efficiency of fact-checking news (Pennycook and Rand, 2019; Barrera et al., 2020; Henry et al., 2022; Cagé et al., 2025). In contrast, there are only a few studies investigating the demand side. List et al. (2024) implement an online framed field experiment with 2,235 adults to study misinformation vulnerability and stated willingness-to-report fake news on social media. Roozenbeek et al. (2022) evaluate "psychological inoculation treatments" against fake news, and Bowles et al. (2025) look at sustained exposure to fact-checks. Using data from a field experiment by a German outlet, Campante et al. (2025) show that exposure to AI-generated images increases respondents' reported concern with online misinformation and negatively affects trust in media, but that it increases consumption of trustworthy outlets. Compared

[6] I.e., a 1.7% application rate. Furthermore, some subscribers may not have even used the subscription. This very low uptake result was replicated by Trexler (2026) in a related experiment with registered voters in Chatam county, North Carolina.

to these previous studies, our article is the first to investigate whether exposing young people to high-quality digital news impacts their news knowledge – beyond fake news – and overall ability to fight misinformation. Further, compared to most of this literature, which relies on online interventions, we set up a long-term "real life" experiment.[7]

Moreover, by investigating the extent to which media consumption patterns translate into civic engagement among young people, we also contribute to the literature exploring the links between information and political participation. Better-informed citizens may indeed turn out to vote more (Gentzkow et al., 2011; Cagé, 2020), vote less for corrupt politicians (Ferraz and Finan, 2008), or vote more independently from government parties (Enikolopov et al., 2011; Banerjee et al., 2011). By examining the impact of free news provision and media education on the political knowledge and engagement of young people, our paper is the first to provide insights on how youth civic engagement is affected by differential media exposure and educational interventions.[8]

Finally, our paper contributes to the literature on the effects of education on civic outcomes. A first strand of the literature, mostly correlational, has consistently documented a positive association between education and voter turnout (see Willeck and Mendelberg, 2022, for a recent survey). However, causal evidence remains scarce. A few studies, reviewed in Briole (2025), have examined the impact of additional years of schooling on political participation, with mixed results. Very few papers provide causal estimates of the impact of educational programs or curricular reforms on civic outcomes. One exception is Briole et al. (2025b), who implement an RCT in 200 middle schools across three European countries and show that citizenship projects can enhance civic skills such as tolerance, social engagement, and civic behavior at school. Compared to this previous work, our study is the first to rigorously evaluate the impact of an educational program specifically targeting media literacy as a lever for democratic participation.

The rest of the paper is organized as follows. Section 2 below describes our randomized experiment, and Section 3 provides a simple theoretical framework. Section 4 then presents the different data sources and provides summary statistics. Section 5 presents the empirical results regarding news consumption and demand for news, and Section 6 shows that free news access

[7] Likewise, Amar et al. (2024) evaluate whether sustained, classroom-based education against misinformation can equip schoolchildren to become more discerning consumers of information. However, they do not consider the role played by the price barrier in access to high-quality information. Pereira et al. (2024) implement two experiments to test the effectiveness of a campaign against misinformation – including one intervention designed in partnership with a large Brazilian newspaper – but they embed them in online survey panels. Furthermore, their only outcomes of interest are related to misinformation.

[8] Our paper also draws loose inspiration from the media literacy movement that emerged in the U.S. during the 1930s and 1940s (Sproule, 1997). The Institute for Propaganda Analysis (IPA) played a central role in this movement (Schiffrin, 2022). The IPA developed and distributed instructional materials designed to help students engage critically with media content and recognize common techniques of manipulation (Hobbs, 2022). To our knowledge, however, no systematic evaluation of the long-term effects of these or similar media literacy initiatives exists.

increases news knowledge among low socioeconomic status students, thus reducing information inequality. Finally, Section 7 presents our results regarding media literacy skills and Section 8 shows the impact of free news access and media education on political engagement and well-being. We discuss these results and their policy implications in Section 9.

2 Experimental Setting

2.1 Sampling Design and Randomization Sample

The sample of participating schools includes high schools that volunteered to participate in the evaluation. Figure 1 describes the timeline of the experiment. Schools were recruited between April 2024 and August 2024 through various channels,[9] including direct outreach via CLEMI and DEPP networks,[10] contact with academic media education coordinators, and a national email campaign targeting school librarians and teaching staff. All types of high schools (both public and private, general, technological and vocational) and all grade levels were eligible: 10th grade (*Seconde*), 11th grade (*Première*), and 12th grade (*Terminale*). To participate in the study, schools had to organize the implementation of student and teacher baseline surveys before randomization. Schools that completed these surveys between September and October 2024 were included in the randomization sample. Randomization was performed in October 2024 and the interventions, which are described in Section 2.2, started at the end of the same month.

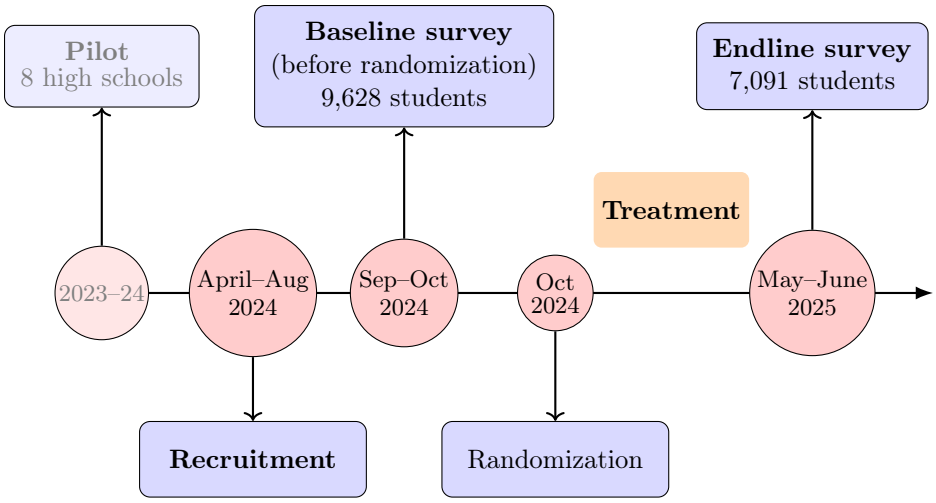


Figure 1: Timeline of the experiment

[9]In preparation for our RCT, we also conducted a pilot study involving eight schools during the academic year 2023-2024. More details on the recruitment process are provided in the Appendix Section A.1.1.

[10]The CLEMI is the agency of the Ministry of Education in charge of media education across the education system. The DEPP is the department of the Ministry of Education which produces analyses, studies and statistics on the education system.

In all, 243 high schools and 379 classes, totaling 9,628 students, completed the baseline survey and were thus included in the randomization sample.[11] This makes it one of the largest RCTs ever conducted in French high schools. Note furthermore that our recruitment design offers an important advantage over the approaches commonly used in most of the literature on news consumption: we recruited the high schools rather than the students. This means that there is no selection regarding the students (e.g. we do not recruit a subset of students interested in receiving news for free, or students who were already present online).[12] Furthermore, we do not pay the participants.

Table 1 reports descriptive statistics on these schools as well as on the classes. The high schools included in the study closely resemble the national average in key dimensions, such as social composition – with an average IPS of 109, identical to the 2024-2025 national average (Piquemal, 2025)[13] –, the share of scholarship students (*"boursiers"*), which is also exactly equal to the national figure (DEPP, 2024), and the share of general and technological high schools (72% of the high schools in our randomization sample, corresponding exactly to the share of high-school students enrolled in general and technological schools in 2024).[14] In addition, the schools are widely distributed across the French territory, ensuring national coverage (Figure 2).

2.2 Interventions and Randomization

This study evaluates two complementary approaches to strengthening high-school students' ability to navigate today's media environment and engage in democratic life. The first approach builds on the idea that access costs are a key barrier: if high-quality news is expensive relative to students' willingness-to-pay, many will remain excluded despite being interested. It is important to keep in mind that, although a lot of content is available online for free, price still drives the majority of online news consumption decisions (see e.g. O'Brien et al., 2025).[15]

[11] On average, 1.56 classes per high school participated (the median is equal to one). See Appendix Figure A.2 for the distribution of this number. Of the 221 high schools where more than one class was involved, 29 (34.1%) had all participating classes from the same grade, 51 (60%) participating classes from two different grades, and the remaining 6% of the high schools had participating classes from all the different grades.

[12] As discussed below, there could however be some selection regarding the teachers' characteristics, and in particular their interest in media education. This is why we use the intensity of media education practices (at baseline) as one of the strata for the randomization. Appendix Table H.1 presents descriptive statistics for the teachers included in the randomization sample: 57% teach history and geography, and 33% civic education.

[13] The IPS is an administrative index constructed by the DEPP that captures the average socioeconomic and cultural background of students' families within each high school, based on detailed information on parents' occupation and education. See Appendix Section A.1.2 for the details of this index construction.

[14] The only difference that we observe is in the share of private high schools (10%) which is lower than the French average (in 2024, around 21% of the general and technological high-school students and 19% of the vocational high-school students were enrolled in private high schools).

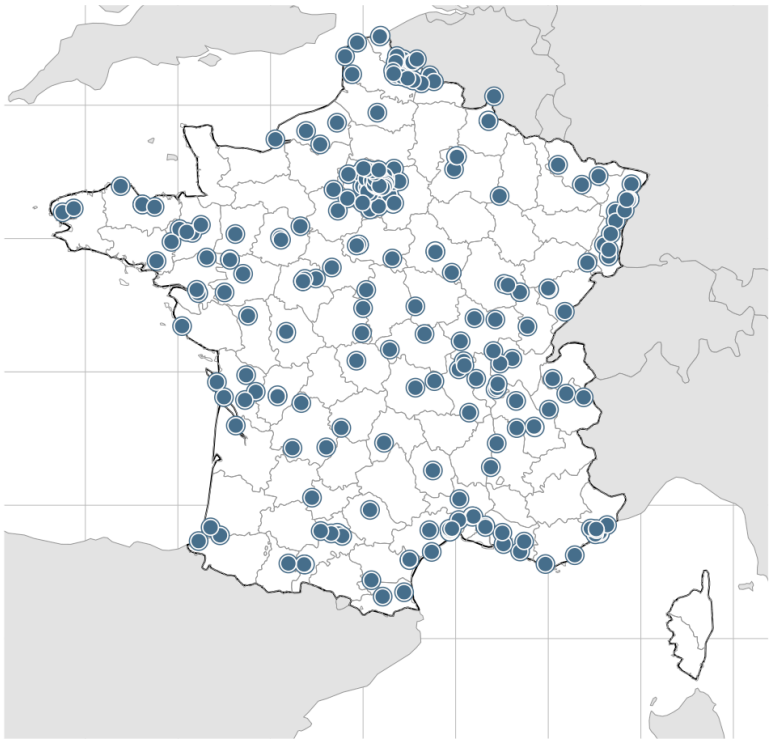
[15] In their recent study of Austrian news consumers, O'Brien et al. (2025) find that price drives nearly 60% of online news consumption decisions. Similarly, Kormelink (2023) – who explores news users' reasons for not paying for (print and digital) news in a qualitative study (68 participants) – shows that the price of a subscription is by far the most cited reason not to pay for news. He further notes that *"having a limited budget*

Table 1: Randomization sample: Descriptive statistics

	Mean	St. Dev
High school characteristics (N=243)		
Social Composition Index (IPS)	109	16
Share of scholarship students	0.25	0.13
Private high schools	0.10	0.30
General and Technological high schools	0.72	0.45

	Mean	St. Dev
Class characteristics (N=379)		
10th grade	0.37	0.48
11th grade	0.45	0.50
12th grade	0.15	0.36

Notes: The table provides descriptive statistics on the randomization sample. In the upper panel, an observation is a high school. The Social Composition Index (*"Indice de Position Sociale"*) is an indicator calculated by the DEPP. It summarizes the socioeconomic and cultural conditions of the families of students enrolled in the school. It varies between 45 and 185. In the bottom panel, an observation is a class.



Notes: The Figure plots the geographical distribution of the high schools that participate in the experiment.

Figure 2: Map of the high schools that participate in the experiment

Removing financial frictions may therefore broaden exposure to reliable information.

The second approach emphasizes the role of cognitive skills and motivation: even when information is available, young people may need media literacy skills to critically assess and use it.

To test these mechanisms, we implemented a randomized design at the high-school level. Randomization was performed at the level of the schools to avoid capturing spillover effects (Bowen et al., 2023). Participating schools were assigned to one of four groups:[16] a control group, a group receiving free digital access to France's leading national newspaper (*Le Monde*) (T1), a group receiving media education training and classroom activities (T2), and a group combining both interventions (T3). This design allows us to isolate the effect of each approach and to assess whether the combination of increased access and enhanced literacy generates additive or synergistic impacts.

2.2.1 Free Access to a National Newspaper (T1)

In this treatment arm, students received free digital access to *Le Monde* throughout the school year – from October 2024 to June 2025. The intervention aims to test whether eliminating financial or logistical barriers increases students' exposure to reliable current news, and whether this influences their news habits and political knowledge.

Le Monde – with 660,000 subscribers – is France's leading daily national newspaper. Its newsroom works with more than 500 journalists, and is widely recognized for the quality of its journalism (see e.g. Eveno, 2001, 2010). In 2025, its average readership per issue was about 2.7 million, and the total number of visits on *Le Monde* website in May 2025 was over 123 million.[17] *Le Monde* website is a restricted site where most of the content is protected behind a soft paywall (i.e. some content is available to users for free while the rest sits behind a paywall). In 2024-2025, the monthly price of a digital subscription to *Le Monde* for a student (students receive a discount) was equal to €6.99.

Individual access was provided through any digital interface (computer, tablet, cellphone), usable both at school and outside (e.g. at home), with no restrictions on the type of content consulted (or on the quantity of content consumed). To ensure effective uptake, all participating teachers assigned to this treatment were asked to organize a one-hour computer-room session at the start of the treatment, during which students activated their accounts (see

was a main concern especially for the younger participants, particularly students. For them, monthly spending is a zero-sum game: money spent on news comes at the cost of other (more necessary) expenses."

[16] Randomization was stratified based on (i) school type (general/technological vs. vocational), (ii) grade level (10^{th} vs. 11^{th} and 12^{th}), (iii) school socioeconomic status (measured by the *Indice de Position Sociale*), and (iv) baseline media education practices of participating teachers.

[17] The average readership per issue – or "lecture au numéro moyen" (LNM) in French – corresponds to the average number of readers per issue, calculated based on the number of different issues read over the last six published issues. This audience measure is computed by the ACPM – the French circulation audit office – over the population aged 15 years and over. See ACPM (last accessed April 1, 2026).

Appendix Section B.3 for details).

2.2.2 Media Education and Classroom Activities (T2)

In this treatment arm, teachers receive training and pedagogical materials to implement media education activities in their classrooms. The training is developed and delivered by CLEMI, and so can be considered state-of-the-art media education and literacy training. The intervention is designed to support teachers in guiding students through a critical exploration of how information is produced, selected, and disseminated. It consists of three components (see Appendix Section A.2 for a precise description):

1. **An asynchronous online training**, composed of three core modules – on prioritization of information, construction of news, and misinformation. The training provides teachers with foundational knowledge and practical tools to foster critical thinking about media in the classroom. The estimated duration of this training is approximately eight hours.

2. **An optional simulation module: *Classe Investigation***, a game-based media literacy activity developed in collaboration with journalists and educators.

3. **A set of five ready-to-use media education activities**, to facilitate classroom implementation. These resources can be adapted to a wide range of subjects and teaching contexts and are designed to be directly integrated into the school curriculum.

Uptake of the media education intervention Note that regarding the media education interventions, our estimates have to be interpreted as Intent-to-Treat (ITT) effects. Indeed, not all the teachers included in T2 and T3 followed the media education training they were offered. Appendix Figure A.5 shows that 60% of them did so in T2 and 57% in T3 when considering any form of media education training (53% and 45% respectively when focusing only on the media education training provided by CLEMI).[18]

We discuss in Appendix Section A.2.4 the reasons why more than a third of the teachers in T2 and T3 did not follow any of the media education training activities they were offered. This is mostly driven by a lack of time – an important factor to which we will return when discussing the policy implications of our results. Moreover, a number of teachers also report that they did not follow the activities because they had already done so (Appendix Figure A.6).

[18] Also note that some teachers in both the control and the T1 treatment groups followed some media education training during the academic year covered by our experiment (around 25%), even if this was not part of our experiment. Yet, as reported in Appendix Table A.1, media education training was much lower among these groups than among T2 and T3.

2.2.3 Combined Treatments (T3)

Finally, treatment arm T3 combines free access to *Le Monde* (T1) with media education and classroom activities (T2). This treatment allows us to investigate whether increased access to high-quality news and media education are complementary interventions, and whether combining the two generates larger effects than implementing either intervention in isolation.

3 Theoretical Framework

We present a simple theoretical framework to interpret some of the potential effects of our experiment. A subject – one of our high-school students – decides how to allocate time across different activities, including political news consumption. Students vary in three aspects: their potential interest in political news, their access to news prior to the experiment, and the specific interest they have in *Le Monde*. The first treatment of the experiment consists in providing free access to *Le Monde*. The second treatment consists of an education treatment that may increase the student's interest in political news. The variables of interest are: consumption of *Le Monde*, consumption of other news sources, total news consumption, and political knowledge.

Consider an agent who allocates a unit time endowment across three activities: consuming news from outlet A (the set of news sources that are already available to the agent before the experiment), consuming news from outlet B (*Le Monde*), and other activities, denoted by y (including social media, entertainment, or other non-news uses of time). Let $x_A \geq 0$ be the time spent on outlet A, $x_B \geq 0$ the time spent on outlet B, and $y \geq 0$ the time spent on other activities. The agent's utility is:

$$U(x_A, x_B, y) = \eta\gamma_A x_A + \eta\gamma_B x_B - \frac{1}{2}x_A^2 - \frac{1}{2}x_B^2 + \delta x_A x_B + \kappa y + pI_{x_B>0},$$

subject to the time constraint:

$$x_A + x_B + y = 1.$$

Here:

- $\eta \geq 0$ represents the agent's general interest in news.
- γ_A and γ_B are the agent's relative preferences for the two outlets.
- p is the subscription fee for outlet B, which must be paid in order to have a non-zero consumption of the outlet ($I_{x_B>0}$). We are assuming (realistically) that our subjects are not paying a subscription to outlet A. That access is exogenously given, either because it is free or because it is paid for by their family.

- δ is the degree of complementarity between the two outlets: a negative (positive) value of δ indicates that higher consumption of one outlet decreases (increases) the marginal value of consuming the other outlet.
- $\kappa \geq 0$ captures the value of alternative activities. A higher κ increases the opportunity cost of time spent on news.

Using the time constraint, we can write $y = 1 - x_A - x_B$ and rewrite utility as:

$$U(x_A, x_B) = (\eta\gamma_A - \kappa)x_A + (\eta\gamma_B - \kappa)x_B - \frac{1}{2}x_A^2 - \frac{1}{2}x_B^2 + \delta x_A x_B + \kappa.$$

Since the last term is constant, the agent chooses x_A and x_B to maximize:

$$(\eta\gamma_A - \kappa)x_A + (\eta\gamma_B - \kappa)x_B - \frac{1}{2}x_A^2 - \frac{1}{2}x_B^2 + \delta x_A x_B.$$

We focus on parameter values such that the optimal allocation is interior, namely $x_A > 0$, $x_B > 0$, and $x_A + x_B < 1$.

We are also interested in total news consumption:

$$x = x_A + x_B.$$

We also consider political knowledge. We assume that all activities may generate some information, but news consumption is more informative than other activities. Specifically:

$$I = f(x_A + x_B + \lambda y),$$

where $f' > 0$, $f'' < 0$, and $\lambda \in (0, 1]$. The other activities provide the agent with strictly less information per unit of time than news reading.[19]

Using the time constraint, this can be written as:

$$I = f\big(\lambda + (1 - \lambda)(x_A + x_B)\big).$$

Thus, a subject who allocates more time to news consumption is better informed, but even a subject who consumes no news may acquire some information through other activities.

To solve the agent's problem, consider two options: (a) consume only A; (b) pay p and consume both A and B.

In case (a), the agent consumes $x_A^0 = \eta\gamma_A - \kappa$ and obtains utility U^0.

[19] One can also assume that the other activities strictly reduce the information of the agent, perhaps because social media contains fake news. This is achieved by setting $\lambda < 0$. All our propositions apply as stated.

In case (b), assuming an interior solution and that $|\delta| < 1$, the agent consumes:[20]

$$x_A^* = \frac{1}{1-\delta^2}\left[(\eta\gamma_A - \kappa) + \delta(\eta\gamma_B - \kappa)\right], \qquad x_B^* = \frac{1}{1-\delta^2}\left[\delta(\eta\gamma_A - \kappa) + (\eta\gamma_B - \kappa)\right]$$

and obtains utility

$$U^* = \frac{1}{2(1-\delta^2)}\left[(\eta\gamma_A - \kappa)^2 + 2\delta(\eta\gamma_A - \kappa)(\eta\gamma_B - \kappa) + (\eta\gamma_B - \kappa)^2\right].$$

The agent prefers (b) to (a) if the payoff difference is higher than the subscription price: $U^* - U^0 > p$.

Let us now discuss the potential effects of three possible interventions. The media education treatment (E) is an attempt to increase the student's interest in news, namely increasing the general interest from η to η' (we say the treatment is 'effective' if $\eta' > \eta$). The free subscription treatment (F) corresponds to a reduction of outlet B's subscription price from p to zero. For the latter, we assume that p was high enough that subjects chose not to subscribe to outlet B (which is true for almost all of our subjects). We consider the effect of treatments (E) and (F) individually and jointly (EF).

Proposition 1. *The effects of the three treatments are as follows:*

*(E) The **Education Only Treatment** induces an increase in news consumption and knowledge if the treatment is effective ($\eta' > \eta$):*

$$\Delta_E x_A = (\eta' - \eta)\gamma_A, \qquad \Delta_E x_B = 0, \qquad \Delta_E x = (\eta' - \eta)\gamma_A,$$

$$\Delta_E I = f\big(\lambda + (1-\lambda)x_E\big) - f\big(\lambda + (1-\lambda)x_0\big).$$

*(F) If the subject is not interested in news ($\eta = 0$), the **Free Subscription Only Treatment** has no effect. If the subject is interested in news, the treatment induces: (i) an increase in news consumption of B; (ii) an increase (a decrease) in news consumption of A if the complementarity parameter δ is positive (negative); (iii) an increase (a decrease) in total news consumption and knowledge if the complementarity parameter is positive or not too negative:*

$$\Delta_F x_A = \frac{\delta(\eta\gamma_B - \kappa + \delta(\eta\gamma_A - \kappa))}{1-\delta^2}, \qquad \Delta_F x_B = \frac{\delta(\eta\gamma_A - \kappa) + (\eta\gamma_B - \kappa)}{1-\delta^2},$$

$$\Delta_F x = \frac{(\eta\gamma_B - \kappa) + \delta(\eta\gamma_A - \kappa)}{1-\delta},$$

$$\Delta_F I = f\big(\lambda + (1-\lambda)x_F\big) - f\big(\lambda + (1-\lambda)x_0\big).$$

[20] All the analysis focuses on interior solutions of the agent's problem.

The increase in knowledge due to (F) is larger if the subject received less knowledge from A before the experiment.

(EF) If both individual effects (E) and (F) have strictly positive effects, then the ***Joint Treatment*** *has a positive interaction effect on total news consumption:*

$$\Delta_{EF}x - \Delta_E x - \Delta_F x = (\eta' - \eta)\frac{\gamma_B + \delta\gamma_A}{1-\delta}.$$

The interaction effect on knowledge depends on the curvature of the knowledge function $f(\cdot)$.

Proof. See online Appendix Section D.1. □

The proposition makes predictions on the effects of the three treatments. The Education Treatment (E) is successful if and only if it increases the general interest in news η. If it is successful, the subject reallocates time toward news consumption and becomes more informed.

The Free Subscription Treatment (F) will be ineffective if the subject has no interest in news. Otherwise, it increases consumption of B. Its effect on the other variables depends on the degree of complementarity between consumption of A and B, and reflects both substitution across news sources and substitution away from alternative activities. If the two outlets are complements, then (F) raises total news consumption and knowledge. If the two outlets are strong substitutes, the treatment may crowd out existing news consumption and have a limited or even negative effect on total information.

The Joint Treatment (EF) tends to display a positive complementarity. Unless one of the two treatments is non-positive, the joint treatment has a positive interaction effect, meaning that its overall effect on knowledge may exceed the sum of the effects of the two individual treatments.

The proposition also makes predictions on the effect of the treatments on other activities, and their indirect role on information.

Corollary 2. *(i) For each of the three treatments, the effect on time spent on other activities is the opposite of the effect on total news consumption x, as characterized in Proposition 1. Namely, $\Delta_T y = -\Delta_T x$, where $T \in \{E, F, EF\}$*

(ii) If a treatment has a positive effect on information, the strength of the effect depends negatively on the informativeness of other activities λ. Namely, $\frac{d}{d\lambda}\Delta_T I < 0$.

Proof. See online Appendix Section D.2. □

Part (i) of the Corollary captures the idea that both news consumption and other activities are in competition for the agent's attention. If the treatment succeeds in increasing news consumption, it must also reduce the other activities. Part (ii) captures the idea that

the impact of the treatments on political knowledge depends on how informative alternative activities are. When λ is low, time spent on non-news activities generates little knowledge, so reallocating time toward news has a large effect on knowledge. In contrast, when λ is high, other activities — such as social media — are themselves informative, so shifting time toward news yields only a limited gain in effective knowledge exposure. In the extreme case where λ is close to one, all activities are similarly informative, and changes in news consumption have little effect on knowledge. Thus, the treatments are more effective in increasing political knowledge when alternative activities are relatively uninformative (the effect would be even stronger if the other activities destroy knowledge, namely $\lambda < 0$).

Finally, what does the model predict in terms of knowledge inequality? Consider two agents who started with different access to outlet A. One agent has γ'_A. The other had γ''_A with $\gamma''_A > \gamma'_A$.

Before the treatment, the agent with γ''_A was consuming more news than the other agent and had a higher knowledge level. After the treatment, the agent with γ''_A is still consuming more news and has better knowledge, but has the difference increased or decreased? If the complementarity parameter δ is not too different from zero, we can give an unambiguous answer for the (F) treatment:

Proposition 3. *If $\delta \approx 0$ and (F) is effective, then the treatment reduces knowledge inequality.*

Proof. See online Appendix Section D.3. □

If δ is very large, the proposition may not hold, because a subject who was already consuming a lot of news may increase their news consumption much more than the other subject.

The effect of (E) on knowledge inequality is more ambiguous. Unlike the free subscription treatment, the education treatment generates larger increases in news consumption for individuals with higher initial access to news (γ_A). This tends to increase knowledge inequality. At the same time, because knowledge is a concave function of news consumption, additional news generates smaller knowledge gains for initially more informed individuals, which tends to reduce inequality. The overall effect is therefore theoretically ambiguous.

4 Data and Analysis Sample

In this section, we briefly describe the different datasets we use in this paper as well as our outcomes of interest, and then present our main analysis sample and the related internal validity checks.

4.1 Data Sources

The data we exploit in this study comes from four distinct sources.

Student and teacher surveys Students and teachers completed surveys at the beginning (September/October 2024) and end (May/June 2025) of the school year. Student surveys were administered on school computers under teacher supervision, while teachers received an online questionnaire link and completed the surveys independently.

Administrative data We use administrative data from the DEPP to track a number of objective measures such as the schools' socio-demographic characteristics and the share of scholarship students.

Newspaper consumption data Finally, for the students drawn to benefit from the free subscription to *Le Monde* (T1 and T3), we recover the data automatically collected by the newspaper on their consumption behavior: number of articles read, type of news consumed, etc. (see Appendix Section B.3 for details on data construction). In our preferred specification, we focus on the news consumed between October 2024 and April 2025, i.e. before the start of the endline survey. We also consider in complementary analysis students' newspaper consumption after the end of the endline survey (and school year) to investigate the extent to which some of our results might be driven by the school context.

Follow-up survey To assess the persistence of treatment effects on news consumption and examine political participation among students who had reached voting age, we administered a follow-up survey in April 2026, approximately two weeks after the French municipal elections.[21] Appendix Section C provides additional details on the implementation of the follow-up survey, response rates, and descriptive statistics for the respondent sample.

4.2 Outcomes of Interest

The objective of this paper is to investigate whether the different treatments affect students' behaviors, beliefs, and knowledge. We organize the outcomes of interest into four broad categories. First, we consider outcomes that relate directly to news consumption, including newspaper consumption, trust in newspapers, future demand for news, and willingness-to-pay. Second, we study outcomes related to students' news knowledge, capturing their understanding of current events, political institutions, and economic issues. Third, we examine media literacy skills, including the ability to cite a precise news source, fact-checking behavior, and the propensity to share fake news. Finally, we explore additional downstream outcomes, including students' political and civic engagement and – given the growing literature documenting the negative effects of the media and in particular of social media (see e.g. Allcott et al., 2020; Bursztyn et al., 2025) – outcomes related to well-being. These later outcomes are not directly

[21] The 2026 French municipal elections were held on 15 and 22 March 2026 to elect municipal councils in approximately 35,000 municipalities across France.

targeted by the intervention and are therefore interpreted as potential indirect effects, as well as a way to assess possible unintended consequences of increased exposure to the news.

Whenever several outcomes capture the same underlying concept, we aggregate them into a standardized summary index following Anderson (2008). By combining related outcomes into a single measure, this procedure increases statistical power while reducing the scope for multiple inference concerns. Appendix Section B provides additional details on the construction of indices used throughout the paper, as well as the full wording, response scales, and correlations among the components entering each index.

4.2.1 News Consumption and Demand for News

Newspaper consumption Our first outcome of interest is student news consumption. In particular, we build a *Newspaper Consumption Index* based on two variables drawn from the student endline questionnaire, following the procedure described above: (i) an indicator variable equal to one if students cite at least one newspaper as their main source of information in response to an open-ended question on their main information source(s);[22] and (ii) an indicator variable equal to one if students select at least one major national newspaper from a predefined list when asked about their news consumption over the past seven days.[23] The open-ended questions further allow us to investigate the diversity of the news sources used by the students, and we also study whether the use of other media (including social media) as a news source changes as a result of our experiment.

Importantly, for students assigned to T1 and T3, we complement these self-reported measures with automatically collected usage data from *Le Monde*'s application, which provide a rare and objective measure of actual newspaper consumption. These data allow us to construct multiple behavioral indicators, including number of articles or pages consulted, and to investigate the type of content accessed (e.g., international news, environment, society, politics). Beyond offering a direct measure of behavior, this granular usage information enables us to assess the presence of potential reporting biases – such as social desirability or misreporting – by comparing declared newspaper consumption with observed usage patterns.

Trust We construct a *Trust in Newspapers* outcome variable designed to investigate potential mechanisms underlying changes in newspaper consumption and, more broadly, in students' demand for news. This outcome captures whether students trust newspapers *relatively more* than other media outlets and community members, and thus whether increased consumption may reflect a better understanding of the reliability of different information sources. Specifically, the outcome variable is defined as the difference between reported trust in newspapers

[22] Note that we do not include sport newspapers (e.g., *L'Équipe*) in this indicator.

[23] This list includes: *Le Monde*, *Le Figaro*, *Libération*, *Le Journal du Dimanche*, *L'Équipe*, *Marianne*, *Le Nouvel Obs*, *L'Express*, *La Croix* and *L'Humanité*, i.e. all the French daily and weekly national newspapers.

and the average reported trust in other media outlets (television, radio, social media, and websites) and community members (parents, teachers, students, and friends).[24]

We also construct a *Trust in Journalists Index*, which captures a related but conceptually distinct dimension of trust, less directly tied to our intervention and our consumption-related outcomes. This index measures students' general trust in journalists, regardless of the type of media through which journalistic content is delivered. It is constructed from three survey items capturing students' agreement with two statements about journalistic accuracy and democratic role, and their overall trust in journalists.

Demand for news To investigate whether the intervention affects students' demand for news beyond contemporaneous consumption, we rely on a behavioral, revealed-preference measure that offers students the opportunity to subscribe to one or more real newsletters.[25] Answering "yes" to this offered opportunity results in an actual subscription, making it a hard, observable indicator of engagement with news content. As such, this outcome captures a forward-looking decision and provides evidence on whether the intervention generates more persistent changes in students' interest in news, complementing our measures of newspaper consumption during the experimental period. This approach has been used as a revealed-preference measure in recent work on news demand (see e.g. Chopra et al., 2024).

Our main outcome is an indicator variable equal to one if the student subscribes to at least one newsletter (regardless of the newsletter chosen), and to zero otherwise. To distinguish whether any effect is driven specifically by *Le Monde* or reflects a broader increase in news demand, we additionally construct two indicator variables: the first is equal to one if the student subscribes to *Le Monde* newsletter, and to zero otherwise; and the second is equal to one if the student subscribes to at least one newsletter other than *Le Monde*, and to zero otherwise.

Willingness-to-pay for news We first measure students' willingness-to-pay by asking them how much they will be willing to pay (maximum amount) for a one-year subscription to *Le Monde*.[26] Following the existing literature that highlights the difference between the willingness-to-pay (WTP) and the willingness-to-accept (WTA) (see e.g. Plott and Zeiler,

[24] We also check that the results are unchanged when using alternative measures based on the comparison of trust in newspapers with trust in (i) social media and internet, (ii) community members, and (iii) social media, internet and community members.

[25] We offer the students the opportunity to subscribe to one or more of the following seven newsletters: (i) *Le Monde* (political newsletter), (ii) *Courrier international* ("best-of"), (iii) France Info ("best of the week"), (iv) Konbini ("Fast Forward"), (v) Hugo Décrypte ("the news of the day"), (vi) Les Glorieuses ("The Newsletter"), and (vii) Le Quotidien ("Quotidien Matin"). We picked these seven newsletters because (i) they offer news, (ii) are associated with well-known brands from different formats (e.g. Hugo Décrypte is a YouTube channel while Quotidien is a TV show), and (iii) are available for free upon subscription.

[26] "If you had to pay for a one-year subscription to the newspaper *Le Monde*, what would be the maximum amount you would be willing to pay each month?"

2005), we next ask them the minimum price at which they would be willing to resell such a subscription.[27]

Furthermore, for the subset of students in T1 and T3, *Le Monde*'s data allow us to observe whether they renew their subscription when they no longer have access for free, and to study their online behavior until the end of 2025. We also consider as an outcome variable in the follow-up survey an indicator variable equal to one if the student currently (i.e. one year after the end of the experiment) subscribes to *Le Monde*, and to zero otherwise.

4.2.2 News Knowledge

We construct a *News Knowledge Index* aggregating three complementary dimensions of students' factual knowledge about public affairs.

The first component, which we call *discernment*, is based on students' ability to identify correct information about recent current events in France, in the world, and in the European Union. For each of these three areas, students are shown six statements – three true and three false – and are explicitly informed that exactly three statements are true and three are false (see Appendix Section B.1 for the precise statements). Following Angelucci and Prat (2024), they are then asked to identify the three statements they believe to be true within a fixed time limit of three minutes. Appendix Table B.1 reports descriptive statistics on the share of control-group students who correctly identified each statement. On average, the students seem to have a better knowledge of French politics – e.g. 84.3% of the control-group students correctly identified the true statement related to Marine Le Pen's conviction – than of European politics – only 48.7% of them correctly identified the true statement that Friedrich Merz was the new German chancellor. They also show a good knowledge of salient events related to International politics (e.g. Trump's tariffs on China were identified correctly in 80.7% of the cases).

The second component measures students' *political knowledge*. It is based on six items covering key institutional and political facts. Three items relate to French politics: (i) identifying French trade union acronyms, (ii) naming the French Prime Minister, and (iii) matching prominent politicians with their political party. The remaining three items focus on the European Union: (i) identifying the country holding the rotating presidency of the Council of the European Union, (ii) a true/false question regarding the political affiliation of the President of the European Commission, and (iii) identifying the current President of the European Commission. Appendix Table B.2 reports descriptive statistics on these variables, and points to a relatively low knowledge of the political affiliation of French politicians, as well as of French unions and European politics.

[27] "If you had a one-year subscription to the newspaper *Le Monde* and had the opportunity to resell it, what would be the minimum amount you would sell it for?"

The third component captures students' *economic knowledge* and assesses their awareness of recent economic indicators and policies in France, including unemployment, public deficit, inflation, economic growth, and public debt levels. For each of these variables, students were asked to pick the correct answer from among four different choices (and could also answer "I don't know"). It is striking to observe that on average the control-group students performed only slightly better than if they had selected answers randomly (Appendix Table B.3), poiting toward a low economic knowledge.

4.2.3 Media Literacy Skills

We measure students' media literacy skills using three outcomes. The first captures a key but often overlooked dimension of media literacy: source awareness (students' ability to identify precise sources of information). To measure this, we construct a novel measure derived from the open-ended question on their main news sources described above. Specifically, we define an indicator variable equal to one if the student cites a specific news outlet (e.g., *Le Monde* or BFM TV) rather than a generic category such as "newspapers" or "the internet," and zero otherwise.[28] In an information environment where news is increasingly encountered through social media feeds, search engines, and messaging applications, individuals are often exposed to content with little awareness of where it comes from (Kalogeropoulos et al., 2019). Being able to name a specific news outlet suggests a clearer understanding that information originates from identifiable organizations and should be evaluated in light of its source. Such source awareness is therefore closely related to the ability to assess the credibility of information and distinguish between professionally produced journalism and content that circulates online with no clear accountability or verification.

The second and third outcomes are based on directly observed behavior in a social media sharing task, drawing on Henry et al. (2022). Students are shown a fake-news story and asked whether they would be willing to share it on social media and, if so, on which platform. A randomly selected half of respondents are given the opportunity to fact-check the story using an official fact-checking tool provided by Agence France Presse (AFP), the world's largest fact-checking organization.[29] For this sub-sample, we construct (i) an indicator variable equal to one if the student chooses to use the fact-checking tool and to zero otherwise, and (ii) an indicator variable equal to one if the student reports being willing to share the fake news story and to zero otherwise. These two outcomes capture student ability to engage critically with information and behave responsibly once its accuracy has been ascertained. These skills are

[28] We also verify that our results are robust to using a conditional version of this outcome that focuses on students who report at least one news source.

[29] This design allows us to compare students' reactions to the same news item in the presence or absence of a fact-checking resource. Students who were not assigned access to the tool were shown the news item and asked whether they would share it, but were not provided with any additional information.

increasingly important in digital information environments, where individuals are not only consumers of information but also active participants in its dissemination.

Our main *Media Literacy Skills Index* aggregates these three outcomes following Anderson (2008). Since the fact-checking outcomes are only observed for the randomly selected half-sample offered access to the AFP tool, the index is computed on this sub-sample only. Appendix Section B.1 provides additional details on the construction of these measures.

4.2.4 Additional Outcomes: Political Participation and Well-Being

While the intervention primarily targets students' news consumption, media literacy, and news knowledge, we also examine whether it translates into downstream effects on students' political and civic engagement on the one hand, and their well-being on the other.

Political participation We first measure political participation through students' support for a petition, following the approach of Dechezleprêtre et al. (2025). In the endline survey, students are randomly presented with one petition out of three different types: (i) climate protection, (ii) equality, and (iii) students' rights. Importantly, agreeing to support a petition constitutes a behavioral and consequential measure of engagement: while students do not sign the petition personally, their anonymous response is recorded and included in collective results that are sent to the Ministry of Education, giving this outcome a direct civic impact beyond mere stated intentions.[30]

Additionally, our follow-up survey conducted in April 2026 allows us to examine whether treatment effects persist beyond the end of the intervention and translate into real-world political participation. Among the students who had reached voting age by the time of the 2026 municipal elections, we study two outcomes. The first is whether the student registered to vote: this measure captures a broad willingness to participate in the democratic process, since registration is a prerequisite for voting in all future elections and requires individuals to incur a small administrative cost. The second outcome is whether the student reported voting in the March 2026 municipal elections. Unlike voter registration, this measure captures participation in a specific election characterized by local issues and comparatively low turnout, particularly among young voters. These outcomes provide a rare opportunity to assess whether a school-based media education intervention can affect real-world political participation over a longer time horizon.

[30] In our PAP, we had planned to construct an index of political participation based both on this variable and on another outcome capturing students' self-reported participation in any of three recent political protests shown in a list, or in the activities of one of the two main high-school student unions over the school year. However, when analyzing the data, we found a slightly negative correlation between the two measures, suggesting that they capture distinct dimensions of engagement. We therefore chose to focus on the most behavioral and consequential outcome: support for the petition.

Finally, to explore potential mechanisms through which the intervention may affect students' political participation, we also construct a *Political Self-Efficacy Index*. This measure allows us to assess the extent to which any effect on political and civic engagement is driven by changes in student' perceived competence, confidence, and ability to engage with political issues. The index is based on students' responses to a standard set of self-assessment questions capturing internal political efficacy (Niemi et al., 1991).

Well-being Finally, in order to assess potential unintended consequences of increased exposure to news on student well-being, we build two additional outcomes: (1) a *News Anxiety Index*, which is based on a validated scale developed by Bodas et al. (2015) and captures students' emotional responses specifically related to news consumption; and (2) a *General Well-Being Index*, which captures broader aspects of students' psychological well-being and combines a measure of *mental health* (i.e., the *Perceived Stress Scale,* Cohen et al., 1983), and *happiness*, measured using two self-reported items on recent happiness and relative happiness compared to peers, following Allcott et al. (2020).

4.3 Analysis Sample and Internal Validity Checks

Before turning to the effects of the interventions on our main outcomes of interest, we present our main analysis sample and perform several internal validity checks. As highlighted above, our randomization sample includes 243 high schools and 379 classes, totaling 9,628 students. 3 high schools in our randomization sample (for a total of 9 classes and 191 students) drop out of the study during the academic year and so are not included in our final analysis sample: one from T1 and two from T2. In the remaining high schools, some students and/or teachers did not answer the endline questionnaire; the average response rate is equal to 74.8% for the students and 93.3% for teachers.[31]

Table 2 reports the number of schools, classes and students included in each treatment group in our analysis sample (which includes only the students who completed both the baseline and the endline surveys). Note that a higher number of schools (and therefore of students) were included in the control group and in T2 than in T1 and in T3. This is because the T2 treatment came at no cost for us, while the number of students that could be included in T1 and T3 was de facto constrained by the price of the subscription (and thus the budget at our disposal for the experiment).

[31]The relatively "low" student response rate is partly driven by an unexpected 2024-2025 school calendar reform for vocational high-school students, which offered students a differentiated track with the option to complete an internship during the last six weeks of the school year (vocational training program) instead of attending classes (in preparation for higher education). Given that the endline survey – like the baseline survey – was intended to be completed by the students on the school computers, it was much more difficult for us to ensure completion among students who had already left school at the time of the survey.

Table 2: Analysis sample: Number of high schools, classes, and students by treatment arms

	All	Control	T1	T2	T3
Nb of schools	240	60	43	94	43
Nb of classes	370	92	66	150	62
Nb of students	7,091	1,778	1,351	2,819	1,143

Notes: The table reports the number of high schools, classes and students included in each of the treatment groups in our final analysis sample. Compared to the randomization sample, the analysis sample only includes the students who fill both the baseline and the endline surveys.

Differential attrition Appendix Tables E.1 and E.2 test for differential attrition across treatment groups, respectively for students and teachers. As shown in these tables, attrition is balanced between the four groups for both teachers and students. This result also hold for the follow-up survey, including when we focus on the subsample of voting age students (Table E.3).

Balancing checks Finally, Appendix Tables E.4 to E.6 report balancing checks using the same specification as our main treatment effect estimates (equation (1), described in Section 5.4 below). Reassuringly, we find no systematic differences across treatment groups in baseline student (Table E.4), teacher (Table E.5), or class characteristics (Table E.6). Similar results are obtained for the subsample of students who participated in the follow-up survey (Table E.7), suggesting that survey participation did not generate meaningful compositional differences across treatment groups.

5 Empirical Results: News Consumption and Demand for News

We present our main empirical results in Sections 5 to 8. Section 5 first investigates whether free media access increases actual news consumption and demand for news among young people, and whether media education enhances the effects of free access. In Section 6, we then investigate how access to news and media education impact news knowledge and information inequality, before turning to the impact on media literacy skills in Section 7. Finally, Section 8 reports the results regarding students' political engagement and well-being.

5.1 Descriptive Statistics on Baseline News Consumption

To start with, we provide some descriptive statistics on news consumption and interest in news at baseline. It is important to highlight that these statistics are of interest per se given that a very large number of students completed the survey, and they were not paid nor recruited online (see Section 2.1 above). Our sample therefore does not suffer from selection biases and

is representative of the universe of French high-school students. Overall, nearly ten thousands students answered at baseline; this has to be compared to the average size of news consumption surveys which, for a given country, rarely include more than 2,000 individuals and comprise all age groups (making it particularly difficult to draw any conclusion on news consumption among young people). Table 3 provides descriptive statistics from the baseline survey.[32]

The first interesting set of results relates to information acquisition and interest in news. Only 7% of the students report that they never keep up to date with political, economic, and social news in France and/or abroad. In contrast, 36% of them report that they often do so and 9% very often. Furthermore, among the news topics they are mostly interested in, 50% of the students report politics (which come in second position after sport), and 47% international news (Appendix Figure F.1). Hence, young people seem to be interested in news, including hard news.

However, we find that consumption of traditional media – and in particular newspaper consumption – is somewhat low among high-school students at the start of the experiment. While 81% of the students report that, in the last 7 days, they have used social media as a source of information,[33] and 65% report that they have used television, only 19% claim to have used newspapers – either online or offline – to get some news.

Students nonetheless seem to have very good knowledge of the media landscape and in particular of our partner newspaper *Le Monde*. 90% of the students in our study claim that they have already heard of *Le Monde* – which is, as highlighted in Section 2, France's leading newspaper. On average, 54% of them have already heard of the other five national dailies.[34] Furthermore, 38% of the students report that they have used *Le Monde* (read any of its articles, watched any of its videos, or listened to any of its podcasts) in the last seven days, and 11% on average for the other dailies.[35] Last, 8% of the students report that they – or their parents – already have a subscription to our partner newspaper (12% report that they have a subscription to at least one of the other French dailies).[36]

[32] For the sake of consistency over the analysis, even if 9,628 students responded to the baseline, we only report here descriptive statistics for the 7,091 students included in our final analysis sample (i.e. those who responded to both the baseline and the endline survey). Similar statistics for the full set of students are available upon request.

[33] More generally, young people are largely present on social media. More than 80% of them report using Instagram, Youtube and Snapchat, followed by WhatsApp and TikTok (Appendix Figure F.2).

[34] *Le Figaro*, *Liberation*, *L'Équipe*, *La Croix*, and *L'Humanité*. Note however that only 48% of the students correctly report the periodicity of *Le Monde* – a daily. This mismatch between their knowledge of the brand and its periodicity can be explained by the fact that, as young people mostly consume news online (and in particular do not subscribe to the print version of the newspapers), they no longer care about their periodicity.

[35] Note that the 38% share for *Le Monde* is higher than the overall share of students who reported having consumed news via newspapers. This could reflect the fact that students watch videos produced by the newspaper on YouTube or other social media platforms, and may also do so without considering this as keeping up with current events or social issues in France and/or abroad.

[36] We did not specifically ask the students whether they have access to *Le Monde* through their high-school library. However, from informed discussion with high-school principals and librarians, it appears that very few high schools actually have an online subscription to *Le Monde* (or to any other newspaper).

Table 3: Students' news consumption and interest in news at baseline: Descriptive statistics

	Mean	St.Dev	P25	Median	P75
Keeping up with news					
Never	0.07	0.26	0.00	0.00	0.00
Rarely	0.47	0.50	0.00	0.00	1.00
Often	0.36	0.48	0.00	0.00	1.00
Very often	0.09	0.29	0.00	0.00	0.00
News sources (past 7 days)					
Television	0.65	0.48	0.00	1.00	1.00
Radio	0.27	0.44	0.00	0.00	1.00
Podcasts	0.41	0.49	0.00	0.00	1.00
(Online or offline) Newspapers	0.19	0.39	0.00	0.00	0.00
Social media	0.81	0.39	1.00	1.00	1.00
Partner news & other dailies					
Knowledge of partner newspaper	0.90	0.30	1.00	1.00	1.00
Knowledge of other dailies (av.)	0.54	0.25	0.40	0.60	0.80
Use of partner newspaper	0.38	0.49	0.00	0.00	1.00
Use of other dailies (av.)	0.11	0.15	0.00	0.00	0.20
Subscription to partner newspaper	0.08	0.27	0.00	0.00	0.00
Subscription to another daily	0.12	0.32	0.00	0.00	0.00
Know periodicity of partner newspaper	0.48	0.50	0.00	0.00	1.00
Observations	7,091				

Notes: The table provides descriptive statistics on the news consumption of students in our sample at baseline. An observation is a student. Only the students included in the analysis sample (i.e. those who completed both the baseline and the endline surveys) are included. "Keeping up with news" provides the statistics corresponding to the answer to the following question: "Do you keep up to date with political, economic, and social news in France and/or abroad?" "News sources (past 7 days)" provides the statistics corresponding to the answer to the following question: "Over the past 7 days, have you used the following sources to keep up with current events or social issues in France and/or abroad?" "Knowledge of partner newspaper" or "of other dailies (av.)" is based on the answer to the following question: "From among these French newspapers, select those you have heard of before." "Use of partner newspaper " or "of other dailies (av.)" is based on the answer to the following question: "From among the newspapers you have just selected, have you consulted one or more of their articles, videos, and/or podcasts in the last 7 days?"

We then ask the students to list – for each of the media categories they report having used as a news source over the past seven days – the name(s) of the specific outlets they have consumed. Appendix Figure F.3 reports the results: young people's main source of information is still a television channel – TF1 – which is also the main French television channel in terms of overall audience (with a 35% average market share). In all, 39.6% of the students report using TF1 as a source of news. This is followed by Hugo Décrypte (33.6%), a YouTube channel that provides explanatory videos about politics and had 2.6 million subscribers in 2024 (Reuters Institute, 2024). The 24-hour news channel BFMTV comes in third position (11.7%), and *Le Monde* appears in fourth position (9.8%) and is the first newspaper (or news website) cited by the students as a source of information.[37]

Heterogeneity depending on socioeconomic status Given that the existing literature has documented large inequalities in access to information, we then investigate whether news consumption patterns (measured at baseline) differ depending on the socioeconomic status. Appendix Table F.1 reports the results. First, it clearly shows that low-SES students are much less interested in news than high-SES ones. While 52% of the high-SES students report that they never (6%) or rarely (46%) keep up with news, 64% of the low-SES students do so (of which 12% report never keeping up with news). Furthermore, low-SES students are less likely to use *all* the different types of media outlets – including social media – as a news source, reflecting the fact that they keep up less with news in general. This gap in news consumption patterns can also be seen when we consider the specific media outlets students report using as a news source over the past seven days. Only 33.1% of the low-SES students report having used the TV channel TF1 (compared to 41.7% for high-SES students), and we also observe a 7.7pp gap for the YouTube channel Hugo Décrypte (Appendix Figure F.4). There are only two specific media outlets that low-SES students mention (slightly) more: the 24-hour news channel BFMTV (+0.7pp), and the radio station Skyrock, which is dedicated to mainstream rap music and R&B (+1pp).

The news consumption gap is most striking for newspapers, used as a news source over the past seven days by 21% of the high-SES students, compared to only 12% of the low-SES students. Consistently, low-SES students have a much lower knowledge of both *Le Monde* and other French national dailies and weeklies. They also use them less and are less likely to have a subscription.

[37]Note however that while France 2 appears in fifth position (also with 9.8%), we could have somewhat underestimate its use given that it belongs to a larger entity – France Télévisions, the French national public television broadcaster – and some students only report "France Télévisions". The same applies to Radio France – the French national public radio broadcaster – which could lead us to somewhat underestimate the importance of France Info and France Inter. In both cases, we make the choice to take a conservative approach (i.e. to classify "France Télévisions" as a separate media outlet when the students do not specify the specific channel(s) watched).

5.2 Uptake: Free Newspaper Access

Before investigating the consequences of increased news consumption, we study whether free media access actually increases news consumption. This is of particular interest in the context of this study as we know from the existing literature that the uptake of a free newspaper subscription can be very low (Hopkins and Gorton, 2024). Uniquely here, we have information not only on news consumption as reported by students in the surveys, but also – for students in T1 and T3 – on their actual news consumption thanks to the newspaper data. Furthermore, for this subset of students, we can consider both the extensive margin (whether the students activated their newspaper subscription) and the intensive one (how many news articles they consumed and their types).

5.2.1 Using *Le Monde* Data

Figure 3 provides descriptive statistics regarding the uptake of the free newspaper subscription when using the observed consumption data we obtain thanks to our partner newspaper *Le Monde*.

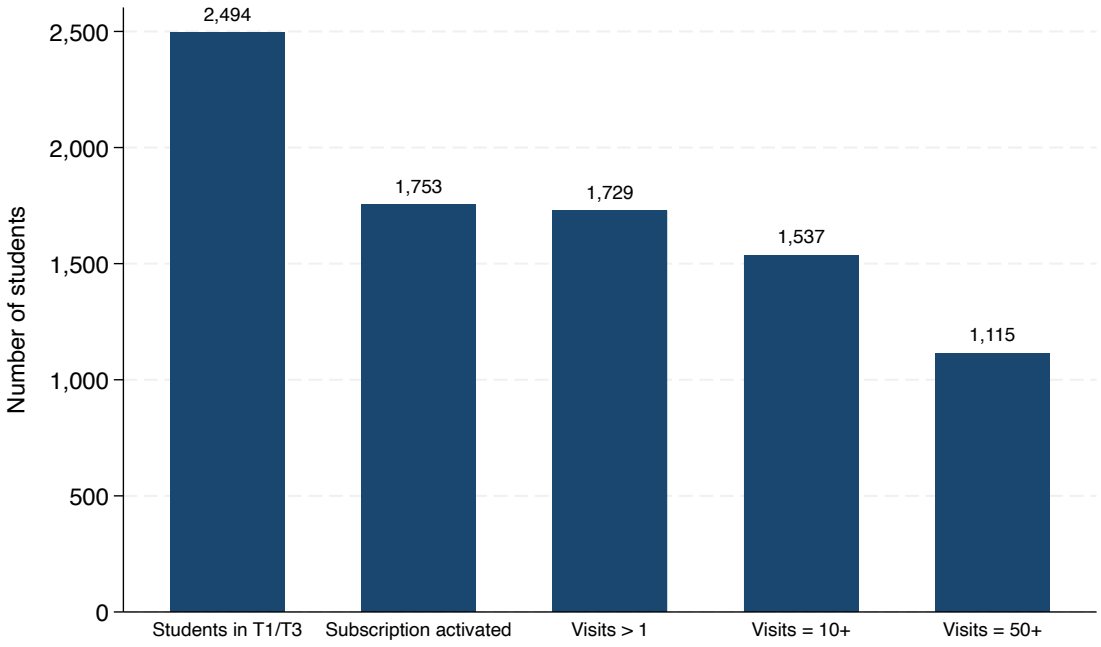
Extensive margin Of the 2,494 students in the "free media access" treatment groups (1,351 in T1 and 1,143 in T3), 1,753 students activated their subscription.[38] In other words, we have a 70.3% uptake, which is very high compared to the existing literature. Furthermore, of the 1,753 activated subscriptions, 1,729 students visited the news site more than once (i.e. 98.6%).

Intensive margin At the intensive margin, we see that 87.7% of the students who activated their account went on *Le Monde*'s website ten times or more, and 63.8% fifty times or more. Appendix Figure F.6 plots the distribution of the number of pages viewed for the subset of students who went on the website at least once. Half of these students viewed 81 pages or more during the school year, i.e. around 2.5 pages per week.[39]

To get a sense of whether these figures reflect high or low news consumption, we need to compare them to the behavior of other newspaper subscribers. Unfortunately, *Le Monde* does not have information on the age of its subscribers, but we can nonetheless use as a helpful benchmark descriptive statistics on subscribers to the "students and teachers reduced

[38] As seen in Appendix Figure F.5, most of these subscriptions were activated between October and December 2024, with the higher uptake taking place just after the treatment was announced. In 48% of the classes, all the students activated their subscription on the same day; in this case, one might assume that the subscriptions were activated in class under the teacher's supervision. In 15 classes (of the 128 that benefited from the free news access), none of the students activated their subscription (hence most probably reflecting the fact that in those classes the teachers did not inform the students that they were entitled to a free subscription to *Le Monde*). If we focus on the 2,257 students who are in class where we observe at least one subscription activation, the uptake raises to 77.7%.

[39] The "school year" here is defined as the time period going from October 10th, 2024 (i.e. the date at which the treatments were announced) and May 31st, 2025, i.e. a total of 234 days (about 33 weeks).



Notes: The Figure plots the total number of students in the free newspaper subscription groups (T1 and T3), and among them the number of students who activated their subscription and made more than a certain number of visits to the website.

Figure 3: News consumption by students: Uptake

subscription rate" (i.e. Le Monde Essentiel digital subscribers, who more closely resemble the high-school students in our sample, even if the students are slightly older and the group also includes teachers). Among this subset of subscribers, 92% are active users, i.e. read at least one article per month. Among these active users, 5% read only one article. The numbers are lower for the students in our sample: only 19.5% have read at least one article per month between November 2024 and April 2025 and can thus be considered active users; of these, however, 75.8% have read two articles or more per month. In other words, while only one-fifth of the students in our sample can be considered active readers, those who are tend to consume a relative high amount of articles.

Appendix Table F.2 reports descriptive statistics on the devices used by the students when visiting the website. 83% of the visits are made on their mobile phones. Furthermore, 41% of the visits are observed on the iPhone app and 36% on the Android app for phones. While students mostly go on the website on weekdays, 9% of the visits took place on Saturdays and 10% on Sundays. Finally, while some of the visits on the site might have occurred during class time, we observe that 22% took place between 4pm and 8pm, and 15% between 8pm and midnight. Appendix Figure F.7 plots the share of the visits depending on the time of the day separately for weekdays and weekends. While most of the visits happen in the morning

during weekdays and in particular between 8am and lunch time, we observe a higher share of visits in the afternoons during weekends. These observations are important, and not just from a descriptive standpoint. They point to the fact that the observed news consumption for T1 and T3 students is not entirely driven by classroom-related activities.[40] We come back to the role played by classroom activities in Section 5.3 below when discussing the type of news consumed.

News consumption over time We next investigate the evolution of news consumption over time. First, Appendix Figure F.8 plots the evolution of the daily number of visitors to the website; on average every day, we observe around 121 students in T1 and T3 on *Le Monde*. This number is slightly higher at the start of the experiment – reflecting the time at which the students first activated their subscription – and then is fairly stable over time, with the exception of some peaks in news consumption that can be associated with important news events (e.g. Donald Trump's election victory on November 6, 2024).

This is clearly seen in Appendix Figure F.9 where we plot, for each day, the total daily number of pages viewed on *Le Monde*'s website.[41] We report this number both for the students included in T1 and T3, and for the aforementioned Le Monde Essentiel digital subscribers. We observe that the news consumption of our high-school students varies greatly depending on current events – such as the election of Donald Trump or, on March 31, 2025, the conviction of French far-right leader Marine Le Pen for embezzlement and her subsequent ban from running in elections for five years, effective immediately. However, this varies to a lesser extent than for "similar" digital subscribers.

5.2.2 Using the Survey Information

While the above statistics are based on data from *Le Monde*'s app, it is useful to compare them with *Le Monde* consumption behaviors as reported by high-school students in the endline survey. Appendix Figure F.15 reports the results. Interestingly, we find that the share of students declaring that they activated their subscription is only slightly higher than what we observe in the hard data.[42] Similarly, for the subset of students who claimed that they

[40] Consistently, we show in Section 5.6 that the observed use of *Le Monde* lasts after the end of the experiment and therefore of the school year.

[41] We plot this number starting on November 1, 2024, to avoid capturing visually the relatively high student consumption that took place in October when the students activated their subscriptions (see above).

[42] Furthermore, it should be noted that – as detailed in Appendix Section B.3 – we underestimate the share of students who have actually activated their *Le Monde* subscription given that in a small number of occurrences the information we received from *Le Monde* did not allow us to recover the identity of the corresponding student. In the empirical analysis using *Le Monde* data, we indeed only rely on the activated accounts that we were able to match to students (the other accounts are not considered). In other words, there is a number of T1 and T3 students who activated their *Le Monde* subscription but that we consider as not having done so because we were unable to match their identity to their *Le Monde* account (most often because they did not use the same email address for the experiment and for the subscription). This mismatch may explain the

activated their subscription, the 44.7% of high-school students who say they never or rarely use the website corresponds roughly to the percentage of high-school students who have activated their subscription but are observed on *Le Monde*'s website less than fifty times. In other words, there seems to be no "social bias" with an overreporting of news consumption. This is an important finding because it validates the use of our survey-based outcome variables that allow us to estimate treatment effects on news consumption.

The endline survey information also allows us to get a better sense of the reasons for not consuming *Le Monde*. As appears in Appendix Figure F.16, students who did not consult *Le Monde* report that they did so mainly either because of a lack of interest (36-37%) or because they were already obtaining information on social media (36%). Other reasons include a lack of time (33-35%) and a preference for more dynamic formats (32-33%). Besides, we also ask students who report using *Le Monde* in the endline survey the reasons why they read it. 90% of the students who report using *Le Monde* several times a month or more say that they do so for their personal knowledge, 73% for school-related activities, and 67% to verify information (students were allowed to chose more than one reason) (Appendix Figure F.17).

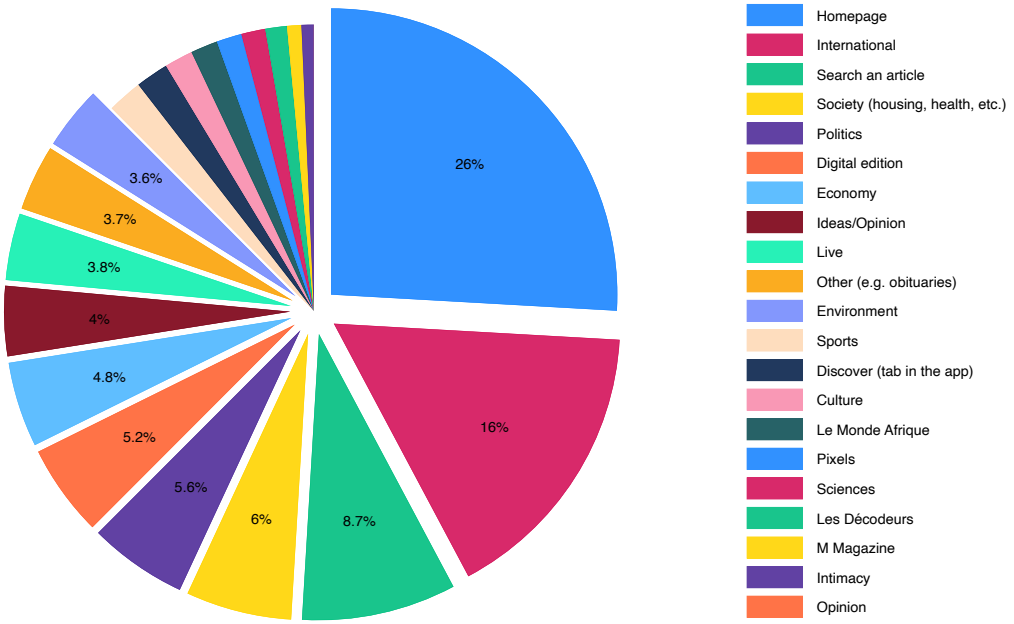
5.3 Types of News Consumed

Finally, we investigate the type of news consumed by students. As above, we can do so by using both the data on their observed consumption on *Le Monde*'s website, and the reported survey information.

Using *Le Monde* data Figure 4 provides the results. We see that in a quarter of cases, students land on the homepage of the newspaper, and that in 5.2% of the cases, they consume its digital edition. The website's search engine (to search for an article) is also frequently used (8.7%), and in 3.8% of cases students consume the live of the newspaper (sub-Figure 4a).

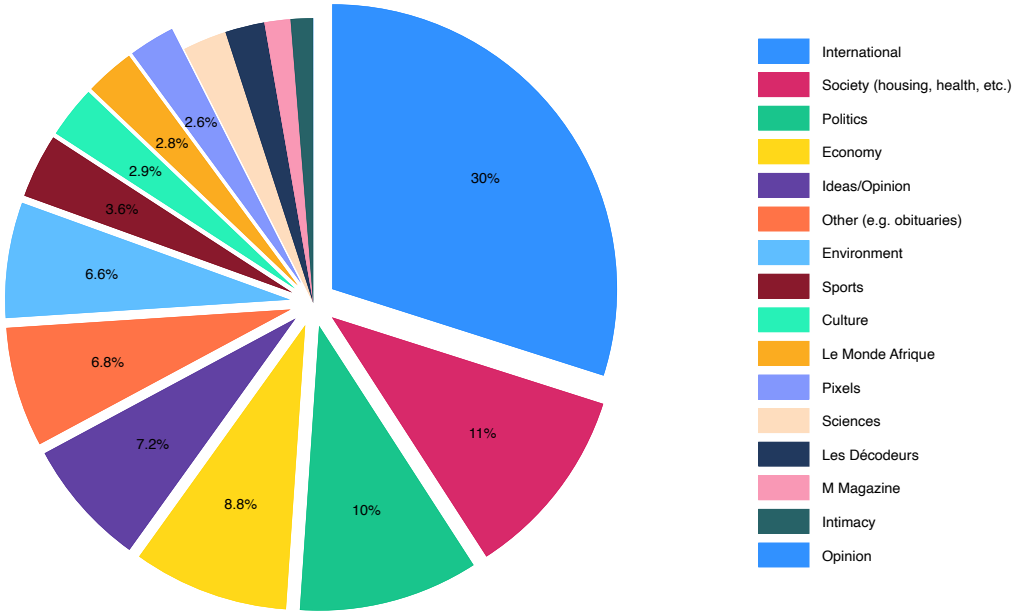
A number of these pages however – such as homepage, the live coverage page, and the app's Discover tab – do not allow us to have information on the specific content consumed by the students. Sub-Figure 4b thus focuses more specifically on the subset of pages for which the section information is available. We see that 30% of the pages viewed are in the International section, followed by Society (11%), Politics (10%), and Economy (8.8%). Sports only represents 3.6% of the pages viewed; however, this may reflect at least as much (if not more) the type of content provided on *Le Monde*'s website as students' preferences. *Le Monde* indeed provides a much more extensive coverage of international news and international politics than sports. Moreover, a substantial share of its sports coverage takes place during live coverage and therefore does not appear in sub-Figure 4b in those cases.

small difference we observe between the reported subscription activation figure in the survey and the actual activation of their subscription by the students in *Le Monde* data.



Notes: N = 272,920 pages viewed for which information on the page consulted is available.

(a) All pages viewed



Notes: N = 148,847 pages viewed for which information on the specific section of the page is available.

(b) Pages viewed for which we have information on the section

Notes: The upper Figure 4a reports descriptive statistics on the pages viewed by the T1/T3 students on *Le Monde*'s website. The bottom Figure 4b reports the same figures but computes the share on the subset of pages for which we can identify the section.

Figure 4: Type of news consumed: T1 and T3 students

To investigate the role played by the type of content provided on *Le Monde*'s website, we compare the news consumption patterns of our students to those of Le Monde Essentiel digital subscribers (which, as we previously highlighted, most closely resemble the students in our sample). Appendix Figure F.10 provides statistics similar to those in Figure 4 but for those subscribers (computed over the same time period). While we obviously observe some differences, it is interesting to note that – just as for our students – the first category of pages on which we observe the Essentiel subscribers is the homepage, followed by international news. The main difference is related to the "search for an article" tool which is more popular among our students than among those subscribers (sub-Figure F.10a).[43] If we next focus on the subset of pages for which we have information on the section, we also mostly see a similar ranking, with International news, Politics, Society, and Economy representing by far the most consumed pages, well ahead of Sports for example (Figure F.10b), and consistent with the view that the observed ranking is shaped not only by readers' preferences but also by *Le Monde*'s editorial supply.[44]

Using the survey information If we rather use the endline survey to investigate the kind of news consumed by students, we see that they report mostly reading articles about Politics (64% in T1 and 71% in T3), followed by International news (respectively 57% and 60%) (Appendix Figure F.18). While International news appears after Politics in the reported consumption (and not before as in the observed data), it is important to note that the categories are not fully comparable. Indeed, students may consider articles related to Donald's Trump's re-election in the US to be political news, whereas in *Le Monde*'s consumption data the event will be classified in the "international" section. Similarly, while students report consuming much more Sports content (which ranks third in the survey data) than what we observe in the consumption data, this discrepancy may be explained by the importance of live coverage (as highlighted above), but also the consumption of Sports articles in the (PDF) digital edition.

Within-class similarity in news consumption Finally, we investigate the type of news consumed by the students depending on whether they are in the same class. The idea here, following Gentzkow and Shapiro (2011) and Halberstam and Knight (2016), is to build a measure of segregation in news consumption. More precisely, using the information we have on the specific articles read by the students, we define a similarity measure and compare

[43] It is also of interest to note that the Discover tab ("Découvrir") somehow receives more attention among our students than among the Essentiel digital subscribers. This tab aims to provide an "alternative route" to the news by offering more "positive news" articles in a more quiet environment (see for example here for a description of this tab; last accessed on May 25, 2026).

[44] Appendix Figure F.11 provides statistics on the share of articles published by *Le Monde* in each section during our period of interest. The largest number of articles published are related to International news, Economy, Society, Ideas/Opinion, and Politics. This clearly reflects the news consumption patterns of the students. A clear exception is Culture for which we observe a larger share of news produced than consumed.

within-class with across-class similarity in consumption. Specifically, we first identify the list of specific articles read by each student and then compute all student pairs, i.e. all the occurrences of two students reading the same article, whether or not in the same class. Then, we define similarity measures between students – we consider Jaccard similarity, the overlap coefficient, conditional probability, cosine similarity, and the share of common articles – and then compare within-class similarity ($E\left[s\left(i,j\right)|c\left(i\right)=c\left(j\right)\right]$) to across-class similarity ($E\left[s\left(i,j\right)|c\left(i\right)\neq c\left(j\right)\right]$) (where $c\left(i\right)$ is the class of student i). Figure 5 reports the results.[45] It appears clearly that – independently of the similarity measure used – there is substantial within-class clustering of information exposure. E.g., according to the cosine similarity measure, students in the same class are 8.34 times more likely to consume the same news content than students in different classes.

This descriptive result points to the fact that within-class exposure to *Le Monde* content for students offered it for free (T1 and T3 students) plays a significant role in their use of the media. In other words, nudging students to consume news by using it as part of high-school activities (e.g. for homework) increases news consumption; interestingly and as we will see below, the effect of these nudges are long-lasting given that we document lasting habits (including a switch to a paid subscription) more than a year after the end of the experiment.

5.4 Empirical Specification

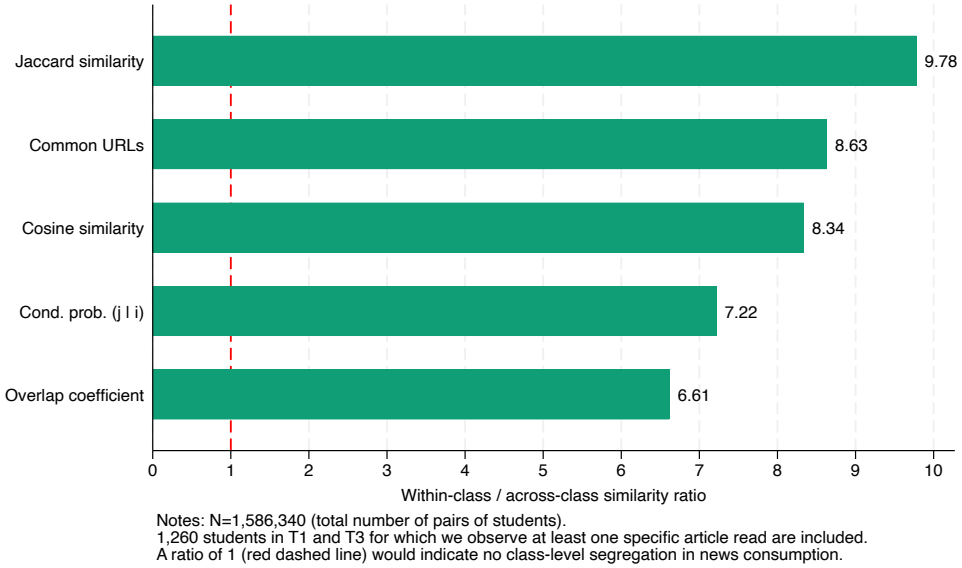
In the remainder of the paper, we provide an evaluation of the Intent-to-Treat (ITT) effects (i.e., the effects of being assigned to a specific treatment group) on several outcomes. To do so, we follow our PAP (Briole et al., 2025a) and base our analyses on the following regression model:

$$Y_{isr} = \alpha + \beta_1 T_s^1 + \beta_2 T_s^2 + \beta_3 T_s^3 + \boldsymbol{X_{is}'}\gamma + \delta_r + \epsilon_{isr} \tag{1}$$

where Y_{isr} is the outcome of interest for student i in school s and randomization strata r. T_s is the binary treatment indicator, which equals one if school s is in the treatment group and zero otherwise, and $\boldsymbol{X_{is}'}$ is a vector of controls selected in each individual regression through a Lasso procedure (Belloni et al., 2014). Potential controls include student pre-determined characteristics as well as teacher sociodemographic and professional characteristics.[46] Finally, δ_r represents a full set of indicator variables for the strata used for randomization, and ϵ_{isr}

[45] Given that the scale of the different similarity measures varies, we only report here the ratio between within- and across-class similarity for each these measures. The raw values for each measure are reported in Appendix Figure F.12.

[46] All variables included in Tables E.4 and E.5 are included as potential controls. In the case of missing baseline data for specific covariates, we replace missing values with their mean values and include indicator variables for missing values for each covariate. Our results are not sensitive to imputing the missing covariate values. While the use of controls generally provides more precise estimates, Appendix G also presents the main results based on a model without control variables (Table G.1).



Notes: The Figure reports various measures of similarity in news consumption. For each of the similarity measures (Jaccard similarity, overlap coefficient, conditional probability, cosine similarity, and share of common articles), it reports the ratio between the within-class and the across-class measure.

Figure 5: Within-class vs. across-class similarity in news consumption

the residuals. The estimated $\hat{\beta}$ coefficients ($\hat{\beta}_1$, $\hat{\beta}_2$, and $\hat{\beta}_3$) correspond to the ITT effects. Following de Chaisemartin and Ramirez-Cuellar (2024), standard errors are clustered at the randomization strata level.

As specified in our PAP, when estimating the effect of the program on sub-indexes (see Section 4.2 above for the description of all the outcomes), we also report the p-values of the coefficients of the treatment variables adjusted for the False Discovery Rate, using the Benjamini and Hochberg (1995) procedure, in order to account for multiple hypotheses testing.

5.5 Treatment Effects: Reported News Consumption

Increased news consumption Table 4 reports the average treatment effects on news consumption, as measured by the standardized *Newspaper Consumption Index* described in Section 4.2.1. We find that both T1 and T3 have large positive effects on newspaper consumption, increasing the index by 0.49 and 0.60 standard deviations (sd), respectively, with both effects significant at the 1% level. These effects are observed for both components of the index: (i) the share of students who cite a newspaper among their five main sources of information in our open-ended measure more than doubles, increasing from about 20% to over 40%;[47] and

[47] Comparable effects are obtained when using a broader definition of "newspapers" in the open-ended main news source measure, or when focusing specifically on the first main news source cited by students (Appendix Table G.3).

Table 4: Treatment Effects: News Consumption and Demand for News

Outcome variable	(1) C	(2) T1-C	(3) S.E.	(4) p	(5) p adj.	(6) T2-C	(7) S.E.	(8) p	(9) p adj.	(10) T3-C	(11) S.E.	(12) p	(13) p adj.	(14) N
Newspaper Consumption (NC) Index	0.000	0.485	0.059	0.000		0.013	0.054	0.805		0.597	0.065	0.000		7091
NC: At least 1 newspaper among 5 main news sources (0/1)	0.208	0.193	0.028	0.000	0.000	0.011	0.026	0.661	0.982	0.257	0.043	0.000	0.000	7091
NC: At least 1 newspaper consulted last 7 days (0/1)	0.473	0.166	0.021	0.000	0.000	0.000	0.021	0.982	0.982	0.187	0.011	0.000	0.000	7091
Social Media among 5 main news sources (0/1)	0.521	-0.078	0.029	0.007	0.007	-0.046	0.028	0.108	0.108	-0.073	0.029	0.011	0.011	7091
Diverse News Sources (0/1)	0.317	0.042	0.022	0.050	0.050	0.011	0.015	0.485	0.485	0.124	0.033	0.000	0.000	7091
Trust in Newspapers (relative)	0.000	0.024	0.039	0.539		0.076	0.038	0.044		0.109	0.040	0.007		6718
Newsletter Subscription (0/1)	0.688	0.092	0.028	0.001		0.040	0.018	0.024		0.073	0.021	0.000		7091
NS: Le Monde (0/1)	0.457	0.118	0.037	0.001	0.002	0.003	0.025	0.909	0.909	0.097	0.025	0.000	0.000	7091
NS: Any other than Le Monde (0/1)	0.666	0.080	0.026	0.002	0.002	0.050	0.016	0.002	0.004	0.075	0.019	0.000	0.000	7091

Notes: Each line corresponds to a separate regression. Binary outcomes are indicated with (0/1); other outcomes are standardized. Column (1) = mean of the dependent variable in the control group. (2) = estimated ITT for T1 and (3) s.e. of the estimated ITT parameter, clustered at the strata level ; (4) = p-value and (5) p-value adjusted within hypothesis for multiple testing using the Benjamini and Hochberg (1995) approach. Strata fixed effects and controls selected via Lasso, using the Belloni et al. (2014) approach, included. Each regression uses all available observations for the corresponding outcome (some students did not answer all survey questions). Table G.2 in the Appendix shows similar results when restricting the sample to students who answered all survey questions. NS stands for "Newsletter Subscription".

(ii) the share of students who report using at least one newspaper from the predefined set of national daily and weekly newspapers over the past seven days increases from 47% to 64-66% (i.e., a 35-40% relative increase).

Media education alone (T2) has no effect on newspaper consumption. However, it is interesting to note that it somewhat enhances the positive effect of free media access, with the effect of T3 being slightly larger than that of T1.[48] Importantly, the fact that newspaper consumption increases in T1 and T3 but not in T2 suggests that our findings are unlikely to be driven solely by a *salience* effect (i.e., simply making students more aware of the availability of free online news content, whether from *Le Monde* or other sources). Students in T2 are exposed to extensive discussions on media and journalism throughout the school year, which likely increases awareness of online news opportunities; yet this treatment alone does not translate into higher newspaper readership. These results therefore suggest that the effects observed in T1 and T3 merely reflect the importance of reducing barriers to accessing high-quality information.

The increase in newspaper consumption caused by T1 and T3 is entirely driven by the use of our partner newspaper, *Le Monde* (Figure 6). The effects are economically large: we find a 21pp (T1) to 28pp (T3) increase in the share of students citing *Le Monde* among their five main news sources, corresponding to 115-150% of the control group mean (sub-Figure 6a). Using the alternative measure of news consumption based on newspaper use over the past seven days, we estimate a 21-24pp increase, corresponding to 60-70% of the control mean (sub-Figure 6b). As shown in both panels of Figure 6, we find no effect when excluding *Le Monde* and considering all other newspapers.[49] This is in fact reassuring: the increase in the use of *Le Monde* does not come at the expense of other newspapers.

Although we cannot estimate equation (1) using actual *Le Monde* consumption data – since website logs are unavailable for the control group and T2 – we can still use these data to cross-check the survey results. Appendix Figure F.13 plots the average number of pages viewed (observed from the website logs) for students in T1 and T3, separately for students who cite *Le Monde* as one of their five main sources of information and those who do not. The large difference in page views across these groups confirms the validity of our survey-based measures of newspaper consumption.

It may seem surprising that relaxing the price barrier is so efficient in a context where a lot of news – including high-quality news and content published on *Le Monde*'s website – is already available for free. First, despite the widespread availability of free news, a non-negligible share of individuals do pay for news, and recent research actually shows that the

[48] Note however, that the difference between the two estimated coefficients is not significant at conventional levels (p-val ≈ 0.2).

[49] Note that the coefficients for *Le Monde* and for other newspapers do not sum up to the coefficient for newspaper use overall because these categories are not mutually exclusive: students who cite *Le Monde* among their five main news sources may also cite other newspapers.

number of people willing to pay for news is slowly growing (see e.g. Reuters Institute, 2024). This indicates that individuals value content distributed behind paywalls and are willing to pay for it.[50] Second, the availability of free online news does not imply that citizens do not encounter paywalls. According to a recent Pew Research Center study, 74% of Americans run into paywalls at least sometimes when they are looking for news online.[51] Importantly, a third of them also report that they typically give up on accessing the information when they come across an article that requires payment. Overall, these findings suggest that price constitutes an important barrier to accessing high-quality news, consistent with our results.

A substitution between news media and social media Consistently with the theoretical framework presented in Section 3, we also observe a substitution effect between the use of newspapers – and in particular of *Le Monde* – as the main source of information and the use of social media (Table 4). This holds for both T1 and T3, as well as for the media education treatment alone (T2). All three treatments reduce the probability of citing social media among the five main sources of information by 5 to 8pp, corresponding to 10-15% of the control group mean.[52]

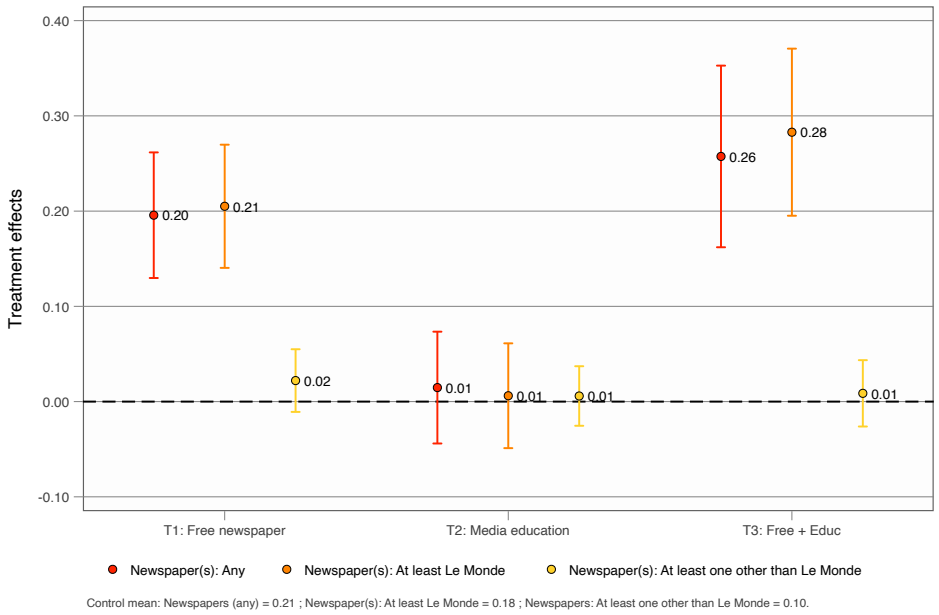
Interestingly however, we do not observe a drop in the use of other news media, and in particular of Hugo Décrypte, which is one of the main reported news source used by students in the baseline survey (Figure 7). The only exception is radio, whose use declines by 3pp in T1. While sizable relative to its baseline, this effect is limited in scope – few students use radio as a news source (7% in the control group) – and does not appear in T2 or T3. These results are broadly consistent with Altay et al. (2025) who show that news sources – even across formats – tend to act as complements rather than substitutes.

Increased diversity of information sources The previous results suggest that access to *Le Monde* increases students' exposure to news without crowding out their use of other information sources. If students add *Le Monde* to their existing information diet while continuing to rely on other outlets, one would expect the diversity of information sources to increase. We test this prediction formally using an indicator variable equal to one if the student cites at least two distinct and valid sources among their five main news sources, and to zero otherwise. The results confirm this pattern. While 32% of the students in the control group cite at least two different sources, T3 increases this share by 12.5pp (a 40% increase relative to the control

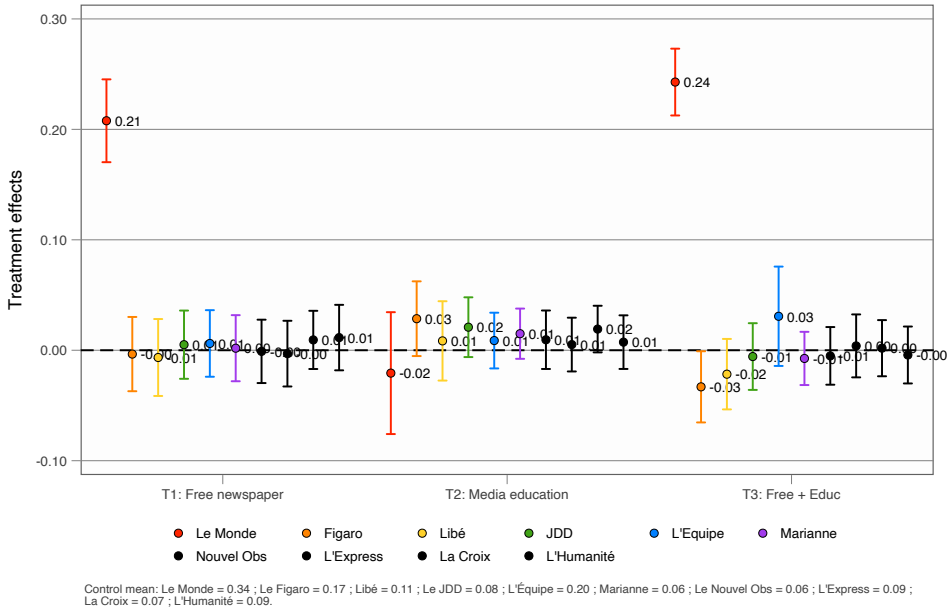
[50] Interestingly, Fletcher and Nielsen (2017) find that, if anything, there is a positive association between public service news access and paying for online news, as well as with the willingness-to-pay for online news.

[51] Including 38% who report coming across paywalled articles extremely often or often. See "Few Americans pay for news when they encounter paywalls," Emily Tomasik and Michael Lipka, Pew Research Center, June 24, 2025. Last accessed on February 3rd, 2026.

[52] The effect of T2 is marginally insignificant (p-value = 0.108). Similar – and even more statistically significant – effects are obtained for all treatments when focusing specifically on the first main news source cited by students (Table G.3).



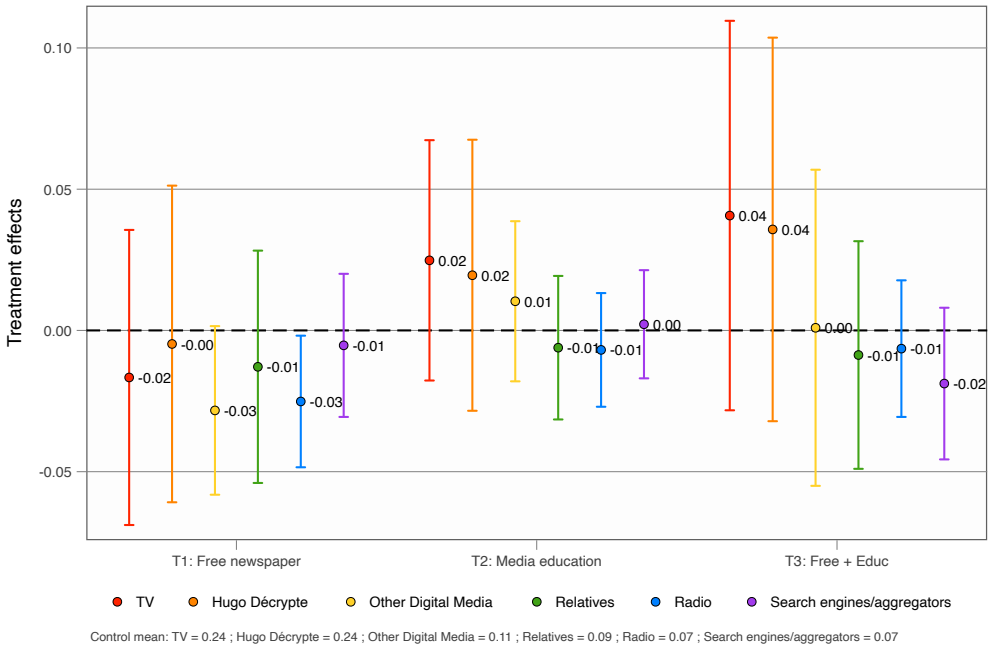
(a) Newspapers Among Five Main Sources of Information



(b) Newspapers Consulted Last Seven Days

Notes: Figure 6a reports the treatment effects on (i) an indicator variable equal to one if the respondent cites a newspaper as one of its five main sources of information, and to zero otherwise ("Newspaper(s): Any"), (ii) and indicator variable equal to one if the respondent cites *Le Monde* as one of its five main sources of information, and to zero otherwise ("Newspaper(s): At least Le Monde"), and (iii) an indicator variable equal to one if the respondent cites a newspaper other than *Le Monde* as one of its five main sources of information, and to zero otherwise ("Newspaper(s): At least one other than Le Monde"). Figure 6b the reports treatment effects, for each newspaper, on an indicator variable equal to one if the respondent reports having consulted this newspaper in the past seven days, and to zero otherwise.

Figure 6: Treatment effects: Newspaper consumption and Use of newspapers among main sources of information



Notes: The Figure reports, for each type of media, the treatment effect on an indicator variable equal to one if the respondent cites this type of media among its five main sources of information.

Figure 7: Treatment effects: Use of other types of media among main sources of information

mean). The effect of T1 is smaller but remains statistically significant, at 4pp (or 12% of the control mean). Appendix Table G.3 shows that these findings are robust when using the number of sources cited instead of the indicator variable and when estimating the model using either OLS or Poisson specifications.

In a context of rising polarization and widespread misinformation, this is an important result, suggesting that the intervention exposes students to a more diverse set of news sources. Note, however, that this increase in diversity appears to be driven primarily by the addition of *Le Monde* to students' existing information diets, as treatment effects become negligible when *Le Monde* is excluded from the construction of the diversity measure (Appendix Table G.3).

5.6 Treatment Effects: Trust in Newspapers and Demand for News

Relative trust in newspapers The media education program evaluated in this article (as part of T2 and T3) emphasizes the difficulty of producing high-quality information and the importance of journalistic work (see Appendix Section A.2). At the same time, free access to news increases the use of newspapers as a source of information, as shown in the previous section. Do these complementary channels translate into increased trust in newspapers? This is a particularly important question given that trust in information from news organizations

has continuously declined over recent decades, a phenomenon that we observe across all age groups. As described in Section 4.2.1, we construct an index measuring *relative* trust in newspapers, which captures whether students – following the intervention – place greater trust in newspapers relative to other types of media and community members. The results are reported in Table 4. We find a positive and statistically significant effect of media education alone (T2) on this Trust in Newspapers Index, with a 0.08 sd increase (significant at the 5% level). When combined with free access to *Le Monde*, the effect increases to 0.11 sd (significant at the 1% level), possibly because teachers can more easily illustrate these mechanisms when students have direct access to high-quality news content.[53] By contrast, providing free access alone does not generate such effects.

Trust in journalists Does this increase in trust in newspapers *relative* to other media outlets or community members reflect a more general increase in trust in journalists? A closer look suggests that the effects of T2 and T3 are primarily driven by a combination of a slight decline in absolute trust in other media – particularly social media – and a slight increase in absolute trust in newspapers. Figure I.1 shows that, while T2 and T3 have positive coefficients on trust in newspapers, these effects are not statistically significant at conventional levels. For television and radio, effects are close to zero, while for social media and "other websites," they are negative for all three treatments – and significant at the 10% level for T2 and T3 – consistent with the decline in social media use documented in Section 5.5. The absence of spillovers to broader trust in journalists is also evident when examining treatment effects on our Trust in Journalists Index, which captures students' general trust in journalists, independently of the media through which content is delivered. As shown in Figure I.2, we find no evidence of a general increase in trust in journalists.

Demand for news Moving beyond self-reported measures, we examine treatment effects on a hard, observable measure of news engagement: the willingness-to-subscribe to one or more existing newsletters. We find that all treatments increase demand for news so measured, with economically and statistically significant effects: +9.2pp for T1, +7.3pp for T3, and +4.0pp for T2. Relative to a baseline of 69% in the control group, this corresponds to increases of 13%, 10%, and 6%, respectively (Table 4). Importantly, newsletter subscription is a forward-looking measure. It therefore does not capture engagement during the experiment itself, but rather a more persistent increase in demand for news beyond the intervention period.

In T1 and T3, the effects are particularly pronounced for *Le Monde*'s newsletter, but we also observe significant increases in subscription to other newsletters: +8pp relative to

[53] Consistent with this interpretation, 87% of the teachers in T3 report having carried out pedagogical activities in class or at home using *Le Monde*; 30% report that they have done so five times or more (Appendix Table A.2).

a baseline of 66% in the control group (i.e., a 12% increase).[54] This result is particularly interesting because it reflects the fact that providing students with free access increases their interest in news and their willingness to obtain access to more information. Interestingly, the newsletters are available for free and students could have subscribed to them independently of our experiment. However, they did not, partly because they were likely unaware of this possibility and partly because it simply did not occur to them. This points to habit formation, which has been observed in digital consumption by Allcott et al. (2022). Here, students exposed to one digital news source for a period of time may experience an increase in the utility of news more generally, thus leading to an increase in demand for both the source they were exposed to and other sources.

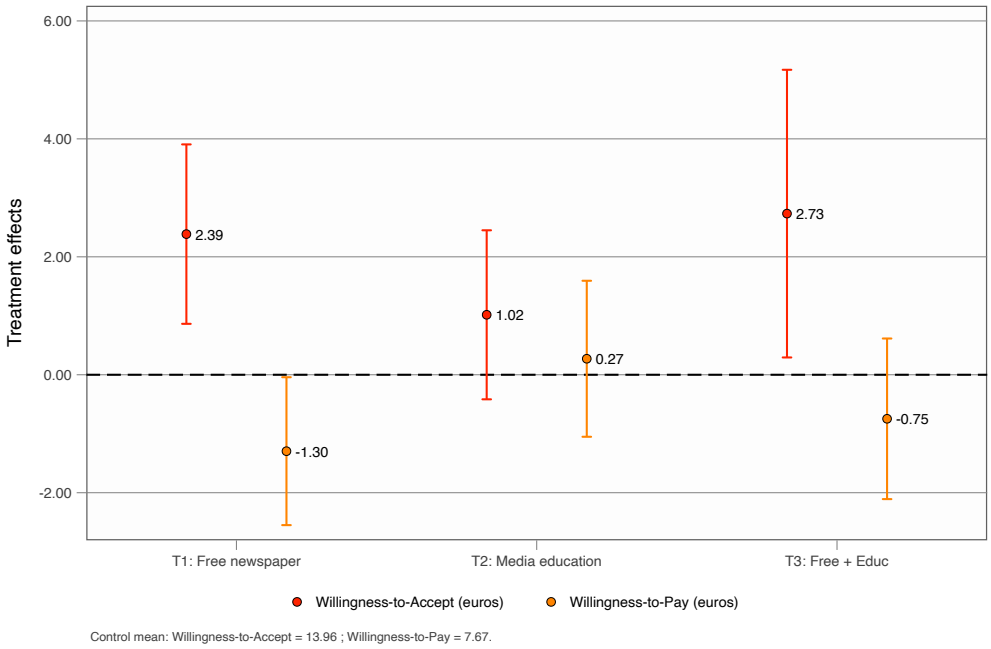
The media education treatment alone (T2) has no effect on subscribing to *Le Monde*'s newsletter in particular, but leads to a significant increase (at the 1% level) in the propensity to subscribe to other newsletters: +5pp on average (a 7.5% relative increase). This is consistent with the notion that media education raises general interest in news, as outlined in our theoretical framework.

Willingness-to-pay for news Is this increased demand for news also reflected in a higher valuation of news media? As described above, we measure both the willingness-to-pay (WTP) for a *Le Monde* subscription and the willingness-to-accept (WTA). Figure 8a presents the results. We find that the minimum price at which students are willing to sell a *Le Monde* subscription (WTA) is significantly higher for students who benefited from free access: +€2.39 for T1 and +€2.73 for T3, corresponding to relative increases of 17% and 20%, respectively. The effect of media education alone (T2) is also positive, but not statistically significant (p-val = 0.14). Similar patterns emerge when using an indicator variable for a strictly positive WTA (Figure 8b). We find positive effects for all treatments: +3pp for T1, +2pp for T2, and +4pp for T3, corresponding to increases of 3.4%, 2.2%, and 4.5% relative to the control mean, respectively. These results suggest that exposure to high-quality news increases students' valuation of it, as does media education, albeit more weakly.

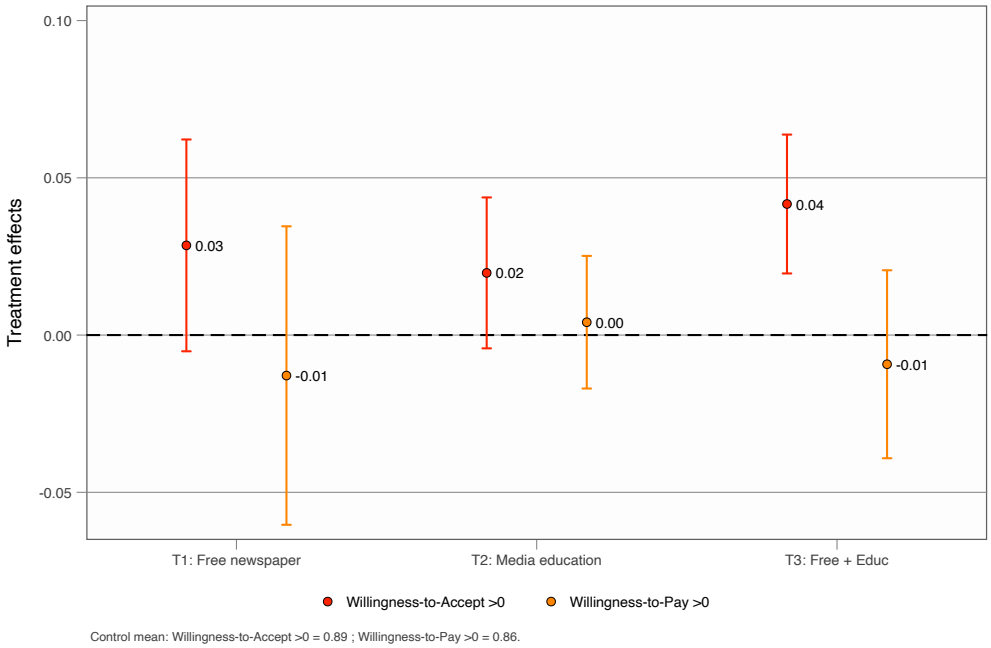
However, as shown in Figure 8a, students' WTP is slightly *negatively* affected by the provision of a free subscription (with a €1.30 drop for T1, significant at the 5% level). While somewhat surprising, this likely reflects the fact that students who obtain access to *Le Monde* for free become less willing to pay for it, possibly because they lack awareness of the costs of producing information.[55] Consistent with this interpretation, the negative effect is not

[54] See Appendix Figure I.3 for treatment effects by newsletter. For instance, T1 increases subscription to *Le Monde* newsletters by 12pp (26% of the control mean), to *Le Quotidien* by 6pp (about 23% of the control mean), to France in Info by 5pp (17% of the control mean), and to Hugo Décrypte by 7pp (12% of the control mean).

[55] This may also reflect the timing of the question, as the WTP is measured at endline, when students in T1 and T3 still had free access to *Le Monde*. Indeed, we do not observe such a drop in the follow-up survey



(a) Willingness-to-accept and Willingness-to-pay in euros



(b) Positive Willingness-to-accept and Willingness-to-pay (indicator variables)

Notes: Figure 8a reports the treatment effects on students willingness-to-accept (WTA) and willingness-to-pay (WTP) in euros for a one-year subscription to *Le Monde*. Figure 8b reports the treatment effects on two indicator variables equal to one if the WTA and the WTP, respectively, are strictly positive, and to zero otherwise.

Figure 8: Treatment effects: Willingness-to-accept and Willingness-to-pay

statistically significant in T3 (and the associated coefficient is much smaller than in T1), suggesting that media education may mitigate this effect by increasing students' awareness of the costs of producing information. Finally, this negative effect is not observed when using an indicator variable for strictly positive WTP (Figure 8b).

Note that the gap between the WTA and WTP is consistent with the existing literature,[56] and is often attributed to a loss aversion: the loss of the subscription due to a sale is more pronounced than a gain of the same subscription (see Plott and Zeiler (2005) for a discussion and Kahneman et al. (1991) for the seminal paper in the literature).

Long-term effects on news consumption In addition, we go one step further and investigate the extent to which students in T1 and T3 – who benefited from the free subscription – decided to renew their subscription at the end of the experiment (either to the same offer or to another one), and therefore pay (directly or indirectly – e.g. through their parents) for their own *Le Monde* subscription once they no longer have access to it for free.[57] Appendix Figure F.14 plots the daily number of students who visited *Le Monde*'s website at least once between November 1, 2025 and December 31, 2025 (i.e. several months after the end of our experiment). Overall, 344 students (i.e., 14% of the students in T1 and T3) went at least once on *Le Monde*'s website during this time period, and the daily number of visitors varies around 28. These results are striking as they reflect not only a long-term change in news habits but also a long-term increase in news consumption even if at a cost (given that those students actually pay for a *Le Monde* subscription after the end of the experiment).

Finally, the follow-up survey allows us to further investigate the longer-term treatment effects on news consumption. Figure 9 reports the results. Consistently with the results of the endline survey – but pointing to long-lasting effects that persist outside the school context – we find that T1 (respectively T3) increases the probability of citing a newspaper as one of the main sources of information by 24pp (respectively 35pp), an increase roughly equal to the control-group mean. The effect is entirely driven by the consumption of *Le Monde*. We also show that T3 increases the probability of being a *Le Monde* subscriber one year after the end of the experiment by 8pp, corresponding to two-thirds of the control group mean (Appendix Figure I.4).

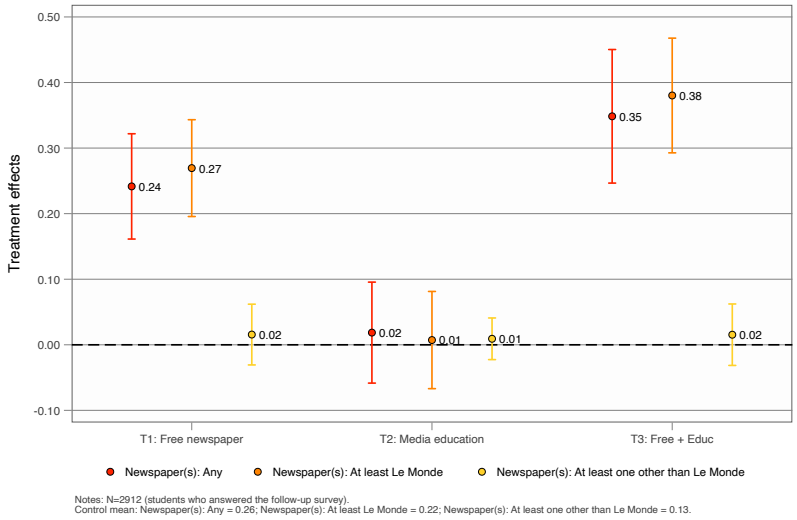
6 Empirical Results: News Knowledge

The results of the previous section show that providing free access to a newspaper increases news consumption among young citizens. In this section, we investigate whether this translates

(results available upon request).

[56] The so-called "endowment effect" (see e.g. Chapman et al., 2023).

[57] Of course, this exercise should merely be considered as only descriptive, as we only have information on students in T1 and T3 and so cannot measure any treatment effect here.



Notes: The Figure reports the treatment effects on (i) an indicator variable equal to one if the respondent cites a newspaper as one of its five main sources of information, and to zero otherwise ("Newspaper(s): Any"), (ii) and indicator variable equal to one if the respondent cites *Le Monde* as one of its five main sources of information, and to zero otherwise ("Newspaper(s): At least Le Monde"), and (iii) an indicator variable equal to one if the respondent cites at least one newspaper other than *Le Monde* as one of its five main sources of information, and to zero otherwise ("Newspaper(s): At least one other than Le Monde").

Figure 9: Treatment Effects, Follow-Up Survey: Use of newspapers among main sources of information

into increased news knowledge among students. As before, we investigate separately the impact of free access and of media education per se, as well as the effect of the combined treatments.

6.1 News Knowledge: Average Treatment Effects

Table 5 reports the treatment effects on students' news knowledge as measured by our main News Knowledge Index, defined in Section 4.2.2. Across all treatment arms, we find no statistically significant effects on the index. The same pattern emerges when we examine its three main components – discernment, political knowledge, and economic knowledge – for which estimated treatment effects are likewise close to zero.

These findings also extend to more granular measures. As shown in Table G.4, we find no statistically significant effects on the individual sub-components that make up the discernment and political knowledge dimensions. We also examine a separate discernment measure based on sports and celebrity news items, which is not included in our main index (as specified in our PAP). Here again, treatment effects are close to zero and statistically insignificant. This result suggests that the absence of effects on (hard) news knowledge is unlikely to be explained by students using their subscription to consume softer news, such as sports or people-related news.

Treatment effects may be diluted in the main index if the interventions primarily affect performance on the most difficult questions. To explore this possibility, we identify a subset of particularly challenging questions. Because the number of response options varies across items, raw success rates are not directly comparable. We therefore classify a question as *difficult* whenever the proportion of correct answers in the control group is lower than the probability of obtaining the correct answer through random guessing. Approximately one-third of the knowledge questions as classified as difficult in this way. We then construct alternative knowledge indices based exclusively on these difficult items and re-estimate treatment effects using these measures.

The results, reported in Table G.5, reveal an interesting pattern. Across all three treatment arms, estimated effects on the overall index of difficult questions range from +0.05 to +0.10 sd, with the largest and most precisely estimated effects observed for T2 (+0.10 sd, p-val < 0.01). These gains are concentrated in discernment and political knowledge, where treatment effects range from +0.05 to +0.12 sd for all treatments. On the contrary, we find no statistically significant positive effects on economic knowledge. Taken together, these findings suggest that the interventions may have been particularly effective at improving students' mastery of the most challenging political and informational concepts.

6.2 Heterogeneous Treatment Effects: A Decrease in Information Inequality

The absence of average effects when considering our our main *News Knowledge Index* may mask substantial heterogeneity. In particular, treatment effects may depend on students' socioeconomic background, as pre-specified in our pre-analysis plan (Briole et al., 2025a). One possible explanation for the null average effects is that a sizable share of students – especially those from more advantaged backgrounds – would have been relatively well informed even in the absence of the intervention, leaving limited scope for further improvements in news knowledge.

In this case, increases in newspaper consumption would not necessarily translate into measurable gains in news knowledge for these well-informed students. By contrast, the existing literature documents large information inequalities and shows that individuals from disadvantaged backgrounds often lack basic political information (see e.g. Angelucci and Prat, 2024).[58] If information constraints are more binding for these students, one would expect them to benefit disproportionately from improved access to high-quality news and media education. This prediction is also consistent with our theoretical framework, which implies that the effect of

[58] Our data reveal similar disparities. As shown in Tables B.1 to B.3, students in high-SES schools (IPS above the first quartile) outperform those in low-SES schools on all news knowledge indices and sub-components. For example, 80% of students in high-SES schools correctly identify the French Prime Minister, compared with only 58% in low-SES schools.

free newspaper access (T1) should be weaker – and potentially null or negative – for students who already have access to news sources irrespective of the experiment. Under mild regularity conditions, the effect on news knowledge is predicted to be weaker for students who are already knowledgeable, causing a reduction in knowledge inequality (Proposition 3).

6.2.1 Pre-Specified Heterogeneity Analysis

News knowledge To investigate this hypothesis, we examine treatment effect heterogeneity by high school *Indice de Position Sociale* (IPS), a variable used to stratify randomization (see Section 2.1 above for its precise definition). We divide high schools into quartiles of the IPS distribution and compare students enrolled in schools below the first quartile (low-SES schools) to those enrolled in schools above this threshold (high-SES schools). We then estimate equation (1) separately for these two groups.

Table 6 reports the results. It reveals a striking pattern: all treatments lead to large and statistically significant increases in news knowledge among students enrolled in low-SES schools (Panel A), while no statistically significant effects are detected for students enrolled in high-SES schools (Panel B). Among students in low-SES schools, free access to newspapers (T1) increases news knowledge by 0.20 sd relative to the control group, while the combined treatment (T3) increases it by 0.31 sd. Media education alone (T2) also has a positive effect of 0.09 sd, significant at the 10% level. Importantly, these gains are not driven by a single dimension of news knowledge: treatment effects are positive across all sub-components of the index, including news discernment, political knowledge, and economic knowledge.

These results are consistent with the hypothesis that information constraints are more binding among disadvantaged students and with the prediction of Proposition 3 that gains in news knowledge should be concentrated among initially less-informed individuals. As a result, access to high-quality news and media education appears to contribute to reducing socioeconomic inequalities in news knowledge.

To assess the magnitude of this effect, we compare these gains to the baseline knowledge gap. In the control group, students enrolled in low-SES schools score 0.45 sd lower on the News Knowledge Index than students enrolled in high-SES schools. Given the absence of treatment effects among the latter, the estimated gains of 0.20 to 0.31 sd for low-SES students imply that free newspaper access – alone or combined with media education – reduces this baseline knowledge gap by approximately 45-70%, while media education alone reduces it by 21%. This is clearly seen in Figure 10, which reflects both the very large knowledge gap between students in low- and high-SES schools in the control group, and the fact that our three treatments strongly reduce these gaps by improving knowledge among students from low-SES schools. As a result in T3, there is no statistically significant difference in knowledge between students from low- and high-SES schools.

Table 5: Average Treatment Effects: News Knowledge

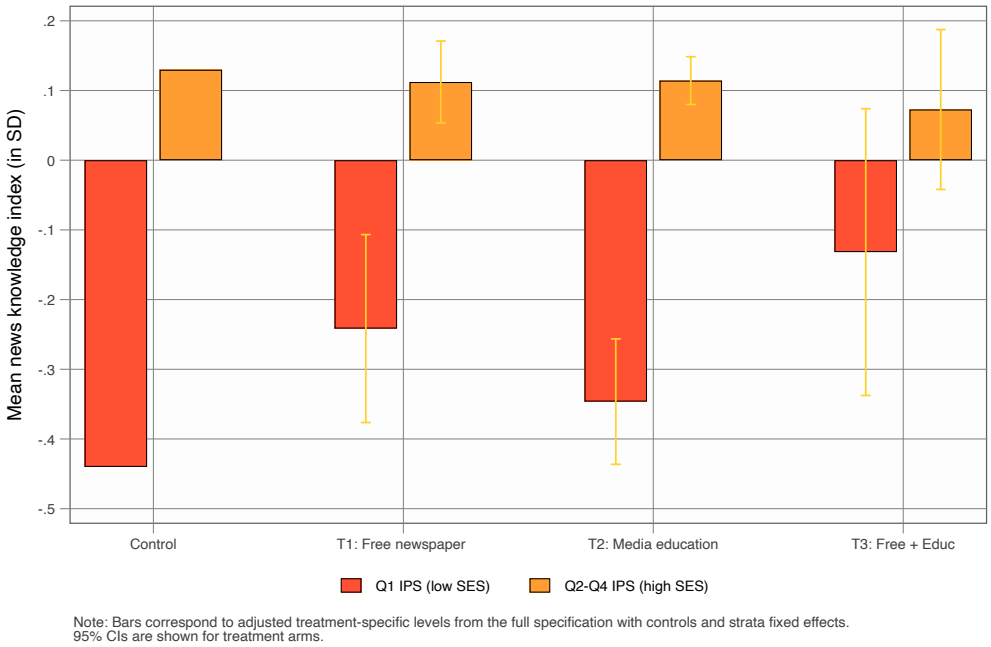
Outcome variable	(1) C	(2) T1-C	(3) S.E.	(4) p	(5) p adj.	(6) T2-C	(7) S.E.	(8) p	(9) p adj.	(10) T3-C	(11) S.E.	(12) p	(13) p adj.	(14) N
News Knowledge (NK) Index	0.000	0.018	0.044	0.685		-0.012	0.031	0.690		0.008	0.067	0.899		7091
NK: Discernment	0.000	-0.006	0.055	0.912	0.912	-0.034	0.034	0.323	0.831	0.015	0.075	0.837	0.837	7091
NK: Political knowledge	0.000	0.062	0.043	0.155	0.464	0.023	0.048	0.633	0.831	0.055	0.064	0.390	0.753	7091
NK: Economic knowledge	0.000	-0.009	0.045	0.845	0.912	-0.005	0.023	0.831	0.831	-0.035	0.052	0.502	0.753	7091

Notes: Each line corresponds to a separate regression. Binary outcomes are indicated with (0/1); other outcomes are standardized. Column (1) = mean of the dependent variable in the control group. (2) = estimated ITT for T1 and (3) s.e. of the estimated ITT parameter, clustered at the strata level ; (4) = p-value and (5) p-value adjusted within hypothesis for multiple testing. Strata fixed effects and controls selected via Lasso included.

Table 6: News Knowledge: Treatment Effects by Socioeconomic Status (IPS Quartiles)

Outcome variable	(1) C	(2) T1-C	(3) S.E.	(4) p	(5) p adj.	(6) T2-C	(7) S.E.	(8) p	(9) p adj.	(10) T3-C	(11) S.E.	(12) p	(13) p adj.	(14) N
Panel A: Low-SES schools (IPS below first quartile)														
News Knowledge (NK) Index	-0.492	0.199	0.085	0.019		0.094	0.052	0.070		0.308	0.102	0.002		1,786
NK: Discernment	-0.419	0.112	0.128	0.382	0.382	0.074	0.078	0.341	0.512	0.179	0.070	0.011	0.034	1,786
NK: Political knowledge	-0.368	0.195	0.124	0.117	0.175	0.051	0.114	0.656	0.656	0.229	0.117	0.050	0.050	1,786
NK: Economic knowledge	-0.280	0.164	0.051	0.001	0.004	0.100	0.049	0.041	0.122	0.281	0.129	0.030	0.045	1,786
Panel B: High-SES schools (IPS above first quartile)														
News Knowledge (NK) Index	0.151	-0.018	0.030	0.566		-0.016	0.029	0.586		-0.057	0.072	0.431		5,305
NK: Discernment	0.129	-0.020	0.045	0.656	0.656	-0.040	0.035	0.251	0.376	-0.028	0.103	0.782	0.782	5,305
NK: Political knowledge	0.113	0.041	0.044	0.355	0.656	0.043	0.055	0.427	0.427	0.032	0.071	0.650	0.782	5,305
NK: Economic knowledge	0.086	-0.038	0.050	0.443	0.656	-0.026	0.021	0.220	0.376	-0.106	0.024	0.000	0.000	5,305

Notes: Each line corresponds to a separate regression. Binary outcomes are indicated with (0/1); other outcomes are standardized. Column (1) = mean of the dependent variable in the control group. (2) = estimated ITT for T1 and (3) s.e. of the estimated ITT parameter, clustered at the strata level ; (4) = p-value and (5) p-value adjusted within hypothesis for multiple testing. Strata fixed effects and controls selected via Lasso included.



Notes: The Figure reports the treatment effects on the News Knowledge Index separately for the low-socioeconomic background schools (first IPS quartile) and the high-socio-economic background schools (second to fourth IPS quartiles).

Figure 10: Heterogeneous treatment effects: News knowledge by socioeconomic status (IPS quartiles)

Additional analyses provide further insight into the nature and magnitude of these effects. First, following the analysis of Table G.5 discussed above, Table G.6 investigates the heterogeneity of the treatment effects when we only consider the most difficult questions. The estimated treatment effects for T1 and T3 remain virtually unchanged, indicating that the interventions improve not only basic factual knowledge but also performance on more demanding items. Furthermore, while the estimated effects remain substantially larger in low-SES schools for T2, this alternative measure also uncovers a positive effect of media education alone among high-SES students (+0.08 sd, $p < 0.01$). In other words, the positive T2 effects are present in both groups but, among high-SES students, are concentrated on the most difficult questions.

Second, looking at individual dimensions of the knowledge index, positive effects emerge across all domains among students enrolled in low-SES schools, with particularly large gains in Europe-related knowledge, both in terms of news discernment and political knowledge (Table G.7). By contrast, we find no evidence of improvements in sports-related knowledge. If anything, point estimates are slightly negative. This pattern further supports the view that students primarily use their newspaper subscription to consume hard news rather than

entertainment or sports content.[59] In addition, the absence of treatment effects in high-SES schools extends to virtually all components of the knowledge index. The only notable exception is a positive effect on the ability to identify the President of the European Commission, for which some gains are observed among students in higher-SES schools (Table G.7).

Other outcomes To shed light on the mechanisms underlying these heterogeneous effects, Appendix Table H.2 reports treatment effect heterogeneity for our other main outcomes. In contrast to news knowledge, we find little evidence of heterogeneity in newspaper consumption. The effects of free newspaper access (T1) and the combined treatment (T3) on newspaper readership are remarkably similar across low- and high-SES schools and, if anything, tend to be slightly larger for the later. This suggests that the larger gains in news knowledge observed among students in low-SES schools cannot be explained by larger increases in newspaper consumption.[60]

Instead, the results point to higher *returns* to news consumption and media education among disadvantaged students. One possible interpretation is that the intervention provides access to information, perspectives, and opportunities for discussion that are less readily available in their social environment. As a result, a given increase in exposure to high-quality news may translate into larger learning gains for students from disadvantaged backgrounds. This interpretation is consistent with the theoretical framework developed in Proposition 3, which predicts larger effects when baseline exposure to high-quality information is lower.

Table H.2 also reveals substantial heterogeneity in outcomes related to students' relationship with the news media. Relative trust in newspapers increases much more among students enrolled in low-SES schools (+0.18 sd in T2 and +0.26 sd in T3) than among their counterparts in high-SES schools, for whom the estimated effects are small and statistically insignificant. Likewise, the effects on newsletter subscriptions – a measure of demand for future news consumption – are larger among students in low-SES schools (+0.25 sd in T1 and +0.29 sd in T3) than among students in high-SES schools (+0.20 sd and +0.13 sd, respectively). Taken together, these findings suggest that the intervention does more than only generating short-term learning gains. By increasing trust in high-quality news sources and strengthening demand for future news consumption, it may help disadvantaged students develop lasting information habits.

[59] Which might at least partly come from the fact that, as highlighted in Section 5.3 above, *Le Monde* devotes much larger coverage to hard news than to soft news.

[60] Consistently, when we look at *Le Monde*'s news consumption data (as described in Section 5.2 for the students in T1 and T3), we find no statistically significant difference between the number of actions taken or the number of pages viewed between low- and high-IPS schools' students (Appendix Table F.3). Furthermore, Appendix Table F.4 reports descriptive statistics on the type of news consumed depending on the socio-economic background, and show that high- and low-SES high schools' students behave in almost exactly the same way also along this dimension.

Robustness Appendix Tables E.8 and E.9 report balancing checks for low- and high-SES schools using the same baseline characteristics as those considered in the main sample (Tables E.4 to E.6).

For low-SES schools, randomization appears to have generated highly comparable treatment and control groups. Of 84 coefficients tested, only two are statistically significant at the 10% level, a number well below what would be expected by chance alone. This provides strong reassurance that the treatment effects estimated for this subgroup are not driven by pre-existing differences between treated and control students.

For high-SES schools, we detect a small number of imbalances. Among the 84 coefficients tested, seven are significant at the 10% level, four at the 5% level, and one at the 1% level. Given the large number of tests performed, this pattern remains broadly consistent with what could arise from random variation. Nevertheless, one imbalance deserves particular attention: students assigned to T1 exhibit slightly lower baseline news knowledge than control students, with a difference of 0.10 sd that is statistically significant at the 10% level.

To assess whether this imbalance could account for the absence of treatment effects among high-SES students, we follow Athey and Imbens (2017) and estimate treatment effects within strata defined by baseline news knowledge. Specifically, we estimate the following specification:[61]

$$Y_{isr} = \alpha + \beta_1 T_s^1 + \beta_2 T_s^2 + \beta_3 T_s^3 + \tau \dot{I}_i + \gamma_1 (T_s^1 * \dot{I}_i) + \gamma_2 (T_s^2 * \dot{I}_i) + \gamma_3 (T_s^3 * \dot{I}_i) + \delta_r + \epsilon_{isr} \quad (2)$$

where I is an indicator variable equal to one if student i's news knowledge at baseline is above the median and $\dot{I} = I - \bar{I}$. This centering implies that β_1, β_2, and β_3 can be interpreted as average treatment effects for T1, T2, and T3, respectively. We also estimate an analogous specification using four groups defined by quartiles of the baseline news knowledge distribution. As shown in Table G.8, the results are virtually unchanged under both approaches. The absence of treatment effects among students enrolled in high-SES schools are therefore very unlikely to be explained by the small baseline imbalance in news knowledge, confirming the robustness of our heterogeneity results.

6.2.2 Generic Machine Learning

Finally, we complement this analysis with a data-driven approach based on recent machine learning methods to study treatment effect heterogeneity (Chernozhukov et al., 2025). This analysis first confirms the presence of substantial heterogeneity in treatment effects for all treatments. As shown in Appendix Table H.5, the heterogeneity loading parameters are strongly significant for all treatments. This analysis also confirms that socioeconomic background (as

[61] This corresponds to equation (5.4) in Athey and Imbens (2017).

measured by school IPS) is strongly correlated with treatment effects. In particular, the classification analysis (CLAN) reveals that the estimated difference in the mean school IPS between the 25% most affected and the 25% least affected groups is negative and statistically significant, especially for T1 and T3 (Appendix Table H.6). Consistently, for all three treatments, we also find that the mean share of scholarship students is much higher among the 25% most affected students than among the 25% least affected ones.

7 Empirical Results: Media Literacy Skills

The previous results show that free newspaper access (and to a lower extent media education) leads to an increase in both newspaper consumption and demand for news. They also reduce information inequality. But do free news access and media education lead to improved media literacy skills?

7.1 Media Literacy Skills: Average Treatment Effects

Main results Table 7 reports the effects of the interventions on the Media Literacy Skills Index, which combines students' ability to identify precise news sources with their behavior in a social media fact-checking task. Free newspaper access (T1) and the combined intervention (T3) significantly improve media literacy skills, with estimated effects of 0.15 sd and 0.26 sd, respectively. Media education alone (T2) also increases media literacy skills by 0.08 sd, although the estimate is not statistically significant at conventional levels ($p = 0.116$).

A first mechanism operates through improvements in students' awareness of news sources. Students exposed to T1 and T3 are substantially more likely to cite a precise news outlet when asked about their main sources of information, with increases ranging from 6 to 13 pp relative to the control group, corresponding to 17-37% of the control mean. Importantly, these results are not driven by a higher propensity to report any news source at all. Similar effects are indeed obtained when using a conditional measure restricted to students who cite a news source (whether precise or not; Appendix Table G.9).[62] The effect of T3 also remains positive and strongly significant when references to *Le Monde* are excluded, suggesting that the intervention improves source awareness more broadly than merely increasing familiarity with our partner newspaper, in particular thanks to media education as also reflected in the positive and statistically significant coefficient estimated for T2. On the contrary for T1, the coefficient is roughly halved and no longer statistically significant once *Le Monde* citations are excluded, indicating that a larger share of the effect operates through increased exposure to the newspaper itself.

[62] We also obtain similar results when we use the full sample of students for this measure rather than the sub-sample of students who were offered the fact-checking tool (see first row of Table G.9).

We find no evidence that the interventions affect students' stated willingness to share a false news story on social media. Estimated effects on the fake news sharing measure are small and statistically insignificant across all treatment groups.[63] By contrast, we observe positive effects on the use of the AFP fact-checking tool itself (+4.1 to +5.2 pp relative to a control mean of 39.4%), although these estimates remain imprecisely estimated and do not reach conventional levels of statistical significance.

Long-term effects The effects on source awareness appear remarkably persistent. In the follow-up survey, students exposed to T1 and T3 remain significantly more likely to cite a precise news source, with effect sizes ranging from 7 to 17 pp (Appendix Figure I.5). This persistence is notable given that the outcome captures a relatively deep dimension of media literacy – the ability to think about information in terms of identifiable sources rather than generic channels. It suggests that the interventions did not merely generate short-term changes in news consumption, but also fostered more durable habits of attention to the origin and credibility of information. As shown in Appendix Figure I.5, this long-term effect is robust to considering alternative definitions of the outcome.

Discussion This pattern of results is broadly consistent with the content of both interventions. As detailed in Appendix Section A.2, the media education training and ready-to-use activities provided to teachers in T2 and T3 place a strong emphasis on understanding how information is produced, identifying and evaluating sources, and developing critical attitudes toward misinformation and fake news.

The positive effects observed in T1 may be due to the fact that *Le Monde* devotes substantial attention to information verification through its dedicated fact-checking unit, *Les Décodeurs*, as well as through a range of pedagogical resources covering topics such as source identification, rumor verification, image authentication, and conspiracy theories.[64] Exposure to such content may have contributed to strengthening students' awareness of information quality and the importance of verification. More generally, consuming professionally produced journalism may itself foster greater attention to sources and increase trust in verification procedures such as those provided by AFP. In line with this notion, we find that 64% and 69% of students in T1 and T3, respectively, report using their *Le Monde* subscription to verify information encountered elsewhere (Figure F.17).

More broadly, our results suggest that combining media education with access to high-quality journalism constitutes the most effective approach for improving media literacy skills. Across virtually all outcomes, the largest effects are indeed observed in T3. This complemen-

[63] As shown in the last row of Appendix Table G.9, this result is also true for the subsample of students who were not given the opportunity to fact check the story.

[64] These resources are accessible here (last accessed on June 5, 2026).

tarity is consistent with the idea that media literacy is acquired not only through explicit instruction but also through repeated exposure to high-quality information environments. Consistent with this interpretation, implementation data show that teachers in T3 conducted more media education activities than teachers in T2 (Table A.1). Furthermore, the combined intervention significantly increased teachers' confidence in their ability to teach media literacy topics, whereas neither training alone nor newspaper access alone produced comparable effects.[65]

7.2 Media Literacy Skills: Heterogeneous Treatment Effects

A large literature documents substantial differences in teacher effectiveness, including for students' non-cognitive outcomes (see e.g., Jackson, 2018; Kraft, 2019; Petek and Pope, 2022). More specifically, recent experimental evidence suggests that teacher quality is a key determinant of the effectiveness of civic education interventions (Briole et al., 2025b). Motivated by this literature, our PAP hypothesized that teacher quality could play an important role in explaining treatment effect heterogeneity. As pre-specified, we use teachers' prior experience in teaching MIL as a proxy for teacher quality. Specifically, we use information collected at baseline through the following question: "Have you implemented media literacy programs for middle- or high-school students during the past five years?".[66] We classify teachers as having high prior MIL teaching experience if they reported having implemented such programs more than five times during the previous five years ($\approx$ 40% of teachers in our sample). Appendix Table H.7 shows that these teachers are actually both better prepared to teach MIL specifically and more effective in their pedagogical practices more generally (as measured at baseline): they have attended more MIL training sessions in the last five years, are more confident teaching MIL topics, and implement more active teaching practices, which are associated with higher instructional productivity (Briole, 2026).

We investigate whether the effects of the intervention vary with teachers' experience in teaching MIL and report the results in Table 8. The results reveal a clear and consistent pattern. All three treatments improve students' media literacy skills regardless of teachers' prior MIL teaching experience, but the effects are systematically larger when teachers have extensive prior experience in teaching MIL. For T1, the effect increases from 0.13 sd among students taught by low-experience teachers to 0.23 sd among those taught by high-experience teachers. For T2, the corresponding estimates are 0.07 sd and 0.09 sd while for T3 the effect more than doubles, rising from 0.13 sd to 0.51 sd. To further investigate this mechanism, Table H.3 extends the analysis to our other main outcomes. The same pattern emerges throughout. Treatment effects are consistently larger among students taught by high-experience teachers

[65] See Appendix Section A.2 for a detailed discussion of these effects.

[66] Teachers could choose from four responses: (i) Yes, more than five times; (ii) Yes, between one and five times; (iii) Yes, once; and (iv) No, never.

Table 7: Average Treatment Effects: Media Literacy Skills

Outcome variable	(1) C	(2) T1-C	(3) S.E.	(4) p	(5) p adj.	(6) T2-C	(7) S.E.	(8) p	(9) p adj.	(10) T3-C	(11) S.E.	(12) p	(13) p adj.	(14) N
Media Literacy Skills (MLS) Index	0.000	0.154	0.067	0.022		0.075	0.047	0.116		0.257	0.057	0.000		3417
MLS: Citing precise news source (0/1)	0.352	0.060	0.032	0.057	0.171	0.014	0.023	0.547	0.821	0.131	0.038	0.001	0.002	3417
MLS: Fact-checking (0/1)	0.394	0.041	0.044	0.353	0.404	0.047	0.029	0.097	0.292	0.052	0.033	0.113	0.170	3417
MLS: Fake news sharing (0/1)	0.104	-0.014	0.017	0.404	0.404	-0.003	0.015	0.863	0.863	-0.009	0.018	0.603	0.603	3417

Notes: Each line corresponds to a separate regression. Binary outcomes are indicated with (0/1); other outcomes are standardized. Column (1) = mean of the dependent variable in the control group. (2) = estimated ITT for T1 and (3) s.e. of the estimated ITT parameter, clustered at the strata level; (4) = p-value and (5) p-value adjusted within hypothesis for multiple testing using the Benjamini and Hochberg (1995) approach. Strata fixed effects and controls selected via Lasso included. The table focuses on the sample of students who were randomly offered the opportunity to fact-check the story (see Section 4.2.1), i.e., the sample for which the two fact-checking outcomes are observed. Table G.9 in the Appendix reports similar results for the outcome related to citing a precise news source using the full student sample.

Table 8: Media Literacy Skills: Treatment Effects by Teacher MIL Experience

Outcome variable	(1) C	(2) T1-C	(3) S.E.	(4) p	(5) p adj.	(6) T2-C	(7) S.E.	(8) p	(9) p adj.	(10) T3-C	(11) S.E.	(12) p	(13) p adj.	(14) N
Panel A: Low prior MIL teaching experience														
Media Literacy Skills (MLS) Index	0.023	0.134	0.103	0.193		0.072	0.072	0.315		0.129	0.098	0.188		2025
MLS: Citing precise news source (0/1)	0.359	0.048	0.040	0.231	0.467	0.006	0.025	0.805	0.805	0.092	0.054	0.088	0.265	2025
MLS: Fact-checking (0/1)	0.396	0.056	0.056	0.312	0.467	0.055	0.037	0.129	0.388	0.013	0.045	0.780	0.873	2025
MLS: Fake news sharing (0/1)	0.098	-0.007	0.021	0.734	0.734	-0.007	0.021	0.729	0.805	0.003	0.021	0.873	0.873	2025
Panel B: High prior MIL teaching experience														
Media Literacy Skills (MLS) Index	-0.040	0.232	0.066	0.000		0.092	0.069	0.186		0.514	0.051	0.000		1392
MLS: Citing precise news source (0/1)	0.341	0.088	0.051	0.084	0.197	0.035	0.036	0.330	0.736	0.195	0.040	0.000	0.000	1392
MLS: Fact-checking (0/1)	0.390	0.035	0.042	0.413	0.413	0.032	0.047	0.491	0.736	0.124	0.038	0.001	0.002	1392
MLS: Fake news sharing (0/1)	0.115	-0.037	0.024	0.131	0.197	0.001	0.022	0.978	0.978	-0.055	0.034	0.108	0.108	1392

Notes: Each line corresponds to a separate regression. Binary outcomes are indicated with (0/1); other outcomes are standardized. Column (1) = mean of the dependent variable in the control group. (2) = estimated ITT for T1 and (3) s.e. of the estimated ITT parameter, clustered at the strata level; (4) = p-value and (5) p-value adjusted within hypothesis for multiple testing using the Benjamini and Hochberg (1995) approach. Strata fixed effects and controls selected via Lasso included.

for newspaper consumption, the diversity of news sources consulted, and trust in newspapers.

These findings suggest that teacher quality plays an important role in the effectiveness of media literacy interventions. While the intervention benefits students in both groups, teachers with substantial prior MIL teaching experience appear better able to translate the intervention into meaningful learning gains. This also suggests that effective media literacy teaching relies on teaching skills that are gradually accumulated through repeated training and classroom practice, rather than acquired through one-off professional development activities. From a policy perspective, these findings highlight the importance of providing teachers with sustained opportunities to develop and refresh their MIL skills over time.

Generic Machine Learning The Generic Machine Learning analysis leads to similar conclusions. As shown in Appendix Table H.8, the heterogeneity loading parameter is positive and statistically significant for both T1 and T3, indicating substantial treatment effect heterogeneity. The CLAN analysis further suggests that this heterogeneity is strongly related to teacher quality. In particular, larger treatment effects are observed in classes taught by teachers who are more engaged in school life, make greater use of active learning practices, and with higher levels of prior MIL teaching experience (Appendix Table H.9).

Robustness Appendix Tables E.10 and E.11 report balancing checks separately for teachers with low and high prior MIL teaching experience. For teachers with high prior MIL teaching experience, treatment and control groups appear well balanced across baseline characteristics. Importantly, none of the imbalances concern our main outcomes of interest, and the Media Literacy Skills Index is very well balanced across treatment arms. For teachers with low prior MIL teaching experience, we detect slightly more imbalances.[67] Nevertheless, the Media Literacy Skills Index – the main outcome considered in this section – remains well balanced across treatment and control groups in all treatment arms. The heterogeneous effects documented in this section are therefore unlikely to be driven by pre-existing differences in baseline media literacy skills.

8 Empirical Results: Political Engagement and Well-Being

Finally, Table 9 reports the results regarding students' civic and political engagement, as well as their well-being. As highlighted above, these outcomes were not directly targeted by the intervention, but they may have been affected by the increased exposure to news.

[67] Of the 84 coefficients tested, nine are statistically significant at conventional levels, mainly involving student characteristics and baseline measures of newspaper consumption and news knowledge.

Political engagement: Main results We find no effect of any of the three treatments on support for petitions in the endline survey. While petition support constitutes a form of political engagement, it is also closely related to support for specific policy objectives. The absence of treatment effects on this outcome is therefore consistent with an intervention that affects students' engagement with public affairs without necessarily altering their underlying political preferences.

We next turn to two measures of political participation collected in the follow-up survey. Students who had reached voting age by the March 2026 municipal elections were asked whether they had registered to vote and whether they had voted. The results, reported in Appendix Figure I.6, should be interpreted cautiously given the limited sample size ($N = 846$ voting-age students).[68] We find suggestive evidence of increased voter registration. The estimated effects are positive for all three treatments and statistically significant for T2, which increases registration by 7pp (8.5% relative to the control mean). By contrast, the estimates for turnout in the municipal elections are imprecisely estimated and not statistically distinguishable from zero. The small contrast between the effect on registration and turnout in municipal elections is consistent with the fact that municipal elections are *local* elections, while *Le Monde* mostly covers national and international politics. However, once a citizen is registered as a voter, they can vote in all elections – including national ones.

To account for the imbalance in baseline political participation, which is significantly lower among T3 students (Table E.12), we implement the Athey-Imbens robustness procedure described above and estimate Equation (2), partitioning the sample according to baseline political participation. Results are virtually unchanged when using either two groups defined by the median (Figure I.7) or four groups defined by quartiles (Figure I.8), suggesting that our findings are not driven by this baseline imbalance.

Political engagement: Mechanisms To better understand the absence of clear effects on political participation, we examine treatment effects on political self-efficacy. As shown in Table 9, both T1 and T2 reduce the *Political Self-Efficacy Index*, although the effect is substantially larger and more precisely estimated for T1 (-0.096 sd, significant at the 1% level) than for T2 (-0.051 sd, significant at the 10% level). The coefficient for T3 is also negative but small and statistically insignificant.

One possible interpretation is that exposure to high-quality news makes students more aware of the complexity of political issues and of the limits of their own knowledge. This phenomenon is well documented in psychology and political science, where individuals with

[68] Because treatment effects in this analysis are estimated on a much smaller subsample, we use a slightly more parsimonious set of potential controls than in the main specification. Specifically, we exclude teacher-level characteristics, which add little predictive power for these outcomes while potentially reducing precision in finite samples. All specifications continue to include randomization-strata fixed effects.

Table 9: Average Treatment Effects: Political Engagement and Well-Being

Outcome variable	(1) C	(2) T1-C	(3) S.E.	(4) p	(5) p adj.	(6) T2-C	(7) S.E.	(8) p	(9) p adj.	(10) T3-C	(11) S.E.	(12) p	(13) p adj.	(14) N
Political Participation: petition (0/1)	0.772	0.008	0.024	0.723		-0.022	0.016	0.162		-0.005	0.028	0.855		7091
Political Self Efficacy Index	0.000	-0.096	0.028	0.001		-0.051	0.031	0.095		-0.048	0.038	0.209		6874
Well Being (WB) Index	0.000	0.000	0.064	0.999		-0.044	0.055	0.426		0.008	0.064	0.898		2269
WB: News Anxiety	0.000	-0.057	0.072	0.428	0.759	-0.070	0.062	0.258	0.387	0.030	0.067	0.654	0.780	2247
WB: Mental Health	0.000	0.019	0.056	0.738	0.759	0.035	0.055	0.523	0.523	0.022	0.078	0.780	0.780	2219
WB: Happiness	0.000	0.026	0.083	0.759	0.759	-0.060	0.047	0.207	0.387	-0.127	0.081	0.118	0.354	2112

Notes: Each line corresponds to a separate regression. Binary outcomes are indicated with (0/1); other outcomes are standardized. Column (1) = mean of the dependent variable in the control group. (2) = estimated ITT for T1 and (3) s.e. of the estimated ITT parameter, clustered at the strata level ; (4) = p-value and (5) p-value adjusted within hypothesis for multiple testing using the Benjamini and Hochberg (1995) approach. Strata fixed effects and controls selected via Lasso, using the Belloni et al. (2014) approach, included. Each regression uses all available observations for the corresponding outcome. Table G.2 in the Appendix shows similar results when restricting the sample to students who answered all survey questions.

low levels of knowledge often overestimate their competence and revise their self-assessments downward as they learn more – a pattern commonly referred to as the "Dunning-Kruger" effect (Kruger and Dunning, 1999; Anson, 2018). In line with this interpretation, we find that the decline in political self-efficacy in the endline survey is concentrated among students with the lowest baseline levels of news knowledge (Appendix Table H.4). Furthermore, in the follow-up survey, we asked voting-age students who reported not voting in the 2026 municipal elections about their reasons for abstaining.[69] Students exposed to free news access are more likely to report that they abstained because they did not feel sufficiently entitled to express a political opinion (Figure I.9).

Pointing to an improvement in knowledge, we also observe that T1 reduces the probability that students report not voting because they were unaware that elections were taking place (even if this effect is only marginally significant at conventional levels). We also find that both T1 and T2 increase the probability that they report not voting because there was only one list running in the elections. Interestingly, this points to the fact that students treated by free news access and media education were aware of the electoral landscape in their municipality for these elections.

Well-being Note finally that the interventions evaluated in this paper did not generate adverse effects in terms of well-being. Indeed, we observe no significant effects in any of the outcomes related to mental health and personal well-being (Table 9).

9 Policy Implications and Conclusion

This paper reports the results of the first large-scale randomized control trial on interventions designed to increase high-quality news consumption among high-school students. While many policies have been implemented around the world in recent years to increase news consumption among young people, either in the form of free news access (e.g. "Mon journal offert," a public policy that offered a free newspaper subscription to people aged 18 to 24 in France in 2009-2010, or policies implemented by media companies themselves offering free online subscriptions for students in countries such as Belgium[70]), or in the form of media education (the most striking example being Finland, where media literacy has been part of the educational curriculum since

[69] We offered them seven different options (with the possibility of choosing more than one), as well as an open "other" field. The seven options were: (i) I didn't know that there were any elections, (ii) I didn't have the time, (iii) I wasn't interested, (iv) Politicians are useless, (v) I wasn't sufficiently informed, (vi) I didn't feel entitled to express my political opinion, and (vii) I couldn't make it to the town where my polling place is located.

[70] Since 2023, *Le Soir* in Belgium has offered a two-year free online subscription to college students. Since 2025, major Flemish media groups DP Media and Mediahuis offer free online subscriptions for students under the age of 26.

the 1990s[71]), the relative effectiveness of such policies has never been evaluated in a causal way. This paper aims to fill that gap and, in so doing, inform policymakers and media outlets.

Three findings emerge from our experiment. First, relaxing the price barrier to high-quality information – especially when embedded within a school context – generates very large increases in news consumption and demand for news, with effects of 0.49-0.60 sd on newspaper consumption that furthermore persist over time. Second, these gains translate into substantial improvements in news knowledge among disadvantaged students, increasing knowledge by 0.20-0.31 sd and reducing information inequality by 45-70%. Third, both free news access and media education improve media literacy skills by 0.08-0.26 sd, particularly students' ability to identify information sources.

These results are very encouraging. First, the fact that relaxing the price barrier to high-quality information leads to such sizable effects is particularly promising because the underlying intervention is easy to scale up and relatively inexpensive: at most a few euros per student per month. The scalability of the approach relies on the high school-media partnership model. Thanks to the school context involving both teacher endorsement and peer effects, the policy directly overcomes the behavioral frictions that normally depress digital news uptake among young people. Our results also show that despite the durability of online habits, news consumption can be changed (at least among young people). Moreover, the payment goes directly to high-quality news providers – thereby supporting the overall production of information that may benefit other citizens. Hence our intervention is "ecological": students were not paid to participate and are representative of the broader population of high-school students in France.[72] Besides, it would most probably not experience a "voltage drop" if scaled up (List, 2024). In other words, there is reason to expect the program to remain effective at scale (Al-Ubaydli et al., 2017, 2021).

Second, this paper provides the first causal evidence on the effectiveness of large-scale media literacy policies implemented in schools. While most existing studies evaluate short online interventions, often conducted with adult participants and measured immediately after exposure, ours consisted of a year-long intervention implemented under real-world conditions and involving nearly $10,000$ high-school students. The intervention significantly improves students' media literacy skills and has positive effects on several aspects of news consumption and knowledge. At the same time, our findings highlight the key role of teachers in the success of media literacy interventions. The effects are substantially larger among students taught by teachers with prior experience teaching MIL, suggesting that effective MIL instruction relies not only on pedagogical resources but also on teaching skills accumulated through training and classroom experience. From a policy perspective, these findings suggest that media literacy

[71] See e.g. "Media literacy and education in Finland", last accessed on April 28, 2026.

[72] Note furthermore that France is fairly similar to most Western democracies in terms of news consumption patterns and information inequality challenges.

policies should not be viewed as one-off interventions. Sustained investments in teacher training and professional development may be at least as important as the content of the training itself.

These results nonetheless raise a number of open questions that would need to be tackled by future research and/or policymakers. First, while our results show that offering high-school students free subscriptions to high-quality media appears to be an effective policy, the optimal choice of newspaper or digital media outlet remains an open question. Second, the rapid spread of generative AI raises new challenges for media literacy policies. As an increasing share of information is accessed through AI-generated content and conversational agents, understanding how citizens evaluate sources, verify information, and form beliefs in these new information environments is likely to become an increasingly important objective for both researchers and policymakers.

References

Al-Ubaydli, Omar, John A List, and Dana L Suskind, "What Can We Learn from Experiments? Understanding the Threats to the Scalability of Experimental Results," *American Economic Review*, 5 2017, *107*, 282–286.

_ , Minsok Lee, John A List, Claire L Mackevicius, and Dana Suskind, "How can experiments play a greater role in public policy? Twelve proposals from an economic model of scaling," *Behavioural Public Policy*, 2021, *5*, 2–49.

Allcott, Hunt and Matthew Gentzkow, "Social media and fake news in the 2016 election," *Journal of economic perspectives*, 2017, *31* (2), 211–236.

_ , Luca Braghieri, Sarah Eichmeyer, and Matthew Gentzkow, "The Welfare Effects of Social Media," *American Economic Review*, 2020, *110*, 629–676.

_ , Matthew Gentzkow, and Lena Song, "Digital Addiction," *American Economic Review*, 7 2022, *112*, 2424–2463.

_ , _ , Winter Mason, Arjun Wilkins, Pablo Barberá, Taylor Brown, Juan Carlos Cisneros, Adriana Crespo-Tenorio, Drew Dimmery, Deen Freelon, Sandra González-Bailón, Andrew M Guess, Young Mie Kim, David Lazer, Neil Malhotra, Devra Moehler, Sameer Nair-Desai, Houda Nait El Barj, Brendan Nyhan, Ana Carolina Paixao de Queiroz, Jennifer Pan, Jaime Settle, Emily Thorson, Rebekah Tromble, Carlos Velasco Rivera, Benjamin Wittenbrink, Magdalena Wojcieszak, Saam Zahedian, Annie Franco, Chad Kiewiet de Jonge, Natalie Jomini Stroud, and Joshua A Tucker, "The effects of Facebook and Instagram on the 2020 election: A deactivation experiment," *Proceedings of the National Academy of Sciences*, 2024, *121*, e2321584121.

Altay, Sacha, Emma Hoes, and Magdalena Wojcieszak, "Following news on social media boosts knowledge, belief accuracy and trust," *Nature Human Behaviour*, 2025, *9*, 1833–1842.

Amar, Priyadarshi, Sumitra Badrinathan, Simon Chauchard, and Florian Sichart, "Countering Misinformation Early: Evidence from a Classroom-Based Field Experiment in India," Tech-

nical Report 2024.

Anderson, Michael L, "Multiple Inference and Gender Differences in the Effects of Early Intervention: A reevaluation of the Abecedarian, Perry Preschool, and Early Training Projects," *Journal of the American statistical Association*, 2008, *103* (484), 1481–1495.

Angelucci, Charles and Andrea Prat, "Is Journalistic Truth Dead? Measuring How Informed Voters Are about Political News," *American Economic Review*, 2024, *114 (4)*, 887–925.

Anson, Ian G, "Partisanship, political knowledge, and the Dunning-Kruger effect," *Political Psychology*, 2018, *39* (5), 1173–1192.

Athey, Susan and Guido W Imbens, "The econometrics of randomized experiments," in "Handbook of economic field experiments," Vol. 1, Elsevier, 2017, pp. 73–140.

Banerjee, Abhijit V, Selvan Kumar, Rohini Pande, and Felix Su, "Do Informed Voters Make Better Choices? Experimental Evidence from Urban India," 2011. Presented at CEPR Dvp Conference Stockholm 2010.

Barrera, Oscar, Sergei Guriev, Emeric Henry, and Ekaterina Zhuravskaya, "Facts, alternative facts, and fact checking in times of post-truth politics," *Journal of Public Economics*, 2020, *182*, 104123.

Belloni, Alexandre, Victor Chernozhukov, and Christian Hansen, "High-Dimensional Methods and Inference on Structural and Treatment Effects," *Journal of Economic Perspectives*, 2014, *28* (2), 29–50.

Benjamini, Yoav and Yosef Hochberg, "Controlling the False Discovery Rate: A Practical and Powerful Approach to Multiple Testing," *Journal of the Royal statistical society: series B (Methodological)*, 1995, *57* (1), 289–300.

Bodas, Moran, Maya Siman-Tov, Kobi Peleg, and Zahava Solomon, "Anxiety-inducing media: The effect of constant news broadcasting on the well-being of Israeli television viewers," *Psychiatry*, 2015, *78* (3), 265–276.

Bowen, T Renee, Danil Dmitriev, and Simone Galperti, "Learning from Shared News: When Abundant Information Leads to Belief Polarization," *The Quarterly Journal of Economics*, 5 2023, *138*, 955–1000.

Bowles, Jeremy, Kevin Croke, Horacio Larreguy, Shelley Liu, and John Marshall, "Sustaining Exposure to Fact-Checks: Misinformation Discernment, Media Consumption, and Its Political Implications," *American Political Science Review*, 2025, pp. 1–24.

Briole, Simon, "How to improve civic skills in education?," *Oxford Research Encyclopedia of Economics and Finance*, 2025.

_ , "From teacher quality to teaching quality: Instructional productivity and teaching practices," *Economics of Education Review*, 2026, *111*, 102759.

_ **, Julia Cagé, and Andrea Prat**, "Access to Information, News Consumption and Democratic Participation: A Nationwide Experiment in French High Schools," May 2025. Series Title: AEA Randomized Controlled Trials.

_ **, Marc Gurgand, Éric Maurin, Sandra McNally, Jenifer Ruiz-Valenzuela, and Daniel Santín**, "The Making of Civic Virtues: A School-Based Experiment in Three Countries," *American Economic Journal: Economic Policy*, 2025.

Broockman, David E and Joshua L Kalla, "Consuming Cross-Cutting Media Causes Learning

and Moderates Attitudes: A Field Experiment with Fox News Viewers," *The Journal of Politics*, 2025, *87*, 246–261.

Bursztyn, Leonardo, Benjamin Handel, Rafael Jiménez-Durán, and Christopher Roth, "When Product Markets Become Collective Traps: The Case of Social Media," *American Economic Review*, 12 2025, *115*, 4105–4136.

Cagé, Julia, *Sauver les médias: Capitalisme, financement participatif et démocratie*, Seuil (English version: Saving the Media. Capitalism, Crowdfunding and Democracy, Harvard University Press, 2016), 2015.

_ , "Media Competition, Information Provision and Political Participation: Evidence from French Local Newspapers and Elections, 1944-2014," *Journal of Public Economics*, 2020, *185.*

_ **and Benoît Huet**, *L'information est un bien public. Refonder la propriété des médias*, Le Seuil, 2021.

_ **, Nathan Gallo, Moritz Hengel, Emeric Henry, and Yuchen Huang**, "Fact-Checking and Misinformation: Evidence from the Market Leader," Technical Report 2025.

Campante, Filipe R, Ruben Durante, Felix Hagemeister, and Ananya Sen, "GenAI Misinformation, Trust, and News Consumption: Evidence from a Field Experiment," Technical Report, National Bureau of Economic Research 8 2025.

Castro, Caio and João F Pugliese, "The Media Matters: Effects of Consuming Professional News Outlets During the 2022 Brazilian Elections," Technical Report 2024.

Chapman, Jonathan, Mark Dean, Pietro Ortoleva, Erik Snowberg, and Colin Camerer, "Willingness to Accept, Willingness to Pay, and Loss Aversion," Technical Report, National Bureau of Economic Research 1 2023.

Chen, Yuyu and David Y Yang, "The Impact of Media Censorship: 1984 or Brave New World?," *American Economic Review*, 6 2019, *109*, 2294–2332.

Chernozhukov, Victor, Mert Demirer, Esther Duflo, and Iván Fernández-Val, "Fisher–Schultz Lecture: Generic Machine Learning Inference on Heterogeneous Treatment Effects in Randomized Experiments, With an Application to Immunization in India," *Econometrica*, July 2025, *93* (4), 1121–1164.

Chopra, Felix, Ingar Haaland, and Christopher Roth, "The demand for news: Accuracy concerns versus belief confirmation motives," *The Economic Journal*, 2024, *134* (661), 1806–1834.

Cohen, Sheldon, Tom Kamarck, and Robin Mermelstein, "A global measure of perceived stress," *Journal of health and social behavior*, 1983, pp. 385–396.

de Chaisemartin, Clément and Jaime Ramirez-Cuellar, "At What Level Should One Cluster Standard Errors in Paired and Small-Strata Experiments?," *American Economic Journal: Applied Economics*, 1 2024, *16*, 193–212.

Dechezleprêtre, Antoine, Adrien Fabre, Tobias Kruse, Bluebery Planterose, Ana Sanchez Chico, and Stefanie Stantcheva, "Fighting climate change: International attitudes toward climate policies," *American Economic Review*, 2025, *115* (4), 1258–1300.

DEPP, "Repères et références statistiques," Technical Report 2024.

Dewey, John, *Democracy and Education: An Introduction to the Philosophy of Education*, CreateSpace Independent Publishing Platform, 2016. Original work published 1916.

Enikolopov, Ruben, Maria Petrova, and Ekaterina Zhuravskaya, "Media and Political Per-

suasion: Evidence from Russia," *American Economic Review*, 2011, *101*, 3253–85.

Eveno, Patrick, *Le journal Le Monde: une histoire d'indépendance*, Odile Jacob, 2001.

_ , *Histoire du journal "Le Monde" 1944-2004*, Albin Michel, 2010.

Ferraz, Claudio and Frederico Finan, "Exposing Corrupt Politicians: The Effects of Brazil's Publicly Released Audits on Electoral Outcomes," *Quarterly Journal of Economics*, 2008, *123*, pp. 703–746.

Fletcher, Richard and Rasmus Kleis Nielsen, "Paying for Online News," *Digital Journalism*, 2017, *5*, 1173–1191.

Gentzkow, Matthew and Jesse M Shapiro, "Ideological Segregation Online and Offline," *The Quarterly Journal of Economics*, 2011, *126*, 1799–1839.

_ , _ , and Michael Sinkinson, "The Effect of Newspaper Entry and Exit on Electoral Politics," *American Economic Review*, 2011, *101*, 2980–3018.

Gerber, Alan, Dean Karlan, and Daniel Bergan, "Does the Media Matter? A Field Experiment Measuring the Effect of Newspapers on Voting Behavior and Political Opinions," *American Economic Journal: Applied Economics*, 2009, *1*, 35–52.

Guess, Andrew M, Michael Lerner, Benjamin Lyons, Jacob M Montgomery, Brendan Nyhan, Jason Reifler, and Neelanjan Sircar, "A digital media literacy intervention increases discernment between mainstream and false news in the United States and India," *Proceedings of the National Academy of Sciences*, 2020, *117*, 15536–15545.

_ , Pablo Barberá, Simon Munzert, and JungHwan Yang, "The consequences of online partisan media," *Proceedings of the National Academy of Sciences*, 2021, *118* (14), e2013464118.

Halberstam, Yosh and Brian Knight, "Homophily, group size, and the diffusion of political information in social networks: Evidence from Twitter," *Journal of Public Economics*, 2016, *143*, 73–88.

Henry, Emeric, Ekaterina Zhuravskaya, and Sergei Guriev, "Checking and sharing alt-facts," *American Economic Journal: Economic Policy*, 2022, *14* (3), 55–86.

Hobbs, Renee, "Teaching Propaganda: The Institute for Propaganda Analysis and the Decline of Media Literacy in American Schools," *Journal of Media Literacy Education*, 2022, *14*, 20–35.

Hopkins, Daniel J and Tori Gorton, "Unsubscribed and undemanding: Partisanship and the minimal effects of a field experiment encouraging local news consumption," *American Journal of Political Science*, 2024, *68*, 1217–1233.

Jackson, C. Kirabo, "What Do Test Scores Miss? The Importance of Teacher Effects on Non–Test Score Outcomes," *Journal of Political Economy*, Oct 2018, *126* (5), 2072–2107.

Kahneman, Daniel, Jack L Knetsch, and Richard H Thaler, "The Endowment Effect, Loss Aversion, and Status Quo Bias: Anomalies," *Journal of Economic Perspectives*, 1991, *5*, 193–206.

Kalogeropoulos, Antonis, Richard Fletcher, and Rasmus Kleis Nielsen, "News brand attribution in distributed environments: Do people know where they get their news?," *New Media and Society*, 2019, *21*, 583–601.

Kormelink, Tim Groot, "Why people don't pay for news: A qualitative study," *Journalism*, 2023, *24*, 2213–2231.

Kraft, Matthew A, "Teacher effects on complex cognitive skills and social-emotional competencies," *Journal of Human Resources*, 2019, *54* (1), 1–36.

Kruger, Justin and David Dunning, "Unskilled and unaware of it: how difficulties in recognizing one's own incompetence lead to inflated self-assessments.," *Journal of personality and social psychology*, 1999, *77* (6), 1121.

Levy, Ro'ee, "Social Media, News Consumption, and Polarization: Evidence from a Field Experiment," *American Economic Review*, 3 2021, *111*, 831–870.

List, John A, "Optimally Generate Policy-Based Evidence before Scaling," *Nature*, 2024, *626*, 491–499.

_ , Lina M Ramírez, Julia Seither, Jaime Unda, and Beatriz Vallejo, "Toward an Understanding of the Economics of Misinformation: Evidence from a Demand Side Field Experiment on Critical Thinking," Technical Report, National Bureau of Economic Research 4 2024.

Newman, Nic, Richard Fletcher, Kirsten Eddy, Craig T Robertson, and Rasmus Kleis Nielsen, "Reuters Institute Digital News Report 2023," 2023.

Niemi, Richard G., Stephen C. Craig, and Franco Mattei, "Measuring Internal Political Efficacy in the 1988 National Election Study," *American Political Science Review*, 1991, *85* (4), 1407–1413.

OECD, "Media and Information Literacy: A Critical Tool for Citizens," Technical Report, OECD 2022.

O'Brien, Daniel, Christian Zabel, and Frank Lobigs, "Consumer Preferences and Willingness to Pay for Digital Journalism in Intermedia Competition: A Conjoint Analysis of Online News Users in the Austrian Market," *Digital Journalism*, 8 2025, pp. 1–28. doi: 10.1080/21670811.2025.2540097.

Pennycook, Gordon and David G Rand, "Fighting misinformation on social media using crowdsourced judgments of news source quality," *Proceedings of the National Academy of Sciences*, 2019, *116*, 2521–2526.

Pereira, Frederico Batista, Natália S Bueno, Felipe Nunes, and Nara Pavão, "Inoculation Reduces Misinformation: Experimental Evidence from Multidimensional Interventions in Brazil," *Journal of Experimental Political Science*, 2024, *11*, 239–250.

Petek, Nathan and Nolan G. Pope, "The Multidimensional Impact of Teachers on Students," *Journal of Political Economy*, Aug 2022.

Piquemal, Louise, "Quel est le profil social des lycées ?," 2025.

Plott, Charles R and Kathryn Zeiler, "The Willingness to Pay-Willingness to Accept Gap, the "Endowment Effect," Subject Misconceptions, and Experimental Procedures for Eliciting Valuations," *American Economic Review*, 6 2005, *95*, 530–545.

Prior, Markus, *Post-Broadcast Democracy: How Media Choice Increases Inequality in Political Involvement and Polarizes Elections*, Cambridge University Press, 2007.

Reuters Institute, "Reuters Institute Digital News Report 2024," 2024.

Roozenbeek, Jon, Sander van der Linden, Beth Goldberg, Steve Rathje, and Stephan Lewandowsky, "Psychological inoculation improves resilience against misinformation on social media," *Science Advances*, 2022, *8*, eabo6254.

Schiffrin, Anya, *News Literacy vs. Disinformation: The Role of Media Education in a Democracy*, Routledge,

Sproule, J Michael, *Propaganda and Democracy: The American Experience of Media and Mass Persuasion*, Cambridge University Press, 1997.

Strömberg, David, "Media and Politics," *Annual Review of Economics*, 2015, *7*, 173–205.

Tomasik, Emily and Michael Lipka, "Few Americans Pay for News When They Encounter Paywalls," Technical Report, Pew Research Center 2025.

Trexler, Andrew, "The Minimal Effects of Making Local News Free: Evidence from a Field Experiment," *The Journal of Politics*, 2026.

Willeck, Claire and Tali Mendelberg, "Education and Political Participation," *Annual Review of Political Science*, 2022, *25*, 89–110.

Online Appendix to the Paper: Making Teenagers Read Newspapers. A Nationwide Experiment in French High Schools

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July 2, 2026

Contents

A Additional Information Regarding the Experiment **3**

A.1 Schools Recruitment and Characteristics of the Schools 3

A.1.1 Recruitment Design 3

A.1.2 Characteristics of the Schools 7

A.2 Media Education Activities 7

A.2.1 Asynchronous Online Training 7

A.2.2 Media Education Game 9

A.2.3 Ready-to-Use Media Education Activities 9

A.2.4 Media Education Activities: Uptake 12

B Data **17**

B.1 Outcomes of Interest 17

B.2 Construction of Indexes 24

B.3 *Le Monde* Data 26

C Follow-up Survey **28**

C.1 Implementation of the Follow-up Survey 28

C.2 Results of the Follow-up Survey 28

C.3 Sample Characteristics and Internal Validity Checks 32

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D Theoretical Framework: Proofs **33**
D.1 Proof of Proposition 1 33
D.2 Proof of Corollary 2 34
D.3 Proof of Proposition 3 35

E Attrition and Balancing Checks **37**

F Descriptive Evidence **48**
F.1 News Consumption at Baseline 48
F.2 News Consumption Using *Le Monde* Data 52
F.3 News Consumption at Endline 63

G Robustness Checks **66**

H Additional Tables **76**

I Additional Figures **85**

A Additional Information Regarding the Experiment

A.1 Schools Recruitment and Characteristics of the Schools

A.1.1 Recruitment Design

Recruitment channels Schools were recruited between April 2024 and August 2024 through various channels:

1. Direct outreach via CLEMI – *Centre de liaison de l'enseignement et des médias d'information* – network.

2. Direct outreach via DEPP – *Direction de l'évaluation, de la prospective et de la performance* – network.

3. Contact with academic media education coordinators, known as *référents académiques*. *Référents académiques* act as the interface between national and academic policies and the schools, lead and coordinate actions within schools, and participate in the network at departmental and academic level. They are placed under the authority of the rector. In France, an academy is an administrative district of the Ministry of National Education and the Ministry of Higher Education and Research. Each academy is headed by a rector.

4. A national email campaign targeting school librarians and teaching staff.

Procedure to contact the schools to present the experiment In order to recruit the schools, we used a Python script to automatically send two emails to all the secondary schools in France: one to the school principal ("proviseur") and one to the school librarian. We obtained these email addresses by scraping the "annuaire de l'éducation nationale" website. We contacted $5,327$ high schools overall.

Document used to describe the study When contacting the schools to recruit them to be part of the experiment, we sent them the document reproduced in Figure A.1 presenting the experiment. (The document was sent in French; we provide here the corresponding English translation).

SciencesPo UNIVERSITÉ DE MONTPELLIER COLUMBIA UNIVERSITY idee

EXPERIMENT

YOUNG PEOPLE AND THE MEDIA

CALL FOR VOLUNTEERS

How do young citizens inform themselves? What are their information practices, and how do these practices affect their civic participation?

We'd like to work with you on an ambitious research project, the first of its kind in France, to understand how media and information literacy initiatives can develop their media skills and encourage civic participation.

We're inviting volunteer high schools to take part in this action-research project with classes in Seconde, Première and/or Terminale over the course of the 2024-2025 school year.

To what extent can access to quality information and media education develop knowledge and interest in current affairs, the ability to distinguish between true and false information, and the civic and political participation of young citizens?

To answer these questions, we are proposing **two main actions** to our partner high schools:

- A free digital subscription to a leading daily newspaper for a class and its teacher for the whole school year.
- Media education modules developed by CLEMI for teachers, who will be able to set up activities on the themes of media and information with their classes.

In order to measure whether these interventions have an impact on young citizens, **this action-research project is based on a rigorous experimental approach** carried out by a group of researchers specialized in media and information education. The aim is to rigorously demonstrate the impact that this type of intervention can have on young citizens.

To this end, we are inviting interested high schools to take part in this action-research project, in which :

- **We're going to draw lots to decide which actions will be offered to each high school.** A quarter of participating high schools will receive a subscription, a quarter of high schools will receive media literacy training modules, and a quarter of high schools will receive both. The remaining quarter will receive none of these actions during the course of the project. This methodology makes it possible to measure the impact of each action in a rigorous way.
- **We will offer teachers and their students two questionnaires**: one at the beginning of the school year and one at the end. The questionnaires will be administered in the school's computer room.
- **The high schools will be asked to provide feedback and discuss the data collected in relation to young people's information practices.**

The data collected as part of this action-research project is collected **in strict compliance with the General Data Protection Regulation (GDPR),** and for research purposes only.

Figure A.1: “Call for volunteers” sent to schools for the experiment recruitment

WHAT WE PROPOSE TO HIGH SCHOOLS

- Contribution to an innovative research project that could have a major impact on our educational practices.
- The opportunity for teachers to take part in a media education training course run by the Centre de liaison de l'enseignement et des médias d'information.
- The prospect of students and teachers benefiting from a digital subscription to a benchmark daily newspaper.
- Detailed feedback from the researchers presenting the results of our study and the positioning of your high school in our national sample.

WHAT WE ASK OF HIGH SCHOOLS

- Confirm their willingness to commit to the research protocol by June 2024.
- Participate in the project until the end of the school year, regardless of which intervention your high school will benefit from as a result of the draw.
- Contribute to the survey protocol by facilitating the implementation of electronic questionnaires for students, teachers and school heads.

CALENDAR

February - June	**Receipt of applications from high schools**
2024 May - July	**Webinars for school heads and volunteer teachers**
2024	**Initial survey of teachers and students**
October 2024	**Random selection of high schools and assignment of actions to each high school**
November 2024	**Final survey of teachers and students**
May 2025	**Feedback of results to high schools**
December 2025	

TO EXPRESS YOUR INTEREST

If your school is interested in taking part in the experiment, please fill in the following form:

https://forms.gle/m3oCWGoAzkpwwf549

WHO WE ARE



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PARTNERS

depp Direction de l'évaluation, de la prospective et de la performance

DEPP is the department of the French Ministry of Education responsible for evaluating and measuring performance in the fields of education and training. As such, it contributes to the evaluation of innovative policies conducted by the Ministry of Education, and also facilitates the work of external researchers.

https://www.education.gouv.fr

CLEMI
Le centre pour l'éducation aux médias et à l'information

CLEMI (Centre pour l'éducation aux médias et à l'information) is responsible for media and information education (ÉMI) throughout the French education system. It promotes the use of pluralistic information resources in education, to help students better understand the world around them.
the world around them.

https://www.clemi.fr/

idee

The IDEE program is a structuring facility for research funded by the Agence Nationale de la Recherche (ANR) and supported by the Ecole normale supérieure-PSL, which aims to develop large-scale experimental research in education, and to promote the use of its results. It brings together a multidisciplinary consortium of leading laboratories.

The schools that showed interest in the project were then invited to attend a webinar (on June 19th, 2024) during which we presented the experiments and answered all the related questions. Volunteer schools were asked to supply the names of the teacher(s) and students who would take part in the program. This step was mandatory for schools to be included in the randomization sample.

A.1.2 Characteristics of the Schools

Table 1 in the main body of the paper reports descriptive statistics on the high schools included in our experiment.

Indice de Position Sociale (IPS) One of these dimensions is the *"Indice de Position Sociale"* (IPS) – or Social Position Index – that allows us to distinguish between low- and high-SES schools.

The IPS is an administrative index constructed by the French Ministry of Education (DEPP) that captures the average socioeconomic and cultural background of students' families within each high school. More precisely, the index is based on parents' profession and socio-professional categories (PCS). It provides a unidimensional measure of social stratification by assigning a numerical value to each PCS, or to each pair of PCSs (father and mother). Specifically, the IPS corresponds to the weighted average of the characteristics describing students' living conditions to determine the index values for each PCS (or pair of PCSs). Its main components are (i) cultural practices, (ii) parents' educational attainment (i.e. highest qualification obtained), (iii) ambition and involvement, (iv) material conditions (including income, Internet access, etc.), and (v) cultural capital. See Piquemal (2025) for more details.

A.2 Media Education Activities

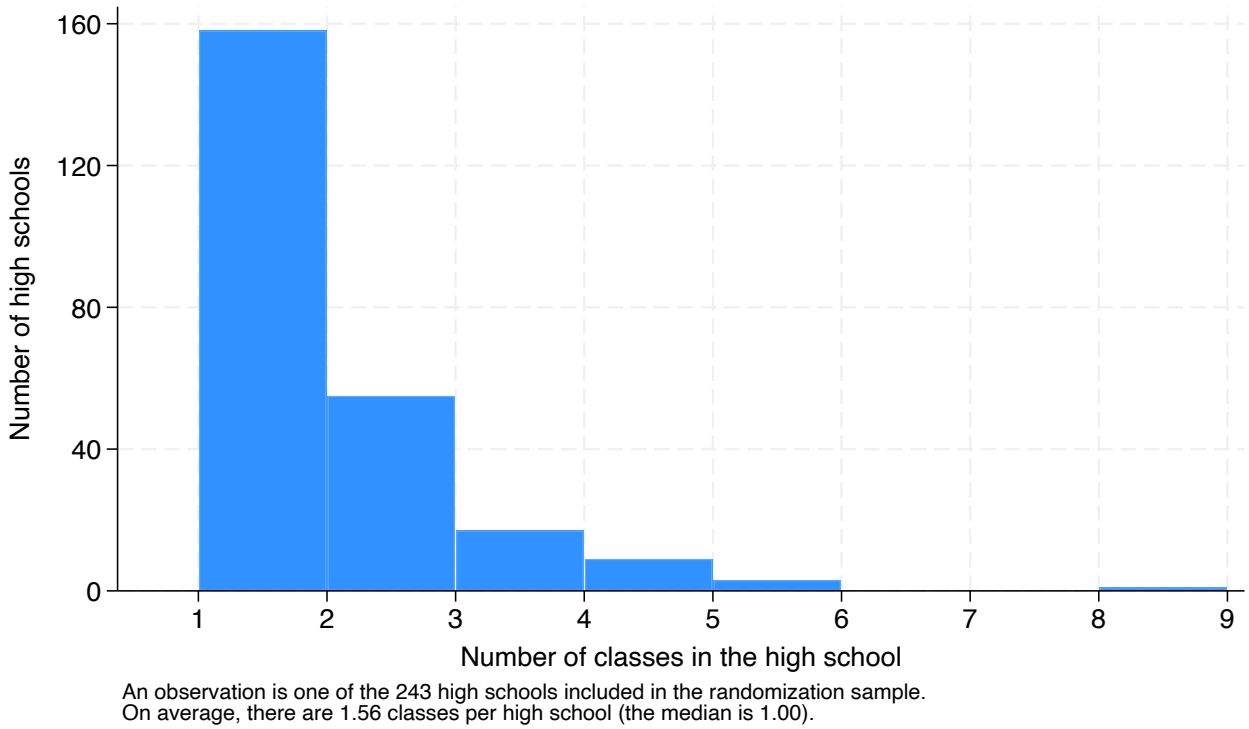
As described in Section 2.2.2, in the media education treatment arm, teachers receive training and pedagogical materials to implement media education activities in their classrooms. The intervention consists of three components: (i) asynchronous online training modules, (ii) an online training program designed to support the implementation of a media education game in the classroom, and (iii) a set of five ready-to-use media education activities, described in turns in this section.

A.2.1 Asynchronous Online Training

We sent teachers in T2 and T3 three links for asynchronous training, which represented up to 8 hours of training. These three asynchronous training modules – which were selected from the "distance learning catalog"[1] of the CLEMI (the agency of the French Ministry of Education in charge of media education) – are:

1. Training 1 (2 hours): **The prioritization of information**: Given the constant flow of information, what are the channels through which information is selected and disseminated, and to what extent

[1] See Notre catalogue "à distance", last accessed on June 16, 2026.



Notes: The Figure plots the distribution of the number of high schools in the randomization sample depending on the number of participating classes in the school. An observation is a high school included in the randomization sample and bins are of size one.

Figure A.2: Randomization sample: Distribution of the number of high schools depending on the number of participating classes in the school

do these channels vary across different types of media?

2. Training 2 (3 hours): **The construction of information**: How should we define information, how is it constructed, and what are the channels through which it flows?

3. Training 3 (3 hours): **Information disorders**: Fake news, misinformation, conspiracy theories – how can we identify and address these various forms of information chaos?

Each session is divided into 3 sections: (i) discovering the subject; (ii) confronting one's own perceptions about the subject, and (iii) reflecting on one's teaching practices with some activities that can be implemented in the classroom.

Concretely, the teachers in T2 and T3 were sent a first email on October 9th, 2024 – i.e. at the time of the announcement of the random draw results (and so of their treatment group) – including detailed information and links to these three modules. They were then sent a reminder on March 12th, 2025, as part of an email containing one ready-to-use activity (see below): "We are taking this opportunity

to remind you that, if you haven't already done so, you can access the media literacy training courses available to you by visiting the following links"

A.2.2 Media Education Game

The second component of the media education intervention consisted of an online training program designed to support the implementation of a media education game in the classroom: *Classe Investigation*. This is a game-based media literacy activity developed by CLEMI in collaboration with journalists and educators.

In this immersive role-playing exercise, students work in pairs to conduct a simulated journalistic investigation. Using text, audio, and video sources, they must verify facts, select and prioritize information, and produce a final journalistic output – either in print or digital format. At the end of the session, students compare their work with that of professional journalists who covered the same fictional scenario. Each session concludes with a structured debriefing inviting students to reflect on key aspects of the journalistic process: editorial responsibility, choice of sources, time constraints, and the ethics of news production. Participation in this module requires teachers to attend a 2.5-hour live online training session with a CLEMI-affiliated trainer.

Teachers in T2 and T3 were first informed of *Classe Investigation* in the randomization result email sent on October 9th, 2024 (see above). This email indeed contained a link to a video demonstrating how to implement the activity in the classroom as well as another link to a lesson plan for a *Classe Investigation* session.

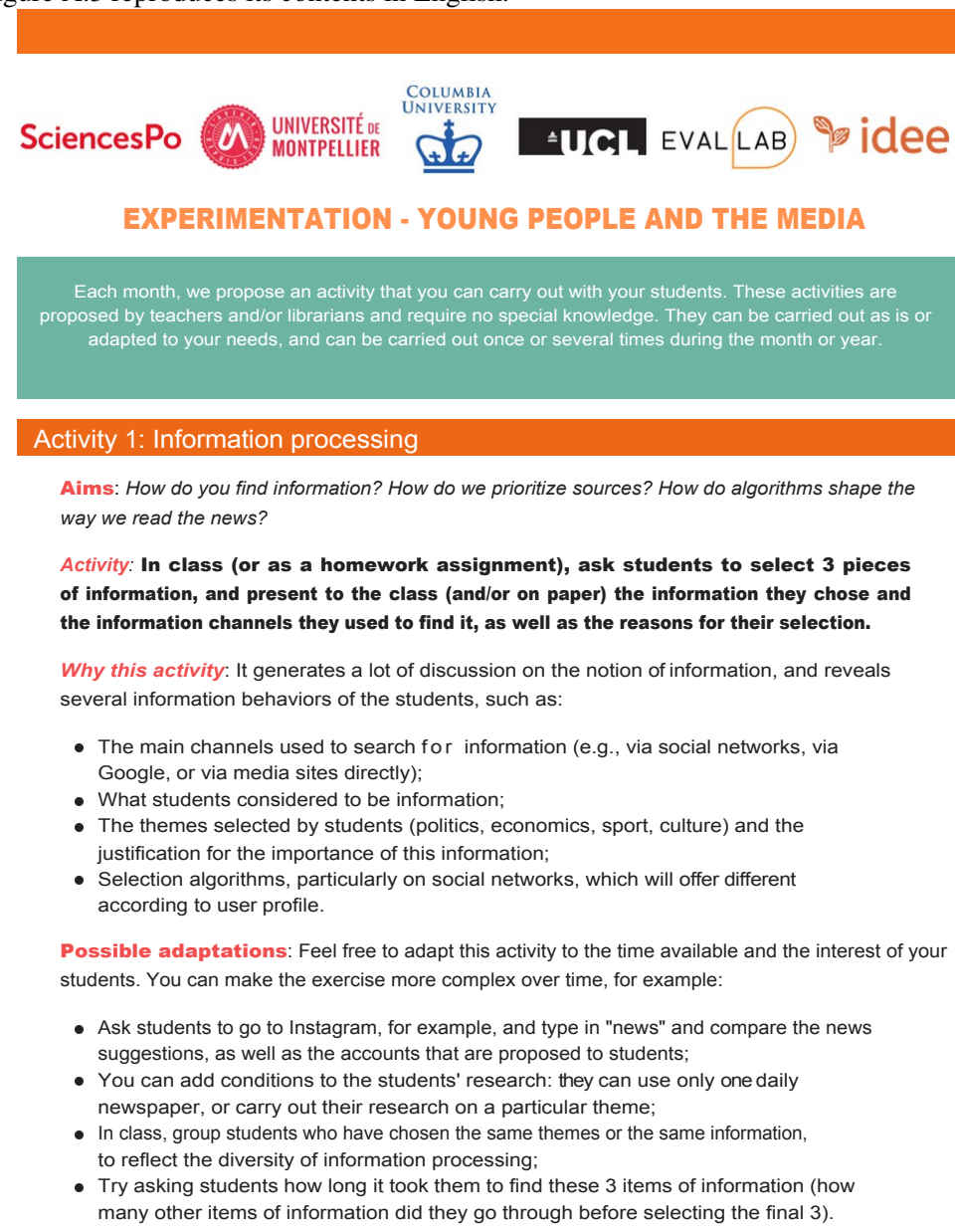
They were then sent a dedicated email on October 31st, 2024: "Get trained in the Class Investigation game.... and let your students benefit from it!" This email contained detailed information on the game as well as links – with specific dates – to the three online training sessions organized by CLEMI in November 2024.

A.2.3 Ready-to-Use Media Education Activities

Finally, we sent three emails to the teachers in T2 and T3 to provide them five ready-to-use media education activities: (i) the first on November 11, 2024 for the "information processing" activity, (ii) the second on January 13, 2025 for the "fake news" activity, and (iii) the last one on March 27, 2025 including three "information overload" activities.

November 11, 2024 – Information processing On November 11, 2024, all the T2 and T3 teachers received an email containing the following core message: "As part of the media literacy project you agreed to participate in this year, starting this December, we are offering one activity per month that you can do with your students if you wish. Attached is a one-page PDF file presenting the first activity on information processing. This activity addresses several questions: How do we search for information?

How do we prioritize sources? How do algorithms shape our reading of the news?" The PDF file was in French; Figure A.3 reproduces its contents in English.



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EXPERIMENTATION - YOUNG PEOPLE AND THE MEDIA

Each month, we propose an activity that you can carry out with your students. These activities are proposed by teachers and/or librarians and require no special knowledge. They can be carried out as is or adapted to your needs, and can be carried out once or several times during the month or year.

Activity 1: Information processing

Aims: *How do you find information? How do we prioritize sources? How do algorithms shape the way we read the news?*

Activity: **In class (or as a homework assignment), ask students to select 3 pieces of information, and present to the class (and/or on paper) the information they chose and the information channels they used to find it, as well as the reasons for their selection.**

Why this activity: It generates a lot of discussion on the notion of information, and reveals several information behaviors of the students, such as:

- The main channels used to search for information (e.g., via social networks, via Google, or via media sites directly);
- What students considered to be information;
- The themes selected by students (politics, economics, sport, culture) and the justification for the importance of this information;
- Selection algorithms, particularly on social networks, which will offer different according to user profile.

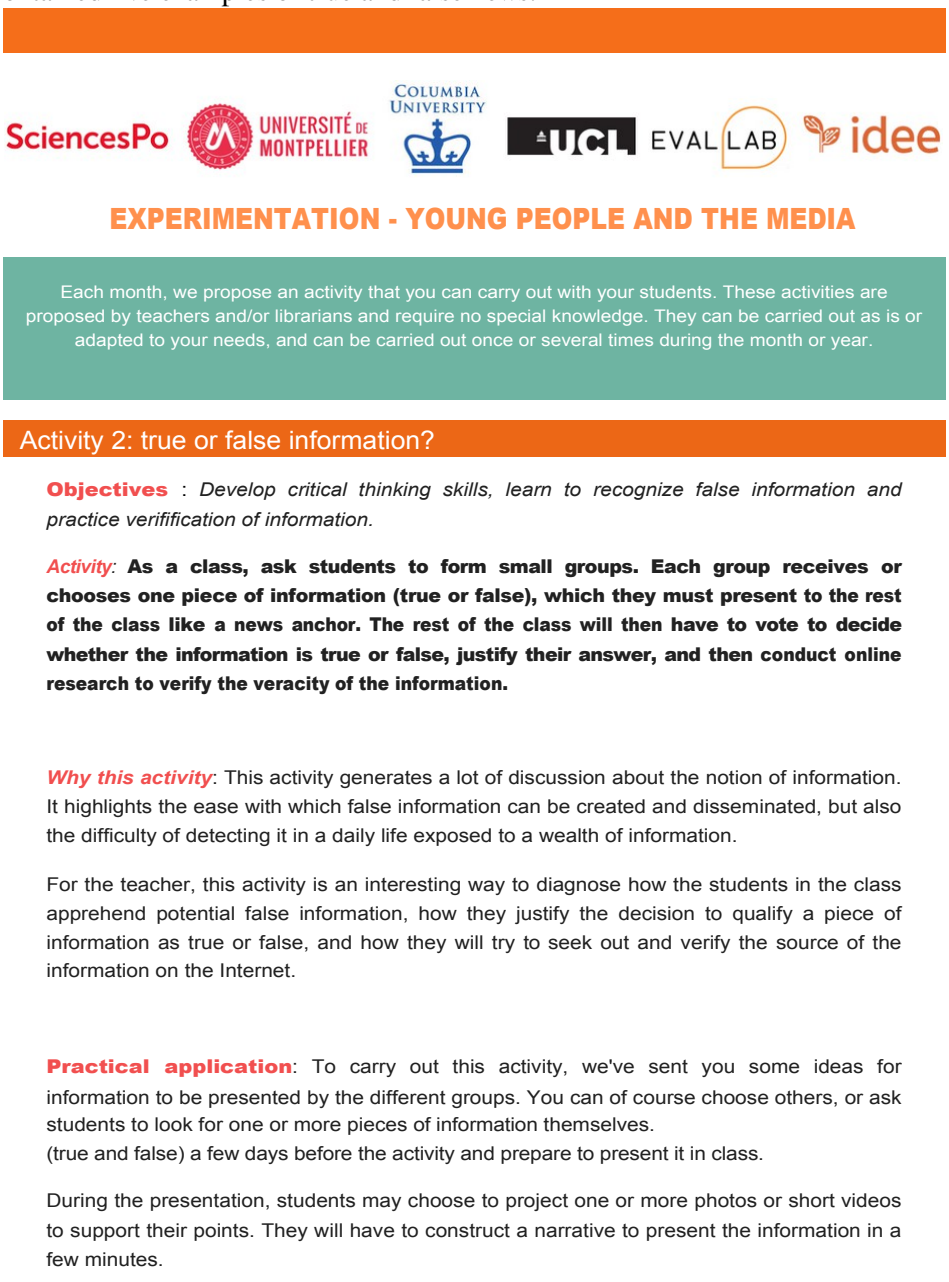
Possible adaptations: Feel free to adapt this activity to the time available and the interest of your students. You can make the exercise more complex over time, for example:

- Ask students to go to Instagram, for example, and type in "news" and compare the news suggestions, as well as the accounts that are proposed to students;
- You can add conditions to the students' research: they can use only one daily newspaper, or carry out their research on a particular theme;
- In class, group students who have chosen the same themes or the same information, to reflect the diversity of information processing;
- Try asking students how long it took them to find these 3 items of information (how many other items of information did they go through before selecting the final 3).

Figure A.3: Media education activities: Activity 1 – Information processing

January 13, 2025 – True or false information? On January 13, 2025, the teachers received an email indicating that "attached are two PDF files presenting an activity on fake news. This activity is likely to generate rich discussions on the concept of information and the evaluation of the veracity of a given piece of information, especially in the context of rapid developments in generative AI." The first PDF file details the activity and is reproduced (translated from French) in Figure A.4. The second

PDF file contained five examples of true and false news.



EXPERIMENTATION - YOUNG PEOPLE AND THE MEDIA

Each month, we propose an activity that you can carry out with your students. These activities are proposed by teachers and/or librarians and require no special knowledge. They can be carried out as is or adapted to your needs, and can be carried out once or several times during the month or year.

Activity 2: true or false information?

Objectives : *Develop critical thinking skills, learn to recognize false information and practice verifification of information.*

Activity: **As a class, ask students to form small groups. Each group receives or chooses one piece of information (true or false), which they must present to the rest of the class like a news anchor. The rest of the class will then have to vote to decide whether the information is true or false, justify their answer, and then conduct online research to verify the veracity of the information.**

Why this activity: This activity generates a lot of discussion about the notion of information. It highlights the ease with which false information can be created and disseminated, but also the difficulty of detecting it in a daily life exposed to a wealth of information.

For the teacher, this activity is an interesting way to diagnose how the students in the class apprehend potential false information, how they justify the decision to qualify a piece of information as true or false, and how they will try to seek out and verify the source of the information on the Internet.

Practical application: To carry out this activity, we've sent you some ideas for information to be presented by the different groups. You can of course choose others, or ask students to look for one or more pieces of information themselves.
(true and false) a few days before the activity and prepare to present it in class.

During the presentation, students may choose to project one or more photos or short videos to support their points. They will have to construct a narrative to present the information in a few minutes.

Figure A.4: Media education activities: Activity 2 – True or false information?

March 27, 2025 – True or false information? Finally, on March 27, 2025 all the teachers received an email offering "a new activity that you can do with your students. This activity focuses on information overload and the distinction between true and false information. This activity includes three sub-activities that you can do with your students to help them work on these topics," accompanied by a Word document including links to resources needed to carry out three different activities: (i) real news / fake news, (ii) fact-checking, and (iii) the construction of information.

A.2.4 Media Education Activities: Uptake

As shown in Figure A.5, only 60% of the teachers in T2 followed the media education training activities they were offered, and 57% in T3 when considering any form of media education training. These shares are even lower (53% and 45% respectively) when we consider solely the media education training provided by CLEMI.

How to explain this relatively low uptake? The answers to the teachers' endline survey help us understand why a large share of the teachers did not follow any of the media education training activities offered. For each of the proposed activities, we ask them the reasons why they did not implement the activity, giving them five possible choices: (i) not interesting, (ii) no time, (iii) technical difficulties, (iv) already carried out, and (v) not aware of it. Figure A.6 reports the results. For the four activities proposed by CLEMI (Class investigation as well as the three asynchronous training sessions), we observe that the main reason mentioned by the teachers is systematically a lack of time. Furthermore, a number of teachers report that they did not follow the training activities because they had already done so.

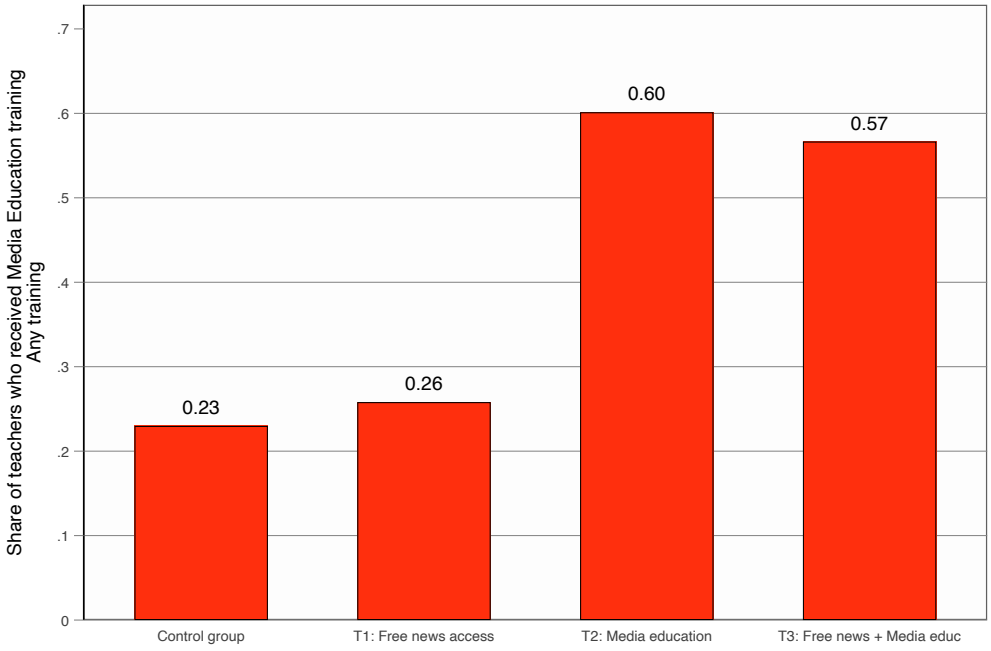
It is also important to note that the majority of the teachers who followed the training activities reported that they found them of interest (and similarly "not interesting" is rarely cited by the teachers as a reason for not taking the training).

Finally, note that some teachers in both the control and the T1 treatment group followed some media education training during the academic year covered by our experiment (around 25%), even if this was not as part of our experiment (see Figure A.5). However, as reported in Table A.1, media education training (which we also call Media and Information Literacy – MIL) was much lower among those groups than among T2 and T3.

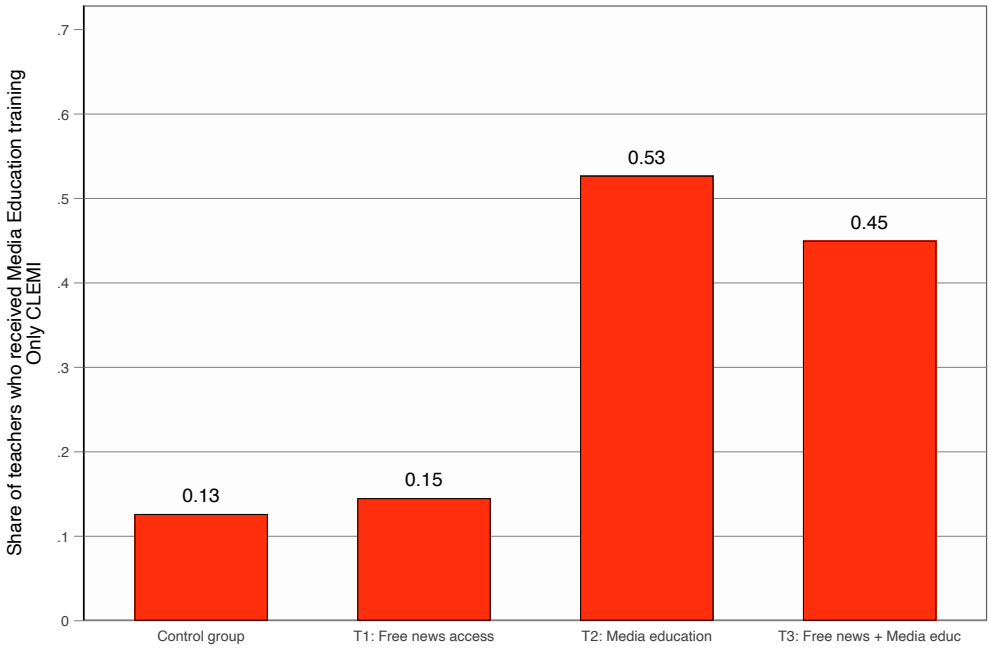
As shown in Figure A.7, implementation rates indicate a meaningful level of engagement with the pedagogical MIL activities that were directly provided to teachers. Approximately 70% of teachers implemented at least one activity, while more than half carried out at least two. Participation declined gradually as the number of activities increased, but around one-third of teachers still completed at least three activities and roughly one-quarter completed four or more. Only a small minority of teachers completed the full sequence of five activities (16% in T2 and 8% in T3). Overall, implementation patterns were broadly similar across treatment arms.

Table A.1 also reports the treatment effects on teachers' confidence in teaching MIL (in the endline survey). We build a confidence index from two components:

1. **Skills**: To what extent do you feel comfortable promoting the following skills to your students?
    - (i) Information search;
    - (ii) Prioritizing information sources;
    - (iii) Verifying the reliability of sources;
    - (iv) Understanding the issues related to information production;



(a) All media education training activities



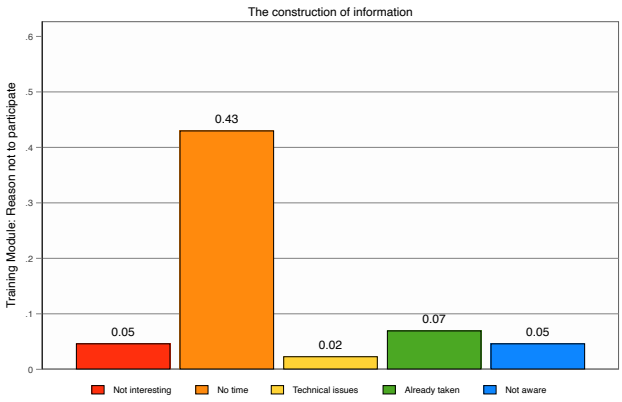
(b) Media education activities provided by CLEMI

Notes: The Figure reports the uptake of the media education activities offered to the teachers depending on the treatment group. The upper Figure A.5a reports the share of the teachers who went through any media education activities, while the bottom Figure A.5b focuses on the activities offered by CLEMI.

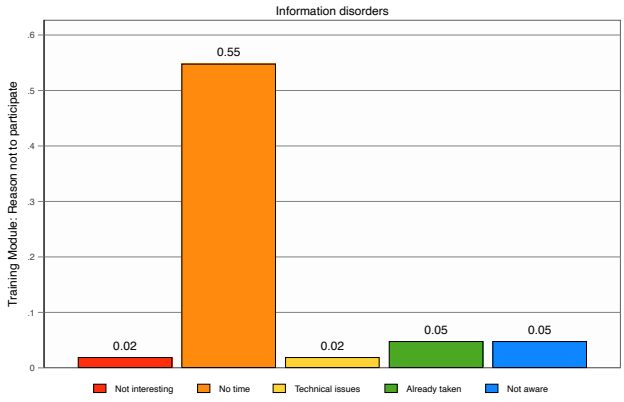
Figure A.5: Media education uptake: Teacher training



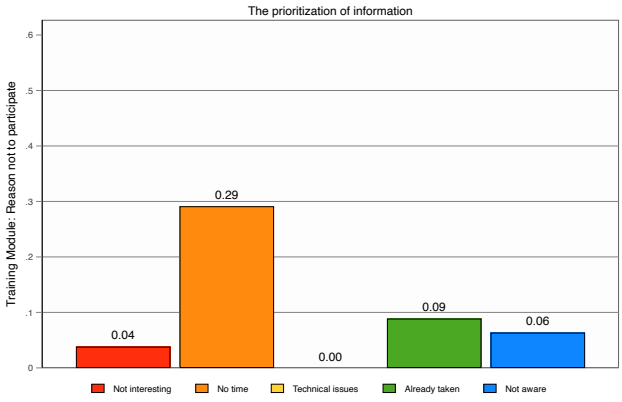
(a) **Class investigation**



(b) **The construction of information**



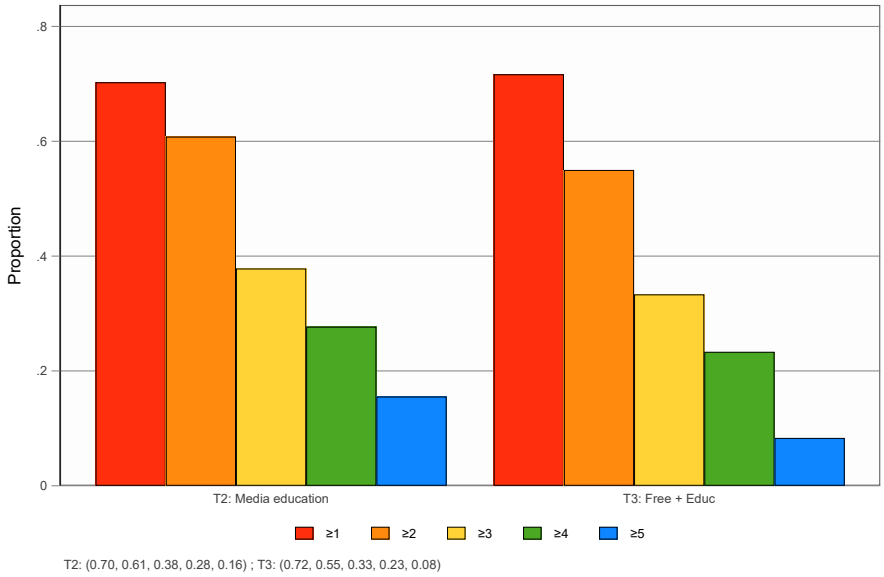
(c) **Information disorders**



(d) **The prioritization of information**

Notes: The Figure shows for the "Classe Investigation" online training (sub-Figure A.6a) as well as for the three asynchronous training sessions offered by the CLEMI – "The construction of information" (sub-Figure A.6b), "Information disorders" (sub-Figure A.6c), and "The prioritization of information" (sub-Figure A.6d) – the reasons reported by the teachers for not taking the training.

Figure A.6: Media education training activities: Reasons for not taking the training



Notes: The Figure reports the cumulative distribution of teachers' implementation of the pedagogical media and information literacy (MIL) activities. Each bar represents the proportion of teachers who completed at least k activities, with $k \in \{1, \ldots, 5\}$. The sample is restricted to teachers assigned to treatment arms T2 (Media Education) and T3 (Free Newspaper + Media Education).

Figure A.7: Implementation intensity of pedagogical MIL activities

- (v) Understanding how the media works;
- (vi) Using digital tools with discernment;
- (vii) Responsible use of the internet (e.g., privacy, reliability of sources, social media, etc.); and
- (viii) Critical and independent thinking

2. **Topics**: To what extent do you feel comfortable teaching the following topics to your students?

   - (i) Voting and elections;
   - (ii) Environment and sustainable development;
   - (iii) Migration and immigration;
   - (iv) Citizens' rights and responsibilities;
   - (v) The constitution and political systems;
   - (vi) The European Union.

For each of these questions, the teachers could answer: (i) Not at all comfortable; (ii) Somewhat uncomfortable; (iii) Neutral; (iv) Somewhat comfortable; or (v) Very comfortable.

Table A.1: Treatment effects: Media education teaching (teachers)

Variable	(1) Control	(2) T1 – C	(3) T2 – C	(4) T3 – C
Panel A: Implementation of MIL activities in class				
MIL Teaching Index	0.00	0.29	0.42*	0.51***
		(0.16)	(0.20)	(0.14)
MIL: Hours	6.62	2.02	3.49**	2.96**
		(1.43)	(1.45)	(1.29)
MIL: Class activities	0.00	0.33**	0.35*	0.47***
		(0.14)	(0.16)	(0.14)
MIL: Topics	0.00	0.11	0.25	0.23
		(0.23)	(0.24)	(0.20)
Panel B: Training in MIL				
MIL training (0/1)	0.23	0.04	0.35***	0.35***
		(0.09)	(0.05)	(0.09)
CLEMI training (0/1)	0.13	0.02	0.38***	0.33***
		(0.07)	(0.06)	(0.10)
CLEMI: Info construction (0/1)	0.02	0.01	0.32***	0.26***
		(0.03)	(0.07)	(0.07)
CLEMI: Info disorder (0/1)	0.02	0.02	0.22***	0.18***
		(0.03)	(0.05)	(0.05)
CLEMI: Info hierarchy (0/1)	0.00	-0.00	0.35***	0.43***
		(0.00)	(0.05)	(0.08)
Class Investigation (0/1)	0.03	0.00	0.18***	0.14**
		(0.04)	(0.04)	(0.05)
Panel C: Confidence in Teaching MIL				
MIL: Confidence Index	0.00	-0.06	0.09	0.18**
		(0.16)	(0.19)	(0.07)
Confidence: skills	0.00	-0.14	-0.02	0.10
		(0.19)	(0.15)	(0.11)
Confidence: topics	0.00	0.02	0.14	0.19*
		(0.22)	(0.22)	(0.09)
Observations	357	357	357	357

Notes: The table presents the estimations of treatment effects (ITT) on teacher outcomes. Column (1) = mean of the dependent variable in the control group; Columns (2)-(4) = estimated ITT for T1, T2 and T3, respectively. Standard errors (in parenthesis) of the estimated ITT parameters are clustered at the strata level. All regressions include strata fixed effects and controls selected via Lasso, using the Belloni et al. (2014) approach. Binary outcomes are indicated with (0/1); other outcomes are standardized. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.2: Pedagogical activities using *Le Monde*

	(1) T1	(2) T3
Never	16.7	12.7
1 time	18.5	20.0
2-4 times	42.6	38.2
5+ times	22.2	29.1

Notes: The Table reports the distribution of teachers' answers (in %) to the question: "Have you carried out activities in class or at home using the newspaper *Le Monde*?" in the endline survey. Only teachers in the treatment groups where students received free access to the newspaper were asked this question.

B Data

B.1 Outcomes of Interest

News Knowledge (NK) Index: Discernment The "discernment" component of the News Knowledge (NK) Index is based on students' ability to identify correct information about recent current events. For **France**, the students were shown the following six statements (three true and three false):

1. In March 2025, Marine Le Pen was ruled ineligible by the French courts following a conviction for misappropriation of European funds.
2. In March 2025, the actor Gérard Depardieu appeared before the criminal court in Paris on charges of sexual assault during a film shoot in 2021.
3. In March 2025, Emmanuel Macron announced an increase in the defense budget, bringing military spending to 5% of GDP.
4. In April 2025, the Senate rejected a bill aimed at combating drug trafficking and creating a national prosecutor's office for organized crime.
5. In March 2025, the National Commission for Public Debate was dissolved as part of a government reform.
6. In March 2025, a law was passed to ban unauthorized demonstrations throughout the entire territory of France.

For the **world**, they were shown the following six statements:

1. In March 2025, a temporary ceasefire was agreed between Russia and Ukraine, allowing the evacuation of civilians from certain conflict zones.
2. In April 2025, 15 million Sudanese had fled their homes, and 8.7 million were facing conditions close to famine, making this the largest humanitarian crisis in the world today.

3. In April 2025, Donald Trump imposed tariffs of more than 100% on Chinese imports, reigniting trade tensions between the two countries.

4. In March 2025, the United States carried out a military intervention in Greenland for strategic reasons related to natural resources, at a cost of approximately $10 billion.

5. In April 2025, South Korea and Japan signed an agreement for political unification with a view to forming a new Asian federal state.

6. In April 2025, Brazil withdrew from the United Nations in protest against global environmental policy.

Finally for the **European Union**, they were shown the following six statements[2]

1. Since the federal elections in February 2025 in Germany, the conservative Friedrich Merz has become the new chancellor, and his party will govern in coalition with the Social Democrats.

2. In March 2025, Hungary banned LGBTQ+ Pride parades throughout the country.

3. In March 2025, the European Parliament adopted a resolution aimed at strengthening economic sanctions against Russia.

4. In April 2025, the European Commission decided to make the Nutri-Score mandatory in all European Union countries.

5. In March 2025, Trenitalia launched a new high-speed train line connecting London and Marseille.

6. Portugal left the eurozone in March 2025 to return to the escudo.

Table B.1 reports descriptive statistics for this measure.

News Knowledge (NK) Index: Political knowledge The "political knowledge" component of the News Knowledge (NK) Index is based on six items covering key institutional and political facts.
For **France**, the students were asked the following questions:

1. "Which of the acronyms below refer to French labor unions?" for the following seven acronyms: CGT, CFDT, CPAM, FO, RSA, CNAF, and SUD.

[2](i) Depuis les élections fédérales de février 2025 en Allemagne, le conservateur Friedrich Merz est devenu le nouveau chancelier, et son parti gouvernera avec les sociaux-démocrates. (ii) En mars 2025, la Hongrie a interdit la tenue des marches des fiertés LGBTQ+ dans tout le pays. (iii) En mars 2025, le Parlement européen a adopté une résolution visant à renforcer les sanctions économiques contre la Russie. (iv) En avril 2025, la Commission européenne a décidé de rendre le Nutri-score obligatoire dans tous les pays de l'Union européenne. (v) En mars 2025, Trenitalia a lancé une nouvelle ligne reliant Londres à Marseille via des trains à grande vitesse. (vi) Le Portugal a quitté la zone euro en mars 2025 pour revenir à l'escudo.

Table B.1: Descriptive statistics: News Knowledge – Discernment

	(1) Control	(2) Control, high IPS	(3) Control, low IPS
Discernment: France (% correct answers)	0.720	0.749	0.624
	(0.275)	(0.255)	(0.314)
France 1: Marine Le Pen accused of embezzlement	0.843	0.877	0.733
	(0.364)	(0.329)	(0.443)
France 2: Gérard Depardieu accused of sexual assaults	0.803	0.841	0.680
	(0.398)	(0.366)	(0.467)
France 3: Macron announced the increase in defence	0.514	0.530	0.460
	(0.500)	(0.499)	(0.499)
Discernment: Europe (% correct answers)	0.572	0.598	0.487
	(0.282)	(0.269)	(0.303)
Europe 1: Friedrich Merz is the new German chancellor	0.487	0.519	0.381
	(0.500)	(0.500)	(0.486)
Europe 2: Hungary banned LGBTQ+ prides.	0.543	0.566	0.470
	(0.498)	(0.496)	(0.500)
Europe 3: Reinforcement of sanctions on Russia	0.687	0.710	0.610
	(0.464)	(0.454)	(0.488)
Discernment: World (% correct answers)	0.666	0.690	0.585
	(0.278)	(0.261)	(0.317)
World 1: Temporary ceasefire Russia-Ukraine	0.661	0.671	0.629
	(0.474)	(0.470)	(0.484)
World 2: Sudan humanitairan crisis	0.529	0.558	0.436
	(0.499)	(0.497)	(0.497)
World 3: Trump imposing tariffs on China	0.807	0.842	0.689
	(0.395)	(0.365)	(0.463)
Observations	1778	1363	415

mean coefficients; sd in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: The table provides descriptive statistics on the share of correct answers given by control-group students in the endline survey for the three sets of discernment questions. An observation is a student. Column (1) includes all the control-group students. Column (2) (respectively Column (3)) includes the control-group students from high- (respectively -low) IPS high schools.

2. "Who is currently serving as Prime Minister of France?" with the following nine choices: (i) Alain Juppé, (ii) Christiane Taubira, (iii) Richard Ferrand, (iv) Gabriel Attal, (v) Élisabeth Borne, (vi) Laurent Fabius, (vii) Gérard Larcher, (viii) Emmanuel Macron, and (ix) François Bayrou, as well as the possibility to answer "I don't know."

3. "Match each politician's name with the political party to which he or she belongs." for the following six politicians: (i) Sébastien Chenu, (ii) Sandrine Rousseau, (iii) Mathilde Panot, (iv) Olivier Faure, (v) Laurent Wauquiez, and (vi) Gérald Darmanin. They were offered choices: (i) Rassemblement national, (ii) Europe Écologie-Les-Verts, (iii) La France insoumise, (iv) Parti socialiste, (v) Les Républicains, and (vi) Renaissance, as well as the possibility to answer "I don't know."

For **Europe**, the students were asked the following questions:

1. "In 2025, which country will hold the rotating presidency of the Council of the European Union from January to June?" with the following four choices: (i) Belgium, (ii) Denmark, (iii) Poland, and (iv) Cyprus, as well as the possibility to answer "I don't know."

2. "The current President of the European Commission is a member of the Party of European Socialists." (true/false question with the possibility to answer "I don't know.")

3. "Who is currently President of the European Commission?" with the following four choices: (i) Charles Michel, (ii) Ursula von der Leyen, (iii) Emanuel Macron, and (iv) Roberta Metsol, and the possibility to answer "I don't know."

Table B.2 reports descriptive statistics for this measure.

News Knowledge (NK) Index: Economic knowledge Finally, the "economic knowledge" component of the News Knowledge (NK) Index is based on five questions for each students were given four possible choices, as well as the possibility to answer "I don't know."
For **economy**, the students were asked the following questions:

1. In your opinion, what was the unemployment rate in France in the fourth quarter of 2024?

2. In 2024, France's public deficit was approximately:

3. In your opinion, what was the inflation rate in France in January 2025 compared to January 2024?

4. In 2024, France's gross domestic product (GDP) growth was approximately:

5. In your opinion, France's public debt is approximately:

Table B.3 reports descriptive statistics for this measure.

Table B.2: Descriptive statistics: News Knowledge – Political knowledge

	(1) Control	(2) Control, high IPS	(3) Control, low IPS
Political knowledge: French Unions (% correct answers)	0.508	0.523	0.456
	(0.217)	(0.214)	(0.219)
Unions: CGT	0.775	0.819	0.621
	(0.418)	(0.385)	(0.486)
Unions: CFDT	0.399	0.438	0.266
	(0.490)	(0.496)	(0.442)
Unions: CPAM	0.774	0.780	0.754
	(0.418)	(0.415)	(0.431)
Unions: FO	0.180	0.183	0.171
	(0.384)	(0.386)	(0.377)
Unions: RSA	0.608	0.626	0.546
	(0.488)	(0.484)	(0.499)
Unions: CNAF	0.698	0.696	0.702
	(0.459)	(0.460)	(0.458)
Unions: SUD	0.124	0.121	0.133
	(0.329)	(0.326)	(0.340)
Identity of French Prime Minister	0.746	0.798	0.578
	(0.435)	(0.402)	(0.494)
Political knowledge: French politicians (% correct answers)	0.262	0.286	0.178
	(0.341)	(0.351)	(0.288)
Politicians: Chenu	0.195	0.214	0.131
	(0.397)	(0.410)	(0.338)
Politicians: Rousseau	0.274	0.302	0.176
	(0.446)	(0.459)	(0.381)
Politicians: Panot	0.338	0.366	0.237
	(0.473)	(0.482)	(0.426)
Politicians: Faure	0.222	0.237	0.170
	(0.416)	(0.425)	(0.376)
Politicians: Wauquiez	0.247	0.267	0.179
	(0.432)	(0.443)	(0.384)
Politicians: Darmanin	0.261	0.287	0.170
	(0.439)	(0.453)	(0.376)
Political knowledge: Europe (% correct answers)	0.255	0.275	0.185
	(0.276)	(0.280)	(0.246)
Europe: Country leading European Council	0.131	0.139	0.105
	(0.338)	(0.346)	(0.307)
Europe: political party of Eur. Commission president	0.181	0.192	0.141
	(0.385)	(0.394)	(0.349)
Europe: identity of Eur. Commission president	0.453	0.494	0.309
	(0.498)	(0.500)	(0.463)
Observations	1778	1363	415

mean coefficients; sd in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: The table provides descriptive statistics on the share of correct answers given by control-group students in the endline survey for the items covering key institutional and political facts. An observation is a student. Column (1) includes all the control-group students. Column (2) (respectively Column (3)) includes the control-group students from high- (respectively -low) IPS high schools. Regarding the "Identity of French Prime Minister", students were offered nine choices; hence the probability of randomly answering correctly was around 11.1%. Regarding the political party of each French politicians, students were offered six choices; hence the probability of randomly answering correctly was around 16.7%.

Table B.3: Descriptive statistics: News Knowledge – Economic knowledge

	(1) Control	(2) Control, high IPS	(3) Control, low IPS
Economic knowledge (% correct answers)	0.266	0.287	0.198
	(0.239)	(0.242)	(0.218)
Economic knowledge: Unemployment rate	0.407	0.428	0.340
	(0.491)	(0.495)	(0.474)
Economic knowledge: Public debt	0.179	0.191	0.142
	(0.384)	(0.393)	(0.350)
Economic knowledge: Public deficit	0.385	0.426	0.251
	(0.487)	(0.495)	(0.434)
Economic knowledge: Inflation	0.235	0.263	0.145
	(0.424)	(0.440)	(0.352)
Economic knowledge: Growth	0.123	0.127	0.111
	(0.329)	(0.333)	(0.314)
Observations	1778	1363	415

mean coefficients; sd in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: The table provides descriptive statistics on the share of correct answers given by control-group students in the endline survey for the five questions related to recent economic indicators and policies in France. An observation is a student. Column (1) includes all the control-group students. Column (2) (respectively Column (3)) includes the control-group students from high- (respectively -low) IPS high schools.

Trust in Journalists Index This index is based on three survey items, measured in the student endline survey. First, students are asked to indicate the extent to which they agree with two statements: "journalists report information accurately and truthfully." and "journalists play an important role in the political and democratic life of our country." Students are offered five response options: (i) strongly disagree, (ii) disagree, (iii) neither agree nor disagree, (iv) agree, and (v) strongly agree. Second, students report how much they trust journalists in general. Response options were: (i) not at all, (ii) a little, (iii) a lot, and (iv) completely.

Media literacy skills As highlighted in the main part of the paper, we build an index of students' media literacy skills based on three outcomes. The first outcome is an indicator equal to one if the student cites at least one specific news producer (e.g., *Le Monde* or BFM TV) rather than a generic category such as "newspapers" or "the internet," and zero otherwise. The second and third outcomes are measured through a social media sharing task designed to capture directly observed behavior. Students are first shown a news story that had recently circulated online, together with an associated image. The story is in fact false, but students are not informed of this. Instead, they are simply told that "the following information has been reported in the media over the past few weeks." Each student is shown one story, randomly drawn from a set of three fake news stories. Students are then asked whether they would be willing to share the information on social media ("Would you be willing to share this information on social media?") and, if so, on which platform. A randomly selected half of respondents are additionally given the opportunity to fact-check the story. Specifically, they are informed that "if you would like to verify this information, you can consult the article below from the Agence France-Presse (AFP) Factuel website, which specializes in fact-checking." We then observe whether the student clicks on the AFP Factuel article. Using this task, we construct two outcomes. The first is an indicator equal to one if the student chooses to consult the AFP Factuel article and to zero otherwise. The second is an indicator equal to one if the student reports being willing to share the story and zero otherwise.

Political self-efficacy The index is based on students' responses to five questions capturing internal political efficacy (Niemi et al., 1991). They are asked to indicate their level of agreement with the following statements: (i) when political issues are discussed, I usually have something to say; (ii) I can easily understand most political issues; (iii) I have political opinions that would be interesting to hear; (iv) I feel capable of participating in political life; and (v) I have a good understanding of political issues concerning France. For each question, respondents are offered five response options: (i) strongly disagree, (ii) disagree, (iii) neither agree nor disagree, (iv) agree, and (v) strongly agree.

News anxiety Students' news-related anxiety is measured using a scale adapted from Bodas et al. (2015). The scale captures emotional and behavioral responses specifically associated with exposure to news content. Students are asked to indicate their level of agreement with the following statements:

- "The news often makes me feel that the world is going badly."
- "Reading the news often makes me feel anxious."
- "I find it difficult to mentally disengage from certain pieces of information after reading the news."
- "I deliberately try to avoid the news."
- "Reading the news sometimes makes me feel that there is nothing I can do to improve things."

For each item, students report their agreement on a five-point Likert scale ranging from *strongly disagree* to *strongly agree*.

Mental health Students' mental health is measured using the *Perceived Stress Scale* (PSS) developed by Cohen et al. (1983) and validated in French by Lesage et al. (2012). The scale assesses the extent to which students have perceived their lives as stressful over the past month. Students are asked how often they have experienced the following situations during the last month: being upset by an unexpected event; feeling unable to control important things in their life; feeling nervous or stressed; feeling confident in their ability to handle personal problems; feeling that things were going their way; feeling unable to cope with all the things they had to do; being able to control their irritation; feeling on top of things; feeling angered because events were outside of their control; and feeling that their difficulties had become insurmountable. For each item, students respond on a five-point scale ranging from *never* to *often*.

Happiness Students' happiness is measured following the approach of Allcott et al. (2020). Students are asked to report their overall level of happiness over the past four weeks on a seven-point scale ranging from 1 (*not very happy*) to 7 (*very happy*). They are also asked to assess their happiness relative to that of their peers over the same period, on a seven-point scale ranging from 1 (*less happy than most peers*) to 7 (*happier than most peers*). Responses to these two items are standardized and averaged to construct the happiness measure, with higher values indicating greater self-reported happiness.

B.2 Construction of Indexes

Whenever several outcomes capture the same underlying concept, we aggregate them into a standardized summary index following Anderson (2008). This procedure consists of the following steps. First, for all the outcomes, we switch the signs when necessary so that the positive direction always indicates a "better" outcome. Second, we define J groupings of outcomes (also referred to as areas or domains). Each (normalized) outcome y_{jk} is assigned to one of these J areas, giving K_j outcomes in each area j, with k indexing outcomes within an area. Third, we create a new variable, s_{ij}, which is a weighted

average of y_{ijk} for individual i in area j. When constructing s_{ij}, we weight its inputs – outcomes y_{ijk} – by the inverse of the covariance matrix of the transformed outcomes in area j.

For each index we construct, we report the correlations between its sub-components in Table B.4.

Table B.4: Correlation Between Index Components: Main indices

Newspaper Consumption Index

	Newspaper consulted	Newspaper main news source
Newspaper consulted	1.000	.
Newspaper main news source	0.308	1.000

News Knowledge Index

	Discernment	Political Knowledge	Economic Knowledge
Discernment	1.000	.	.
Political Knowledge	0.339	1.000	.
Economic Knowledge	0.200	0.322	1.000

Media Literacy Skills Index

	Citing news source	Fact-checking
Citing news source	1.000	.
Fact-checking	0.073	1.000

Well-Being Index

	Mental Health	Hapiness	News anxiety
Mental Health	1.000	.	.
Hapiness	0.436	1.000	.
News anxiety	0.323	0.151	1.000

Notes: This table reports pairwise correlation coefficients between the sub-components used to construct each standardized index.

Table B.5: Correlation Between Index Components: Secondary indices

Truts in Journalists Index

	Accurate information	Democratic role	Trust (single outcome)
Accurate information	1.000	.	.
Democratic role	0.247	1.000	.
Trust (single outcome)	0.461	0.238	1.000

Notes: This table reports pairwise correlation coefficients between the sub-components used to construct each standardized index.

B.3 *Le Monde* Data

Activation of the subscriptions As highlighted in the main part of the paper, when a school (and the corresponding class(es)) were assigned to T1 or T3, all the corresponding students were given access to a free online subscription to *Le Monde*. To activate the subscriptions, all the classes were given the same instructions (the instructions were sent to the teachers who were asked to share them with their students): (i) go to a specific URL (which redirects them to the subscription activation page – see Figure B.1 for a reproduction of this page translated into English), (ii) then fill in the requested information, i.e. the students' email address and their first and last names preceded by a class-specific code (to facilitate the matching).

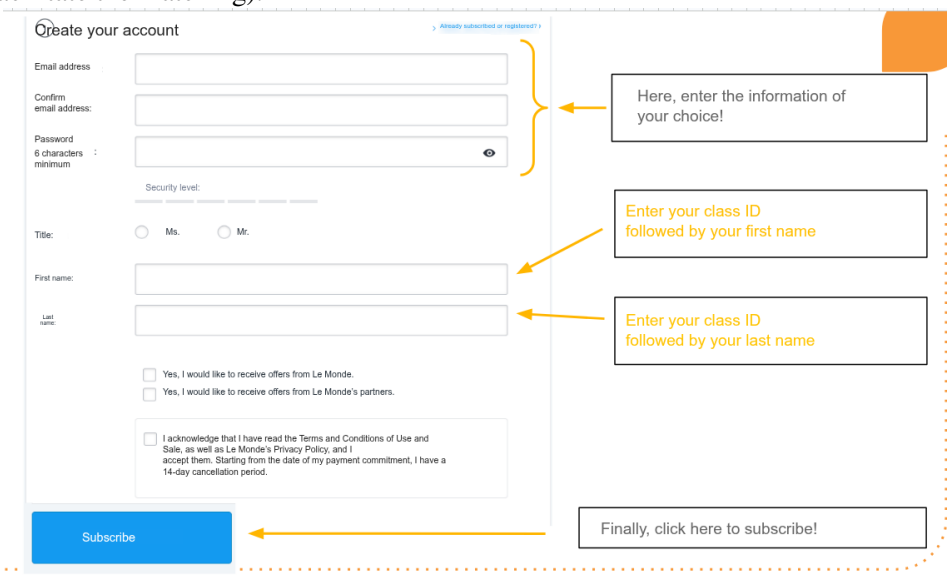


Figure B.1: Subscription activation page

Dataset construction To build the dataset that allows us to study the online behavior of the students in T1 and T3, we then proceeded as follows.

1. First, we received from *Le Monde* the list of all the accounts created, with the students' email addresses and all the associated information (i.e. *Le Monde* ID, email addresses, and first and last names).

2. Second, we use this information to match the students in T1 and T3 to their *Le Monde* account. Part of the difficulty here came from the fact that a subset of students did not provide us (in the baseline survey) with the same email address as the one used to activate their *Le Monde* subscription. In such cases, we did our best to recover their identity by using their first and last name, as well as the class-specific code entered before the first and last names.[3]

[3]The use of the class codes greatly facilitated the matching. However, in many cases, students had not included the class code; we thus had to perform individual matches across all classes and schools.

3. Third, every two months *Le Monde* provided us with detailed information on the activity of each of the accounts – identified by a *Le Monde* unique ID (which allows us to recover, for each account and date, not only the number of pages viewed but also the topic of each page etc.)

    - Note that in order to study the actual news consumption of students, we start by dropping all the actions on the website related to their account set-up (e.g. sign up/log in) or choice of parameters.

C Follow-up Survey

To investigate the longer-term news consumption patterns of the high-school students and also investigate the political participation of those among them who are of voting age, we ran a follow-up survey in April 2026, starting two weeks after the French municipal elections that were held on March 15 and March 22, 2026 to elect the municipal councils of approximately $35,000$ communes.

C.1 Implementation of the Follow-up Survey

Regarding its precise implementation, we reached out to all the high-school students who answered the endline survey, first by email, then by phone via a text message containing a link to the survey, and finally (for the subset of students who did not answer through the first two channels), through a phone call from interviewers.

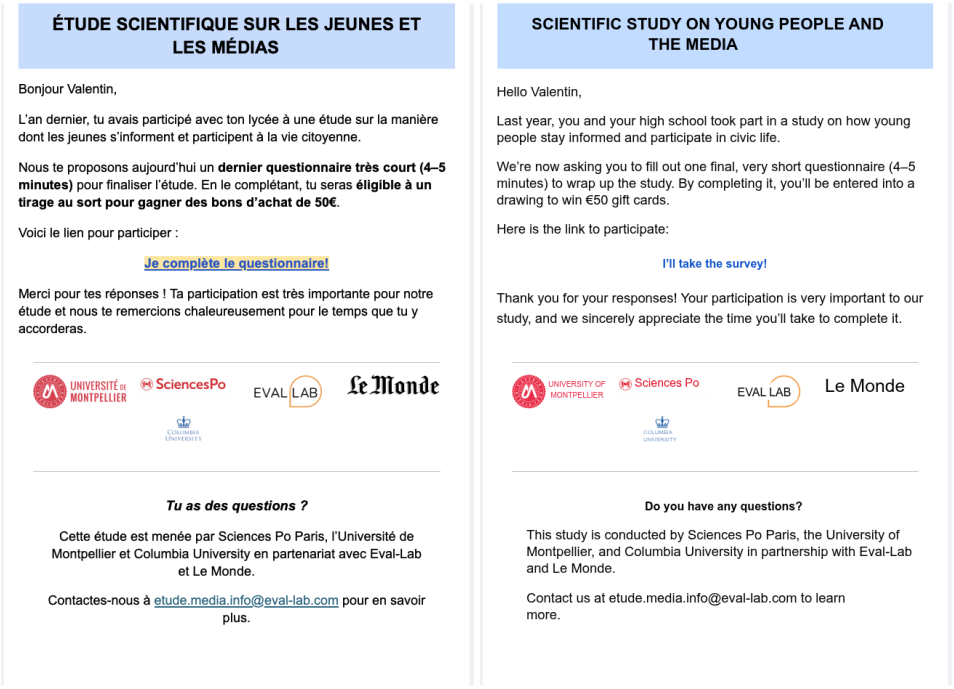
Email campaign The email campaign was launched on March 27, 2026, five days after the second round of the municipal elections. Of all the high-school students included in our analysis sample, $6,283$ had a valid and reachable email address and were successfully contacted. Emails were sent one randomization stratum at a time to avoid temporal imbalances across treatment groups, and were limited to $1,500$ sends per day. The initial wave ran from March 27 to April 3, 2026, followed by a reminder to non-respondents from April 7 to April 12, 2026. Figure C.1 displays the email template sent to participants.
Figure C.2 summarizes the email campaign funnel, from initial sends to survey link clicks.

Text message campaign Participants who had a valid phone number and had not yet completed the online survey were then contacted by text message (SMS), following the same stratum-by-stratum order. A total of 759 text messages were successfully delivered. The campaign ran from April 3 to April 13, 2026, subject to an operator-imposed limit of 200 text messages per day. Due to this constraint, not all high-school students could be reached by text message, and the campaign was discontinued in favor of the telephone survey.

Telephone campaign A telephone campaign was conducted to maximize response rates, targeting all $3,984$ participants who had not yet responded and had a valid phone number. Twelve interviewers were recruited and trained on a standardized script with neutrality instructions. Each interview lasted approximately 5-10 minutes. The campaign ran from April 17 to June 4, 2026.

C.2 Results of the Follow-up Survey

Overall, 2,912 students answered this follow-up survey; Table C.1 provides descriptive statistics on these respondents.



ÉTUDE SCIENTIFIQUE SUR LES JEUNES ET LES MÉDIAS

Bonjour Valentin,

L'an dernier, tu avais participé avec ton lycée à une étude sur la manière dont les jeunes s'informent et participent à la vie citoyenne.

Nous te proposons aujourd'hui un **dernier questionnaire très court (4–5 minutes)** pour finaliser l'étude. En le complétant, tu seras **éligible à un tirage au sort pour gagner des bons d'achat de 50€**.

Voici le lien pour participer :

Je complète le questionnaire!

Merci pour tes réponses ! Ta participation est très importante pour notre étude et nous te remercions chaleureusement pour le temps que tu y accorderas.

Tu as des questions ?

Cette étude est menée par Sciences Po Paris, l'Université de Montpellier et Columbia University en partenariat avec Eval-Lab et Le Monde.

Contactes-nous à etude.media.info@eval-lab.com pour en savoir plus.

(a) Original email sent (in French)

SCIENTIFIC STUDY ON YOUNG PEOPLE AND THE MEDIA

Hello Valentin,

Last year, you and your high school took part in a study on how young people stay informed and participate in civic life.

We're now asking you to fill out one final, very short questionnaire (4–5 minutes) to wrap up the study. By completing it, you'll be entered into a drawing to win €50 gift cards.

Here is the link to participate:

I'll take the survey!

Thank you for your responses! Your participation is very important to our study, and we sincerely appreciate the time you'll take to complete it.

Do you have any questions?

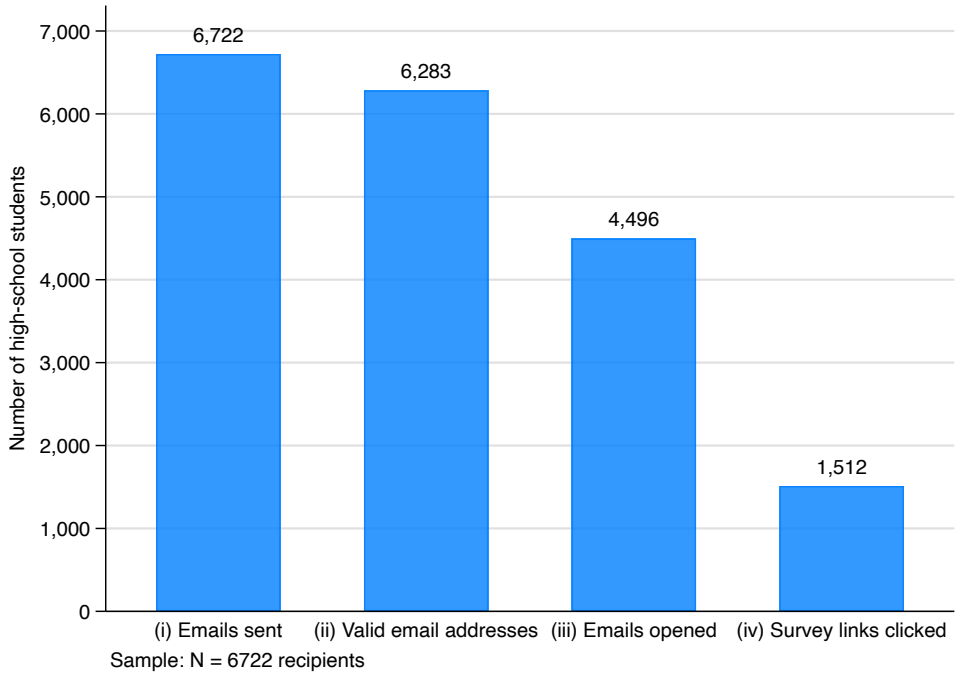
This study is conducted by Sciences Po Paris, the University of Montpellier, and Columbia University in partnership with Eval-Lab and Le Monde.

Contact us at etude.media.info@eval-lab.com to learn more.

(b) English translation

Notes: The figures provide an illustration of the template of the email sent to the high-school students (i.e. all the students included in the analysis sample for which we had a valid email address) as part of the follow-up survey campaign. Figure C.1a reports a screenshot of the email sent, and Figure C.1b an English translation of this screenshot.

Figure C.1: Follow-up survey: template of the email sent to the students



Notes: The Figure displays the number of emails sent, valid email addresses reached, emails opened, and survey link clicks as part of the follow-up survey.

Figure C.2: Email campaign response funnel

Table C.1: Follow-up survey: Descriptive statistics of respondents

	Mean	St.Dev	P25	Median	P75
High-school characteristics					
Social Composition Index (IPS)	113	15	105	112	121
Share of scholarship students	0.22	0.12	0.14	0.20	0.28
Private school	0.09	0.28	0.00	0.00	0.00
General and Technological high schools	0.85	0.35	1.00	1.00	1.00
Low IPS high schools	0.24	0.43	0.00	0.00	0.00
Class characteristics					
10th grade	0.32	0.47	0.00	0.00	1.00
11th grade	0.50	0.50	0.00	0.00	1.00
12th grade	0.16	0.37	0.00	0.00	0.00
Treatment status					
Control	0.26	0.44	0.00	0.00	1.00
T1: Free newspaper	0.19	0.39	0.00	0.00	0.00
T2: Media education	0.40	0.49	0.00	0.00	1.00
T3: Free news + media educ	0.15	0.36	0.00	0.00	0.00
Student characteristics					
Voting age (in March 2026)	0.29	0.45	0.00	0.00	1.00
=1 if Female student	0.60	0.49	0.00	1.00	1.00
=1 if answered survey online	0.73	0.44	0.00	1.00	1.00
Observations	2,912				

Notes: The table provides descriptive statistics on the characteristics of the high-school students who completed the follow-up survey.

C.3 Sample Characteristics and Internal Validity Checks

Tables E.3 and E.7 respectively show that attrition and student baseline characteristics are balanced across treatment groups for this sample. Perhaps note that contrarily to the baseline and endline survey, this follow-up survey was indeed not implemented through the schools; as described above, we reached directly to the students by using their email address / phone number.

D Theoretical Framework: Proofs

D.1 Proof of Proposition 1

Proof. We solve the agent's problem using the reduced-form utility:

$$U(x_A, x_B) = (\eta\gamma_A - \kappa)x_A + (\eta\gamma_B - \kappa)x_B - \frac{1}{2}x_A^2 - \frac{1}{2}x_B^2 + \delta x_A x_B.$$

Case (a): Only outlet A. The agent solves:

$$\max_{x_A \geq 0} (\eta\gamma_A - \kappa)x_A - \frac{1}{2}x_A^2.$$

The first-order condition yields:

$$x_A^0 = \eta\gamma_A - \kappa.$$

The associated utility is:

$$U^0 = \frac{1}{2}(\eta\gamma_A - \kappa)^2.$$

Case (b): Both outlets. The first-order conditions are:

$$(\eta\gamma_A - \kappa) - x_A + \delta x_B = 0, \qquad (\eta\gamma_B - \kappa) - x_B + \delta x_A = 0.$$

Solving the system yields:

$$x_A^* = \frac{(\eta\gamma_A - \kappa) + \delta(\eta\gamma_B - \kappa)}{1 - \delta^2}, \qquad x_B^* = \frac{\delta(\eta\gamma_A - \kappa) + (\eta\gamma_B - \kappa)}{1 - \delta^2}.$$

Total news consumption is:

$$x^* = x_A^* + x_B^* = \frac{(\eta\gamma_A - \kappa) + (\eta\gamma_B - \kappa)}{1 - \delta}.$$

Education treatment (E). Under (E), η increases to η'. In case (a), consumption becomes:

$$x_A^E = \eta'\gamma_A - \kappa.$$

Thus:

$$\Delta_E x_A = (\eta' - \eta)\gamma_A, \qquad \Delta_E x_B = 0,$$

and:

$$\Delta_E x = (\eta' - \eta)\gamma_A.$$

Knowledge is:

$$I = f\big(\lambda + (1 - \lambda)x\big),$$

so:

$$\Delta_E I = f(\lambda + (1-\lambda)x_E) - f(\lambda + (1-\lambda)x_0).$$

Free subscription treatment (F). Under (F), the agent switches from case (a) to case (b). The change in consumption is:

$$\Delta_F x_A = x_A^* - x_A^0 = \frac{\delta(\eta\gamma_B - \kappa + \delta(\eta\gamma_A - \kappa))}{1-\delta^2},$$

$$\Delta_F x_B = x_B^*,$$

and:

$$\Delta_F x = x^* - x_A^0 = \frac{(\eta\gamma_B - \kappa) + \delta(\eta\gamma_A - \kappa)}{1-\delta}.$$

The sign of $\Delta_F x_A$ is determined by δ. Total consumption increases if and only if:

$$(\eta\gamma_B - \kappa) + \delta(\eta\gamma_A - \kappa) > 0.$$

Knowledge changes according to:

$$\Delta_F I = f(\lambda + (1-\lambda)x_F) - f(\lambda + (1-\lambda)x_0).$$

Joint treatment (EF). Under (EF), η increases to η' and $p = 0$. Total consumption becomes:

$$x_{EF} = \frac{(\eta'\gamma_A - \kappa) + (\eta'\gamma_B - \kappa)}{1-\delta}.$$

The interaction effect is:

$$\Delta_{EF} x - \Delta_E x - \Delta_F x = (\eta' - \eta)\frac{\gamma_B + \delta\gamma_A}{1-\delta}.$$

The result on knowledge follows from the monotonicity and concavity of $f(\cdot)$. ■

D.2 Proof of Corollary 2

Proof. The proof of (i) is immediate because, as total time is given, $\Delta y = -\Delta x$.
Let us prove (ii) for $T = E$. the proofs for the two other treatments are similar. Since the treatment is effective, we have $x_E > x_0$. Define

$$z_E(\lambda) = \lambda + (1-\lambda)x_E, \qquad z_0(\lambda) = \lambda + (1-\lambda)x_0.$$

Then

$$\Delta_E I(\lambda) = f(z_E(\lambda)) - f(z_0(\lambda)).$$

Differentiating with respect to λ gives:

$$\frac{d\Delta_E I}{d\lambda} = f'(z_E(\lambda))(1 - x_E) - f'(z_0(\lambda))(1 - x_0).$$

Since $x_E > x_0$, we have $z_E(\lambda) > z_0(\lambda)$ and $1 - x_E < 1 - x_0$. Because $f'' < 0$, the function f' is decreasing, so

$$f'(z_E(\lambda)) < f'(z_0(\lambda)).$$

Therefore,

$$f'(z_E(\lambda))(1 - x_E) < f'(z_0(\lambda))(1 - x_0),$$

which implies

$$\frac{d\Delta_E I}{d\lambda} < 0.$$

Hence, the strength of the effect depends negatively on λ. ■

D.3 Proof of Proposition 3

Proof. Assume $\delta \approx 0$. Then total news consumption under (F) is approximately:

$$x^F \approx (\eta\gamma_A - \kappa) + (\eta\gamma_B - \kappa).$$

Consider two agents with $\gamma'_A < \gamma''_A$.
Before the treatment:

$$x^0(\gamma_A) = \eta\gamma_A - \kappa.$$

After the treatment:

$$x^F(\gamma_A) \approx \eta\gamma_A - \kappa + (\eta\gamma_B - \kappa).$$

Thus, the increase in total news consumption is:

$$\Delta_F x \approx \eta\gamma_B - \kappa,$$

which is independent of γ_A.
Political knowledge is:

$$I = f\big(\lambda + (1 - \lambda)x\big).$$

Hence, the difference in knowledge between the two agents before the treatment is:

$$I^0(\gamma'') - I^0(\gamma') = f\big(\lambda + (1 - \lambda)x^0(\gamma'')\big) - f\big(\lambda + (1 - \lambda)x^0(\gamma')\big).$$

After the treatment:

$$I^F(\gamma'') - I^F(\gamma') = f(\lambda + (1-\lambda)x^F(\gamma'')) - f(\lambda + (1-\lambda)x^F(\gamma')).$$

Since both agents experience the same increase in x, and f is concave, it follows that:

$$I^F(\gamma'') - I^F(\gamma') < I^0(\gamma'') - I^0(\gamma').$$

Thus, the treatment reduces knowledge inequality. ■

E Attrition and Balancing Checks

Table E.1: Student attrition

	(1) Endline Participation
T1	-0.004
	(0.063)
T2	-0.065
	(0.071)
T3	-0.005
	(0.051)
Constant	0.765***
	(0.041)
Observations	9,628
Control mean	0.763

Notes: The table reports an attrition analysis where endline participation is regressed on treatment indicators (T1, T2, T3) and randomization strata fixed effects. The sample includes all participating students who responded to the baseline survey. Standard errors (in parentheses) are clustered at the strata level. The control group is the omitted category. $*p < 0.10$, $**p < 0.05$, $***p < 0.01$.

Table E.2: Teacher attrition

	(1) Endline Participation
T1	-0.013
	(0.020)
T2	0.000
	(0.054)
T3	0.024
	(0.040)
Constant	0.934***
	(0.028)
Observations	379
Control mean	0.935

Notes: The table reports an attrition analysis where endline participation is regressed on treatment indicators (T1, T2, T3) and randomization strata fixed effects. The sample includes all participating teachers who responded to the baseline survey. Standard errors (in parentheses) are clustered at the strata level. The control group is the omitted category. $*p < 0.10$, $**p < 0.05$, $***p < 0.01$.

Table E.3: Student attrition: Follow-up survey

	(1)	(2)
	Follow-up participation	
T1	-0.029	-0.030
	(0.035)	(0.042)
T2	-0.019	-0.006
	(0.017)	(0.027)
T3	-0.044	-0.049
	(0.034)	(0.087)
Constant	0.434***	0.462***
	(0.011)	(0.024)
Observations	7,091	1,783
Sample	Full sample	Voting age = 1
Control mean	0.431	0.458

Notes: The table reports an attrition analysis where participation in the follow-up survey is regressed on treatment indicators (T1, T2, T3) and randomization strata fixed effects. The sample includes all the students who responded to the endline survey. Standard errors (in parentheses) are clustered at the strata level. The control group is the omitted category. $*p < 0.10$, $**p < 0.05$, $***p < 0.01$.

Table E.4: Balancing checks: Student characteristics

Variable	Control	T1 - C	T2 - C	T3 - C	N
Age	15.568	0.042	0.001	-0.016	6,871
		(0.045)	(0.068)	(0.089)	
Female (0/1)	0.573	-0.040	-0.006	-0.013	6,964
		(0.030)	(0.017)	(0.045)	
Foreign origin (0/1)	0.277	-0.009	0.007	-0.040	7,091
		(0.041)	(0.035)	(0.048)	
Presence on Social Media (BL)	0.507	0.000	-0.008	-0.025*	7,076
		(0.018)	(0.019)	(0.013)	
MIL exposure (BL)	1.362	-0.007	-0.031	0.001	5,950
		(0.026)	(0.037)	(0.032)	
Newspaper Consumption Index (BL)	0.00	-0.116	-0.019	-0.078	7,076
		(0.088)	(0.041)	(0.049)	
Media Literacy Skills (BL)	0.00	-0.025	0.048	0.029	7,051
		(0.038)	(0.028)	(0.034)	
Political Knowledge (BL)	0.00	-0.096	-0.014	0.003	7,033
		(0.056)	(0.064)	(0.068)	
Political Participation (BL)	0.00	-0.073	-0.017	-0.045	6,949
		(0.062)	(0.027)	(0.038)	

Strata FE included. School weights. Clustered s.e. at strata level.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table E.5: Balancing checks: Teacher characteristics

Variable	Control	T1 - C	T2 - C	T3 - C	N
Female teacher (0/1)	0.69	0.123	-0.005	-0.078	357
		(0.090)	(0.058)	(0.109)	
Age (years)	46.65	1.891	-0.209	0.533	355
		(1.829)	(1.612)	(1.657)	
General teaching experience (years)	20.00	2.465	1.145	-0.210	345
		(2.328)	(1.824)	(1.675)	
High-level certification: *Agrégation* (0/1)	0.32	-0.085	0.015	-0.117**	357
		(0.080)	(0.043)	(0.048)	
Head teacher (0/1)	0.25	-0.002	0.015	-0.124	357
		(0.068)	(0.045)	(0.073)	
Trained in MIL last 5 years (0/1)	0.43	0.078	-0.052	0.089	357
		(0.052)	(0.053)	(0.058)	
Trained by CLEMI last 5 years (0/1)	0.30	0.083	-0.030	0.007	357
		(0.050)	(0.052)	(0.060)	
MIL teaching self-confidence (std.)	0.00	0.025	-0.028	-0.099	357
		(0.186)	(0.184)	(0.214)	
MIL class activities (std.)	0.00	0.029	0.082	-0.032	357
		(0.228)	(0.242)	(0.173)	
MIL topics (std.)	0.00	-0.108	0.134	-0.041	357
		(0.229)	(0.185)	(0.142)	
History-Geography teacher (0/1)	0.59	-0.047	0.012	-0.083	357
		(0.141)	(0.142)	(0.050)	
Civics teacher (0/1)	0.30	0.056	0.036	0.012	357
		(0.087)	(0.093)	(0.086)	
Economics and Social Sciences teacher (0/1)	0.14	0.016	-0.010	0.075	357
		(0.073)	(0.077)	(0.051)	

Standard errors in parentheses

Strata fixed effects included. School weights. Standard errors clustered at the strata level

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Active teaching practices defined as in Briole (2026).

Table E.6: Balancing checks: Class characteristics

Variable	Control	T1 - C	T2 - C	T3 - C	N
School climate (index)	0.00	0.097	0.100	0.126	334
		(0.160)	(0.134)	(0.136)	
General track (0/1)	0.74	-0.024	-0.060	-0.062	357
		(0.041)	(0.044)	(0.058)	
Number of students per class	27.13	2.174*	0.539	-1.561	357
		(1.198)	(1.153)	(1.146)	
Class: 10th grade (Seconde)	0.38	0.004	-0.016	-0.029	357
		(0.040)	(0.019)	(0.043)	
Class: 11th grade (Première)	0.42	-0.050	0.027	0.043	357
		(0.054)	(0.053)	(0.071)	
Class: 12th grade (Terminale)	0.16	0.052**	-0.017	-0.043	357
		(0.023)	(0.047)	(0.054)	

Standard errors in parentheses

Strata fixed effects included. School weights. Standard errors clustered at the strata level

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table E.7: Balancing Checks: Follow-up Survey

Variable	Control	T1 - C	T2 - C	T3 - C	N
Age	15.596	0.127**	0.030	-0.013	2,865
		(0.049)	(0.074)	(0.094)	
Female (0/1)	0.619	-0.040	-0.009	-0.033	2,875
		(0.040)	(0.021)	(0.032)	
Foreign origin (0/1)	0.255	0.010	-0.012	-0.056	2,912
		(0.043)	(0.036)	(0.054)	
Presence on Social Media (BL)	0.518	-0.004	0.001	-0.017	2,910
		(0.014)	(0.020)	(0.017)	
MIL exposure (BL)	1.437	-0.034	-0.070*	-0.024	2,526
		(0.032)	(0.036)	(0.055)	
Newspaper Consumption Index (BL)	0.221	-0.071	-0.002	-0.045	2,910
		(0.051)	(0.020)	(0.045)	
Media Literacy Skills (BL)	0.046	0.002	0.031	0.021	2,908
		(0.023)	(0.024)	(0.030)	
Political Knowledge (BL)	0.096	-0.079*	0.013	-0.003	2,901
		(0.042)	(0.037)	(0.053)	
Political Participation (BL)	0.022	-0.060	-0.009	0.010	2,874
		(0.055)	(0.031)	(0.038)	

Strata FE included. School weights. Clustered s.e. at strata level.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table E.8: Balancing Checks in Low IPS Schools (below 1st quartile)

Variable	(1) Control	(2) T1 - C	(3) T2 - C	(4) T3 - C	(5) N
Panel A: Student Characteristics and Baseline Skills					
Age	15.63	0.084	-0.038	0.098	1,706
		(0.131)	(0.053)	(0.238)	
Female student (0/1)	0.53	-0.034	0.025	-0.096*	1,751
		(0.061)	(0.035)	(0.047)	
Foreign origins (0/1)	0.42	-0.145	-0.114	-0.215	1,786
		(0.087)	(0.093)	(0.139)	
Presence on social media (0/1)	0.51	-0.035	-0.057	-0.017	1,781
		(0.019)	(0.036)	(0.023)	
Exposure to EMI interventions	1.20	-0.053	-0.031	0.082	1,460
		(0.062)	(0.036)	(0.062)	
Newspaper Consumption Index	0.09	0.034	0.005	0.023	1,781
		(0.021)	(0.027)	(0.023)	
Media Literacy Skills Index	-0.10	0.022	0.031	0.039	1,766
		(0.030)	(0.041)	(0.034)	
News Knowledge Index	-0.34	0.056	0.095	0.186	1,757
		(0.084)	(0.061)	(0.101)	
Political Participation Index	0.02	-0.019	-0.013	0.057	1,727
		(0.078)	(0.056)	(0.080)	
Panel B: Teacher Characteristics, Skills, and Subjects					
Female teacher (0/1)	0.72	0.059	0.041	-0.110	89
		(0.223)	(0.087)	(0.118)	
Age	45.40	2.152	2.247	3.004	89
		(5.001)	(2.195)	(4.366)	
Teaching experience	18.16	2.793	2.432	1.717	87
		(5.257)	(3.935)	(3.512)	
High-level certification (*Agrégation*) (0/1)	0.19	-0.126	-0.086	-0.006	89
		(0.093)	(0.080)	(0.087)	
Head teacher (0/1)	0.28	0.029	0.008	0.077	89
		(0.160)	(0.122)	(0.142)	
Trained in MIL (0/1)	0.49	0.066	-0.074	0.096	89
		(0.079)	(0.155)	(0.154)	
Trained in MIL – CLEMI (0/1)	0.28	0.099	-0.049	0.089	89
		(0.062)	(0.162)	(0.087)	
MIL teaching self-confidence	0.00	0.259	-0.118	0.221	89
		(0.253)	(0.177)	(0.361)	
MIL class activities	0.00	-0.349	-0.661	-0.404	89
		(0.492)	(0.438)	(0.268)	
MIL topics	0.00	-0.254	-0.150	-0.205	89
		(0.482)	(0.223)	(0.345)	
History–Geography (0/1)	0.52	0.156	-0.009	0.098	89
		(0.166)	(0.090)	(0.127)	
Civics (0/1)	0.32	0.120	-0.103	-0.068	89
		(0.126)	(0.168)	(0.127)	
Economics and Social Sciences (0/1)	0.08	-0.029	0.070	0.024	89
		(0.081)	(0.136)	(0.141)	
Panel C: Class Characteristics					
School climate (BL)	-0.00	0.053	-0.002	0.267	85
		(0.430)	(0.405)	(0.444)	
General track (0/1)	0.38	-0.102	-0.037	-0.037	89
		(0.122)	(0.105)	(0.088)	
Number of students in the class (admin. data)	22.82	3.534*	1.702	-2.373	89
		(1.476)	(1.839)	(1.668)	
Seconde (10th grade)	0.53	-0.121	-0.027	-0.043	89
		(0.073)	(0.034)	(0.117)	
Première (11th grade)	0.23	0.059	0.067	-0.114	89
		(0.061)	(0.042)	(0.167)	
Terminale (12th grade)	0.20	0.011	-0.064	0.082	89
		(0.031)	(0.043)	(0.152)	

Notes: Each line corresponds to a separate regression. Column (1) = mean of the dependent variable in the control group. (2) = estimated ITT for T1 (3) = estimated ITT for T2 and (4) = estimated ITT for T3. Standard errors (in parentheses) are clustered at the strata level. Strata fixed effects included. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table E.9: Balancing Checks in high IPS Schools (above 1st quartile)

Variable	(1) Control	(2) T1 - C	(3) T2 - C	(4) T3 - C	(5) N
Panel A: Student Characteristics and Baseline Skills					
Age	15.55	-0.005	0.001	-0.068	5,165
		(0.032)	(0.095)	(0.099)	
Female student (0/1)	0.58	-0.051*	-0.018	0.003	5,213
		(0.024)	(0.019)	(0.052)	
Foreign origins (0/1)	0.23	0.030	0.038	0.012	5,305
		(0.038)	(0.024)	(0.030)	
Presence on social media (0/1)	0.51	0.010	0.006	-0.029	5,295
		(0.022)	(0.019)	(0.018)	
Exposure to EMI interventions	1.40	-0.000	-0.036	-0.036	4,490
		(0.028)	(0.049)	(0.028)	
Newspaper Consumption Index	0.20	-0.075*	-0.011	-0.048**	5,295
		(0.039)	(0.018)	(0.019)	
Media Literacy Skills Index	0.02	-0.042*	0.023	-0.002	5,285
		(0.019)	(0.018)	(0.018)	
News Knowledge Index	0.10	-0.100**	-0.026	-0.047	5,276
		(0.033)	(0.052)	(0.055)	
Political Participation Index	-0.00	-0.069	-0.009	-0.060**	5,222
		(0.061)	(0.023)	(0.021)	
Panel B: Teacher Characteristics, Skills, and Subjects					
Female teacher (0/1)	0.68	0.158	-0.011	-0.054	268
		(0.094)	(0.076)	(0.139)	
Age	47.18	1.450	-1.214	-0.394	266
		(1.615)	(1.877)	(1.523)	
Teaching experience	20.84	2.144	0.598	-0.969	258
		(2.574)	(2.053)	(1.616)	
High-level certification (*Agrégation*) (0/1)	0.37	-0.056	0.049	-0.141**	268
		(0.108)	(0.037)	(0.059)	
Head teacher (0/1)	0.24	-0.005	0.014	-0.172*	268
		(0.087)	(0.062)	(0.084)	
Trained in MIL (0/1)	0.41	0.072	-0.036	0.083	268
		(0.066)	(0.046)	(0.069)	
Trained in MIL – CLEMI (0/1)	0.30	0.080	-0.019	-0.035	268
		(0.065)	(0.045)	(0.073)	
MIL teaching self-confidence	0.00	-0.062	0.008	-0.184	268
		(0.259)	(0.253)	(0.270)	
MIL class activities	0.00	0.194	0.455*	0.184	268
		(0.253)	(0.220)	(0.173)	
MIL topics	-0.00	-0.046	0.259	0.064	268
		(0.262)	(0.224)	(0.159)	
History–Geography (0/1)	0.62	-0.119	0.018	-0.135*	268
		(0.181)	(0.192)	(0.064)	
Civics (0/1)	0.29	0.033	0.086	0.049	268
		(0.119)	(0.101)	(0.105)	
Economics and Social Sciences (0/1)	0.16	0.037	-0.038	0.087*	268
		(0.101)	(0.092)	(0.041)	
Panel C: Class Characteristics					
School climate (BL)	0.00	0.110	0.112	0.066	249
		(0.144)	(0.106)	(0.124)	
General track (0/1)	0.89	0.014	-0.059	-0.071	268
		(0.028)	(0.055)	(0.073)	
Number of students in the class (admin. data)	28.95	1.758	0.104	-1.392	268
		(1.575)	(1.282)	(1.488)	
Seconde (10th grade)	0.32	0.052	-0.005	-0.016	268
		(0.048)	(0.027)	(0.049)	
Première (11th grade)	0.50	-0.103	0.015	0.076	268
		(0.067)	(0.073)	(0.077)	
Terminale (12th grade)	0.15	0.076***	-0.002	-0.069	268
		(0.022)	(0.064)	(0.051)	

Standard errors in parentheses

Strata FE included. School weights. Cluster s.e. strata

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Each line corresponds to a separate regression. Column (1) = mean of the dependent variable in the control group. (2) = estimated ITT for T1 (3) = estimated ITT for T2 and (4) = estimated ITT for T3. Standard errors (in parentheses) are clustered at the strata level. Strata fixed effects included. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table E.10: Balancing Checks: Teachers with High prior MIL teaching experience

Variable	(1) Control	(2) T1 - C	(3) T2 - C	(4) T3 - C	(5) N
Panel A: Student Characteristics and Baseline Skills					
Age	15.59	0.154	0.029	-0.017	2,870
		(0.097)	(0.129)	(0.142)	
Female student (0/1)	0.55	0.032	0.005	0.002	2,916
		(0.052)	(0.020)	(0.028)	
Foreign origins (0/1)	0.34	-0.075	-0.050	-0.044	2,961
		(0.083)	(0.069)	(0.061)	
Presence on social media (0/1)	0.49	0.008	0.008	0.010	2,956
		(0.024)	(0.027)	(0.010)	
Exposure to EMI interventions	1.34	0.086***	0.020	0.089	2,498
		(0.025)	(0.042)	(0.058)	
Newspaper Consumption Index	0.17	-0.018	0.003	0.000	2,956
		(0.053)	(0.037)	(0.043)	
Media Literacy Skills Index	-0.01	0.028	0.049	0.018	2,945
		(0.038)	(0.036)	(0.030)	
News Knowledge Index	-0.05	0.068	0.097	0.091	2,943
		(0.079)	(0.090)	(0.079)	
Political Participation Index	0.01	-0.069	-0.045	-0.076	2,919
		(0.070)	(0.035)	(0.044)	
Panel B: Teacher Characteristics, Skills, and Subjects					
Female teacher (0/1)	0.72	0.183	0.097	0.046	143
		(0.118)	(0.059)	(0.105)	
Age	45.45	2.676	2.343	1.858	141
		(2.678)	(3.074)	(3.127)	
Teaching experience	19.63	2.782	2.685	-0.475	141
		(2.881)	(3.060)	(2.689)	
High-level certification (*Agrégation*) (0/1)	0.36	-0.073	0.022	-0.200*	143
		(0.124)	(0.080)	(0.096)	
Head teacher (0/1)	0.27	-0.031	-0.053	-0.252**	143
		(0.123)	(0.077)	(0.085)	
Trained in MIL (0/1)	0.56	-0.069	-0.064	0.024	143
		(0.103)	(0.130)	(0.115)	
Trained in MIL – CLEMI (0/1)	0.46	-0.040	-0.071	-0.006	143
		(0.079)	(0.112)	(0.155)	
MIL teaching self-confidence	0.00	0.260	-0.057	-0.259	143
		(0.308)	(0.253)	(0.261)	
MIL class activities	-0.00	0.038	0.135	0.129	143
		(0.323)	(0.243)	(0.291)	
MIL topics	-0.00	0.031	0.168	-0.256	143
		(0.196)	(0.253)	(0.274)	
History–Geography (0/1)	0.57	-0.058	-0.041	-0.146	143
		(0.194)	(0.174)	(0.142)	
Civics (0/1)	0.40	-0.087	-0.136	-0.139	143
		(0.134)	(0.121)	(0.171)	
Economics and Social Sciences (0/1)	0.05	0.238	0.066	0.124	143
		(0.157)	(0.147)	(0.091)	
Panel C: Class Characteristics					
School climate (BL)	0.00	-0.003	0.168	0.454	128
		(0.305)	(0.238)	(0.305)	
General track (0/1)	0.81	0.018	-0.054	-0.076	143
		(0.037)	(0.077)	(0.096)	
Number of students in the class (admin. data)	27.28	1.433	-1.127	-2.198	143
		(1.582)	(2.008)	(2.011)	
Seconde (10th grade)	0.36	0.002	-0.026	-0.079	143
		(0.045)	(0.048)	(0.073)	
Première (11th grade)	0.44	-0.171	-0.025	0.031	143
		(0.108)	(0.095)	(0.115)	
Terminale (12th grade)	0.14	0.238*	0.081	-0.020	143
		(0.115)	(0.084)	(0.096)	

Notes: Each line corresponds to a separate regression. Column (1) = mean of the dependent variable in the control group. (2) = estimated ITT for T1 (3) = estimated ITT for T2 and (4) = estimated ITT for T3. Standard errors (in parentheses) are clustered at the strata level. Strata fixed effects included. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table E.11: Balancing Checks: Teachers with low prior MIL teaching experience

Variable	(1) Control	(2) T1 - C	(3) T2 - C	(4) T3 - C	(5) N
Panel A: Student Characteristics and Baseline Skills					
Age	15.55	-0.026	0.002	0.016	4,001
		(0.098)	(0.076)	(0.101)	
Female student (0/1)	0.58	-0.097***	-0.014	-0.024	4,048
		(0.030)	(0.024)	(0.069)	
Foreign origins (0/1)	0.24	0.039	0.039	-0.026	4,130
		(0.048)	(0.031)	(0.040)	
Presence on social media (0/1)	0.52	-0.008	-0.019	-0.042*	4,120
		(0.023)	(0.022)	(0.023)	
Exposure to EMI interventions	1.37	-0.075*	-0.067	-0.052	3,452
		(0.037)	(0.039)	(0.032)	
Newspaper Consumption Index	0.18	-0.061**	-0.015*	-0.044**	4,120
		(0.026)	(0.008)	(0.017)	
Media Literacy Skills Index	-0.00	-0.037	0.017	0.014	4,106
		(0.026)	(0.020)	(0.032)	
News Knowledge Index	0.02	-0.157**	-0.074*	-0.056	4,090
		(0.052)	(0.038)	(0.049)	
Political Participation Index	0.00	-0.062	0.005	-0.017	4,030
		(0.058)	(0.031)	(0.050)	
Panel B: Teacher Characteristics, Skills, and Subjects					
Female teacher (0/1)	0.68	0.083	-0.074	-0.178	214
		(0.099)	(0.096)	(0.143)	
Age	47.38	1.077	-1.954	-0.499	214
		(1.853)	(1.585)	(1.543)	
Teaching experience	20.24	2.482	0.252	-0.511	204
		(2.539)	(1.699)	(1.563)	
High-level certification (*Agrégation*) (0/1)	0.29	-0.058	0.023	-0.090*	214
		(0.071)	(0.024)	(0.046)	
Head teacher (0/1)	0.24	0.017	0.069	-0.027	214
		(0.098)	(0.074)	(0.114)	
Trained in MIL (0/1)	0.35	0.114	-0.101	0.094	214
		(0.073)	(0.090)	(0.076)	
Trained in MIL – CLEMI (0/1)	0.20	0.126	-0.030	0.005	214
		(0.082)	(0.093)	(0.049)	
MIL teaching self-confidence	-0.00	-0.154	-0.135	-0.086	214
		(0.246)	(0.229)	(0.238)	
MIL class activities	-0.00	0.016	0.019	-0.077	214
		(0.309)	(0.282)	(0.201)	
MIL topics	-0.00	-0.166	0.074	0.059	214
		(0.243)	(0.220)	(0.136)	
History–Geography (0/1)	0.60	-0.051	0.018	-0.088	214
		(0.186)	(0.184)	(0.058)	
Civics (0/1)	0.23	0.123	0.118	0.063	214
		(0.118)	(0.096)	(0.078)	
Economics and Social Sciences (0/1)	0.19	-0.099	-0.021	0.065	214
		(0.082)	(0.097)	(0.093)	
Panel C: Class Characteristics					
School climate (BL)	0.00	0.190	0.018	-0.008	206
		(0.144)	(0.213)	(0.188)	
General track (0/1)	0.69	-0.036	-0.053	-0.059	214
		(0.064)	(0.030)	(0.059)	
Number of students in the class (admin. data)	27.04	1.917	1.092	-1.710	214
		(1.585)	(0.999)	(1.538)	
Seconde (10th grade)	0.39	-0.024	-0.029	-0.018	214
		(0.063)	(0.022)	(0.049)	
Première (11th grade)	0.41	0.057	0.079	0.064	214
		(0.110)	(0.071)	(0.087)	
Terminale (12th grade)	0.17	-0.058	-0.070	-0.051	214
		(0.089)	(0.073)	(0.063)	

Notes: Each line corresponds to a separate regression. Column (1) = mean of the dependent variable in the control group. (2) = estimated ITT for T1 (3) = estimated ITT for T2 and (4) = estimated ITT for T3. Standard errors (in parentheses) are clustered at the strata level. Strata fixed effects included. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

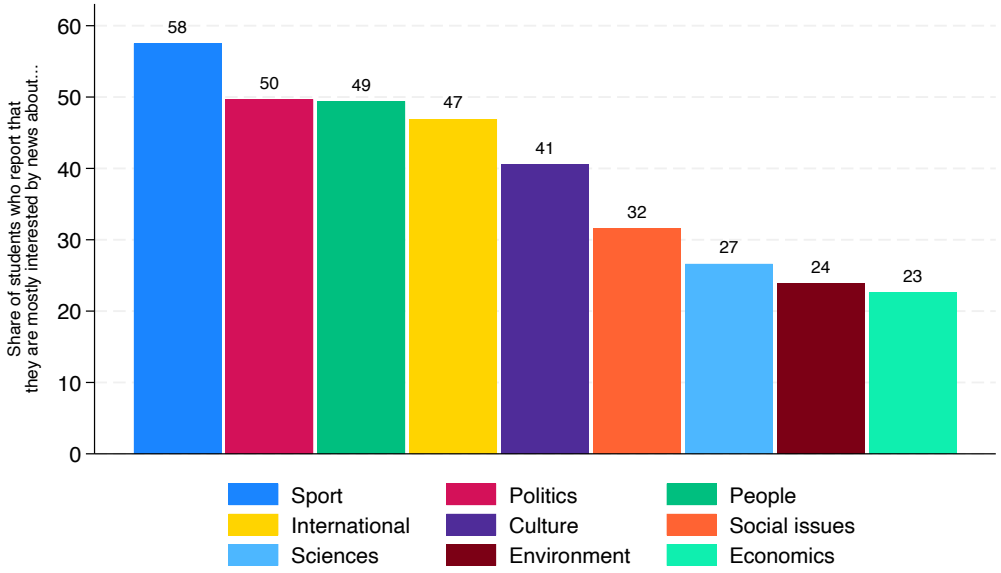
Table E.12: Balancing Checks: Follow-up Survey, Voting Age Students

Variable	(1) Control	(2) T1 - C	(3) T2 - C	(4) T3 - C	(5) N
Age	16.524	0.229***	0.031	0.001	775
		(0.064)	(0.073)	(0.103)	
Female (0/1)	0.605	-0.054	-0.004	-0.003	765
		(0.055)	(0.068)	(0.062)	
Foreign origin (0/1)	0.255	0.021	0.003	-0.069	775
		(0.070)	(0.065)	(0.114)	
Presence on Social Media (BL)	0.519	0.020	0.007	0.021	775
		(0.026)	(0.031)	(0.034)	
MIL exposure (BL)	1.471	-0.055	-0.035	0.056	680
		(0.039)	(0.047)	(0.066)	
Newspaper Consumption Index (BL)	0.265	-0.084	0.003	-0.045	775
		(0.094)	(0.044)	(0.071)	
Media Literacy Skills (BL)	0.117	-0.004	0.037	0.121**	775
		(0.048)	(0.051)	(0.046)	
Political Knowledge (BL)	0.116	-0.105	0.073	-0.032	775
		(0.072)	(0.068)	(0.071)	
Political Participation (BL)	0.042	-0.076	-0.045	-0.127*	771
		(0.052)	(0.034)	(0.062)	

Notes: Each line corresponds to a separate regression. Column (1) = mean of the dependent variable in the control group. (2) = estimated ITT for T1 (3) = estimated ITT for T2 and (4) = estimated ITT for T3. Standard errors (in parentheses) are clustered at the strata level. Strata fixed effects included. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

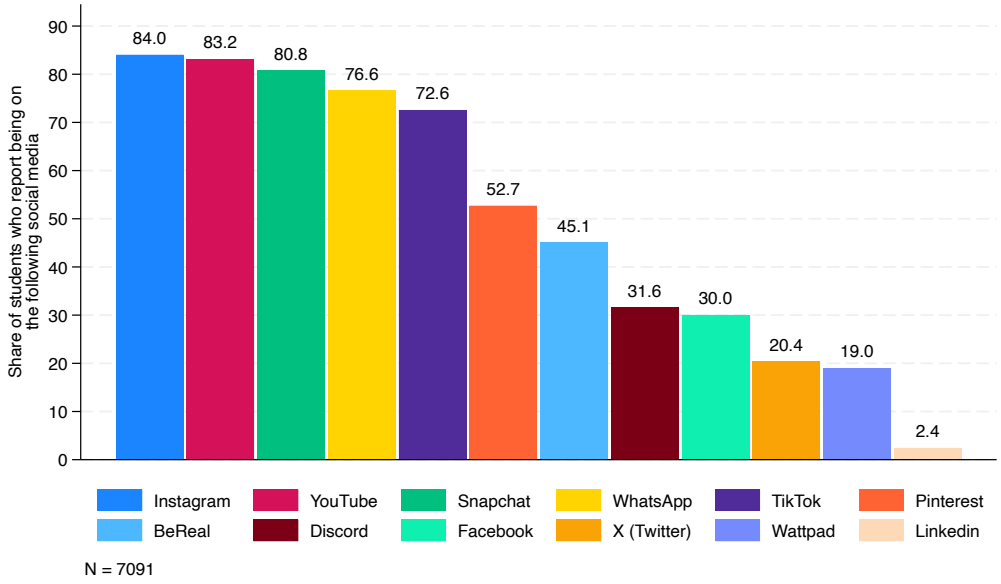
F Descriptive Evidence

F.1 News Consumption at Baseline



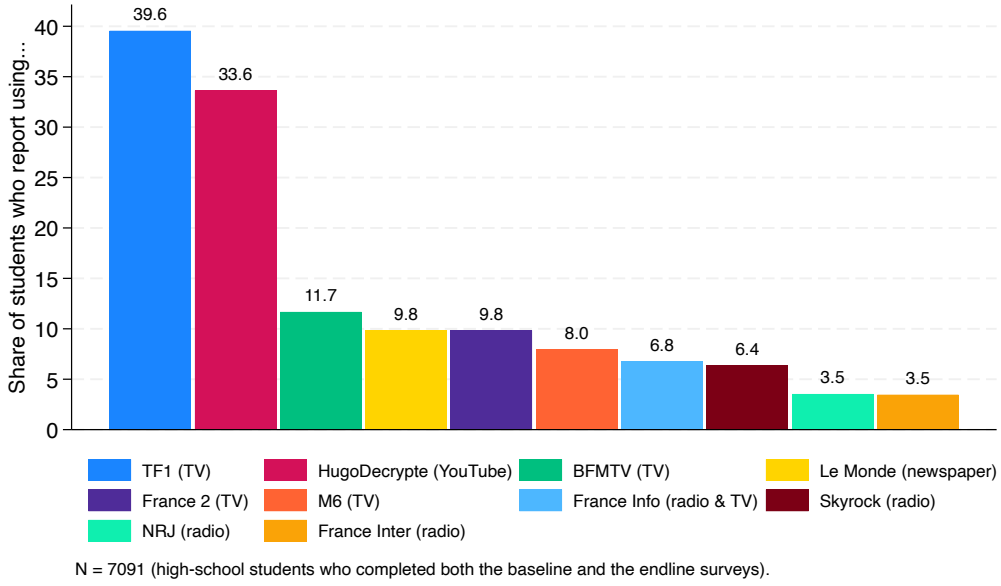
Notes: The Figure plots the responses to the question: "What type(s) of news interest you the most?" in the baseline survey. An observation is a student who has completed both the baseline and the endline surveys ($N = 7,091$).

Figure F.1: Descriptive evidence at baseline: Interest in news depending on the topic measured



Notes: The Figure plots the reported use of social media in the baseline survey. An observation is a student who has completed both the baseline and the endline survey ($N = 7,091$).

Figure F.2: Descriptive evidence at baseline: Use of social media



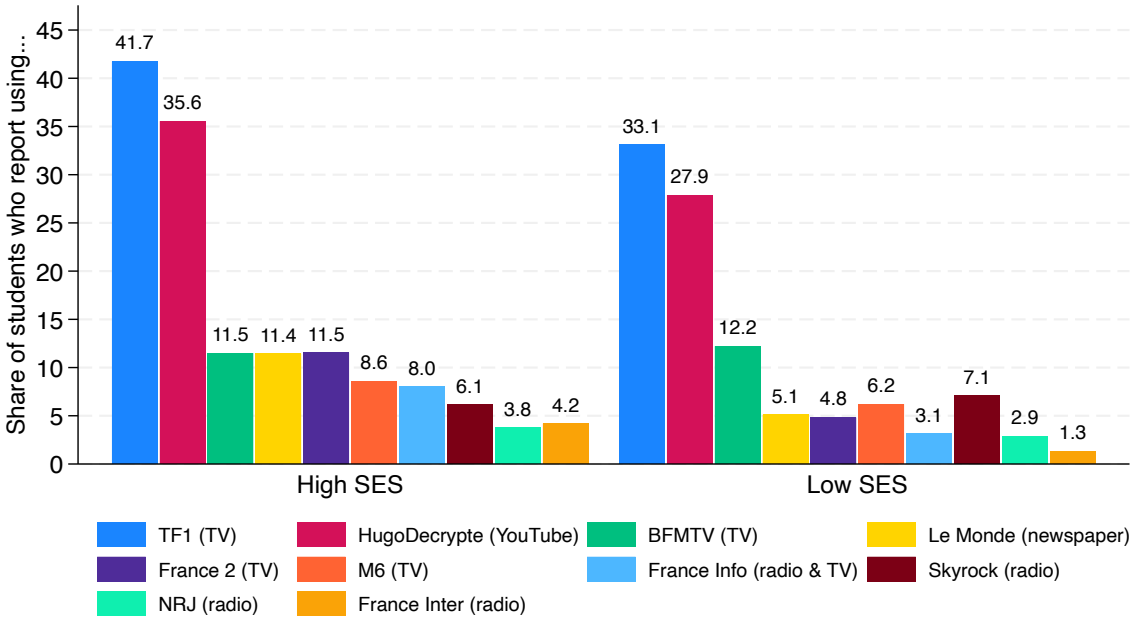
Notes: The Figure plots the share of the students who report using the different media outlets in the baseline survey. For each of the media categories (e.g. television, social media, etc.) they report having used as a source of news over the past seven days, students were asked to list the name(s) of the specific outlets they have consumed. We report here descriptive statistics for the top-10 media outlets in terms of the number of times they were listed. An observation is a student who has completed both the baseline and the endline surveys ($N = 7,091$).

Figure F.3: Descriptive evidence at baseline: Most frequently used media outlets

Table F.1: Students' news consumption and interest in news at baseline: Descriptive statistics depending on socioeconomic status

	High SES	Low SES	Diff/se
Keeping up with news			
Never	0.06	0.12	-0.06***
			(0.01)
Rarely	0.46	0.52	-0.06***
			(0.01)
Often	0.38	0.29	0.10***
			(0.01)
Very often	0.10	0.07	0.03***
			(0.01)
News sources (past 7 days)			
Television	0.67	0.60	0.08***
			(0.01)
Radio	0.29	0.21	0.08***
			(0.01)
Podcasts	0.43	0.35	0.07***
			(0.01)
(Online or offline) Newspapers	0.21	0.12	0.09***
			(0.01)
Social media	0.82	0.78	0.04***
			(0.01)
Partner news & other dailies			
Knowledge of partner newspaper	0.93	0.82	0.11***
			(0.01)
Knowledge of other dailies (av.)	0.56	0.47	0.09***
			(0.01)
Use of partner newspaper	0.41	0.31	0.10***
			(0.01)
Use of other dailies (av.)	0.12	0.10	0.01**
			(0.00)
Subscription to partner newspaper	0.09	0.05	0.03***
			(0.01)
Subscription to another daily	0.12	0.11	0.01
			(0.01)
Know periodicity of partner newspaper	0.51	0.41	0.10***
			(0.01)
Observations	7,091		

Notes: The table provides descriptive statistics on the news consumption of students in our sample at baseline. An observation is a student. Only the students included in the analysis sample (i.e. those who completed both the baseline and the endline surveys) are included. Column (1) presents the results for the students in high-SES high schools. Column (2) presents the results for the students in low-SES high schools. In Column (3) we perform a t-test on the equality of means (robust standard errors are in parentheses). "Keeping up with news" provides the statistics corresponding to the answer to the following question: "Do you keep up to date with political, economic, and social news in France and/or abroad?" "News sources (past 7 days)" provides the statistics corresponding to the answer to the following question: "Over the past 7 days, have you used the following sources to keep up with current events or social issues in France and/or abroad?" "Knowledge of partner newspaper" or "of other dailies (av.)" is based on the answer to the following question: "From among these French newspapers, select those you have heard of before." "Use of partner newspaper " or "of other dailies (av.)" is based on the answer to the following question: "From among the newspapers you have just selected, have you consulted one or more of their articles, videos, and/or podcasts in the last 7 days?"

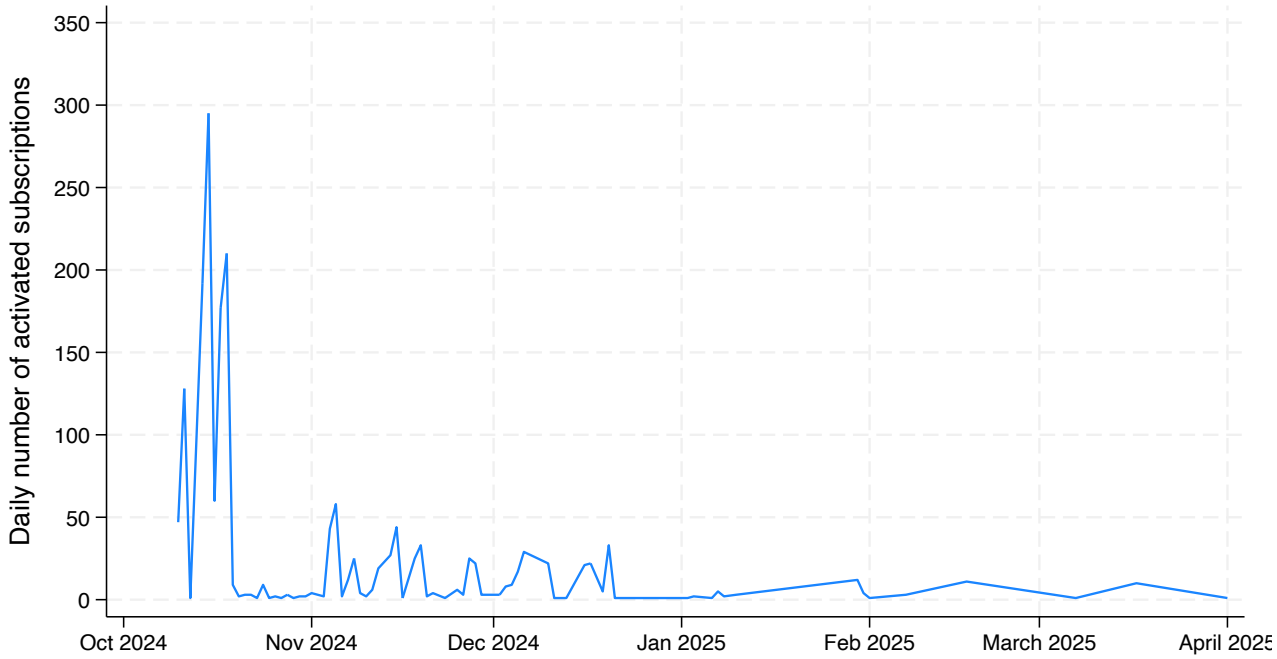


N = 7091 (high-school students who completed both the baseline and the endline surveys).

Notes: The Figure plots the share of the students who report using the different media outlets in the baseline survey. For each of the media categories (e.g. television, social media, etc.) they report having used as a source of news over the past seven days, students were asked to list the name(s) of the specific outlets they have consumed. We report here descriptive statistics for the top-10 media outlets in terms of number of times they were listed. An observation is a student who has completed both the baseline and the endline surveys ($N = 7,091$).

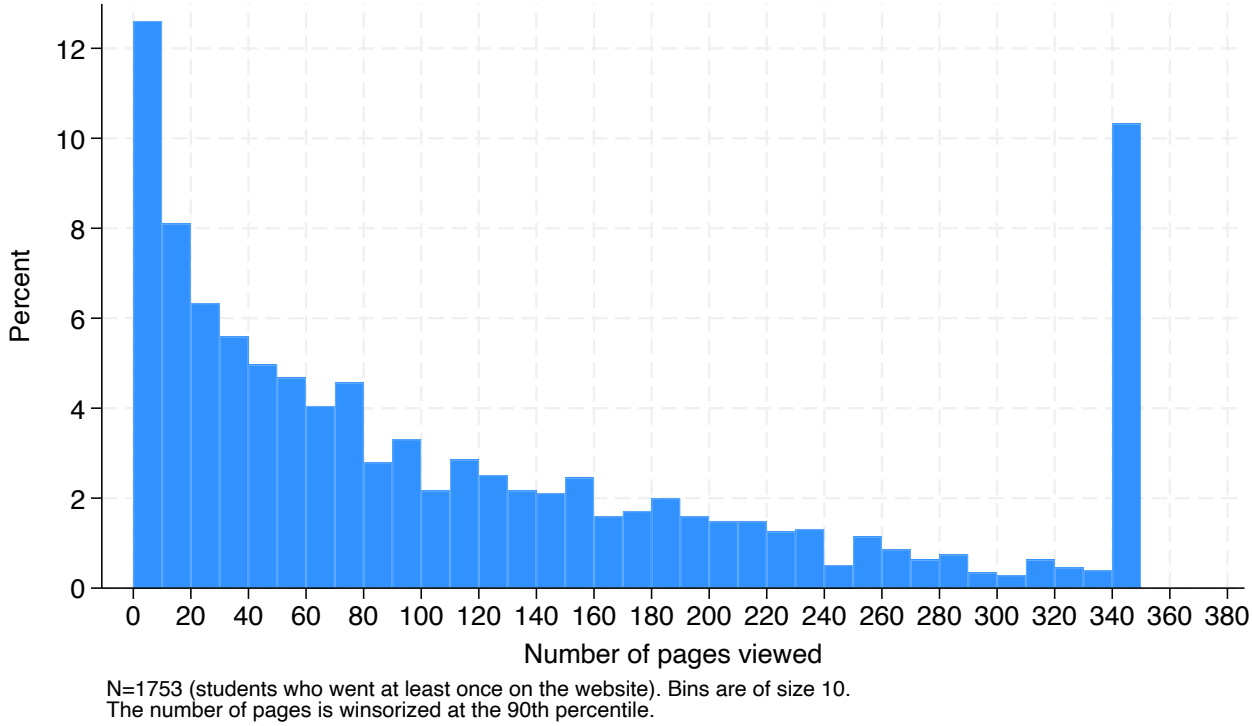
Figure F.4: Descriptive evidence at baseline depending on socioeconomic status: Most frequently used media outlets

F.2 News Consumption Using *Le Monde* Data



Notes: The Figure plots the daily number of activated subscriptions to our partner newspaper by students in our sample.

Figure F.5: Daily number of activated subscriptions (students)



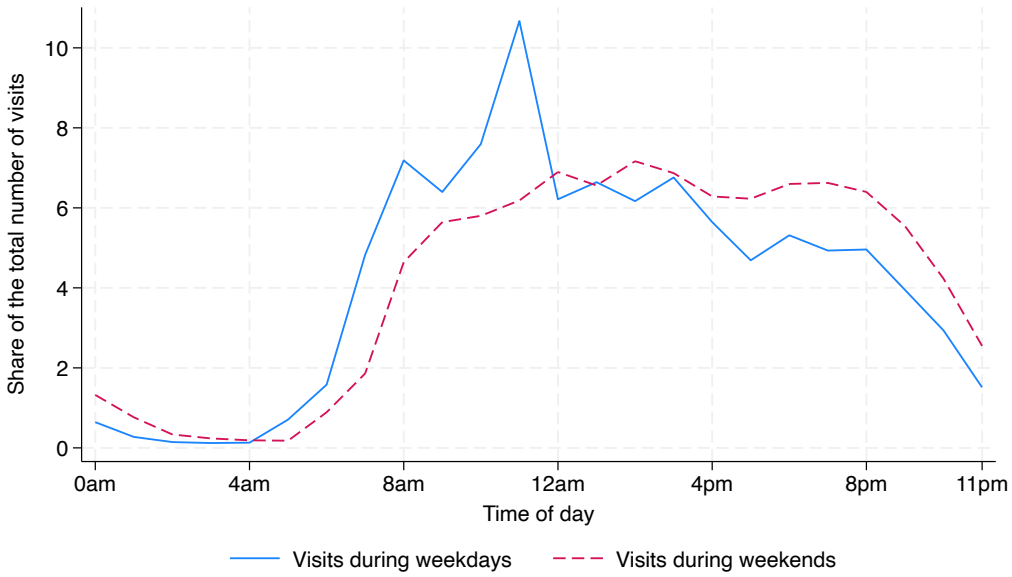
Notes: The Figure plots the distribution of the overall number of pages viewed on the website. An observation is a student included in treatment group T1 or T3 and who has activated its free subscription to *Le Monde* and went at least once on the website.

Figure F.6: News consumption by students: Distribution of the number of pages viewed (intensive margin)

Table F.2: News consumption by students: Descriptive statistics on the devices used and on the timing of news consumption

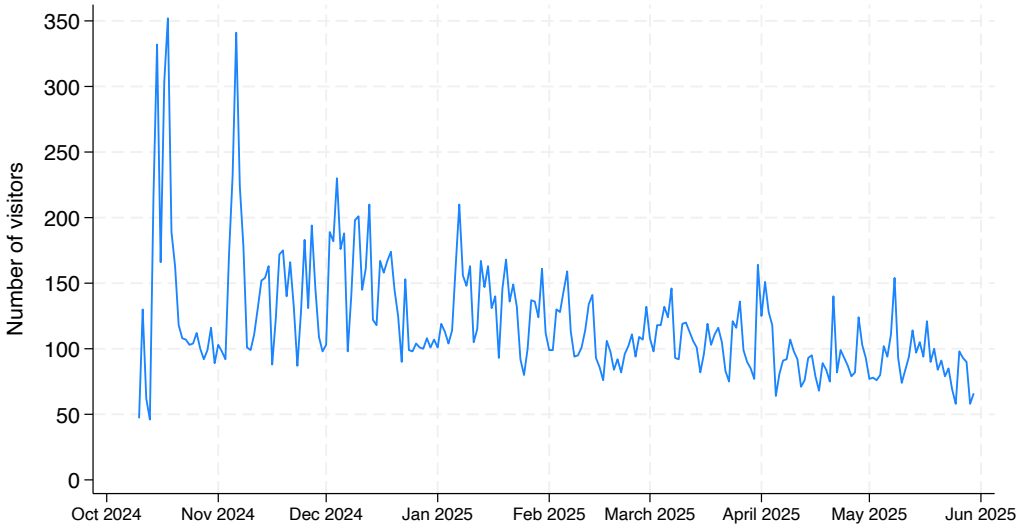
	Mean	St.Dev
Device used		
Mobile phone	0.82	0.38
Desktop	0.15	0.36
Tablet	0.03	0.16
Website and Apps		
iPhone app - Phone	0.41	0.49
Android app - Phone	0.35	0.48
Website	0.21	0.41
Android app - Tablet	0.01	0.09
iPad app - Tablet	0.01	0.11
Day of the week		
Sunday	0.10	0.30
Monday	0.16	0.37
Tuesday	0.17	0.37
Wednesday	0.16	0.36
Thursday	0.17	0.37
Friday	0.17	0.37
Saturday	0.09	0.28
Time of day		
08:00–15:59	0.56	0.50
16:00–19:59	0.22	0.41
20:00–23:59	0.14	0.35
00:00–07:59	0.08	0.27
Observations	316,958	

Notes: The table provides descriptive statistics on the devices used and the day of the week and time when students in T1 and T3 went on *Le Monde* website. An observation is a page viewed on the website.



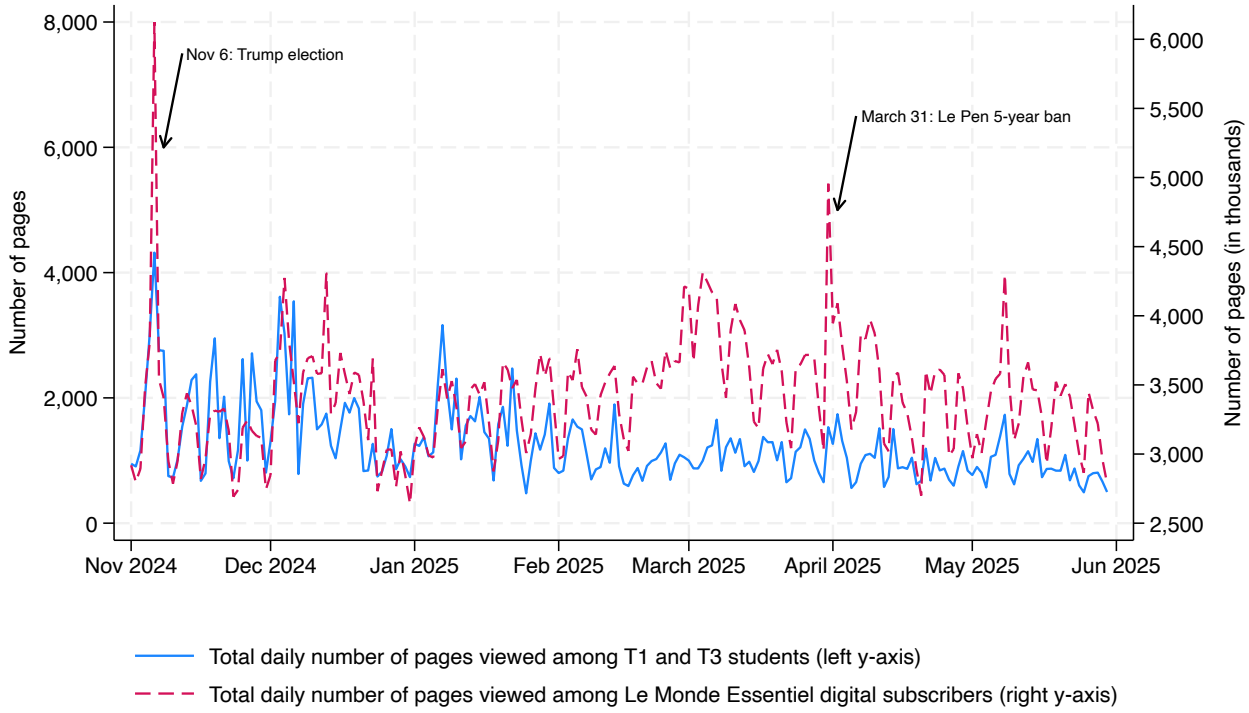
Notes: The Figure plots the share of pages viewed by time of day separately for weekdays (continuous blue line) and weekends (dashed red line). The shares are computed using the total number of pages viewed by the students in T1 and T3 during the school year.

Figure F.7: News access by time of day: Weekdays vs. weekends



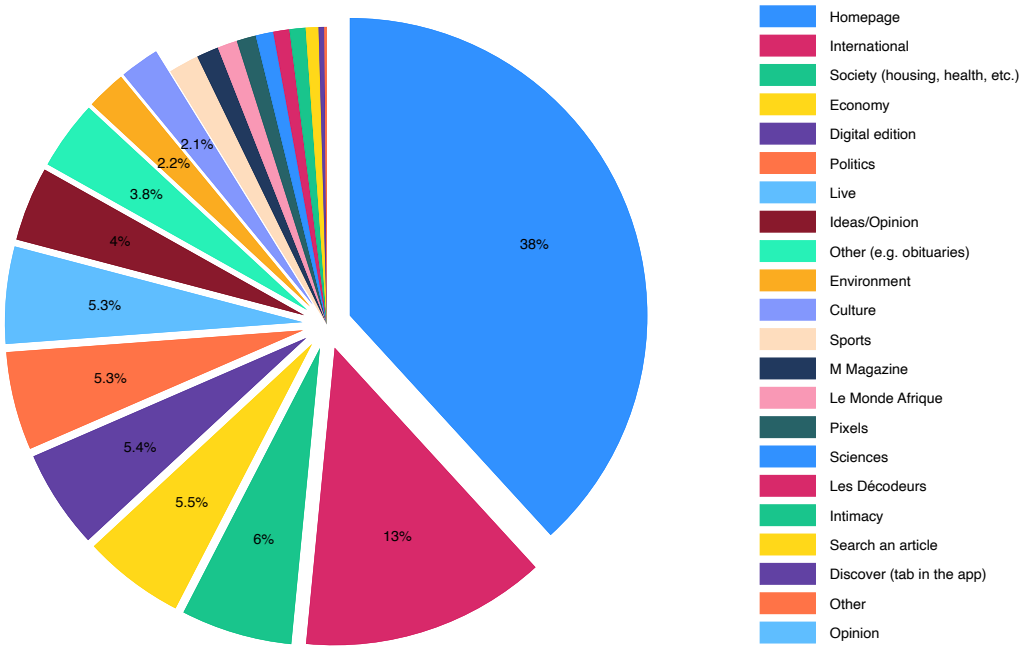
Notes: The Figure plots, for each day, the daily number of students (included in T1 and T3) visiting *Le Monde*'s website.

Figure F.8: Daily number of visitors to *Le Monde*'s website (students in T1 and T3)

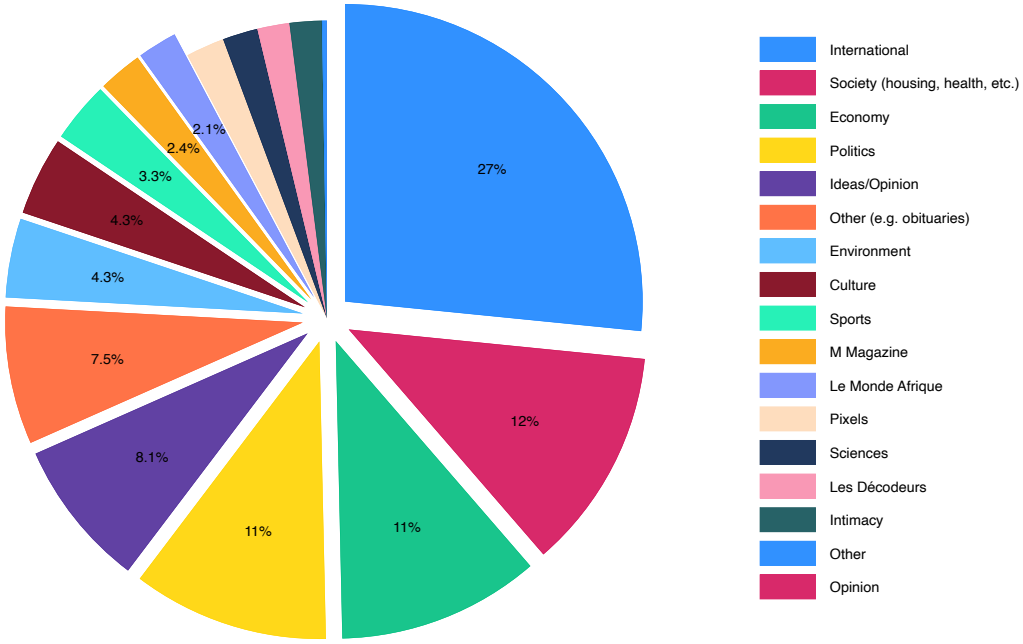


Notes: The Figure plots, for each day, the total daily number of pages viewed on *Le Monde*'s website. The continuous blue line (left y-axis) plots this number of students included in T1 and T3. The dashed red line (right y-axis) plots this number (in thousands) Le Monde Essentiel digital subscribers.

Figure F.9: Total daily number of pages viewed on *Le Monde*'s website: students in T1 and T3 vs. Le Monde Essentiel digital subscribers



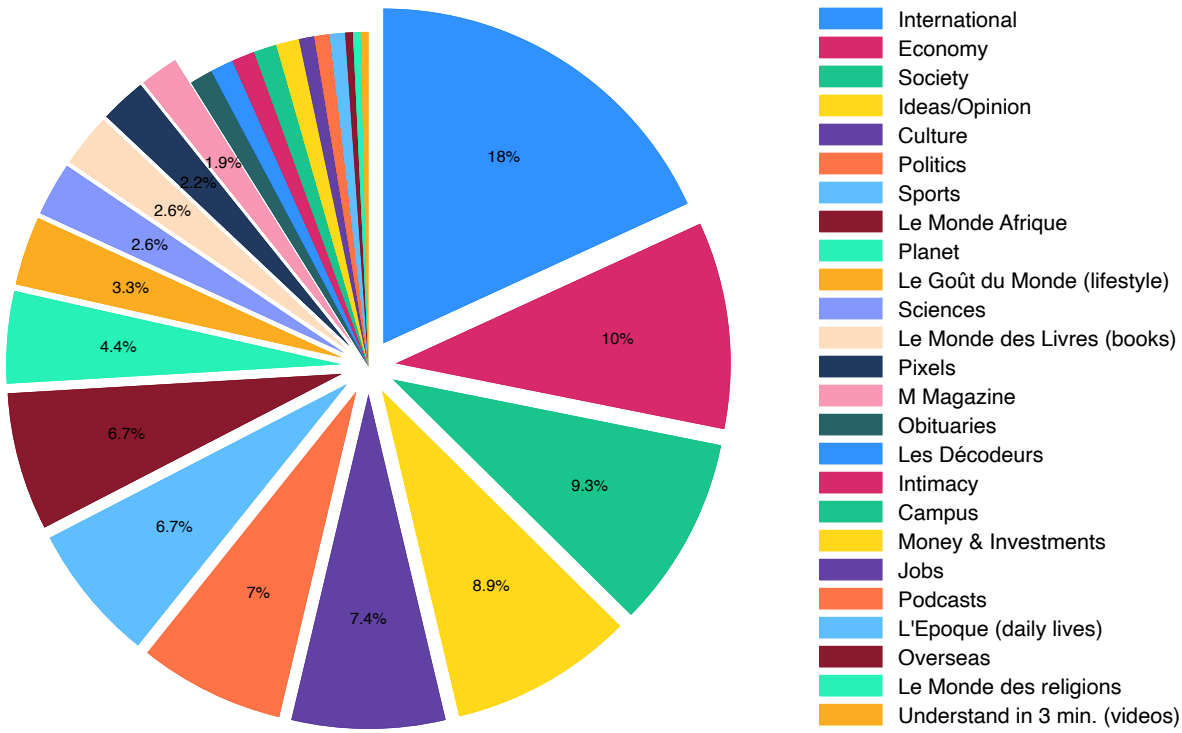
(a) All pages viewed



(b) Pages viewed for which we have information on the section

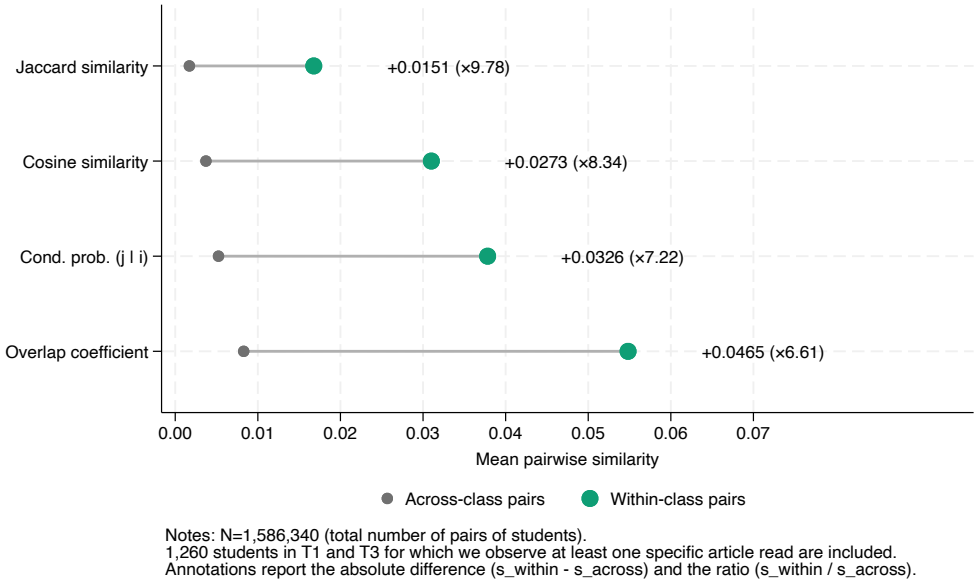
Notes: The upper Figure F.10a reports descriptive statistics on the pages viewed by Le Monde Essentiel digital subscribers. The bottom Figure F.10b reports the same figures but computing the share on the subset of pages for which we can identify the section.

Figure F.10: Type of news consumed: Le Monde Essentiel digital subscribers



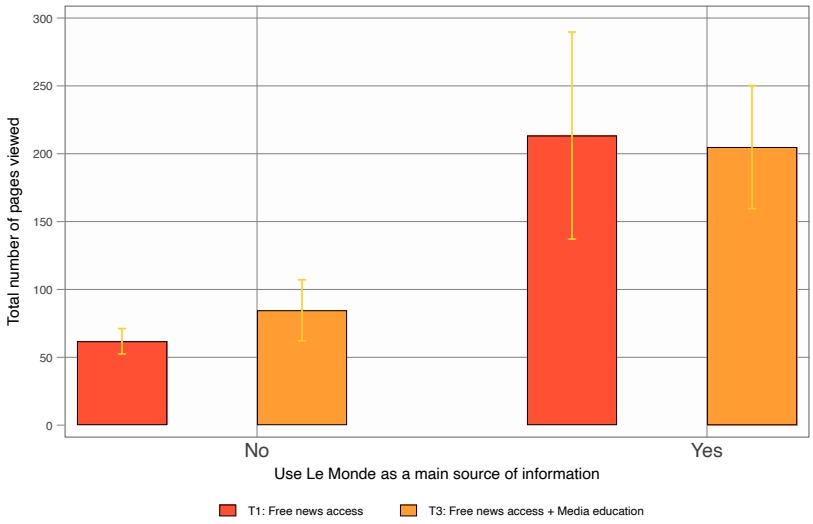
Notes: The Figure plots the share of articles produced in each section by *Le Monde* during the study period..

Figure F.11: Type of news produced: Share of the articles produced by *Le Monde* by section



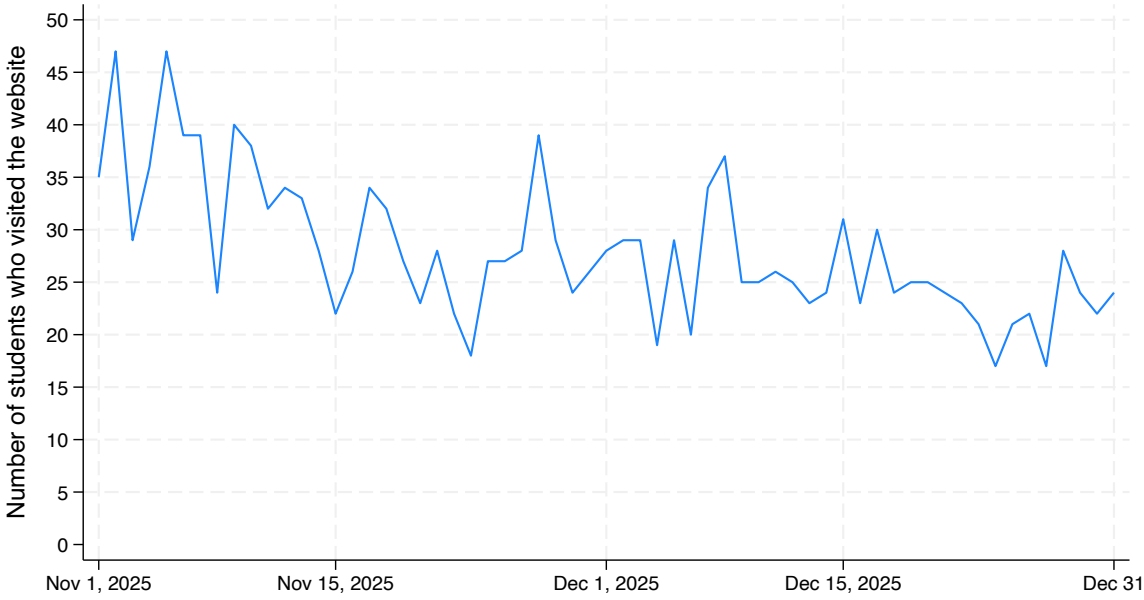
Notes: The Figure reports various measures of similarity in news consumption. For each of the similarity measures (Jaccard similarity, overlap coefficient, conditional probability, cosine similarity, and share of common articles), it reports (i) the mean value for the across-class pairs (gray dots), (ii) the mean value for the within-class pairs (green dots), and (iii) both the difference and the ratio between the within-class and the across-class measures.

Figure F.12: Within-class vs. across-class similarity in news consumption



Notes: The Figure plots the total number of pages viewed by students in T1 and T3 computed using *Le Monde*'s website logs, depending on whether students report (in the endline survey) that they use *Le Monde* as their main source of information.

Figure F.13: Actual number of pages viewed depending on reported news consumption



Notes: N=344 students who visited *Le Monde*'s website at least once between Nov 1 and Dec 31, 2025.

Notes: The Figure plots the daily number of students in T1 and T3 who visited *Le Monde*'s website between November 1, 2025 and December 31, 2025.

Figure F.14: Demand for news after the end of the experiment: Daily number of students who visited *Le Monde*'s website

Table F.3: News consumption by students: Descriptive statistics depending on the socioeconomic status

	High SES	Low SES	Diff/se
All students in T1 and T3			
Number of actions	143	113	30
			(23)
Number of pages viewed	136	107	29
			(21)
Active students in T1 and T3			
Number of actions	207	155	52
			(31)
Number of pages viewed	197	146	51
			(29)
Observations	2,494		

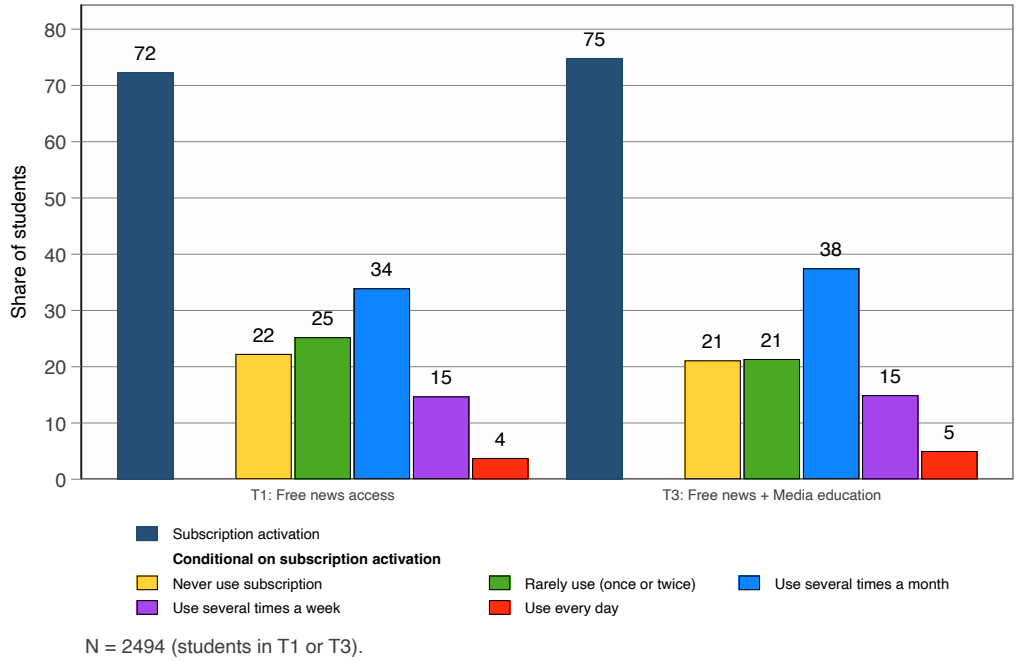
Notes: The table provides descriptive statistics on the number of actions and number of pages viewed on *Le Monde*'s website. An observation is a student included in treatment group T1 or T3. Column (1) presents the results for the students in high-SES high schools. Column (2) presents the results for the students in low-SES high schools. In Column (3) we perform a t-test on the equality of means (robust standard errors are in parentheses).

Table F.4: News consumption by students: Type of news consumed (all pages viewed) depending on the socioeconomic status

	High SES	Low SES	Diff/se
Homepage	35.3	33.8	1.54
			(1.28)
International	14.3	11.4	2.91***
			(0.79)
Search an article	11.4	13.9	-2.55***
			(0.75)
Society (housing, health, etc.)	4.4	4.9	-0.46
			(0.42)
Politics	5.1	4.4	0.67
			(0.48)
Digital edition	3.4	3.9	-0.59
			(0.53)
Economy	3.2	3.2	-0.00
			(0.36)
Ideas/Opinion	2.8	2.8	0.03
			(0.29)
Live	2.2	2.5	-0.38
			(0.30)
Other (e.g. obituaries)	3.6	3.2	0.42
			(0.35)
Environment	3.1	3.5	-0.43
			(0.37)
Sports	1.9	2.7	-0.83*
			(0.34)
Discover	2.4	3.0	-0.60*
			(0.26)
Culture	1.7	1.5	0.12
			(0.29)
Le Monde Afrique	1.1	1.2	-0.09
			(0.21)
Pixels	1.0	1.5	-0.43*
			(0.20)
Sciences	1.1	0.9	0.21
			(0.20)
Les Décodeurs	1.1	0.7	0.46**
			(0.14)
M Magazine	0.6	0.5	0.10
			(0.13)
Intimacy	0.4	0.5	-0.10
			(0.10)
Opinion	0.0	0.0	0.00
			(0.00)
Observations	1,750		

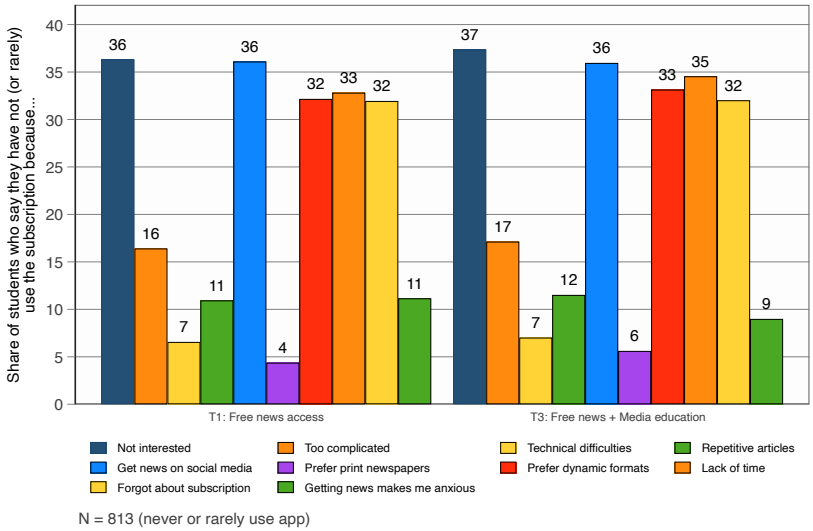
Notes: The table provides descriptive statistics on the pages viewed by the T1/T3 students on *Le Monde*'s website. An observation is a student. Only students who has activated their free subscription to *Le Monde*, went at least once on the website, and for which we have information on a least one specific page are included. Column (1) presents the results for the students in high-SES high schools. Column (2) presents the results for the students in low-SES high schools. In Column (3) we perform a t-test on the equality of means (robust standard errors are in parentheses).

F.3 News Consumption at Endline



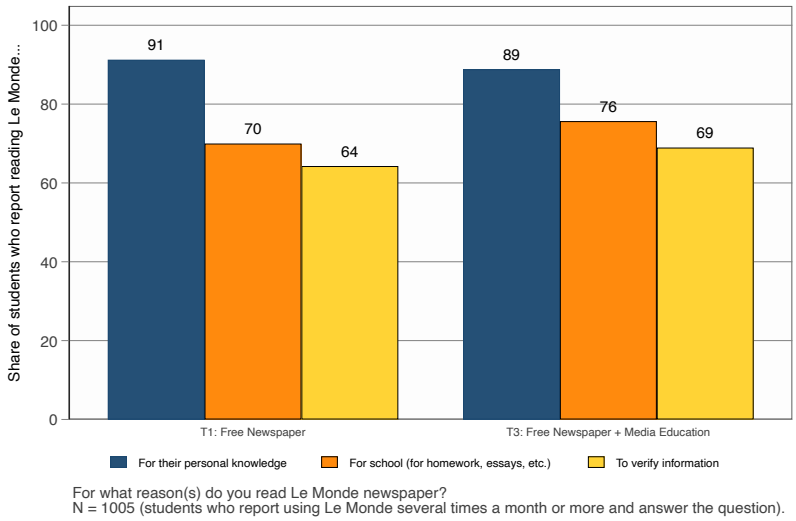
Notes: The Figure plots the reported use of *Le Monde*'s website in the endline survey depending on the treatment status. Only the T1 and T3 students in the analysis sample are included.

Figure F.15: Activation of *Le Monde* subscription and use of *Le Monde*'s website according to the endline survey



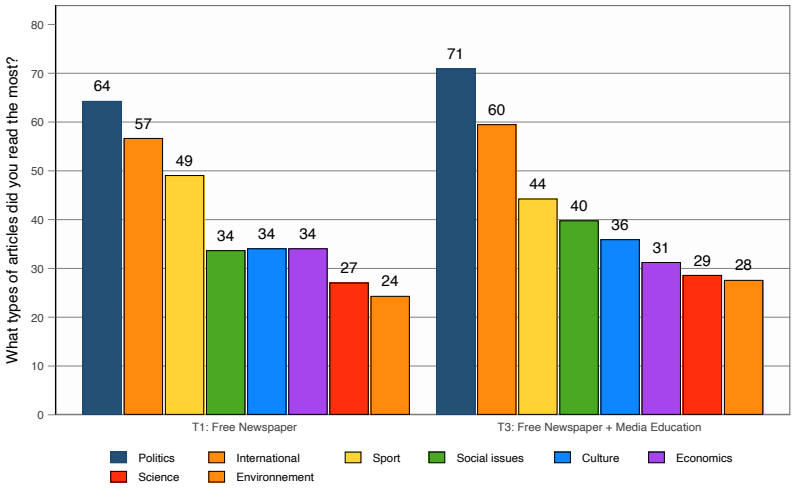
Notes: The Figure plots the reported reasons for not using *Le Monde*'s website in the endline survey depending on the treatment status. Only the T1 and T3 students in the analysis sample who report that they activated their subscription but rarely or never used it are included.

Figure F.16: Reported reasons for not using *Le Monde*'s website according to the endline survey



Notes: The Figure plots the responses to the question (endline survey): "For what reason(s) do you read *Le Monde* newspaper?". For each proposed reason – (i) for my own personal knowledge (blue bar), (ii) for school: for homework, essays, etc. (orange bar), and (iii) to verify information I have heard elsewhere (friends, social media) (yellow bar) – the Figure plots the share of students who report that they somewhat agree or strongly agree (for each possible answers, students could answer by (i) strongly disagree, (ii) somewhat disagree, (iii) somewhat agree, and (iv) strongly agree).

Figure F.17: Reported Reasons for reading *Le Monde* according to the endline survey



Notes: The Figure plots the responses to the question (endline survey): "What types of articles did you read the most?". The students were allowed to chose several answers among the different types of articles proposed.

Figure F.18: Type of articles students report they read the most

G Robustness Checks

Table G.1: ATE: Estimations without control variables

Outcome variable	(1) C	(2) T1-C	(3) S.E.	(4) p	(5) p adj.	(6) T2-C	(7) S.E.	(8) p	(9) p adj.	(10) T3-C	(11) S.E.	(12) p	(13) p adj.	(14) N
Newspaper Consumption (NC) Index	0.000	0.454	0.080	0.000		0.023	0.056	0.681		0.586	0.065	0.000		7091
NC: At least 1 newspaper among 5 main news sources (0/1)	0.208	0.181	0.031	0.000	0.000	0.011	0.024	0.627	0.814	0.256	0.039	0.000	0.000	7091
NC: At least 1 newspaper consulted last 7 days (0/1)	0.473	0.155	0.032	0.000	0.000	0.006	0.025	0.814	0.814	0.179	0.017	0.000	0.000	7091
Social Media among 5 main news sources (0/1)	0.521	-0.075	0.029	0.008	0.008	-0.042	0.029	0.153	0.153	-0.072	0.024	0.003	0.003	7091
Diverse News Sources (0/1)	0.317	0.031	0.018	0.098	0.098	0.005	0.015	0.748	0.748	0.114	0.032	0.000	0.000	7091
Trust in Newspapers (relative)	0.000	0.001	0.061	0.991		0.076	0.054	0.162		0.111	0.052	0.034		6718
Newsletter Subscription (NS)	0.688	0.080	0.035	0.020		0.041	0.018	0.026		0.065	0.021	0.002		7091
NS: Le Monde (0/1)	0.457	0.101	0.050	0.044	0.044	0.010	0.031	0.747	0.747	0.086	0.027	0.001	0.001	7091
NS: Any other than Le Monde (0/1)	0.666	0.067	0.029	0.022	0.044	0.048	0.015	0.001	0.003	0.060	0.018	0.001	0.001	7091
News Knowledge (NK) Index	0.000	-0.014	0.067	0.830		0.004	0.051	0.942		0.009	0.084	0.914		7091
NK: Discernment	0.000	-0.036	0.075	0.632	0.632	-0.017	0.049	0.730	0.970	-0.001	0.085	0.994	0.994	7091
NK: Political knowledge	0.000	0.049	0.049	0.319	0.632	0.035	0.050	0.485	0.970	0.064	0.068	0.345	0.980	7091
NK: Economic knowledge	0.000	-0.029	0.058	0.622	0.632	-0.002	0.043	0.970	0.970	-0.027	0.061	0.653	0.980	7091
Media Literacy Skills (MLS) Index	0.000	0.151	0.073	0.039		0.060	0.052	0.247		0.249	0.054	0.000		3417
MLS: Fake news sharing (0/1)	0.104	-0.016	0.015	0.272	0.396	-0.002	0.015	0.887	0.887	-0.010	0.015	0.504	0.504	3417
MLS: Fact-checking (0/1)	0.394	0.039	0.046	0.396	0.396	0.042	0.030	0.157	0.236	0.053	0.032	0.105	0.105	3417
MLS: Citing precise news source (0/1)	0.352	0.057	0.032	0.076	0.114	0.009	0.020	0.675	0.675	0.125	0.037	0.001	0.001	3417
Political Self Efficacy Index	0.000	-0.139	0.053	0.008		-0.045	0.046	0.328		-0.061	0.042	0.146		6874
Political Participation (PP) Index	0.000	0.006	0.039	0.872		-0.057	0.058	0.327		-0.029	0.064	0.652		7091
PP: Pol. Engagement	0.000	0.013	0.044	0.765	0.921	-0.029	0.053	0.580	0.580	-0.004	0.067	0.955	0.955	7091
PP: Signed the Petition (0/1)	0.772	-0.002	0.022	0.921	0.921	-0.021	0.020	0.302	0.580	-0.015	0.030	0.604	0.955	7091
Well Being (WB) Index	0.000	0.061	0.082	0.461		0.015	0.073	0.842		0.015	0.102	0.880		2269
WB: News Anxiety	0.000	-0.025	0.071	0.720	0.720	-0.042	0.066	0.518	0.642	0.035	0.083	0.678	0.850	2247
WB: Mental Health	0.000	0.075	0.079	0.345	0.720	0.082	0.070	0.242	0.642	0.020	0.105	0.850	0.850	2219
WB: Happiness	0.000	0.052	0.100	0.599	0.720	-0.029	0.063	0.642	0.642	-0.097	0.082	0.235	0.706	2112

Notes: The table replicates the results presented in Tables 4, 5, 7 and 9, based on a model without control variable. Each line corresponds to a separate regression. Binary outcomes are indicated with (0/1); other outcomes are standardized. Column (1) = mean of the dependent variable in the control group. (2) = estimated ITT for T1 and (3) s.e. of the estimated ITT parameter ; (4) = p-value and (5) p-value adjusted within hypothesis for multiple testing using the Benjamini and Hochberg (1995) approach. Standard errors are clustered at the strata level. Strata fixed effects included.

Table G.2: ATE: Restricted sample

Outcome variable	(1) C	(2) T1-C	(3) S.E.	(4) p	(5) p adj.	(6) T2-C	(7) S.E.	(8) p	(9) p adj.	(10) T3-C	(11) S.E.	(12) p	(13) p adj.	(14) N
Newspaper Consumption (NC) Index	0.000	0.499	0.057	0.000		0.020	0.050	0.691		0.606	0.063	0.000		6532
NC: At least 1 newspaper among 5 main news sources (0/1)	0.219	0.197	0.028	0.000	0.000	0.013	0.024	0.587	0.929	0.265	0.040	0.000	0.000	6532
NC: At least 1 newspaper consulted last 7 days (0/1)	0.484	0.175	0.019	0.000	0.000	0.002	0.020	0.929	0.929	0.188	0.013	0.000	0.000	6532
Social Media among 5 main news sources (0/1)	0.530	-0.088	0.032	0.007	0.007	-0.048	0.031	0.119	0.119	-0.068	0.030	0.024	0.024	6532
Diverse News Sources (0/1)	0.327	0.043	0.023	0.055	0.055	0.014	0.014	0.298	0.298	0.126	0.035	0.000	0.000	6532
Trust in Newspapers (relative)	0.000	0.015	0.037	0.692		0.078	0.037	0.034		0.113	0.042	0.007		6532
Newsletter Subscription (NS)	0.694	0.087	0.026	0.001		0.045	0.014	0.002		0.071	0.021	0.001		6532
NS: Le Monde (0/1)	0.468	0.120	0.033	0.000	0.001	0.011	0.019	0.549	0.549	0.093	0.026	0.000	0.000	6532
NS: Any other than Le Monde (0/1)	0.672	0.078	0.026	0.003	0.003	0.056	0.013	0.000	0.000	0.073	0.019	0.000	0.000	6532
News Knowledge (NK) Index	0.000	0.007	0.042	0.865		0.029	0.032	0.355		0.012	0.055	0.830		6532
NK: Discernment	0.000	0.000	0.050	0.999	0.999	0.006	0.031	0.832	0.832	0.043	0.071	0.546	0.546	6532
NK: Political knowledge	0.000	0.057	0.041	0.166	0.497	0.061	0.051	0.229	0.686	0.049	0.068	0.465	0.546	6532
NK: Economic knowledge	0.000	-0.014	0.048	0.769	0.999	0.006	0.025	0.793	0.832	-0.042	0.042	0.326	0.546	6532
Media Literacy Skills (MLS) Index	0.000	0.150	0.058	0.009		0.076	0.048	0.111		0.278	0.062	0.000		3182
MLS: Fake news sharing (0/1)	0.098	-0.012	0.014	0.365	0.391	-0.003	0.014	0.846	0.846	-0.011	0.016	0.475	0.475	3182
MLS: Fact-checking (0/1)	0.405	0.038	0.045	0.391	0.391	0.043	0.029	0.137	0.205	0.062	0.038	0.098	0.098	3182
MLS: Citing precise news source (0/1)	0.355	0.058	0.036	0.105	0.158	0.019	0.027	0.483	0.483	0.136	0.043	0.002	0.005	3182
Political Self Efficacy Index	0.000	-0.101	0.029	0.000		-0.038	0.019	0.047		-0.046	0.045	0.306		6532
Political Participation (PP) Index	0.000	0.014	0.041	0.740		-0.068	0.047	0.147		-0.025	0.052	0.627		6532
PP: Pol. Engagement	0.000	0.005	0.044	0.915	0.915	-0.028	0.050	0.570	0.570	-0.009	0.050	0.858	0.858	6532
PP: Signed the Petition (0/1)	0.802	0.006	0.024	0.808	0.915	-0.025	0.013	0.055	0.110	-0.011	0.029	0.701	0.858	6532
Well Being (WB) Index	0.000	0.005	0.065	0.941		-0.031	0.065	0.629		-0.005	0.062	0.930		2138
WB: News Anxiety	0.000	-0.034	0.067	0.618	0.989	-0.071	0.070	0.315	0.462	0.016	0.067	0.809	0.815	2127
WB: Mental Health	0.000	0.001	0.051	0.989	0.989	0.039	0.053	0.462	0.462	0.020	0.084	0.815	0.815	2102
WB: Happiness	0.000	0.031	0.077	0.687	0.989	-0.061	0.046	0.188	0.462	-0.127	0.088	0.150	0.449	1992

Notes: The table replicates the results presented in Tables 4, 5, 7 and 9, restricting to the sample of students who answered all questions in the endline survey. Each line corresponds to a separate regression. Binary outcomes are indicated with (0/1); other outcomes are standardized. Column (1) = mean of the dependent variable in the control group. (2) = estimated ITT for T1 and (3) s.e. of the estimated ITT parameter ; (4) = p-value and (5) p-value adjusted within hypothesis for multiple testing using the Benjamini and Hochberg (1995) approach. Standard errors are clustered at the strata level. Strata fixed effects included.

Table G.3: Robustness check: ATE on News Consumption, alternative specifications

Outcome variable	(1) C	(2) T1-C	(3) S.E.	(4) p	(5) T2-C	(6) S.E.	(7) p	(8) T3-C	(9) S.E.	(10) p	(11) N
NC: At least 1 newspaper among 5 main news sources – broad definition (0/1)	0.360	0.147	0.031	0.000	0.000	0.028	0.996	0.204	0.037	0.000	7091
NC: Newspaper as first news source (0/1)	0.088	0.093	0.021	0.000	-0.005	0.014	0.725	0.104	0.017	0.000	7091
Social media as first news source (0/1)	0.266	-0.059	0.017	0.000	-0.036	0.020	0.074	-0.072	0.018	0.000	7091
Number of news sources	1.071	0.143	0.060	0.018	0.054	0.056	0.339	0.363	0.112	0.001	7091
Number of news sources	1.071	0.132	0.054	0.015	0.041	0.047	0.388	0.283	0.084	0.001	7091
Diverse news sources: excluding Le Monde (0/1)	0.274	-0.030	0.020	0.140	0.007	0.014	0.612	0.026	0.032	0.423	7091

Notes: The table replicates the results presented in Table 4 using alternative outcome definitions and specifications. The first row reports ATEs for an indicator variable equal to one if the student cites at least one newspaper among their five main news sources, using a broad definition (including generic answers such as "newspapers"). The second row reports results for a stricter measure, equal to one if the student cites a specific newspaper as their first main news source. The third row reports ATEs for citing social media as the first main news source. The fourth row reports ATEs on the number of distinct news sources cited, using a strict definition based only on specific outlets, estimated using the OLS specification in Equation (1). The fifth row reports estimates for the same outcome using a Poisson model. The sixth row reports ATEs for citing at least two distinct news outlet as main news source, excluding *Le Monde*. Each line corresponds to a separate regression. Binary outcomes are indicated with (0/1); other outcomes are standardized. Column (1) = mean of the dependent variable in the control group. (2) = estimated ITT for T1 and (3) s.e. of the estimated ITT parameter ; (4) = p-value. Standard errors are clustered at the strata level. Strata fixed effects included.

Table G.4: ATE: Detailed effects on news knowledge sub-components

Outcome variable	(1) C	(2) T1-C	(3) S.E.	(4) p	(5) T2-C	(6) S.E.	(7) p	(8) T3-C	(9) S.E.	(10) p	(11) N
Discernment											
Discernment: France	0.000	0.008	0.045	0.860	-0.048	0.025	0.053	-0.007	0.053	0.899	7,091
Discernment: Europe	0.000	-0.015	0.065	0.821	-0.021	0.054	0.699	0.046	0.071	0.518	7,091
Discernment: World	0.000	-0.013	0.033	0.696	-0.007	0.021	0.757	0.003	0.061	0.966	7,091
Discernment: Sports/people	0.000	-0.035	0.037	0.353	-0.063	0.057	0.275	-0.007	0.060	0.903	2,346
Political knowledge											
Political Knowledge: French unions	0.000	0.070	0.049	0.155	0.043	0.055	0.435	0.012	0.072	0.869	6,133
Political Knowledge: French politicians	0.000	-0.039	0.067	0.564	-0.015	0.038	0.695	0.006	0.069	0.927	6,235
Political Knowledge: French PM	0.000	0.019	0.039	0.633	-0.034	0.047	0.466	-0.029	0.057	0.605	7,091
Political Knowledge: Political party of Eur. Commission president	0.000	0.025	0.036	0.487	0.085	0.022	0.000	0.086	0.040	0.033	6,868
Political Knowledge: Identity of Eur. Commission president	0.000	0.023	0.029	0.423	0.056	0.035	0.111	0.025	0.036	0.494	6,868
Political Knowledge: Country leading European Council	0.000	-0.029	0.038	0.448	-0.010	0.050	0.839	0.033	0.059	0.582	6,868

Notes: This table reports treatment effects on the detailed components underlying the discernment and political knowledge indices. Each line corresponds to a separate regression. Outcomes are standardized. Column (1) reports the control group mean. Standard errors are clustered at the strata level. Strata fixed effects and controls selected via Lasso included.

Table G.5: ATE: Alternative measures of news knowledge – Only difficult questions

Outcome variable	(1) C	(2) T1-C	(3) S.E.	(4) p	(5) p adj.	(6) T2-C	(7) S.E.	(8) p	(9) p adj.	(10) T3-C	(11) S.E.	(12) p	(13) p adj.	(14) N
News Knowledge (NK) Index (difficult questions)	0.000	0.052	0.042	0.210		0.097	0.027	0.000		0.083	0.070	0.234		7,091
NK: Discernment (difficult questions)	0.000	0.068	0.036	0.060	0.179	0.073	0.035	0.037	0.056	0.103	0.063	0.101	0.302	7,091
NK: Political knowledge (difficult questions)	0.000	0.055	0.043	0.198	0.297	0.122	0.047	0.010	0.030	0.046	0.060	0.439	0.659	6,917
NK: Economic knowledge (difficult questions)	0.000	-0.014	0.038	0.719	0.719	0.018	0.030	0.564	0.564	0.008	0.043	0.857	0.857	7,091

Notes: This table reports treatment effects on alternative news knowledge indices constructed using only the most difficult questions. We define difficult questions as those for which the proportion of correct answers in the control group is lower than the probability of obtaining the correct answer through random guessing. These questions account for approximately one-third of all knowledge items. Each line corresponds to a separate regression. Column (1) reports the mean of the dependent variable in the control group. Standard errors are clustered at the strata level. All specifications include strata fixed effects and controls selected via Lasso. Adjusted p-values are computed within hypothesis using the Benjamini and Hochberg (1995) procedure.

Table G.6: HTE: Alternative measures of news knowledge – Only difficult questions

Outcome variable	(1) C	(2) T1-C	(3) S.E.	(4) p	(5) p adj.	(6) T2-C	(7) S.E.	(8) p	(9) p adj.	(10) T3-C	(11) S.E.	(12) p	(13) p adj.	(14) N
Panel A: Low-SES schools (IPS below first quartile)														
News Knowledge (NK) Index (difficult questions)	-0.369	0.266	0.041	0.000		0.188	0.050	0.000		0.400	0.082	0.000		1,786
NK: Discernment (difficult questions)	-0.218	0.171	0.039	0.000	0.000	0.110	0.059	0.061	0.061	0.270	0.054	0.000	0.000	1,786
NK: Political knowledge (difficult questions)	-0.189	0.213	0.056	0.000	0.000	0.136	0.072	0.059	0.061	0.200	0.072	0.006	0.006	1,707
NK: Economic knowledge (difficult questions)	-0.291	0.144	0.050	0.004	0.004	0.128	0.053	0.016	0.048	0.289	0.079	0.000	0.000	1,786
Panel B: High-SES schools (IPS above first quartile)														
News Knowledge (NK) Index (difficult questions)	0.113	-0.001	0.022	0.968		0.081	0.029	0.006		0.010	0.082	0.903		5,305
NK: Discernment (difficult questions)	0.067	0.040	0.031	0.195	0.293	0.074	0.036	0.037	0.111	0.055	0.084	0.511	0.726	5,305
NK: Political knowledge (difficult questions)	0.055	0.024	0.045	0.594	0.594	0.117	0.066	0.076	0.113	0.028	0.079	0.726	0.726	5,210
NK: Economic knowledge (difficult questions)	0.089	-0.057	0.039	0.146	0.293	-0.009	0.028	0.762	0.762	-0.063	0.022	0.004	0.011	5,305

Notes: Notes: This table replicates the heterogeneous treatment effects on news knowledge by school socioeconomic status using alternative outcome definitions based on the subset of difficult questions. We classify a question as very difficult whenever the proportion of correct answers in the control group is lower than the probability of obtaining the correct answer through random guessing. Approximately one-third of the knowledge questions satisfy this criterion. All outcomes are standardized indices constructed using only this subset of questions. Standard errors are clustered at the strata level. Strata fixed effects and controls selected via Lasso are included in all specifications. Adjusted p-values are computed within hypothesis using the Benjamini and Hochberg (1995) approach.

Table G.7: HTE: Detailed effects on news knowledge sub-components

Outcome variable	(1) C	(2) T1-C	(3) S.E.	(4) p	(5) T2-C	(6) S.E.	(7) p	(8) T3-C	(9) S.E.	(10) p	(11) N
Panel A: Low-SES schools (IPS below first quartile)											
Discernment: France	-0.357	0.029	0.094	0.757	0.021	0.048	0.661	0.145	0.047	0.002	1,786
Discernment: Europe	-0.315	0.173	0.114	0.129	0.106	0.055	0.052	0.215	0.078	0.006	1,786
Discernment: World	-0.296	0.031	0.088	0.726	0.035	0.089	0.693	0.026	0.076	0.735	1,786
Discernment: Sports/people	-0.344	-0.050	0.098	0.612	0.047	0.096	0.625	0.133	0.133	0.316	586
Political Knowledge: French unions	-0.210	0.174	0.072	0.015	0.034	0.150	0.819	0.164	0.095	0.085	1,492
Political Knowledge: French politicians	-0.239	0.079	0.054	0.144	0.017	0.076	0.817	0.153	0.024	0.000	1,498
Political Knowledge: French PM	-0.382	0.047	0.161	0.773	-0.115	0.105	0.275	0.093	0.122	0.446	1,786
Political Knowledge: Political party of Eur. Commission president	-0.079	0.111	0.114	0.327	0.142	0.077	0.067	0.199	0.117	0.089	1,683
Political Knowledge: Identity of Eur. Commission president	-0.101	0.121	0.065	0.065	0.145	0.063	0.021	0.093	0.049	0.056	1,683
Political Knowledge: Country leading European Council	-0.288	0.173	0.095	0.069	0.017	0.058	0.774	0.047	0.103	0.652	1,683
Panel B: High-SES schools (IPS above first quartile)											
Discernment: France	0.109	0.023	0.042	0.580	-0.054	0.033	0.095	-0.039	0.074	0.597	5,305
Discernment: Europe	0.097	-0.058	0.052	0.271	-0.033	0.059	0.580	-0.002	0.101	0.982	5,305
Discernment: World	0.091	-0.016	0.020	0.417	-0.003	0.020	0.875	-0.021	0.077	0.789	5,305
Discernment: Sports/people	0.108	-0.034	0.050	0.499	-0.083	0.073	0.253	-0.092	0.076	0.227	1,760
Political Knowledge: French unions	0.062	0.064	0.057	0.261	0.063	0.071	0.371	0.001	0.076	0.989	4,641
Political Knowledge: French politicians	0.069	-0.094	0.067	0.162	0.002	0.041	0.967	-0.017	0.060	0.780	4,737
Political Knowledge: French PM	0.117	0.008	0.052	0.875	-0.004	0.049	0.928	-0.046	0.065	0.480	5,305
Political Knowledge: Political party of Eur. Commission president	0.023	0.014	0.035	0.691	0.067	0.011	0.000	0.069	0.060	0.254	5,185
Political Knowledge: Identity of Eur. Commission president	0.029	0.007	0.039	0.862	0.020	0.034	0.553	0.011	0.041	0.786	5,185
Political Knowledge: Country leading European Council	0.083	-0.035	0.034	0.303	0.019	0.036	0.593	0.058	0.067	0.387	5,185

Notes: This table reports heterogeneous treatment effects by school socio-economic status on the detailed components underlying the discernment and political knowledge indices. Each line corresponds to a separate regression. Outcomes are standardized. Column (1) reports the control group mean. Standard errors are clustered at the strata level. Strata fixed effects and controls selected via Lasso included.

Table G.8: Robustness to baseline imbalances in news knowledge: Athey-Imbens specifications

Outcome variable	(1) C	(2) T1-C	(3) S.E.	(4) p	(5) T2-C	(6) S.E.	(7) p	(8) T3-C	(9) S.E.	(10) p	(11) N
Panel A: Low-SES schools (IPS below first quartile)											
Partition into 2 groups (median split)	-0.492	0.205	0.078	0.009	0.100	0.053	0.061	0.311	0.104	0.003	1,757
Partition into 4 groups (quartiles)	-0.492	0.205	0.080	0.011	0.105	0.054	0.050	0.311	0.106	0.003	1,757
Panel B: High-SES schools (IPS above first quartile)											
Partition into 2 groups (median split)	0.151	-0.006	0.033	0.856	-0.010	0.028	0.719	-0.047	0.066	0.478	5,276
Partition into 4 groups (quartiles)	0.151	-0.009	0.036	0.797	-0.010	0.029	0.733	-0.048	0.067	0.476	5,276

Notes: This table assesses the robustness of the heterogeneous treatment effects by socioeconomic status reported in Table 6. Estimates are obtained using the approach proposed by Athey and Imbens (2017b), which accounts for potential baseline imbalances in news knowledge between treatment and control groups. The first row in each panel reports estimates obtained by partitioning students into two groups based on whether baseline news knowledge is above or below the median. The second row reports estimates obtained using quartiles of baseline news knowledge. Standard errors are clustered at the strata level.

Table G.9: Robustness check: ATE on Media Literacy Skills, alternative specifications

Outcome variable	(1) C	(2) T1-C	(3) S.E.	(4) p	(5) T2-C	(6) S.E.	(7) p	(8) T3-C	(9) S.E.	(10) p	(11) N
MLS: Citing precise news source (0/1)	0.350	0.051	0.019	0.007	0.006	0.018	0.759	0.115	0.031	0.000	7091
MLS: Citing precise news source – conditional (0/1)	0.421	0.080	0.043	0.063	0.040	0.024	0.095	0.145	0.038	0.000	2821
MLS: Citing precise news source (0/1) - conditional. excluding LM	0.398	0.026	0.044	0.544	0.039	0.023	0.087	0.093	0.038	0.015	2769
Sharing fake news without ability to fact-check (0/1)	0.056	0.008	0.012	0.514	0.013	0.009	0.123	-0.012	0.010	0.233	3546

Notes: This table replicates the results presented in Table 7 using alternative outcome definitions and/or specifications. The first row reports ATEs for the "citing a precise news source" outcome estimated on the full sample. The second row reports ATEs for a conditional version of the same outcome, defined among students who cited at least one news source. The third row uses conditional version of the same outcome, defined among students who cited at least one news source, and further exclude cases where the student cites *Le Monde*. The last row reports ATEs on the probability of sharing fake news when students are not given the opportunity to fact-check the story. Each line corresponds to a separate regression. Binary outcomes are indicated with (0/1); other outcomes are standardized. Column (1) = mean of the dependent variable in the control group. (2) = estimated ITT for T1 and (3) s.e. of the estimated ITT parameter ; (4) = p-value. Standard errors are clustered at the strata level. Strata fixed effects included.

H Additional Tables

Table H.1: Randomization sample: Descriptive statistics on teachers

	Mean	St. Dev
Teacher characteristics		
Female teacher	0.69	0.46
Age	46.9	8.7
Teaching experience	20.8	9.2
High-level certification (Agregation)	0.30	0.46
Basic-level certification (Capes)	0.65	0.48
Head teacher	0.23	0.42
Subject taught		
History-Geography	0.57	0.50
Civics	0.33	0.47
Economics and Social Sciences	0.15	0.36
Other subjects (Humanities, science, etc.)	0.25	0.43
Observations	379	

Notes: The table provides descriptive statistics on the 379 teachers included in the randomization sample. An observation is a teacher. Civics stands for "enseignement moral et civique" (Ethics and Civics).

Table H.2: Treatment Effects by Socioeconomic Status (IPS Quartiles)

Outcome variable	(1) C	(2) T1-C	(3) S.E.	(4) p	(5) T2-C	(6) S.E.	(7) p	(8) T3-C	(9) S.E.	(10) p	(11) N
Panel A: Low-SES schools (IPS below first quartile)											
Newspaper Consumption Index	-0.174	0.424	0.100	0.000	-0.078	0.057	0.170	0.535	0.134	0.000	1,786
Social Media Index	-0.071	-0.206	0.109	0.059	-0.165	0.134	0.219	0.028	0.079	0.724	1,786
Diverse News Sources	-0.171	0.024	0.102	0.814	-0.021	0.050	0.681	0.193	0.058	0.001	1,786
Trust in Newspapers	-0.339	0.087	0.114	0.444	0.180	0.056	0.001	0.259	0.102	0.011	1,676
Newsletter Subscription	-0.046	0.247	0.101	0.015	0.011	0.064	0.865	0.287	0.079	0.000	1,786
News Knowledge Index	-0.492	0.199	0.085	0.019	0.094	0.052	0.070	0.308	0.102	0.002	1,786
Media Literacy Skills (MLS) Index	-0.273	-0.055	0.189	0.772	-0.040	0.063	0.526	0.196	0.177	0.269	865
Political Participation: sign petition (0/1)	0.659	-0.059	0.029	0.041	-0.016	0.061	0.787	-0.045	0.054	0.397	1,786
Political Self-Efficacy Index	-0.305	-0.071	0.069	0.307	-0.024	0.074	0.742	0.083	0.076	0.276	1,693
Well Being Index	0.071	0.125	0.211	0.554	-0.186	0.172	0.281	0.069	0.123	0.575	554
Panel B: High-SES schools (IPS above first quartile)											
Newspaper Consumption Index	0.054	0.519	0.071	0.000	0.048	0.060	0.424	0.638	0.058	0.000	5,305
Social Media Index	0.022	-0.116	0.061	0.058	-0.069	0.054	0.202	-0.194	0.066	0.003	5,305
Diverse News Sources	0.052	0.104	0.052	0.047	0.038	0.048	0.423	0.302	0.095	0.001	5,305
Trust in Newspapers	0.098	0.008	0.053	0.881	0.048	0.038	0.213	0.073	0.049	0.133	5,042
Newsletter Subscription	0.014	0.200	0.063	0.001	0.123	0.055	0.026	0.133	0.056	0.017	5,305
News Knowledge Index	0.151	-0.017	0.030	0.583	-0.016	0.028	0.577	-0.057	0.072	0.431	5,305
Media Literacy Skills (MLS) Index	0.087	0.207	0.055	0.000	0.100	0.075	0.184	0.303	0.077	0.000	2,552
Political Participation: sign petition (0/1)	0.806	0.033	0.020	0.101	-0.028	0.018	0.124	-0.010	0.032	0.768	5,305
Political Self-Efficacy Index	0.088	-0.074	0.042	0.075	-0.048	0.025	0.060	-0.060	0.049	0.223	5,181
Well Being Index	-0.021	-0.045	0.072	0.534	-0.017	0.087	0.845	-0.007	0.099	0.944	1,715

Notes: Each line corresponds to a separate regression. All outcomes are standardized. Column (1) = mean of the dependent variable in the control group. (2) = estimated ITT for T1 (3) = estimated ITT for T2 and (4) = estimated ITT for T3. Standard errors (in parentheses) are clustered at the strata level. Strata fixed effects and controls selected via Lasso, using the Belloni et al. (2014) approach, included. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table H.3: Treatment Effects by Teacher prior MIL teaching experience

Outcome variable	(1) C	(2) T1-C	(3) S.E.	(4) p	(5) T2-C	(6) S.E.	(7) p	(8) T3-C	(9) S.E.	(10) p	(11) N
Panel A: High prior MIL teaching experience											
Newspaper Consumption Index	0.035	0.602	0.107	0.000	-0.013	0.044	0.775	0.711	0.129	0.000	2,961
Social Media Index	-0.009	-0.015	0.094	0.871	-0.028	0.058	0.630	-0.194	0.092	0.035	2,961
Diverse News Sources	-0.031	0.218	0.096	0.024	0.048	0.037	0.186	0.470	0.098	0.000	2,961
Trust in Newspapers	-0.009	0.030	0.060	0.620	0.096	0.083	0.250	0.195	0.108	0.072	2,808
Newsletter Subscription	0.024	0.185	0.063	0.003	0.110	0.058	0.056	0.056	0.084	0.502	2,961
News Knowledge Index	-0.002	0.046	0.087	0.597	0.075	0.060	0.213	0.053	0.098	0.587	2,961
Media Literacy Skills (MLS) Index	-0.040	0.249	0.068	0.000	0.097	0.073	0.183	0.545	0.068	0.000	1,392
Political Participation: sign petition (0/1)	0.791	0.015	0.035	0.667	-0.020	0.020	0.313	0.000	0.028	0.994	2,961
Political Self-Efficacy Index	-0.046	0.037	0.062	0.552	-0.014	0.070	0.840	0.029	0.079	0.719	2,903
Well Being Index	0.036	0.035	0.172	0.837	0.002	0.098	0.987	-0.047	0.160	0.771	952
Panel B: Low prior MIL teaching experience											
Newspaper Consumption Index	-0.021	0.398	0.078	0.000	0.064	0.063	0.315	0.541	0.103	0.000	4,130
Social Media Index	0.005	-0.220	0.081	0.006	-0.121	0.076	0.108	-0.103	0.087	0.239	4,130
Diverse News Sources	0.019	-0.014	0.060	0.819	0.011	0.048	0.823	0.129	0.093	0.164	4,130
Trust in Newspapers	0.005	0.009	0.053	0.866	0.062	0.047	0.187	0.034	0.048	0.476	3,910
Newsletter Subscription	-0.014	0.241	0.057	0.000	0.090	0.038	0.017	0.221	0.067	0.001	4,130
News Knowledge Index	0.001	0.005	0.050	0.915	-0.055	0.040	0.174	-0.031	0.046	0.497	4,130
Media Literacy Skills (MLS) Index	0.023	0.136	0.127	0.286	0.078	0.085	0.356	0.126	0.102	0.219	2,025
Political Participation: sign petition (0/1)	0.760	0.004	0.033	0.907	-0.022	0.032	0.505	-0.008	0.031	0.795	4,130
Political Self-Efficacy Index	0.028	-0.197	0.044	0.000	-0.079	0.027	0.003	-0.104	0.037	0.004	3,971
Well Being Index	-0.021	-0.034	0.074	0.652	-0.094	0.066	0.150	0.030	0.049	0.541	1,317

Notes: Each line corresponds to a separate regression. All outcomes are standardized. Column (1) = mean of the dependent variable in the control group. (2) = estimated ITT for T1 (3) = estimated ITT for T2 and (4) = estimated ITT for T3. Standard errors (in parentheses) are clustered at the strata level. Strata fixed effects and controls selected via Lasso, using the Belloni et al. (2014) approach, included. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table H.4: Treatment Effects by Student Baseline News Knowledge

Outcome variable	(1) C	(2) T1-C	(3) S.E.	(4) p	(5) T2-C	(6) S.E.	(7) p	(8) T3-C	(9) S.E.	(10) p	(11) N
Panel A: High baseline news knowledge (above median)											
Newspaper Consumption Index	0.083	0.552	0.082	0.000	0.038	0.060	0.530	0.665	0.065	0.000	3,516
Social Media Index	0.038	-0.095	0.084	0.257	-0.062	0.052	0.232	-0.135	0.079	0.087	3,516
Diverse News Sources	0.091	0.089	0.066	0.180	0.051	0.054	0.353	0.276	0.084	0.001	3,516
Trust in Newspapers	0.063	0.066	0.067	0.331	0.148	0.062	0.017	0.066	0.074	0.377	3,359
Newsletter Subscription	0.034	0.144	0.054	0.008	0.130	0.038	0.001	0.203	0.068	0.003	3,516
News Knowledge Index	0.235	0.004	0.034	0.897	0.011	0.040	0.785	0.003	0.077	0.965	3,516
Media Literacy Skills (MLS) Index	0.091	0.087	0.106	0.411	0.132	0.086	0.127	0.274	0.077	0.000	1,698
Political Participation: Signed petition (0/1)	0.804	0.010	0.021	0.629	-0.013	0.012	0.271	-0.011	0.030	0.714	3,516
Political Self-Efficacy Index	0.151	-0.054	0.048	0.260	-0.008	0.028	0.767	0.038	0.045	0.397	3,426
Well Being Index	-0.066	0.021	0.074	0.773	-0.005	0.077	0.948	0.059	0.096	0.539	1,120
Panel B: Low baseline news knowledge (below median)											
Newspaper Consumption Index	-0.086	0.422	0.063	0.000	0.004	0.056	0.950	0.528	0.075	0.000	3,517
Social Media Index	-0.036	-0.211	0.062	0.001	-0.092	0.075	0.224	-0.177	0.052	0.001	3,517
Diverse News Sources	-0.092	0.078	0.041	0.054	-0.011	0.025	0.655	0.237	0.076	0.002	3,517
Trust in Newspapers	-0.063	-0.022	0.057	0.703	0.020	0.043	0.641	0.152	0.040	0.000	3,305
Newsletter Subscription	-0.029	0.204	0.070	0.004	0.043	0.048	0.369	0.095	0.039	0.015	3,517
News Knowledge Index	-0.243	0.011	0.068	0.877	-0.006	0.041	0.890	-0.026	0.073	0.719	3,517
Media Literacy Skills (MLS) Index	-0.100	0.201	0.055	0.000	0.022	0.043	0.616	0.249	0.080	0.002	1,694
Political Participation: Signed petition (0/1)	0.743	-0.003	0.030	0.922	-0.032	0.024	0.186	-0.018	0.039	0.647	3,517
Political Self-Efficacy Index	-0.161	-0.136	0.037	0.000	-0.085	0.050	0.092	-0.154	0.060	0.010	3,399
Well Being Index	0.067	-0.026	0.083	0.751	-0.065	0.072	0.366	-0.078	0.125	0.532	1,137

Notes: Each line corresponds to a separate regression. All outcomes are standardized. Column (1) = mean of the dependent variable in the control group. (2) = estimated ITT for T1 (3) = estimated ITT for T2 and (4) = estimated ITT for T3. Standard errors (in parentheses) are clustered at the strata level. Strata fixed effects and controls selected via Lasso, using the Belloni et al. (2014) approach, included. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table H.5: Generic Machine Learning results: BLP and GATES for the News Knowledge Index

	ATE (1)	**HET** (2)	**TE for G1** (3)	**TE for G4** (4)
Treatment 1:				
News Knowledge Index	0.010 [0.81]	0.232 [0.07]	-0.072 [0.36]	0.106 [0.23]
Treatment 2:				
News Knowledge Index	-0.026 [0.44]	0.198 [0.00]	-0.158 [0.01]	0.113 [0.08]
Treatment 3:				
News Knowledge Index	0.004 [0.91]	0.252 [0.07]	-0.070 [0.35]	0.073 [0.34]

Notes: This table reports average and heterogeneous treatment effects estimated using the Generic Machine Learning framework (Chernozhukov et al., 2025). For each treatment arm, the table reports the results for news knowledge outcomes. The first column reports the Average Treatment Effect (ATE), while the second column reports heterogeneity loading (HET) parameters from the Best Linear Predictor (BLP). Columns (3) and (4) report Group Average Treatment Effects (GATES) for the first and fourth quartiles of the predicted treatment effect distribution (G1 and G4, respectively), where G1 corresponds to the least affected individuals and G4 to the most affected individuals. Estimation relies on sample splitting and cross-fitting with 250 random splits. Treatment effects are estimated using an ensemble of machine-learning learners, including random forests, LASSO, elastic net, support vector machines, and gradient boosting. Propensity scores are assumed to be constant. All specifications include strata fixed effects. Covariates used in the estimation include a rich set of baseline student characteristics, baseline outcome measures, class-level characteristics, and teacher characteristics. Missing values in covariates are imputed using mean imputation. Standard errors are clustered at the strata level. Reported p-values are two-sided. Each treatment arm (T1, T2, T3) is estimated separately against the control group.

Table H.6: Generic Machine Learning results: CLAN for the News Knowledge Index

Heterogeneity variables	**25% least affected** (1)	**25% most affected** (2)	**P-value** (3)
Treatment: T1			
School socioeconomic status (IPS)	113.416	107.120	0.000
Female teacher	0.605	0.881	0.000
Active pedagogical practices	-0.185	0.070	0.000
Teacher MIL experience	-0.288	0.165	0.000
News knowledge (student)	0.071	-0.227	0.000
Share of scholarship students	0.228	0.272	0.000
School engagement index (teacher)	-0.078	0.080	0.000
Teaching experience (years)	21.999	19.905	0.002
Newspaper consumption (student)	0.190	0.110	0.003
Female student	0.598	0.500	0.005
Experience in current school (years)	11.233	9.946	0.046
Treatment: T2			
Active pedagogical practices	-0.108	0.012	0.000
Share of scholarship students	0.214	0.233	0.011
Female teacher	0.637	0.705	0.013
Teacher MIL experience	-0.021	0.107	0.017
Treatment: T3			
School engagement index (teacher)	-0.163	0.088	0.000
Teaching experience (years)	21.801	18.321	0.000
Share of scholarship students	0.223	0.268	0.000
Teacher MIL experience	-0.129	0.110	0.001
School socioeconomic status (IPS)	112.740	109.414	0.002
News knowledge (student)	0.042	-0.125	0.003
Political participation (student)	-0.071	0.083	0.011
Experience in current school (years)	11.600	10.169	0.011

Notes: This table reports Classification Analysis (CLAN) results based on Generic Machine Learning estimates of heterogeneous treatment effects (Chernozhukov et al., 2025). The outcome is the News Knowledge Index. Columns (2) and (3) report mean values of baseline covariates for the 25% least and 25% most affected groups, respectively. Column (4) reports the p-value of the difference between these two groups.

Table H.7: Teacher characteristics by prior MIL teaching experience

	(1) High exp	(2) Low exp	(3) Diff. (1)-(2)
Nb trainings in MIL	1.119	0.547	0.572***
Active Teaching Practices Index	0.130	-0.095	0.225***
MIL teaching self-confidence	0.172	-0.089	0.261***

Notes: This table compares baseline characteristics of teachers with high and low prior experience in media education activities. Column (1) reports the mean for teachers with high prior experience, Column (2) the mean for teachers with low prior experience, and Column (3) the difference between the two groups. Statistical significance is based on two-sided t-tests. $*p < 0.10$, $**p < 0.05$, $***p < 0.01$.

Table H.8: Generic Machine Learning results: BLP and GATES for the Media Literacy Skills Index

	ATE (1)	**HET** (2)	**TE for G1** (3)	**TE for G4** (4)
Treatment 1:				
Media Literacy Index	0.087 [0.05]	0.336 [0.06]	-0.040 [0.67]	0.198 [0.02]
Treatment 2:				
Media Literacy Index	0.013 [0.68]	0.046 [0.37]	-0.008 [0.91]	0.070 [0.35]
Treatment 3:				
Media Literacy Index	0.181 [0.00]	0.233 [0.03]	0.134 [0.15]	0.255 [0.02]

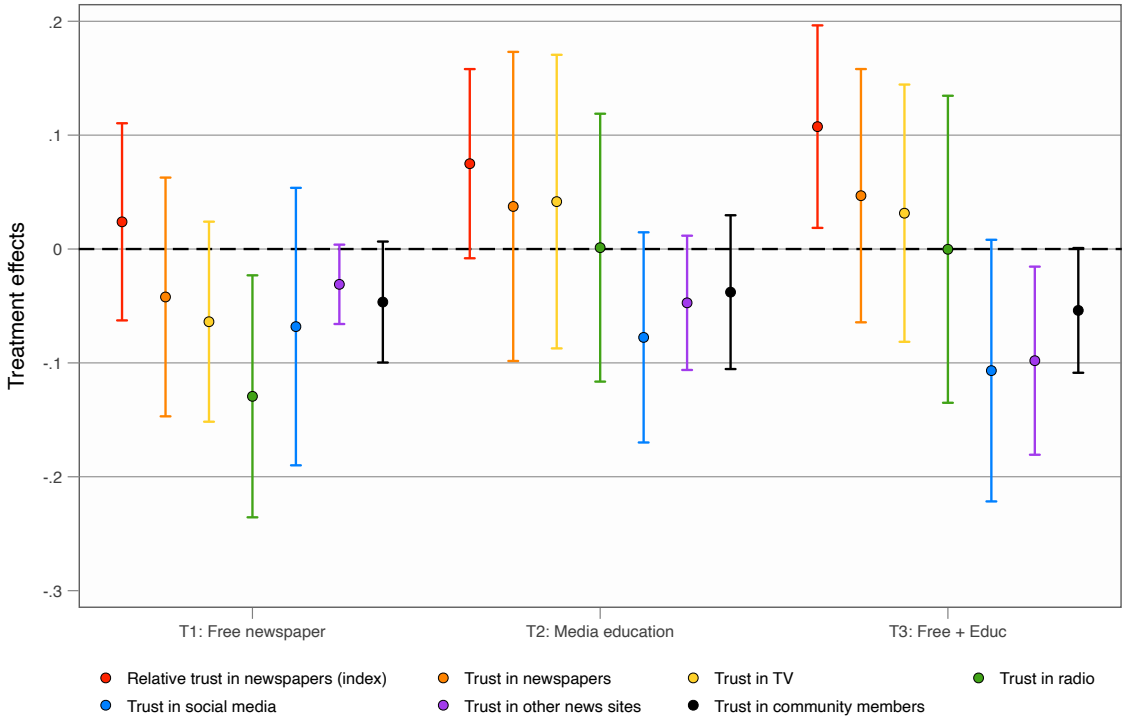
Notes: This table reports average and heterogeneous treatment effects estimated using the Generic Machine Learning framework (Chernozhukov et al., 2025). For each treatment arm, the table reports the results for the Media Literacy Skill Index. The first column reports the Average Treatment Effect (ATE), while the second column reports heterogeneity loading (HET) parameters from the Best Linear Predictor (BLP). Columns (3) and (4) report Group Average Treatment Effects (GATES) for the first and fourth quartiles of the predicted treatment effect distribution (G1 and G4, respectively), where G1 corresponds to the least affected individuals and G4 to the most affected individuals. Estimation relies on sample splitting and cross-fitting with 250 random splits. Treatment effects are estimated using an ensemble of machine-learning learners, including random forests, LASSO, elastic net, support vector machines, and gradient boosting. Propensity scores are assumed to be constant. All specifications include strata fixed effects. Covariates used in the estimation include a rich set of baseline student characteristics, baseline outcome measures, class-level characteristics, and teacher characteristics. Missing values in covariates are imputed using mean imputation. Standard errors are clustered at the strata level. Reported p-values are two-sided. Each treatment arm (T1, T2, T3) is estimated separately against the control group.

Table H.9: Generic Machine Learning results: CLAN for the Media Literacy Skills Index

Heterogeneity variables	**25% least affected** (1)	**25% most affected** (2)	**P-value** (3)
Treatment: T1			
Female teacher	0.616	0.859	0.000
Active pedagogical practices	-0.187	0.054	0.000
Share of scholarship students	0.273	0.215	0.000
Trust in newspapers (student)	-0.149	0.079	0.000
Female student	0.474	0.634	0.000
School engagement index (teacher)	-0.136	0.048	0.000
School socioeconomic status (IPS)	109.514	113.973	0.000
Experience in current school (years)	9.754	11.755	0.001
Political participation (student)	0.048	-0.107	0.005
Teaching experience (years)	21.774	20.252	0.030
News knowledge (student)	0.033	-0.093	0.024
Treatment: T2			
Active pedagogical practices	-0.139	0.041	0.000
Female student	0.469	0.626	0.000
Female teacher	0.742	0.603	0.000
School socioeconomic status (IPS)	111.618	116.066	0.000
Trust in newspapers (student)	-0.098	0.079	0.000
Newspaper consumption (student)	0.131	0.223	0.000
School engagement index (teacher)	-0.091	0.026	0.000
Teacher MIL experience	-0.052	0.135	0.001
Experience in current school (years)	11.181	9.628	0.001
Share of scholarship students	0.226	0.205	0.001
Teaching experience (years)	22.041	20.870	0.028
Treatment: T3			
School engagement index (teacher)	-0.370	0.397	0.000
Active pedagogical practices	-0.265	0.175	0.000
Female student	0.396	0.718	0.000
Trust in newspapers (student)	-0.178	0.149	0.000
School socioeconomic status (IPS)	114.659	109.693	0.000
Political participation (student)	0.152	-0.102	0.000
Newspaper consumption (student)	0.223	0.111	0.000
Experience in current school (years)	9.381	11.754	0.000
Teaching experience (years)	20.636	18.538	0.000
News knowledge (student)	-0.067	0.067	0.020

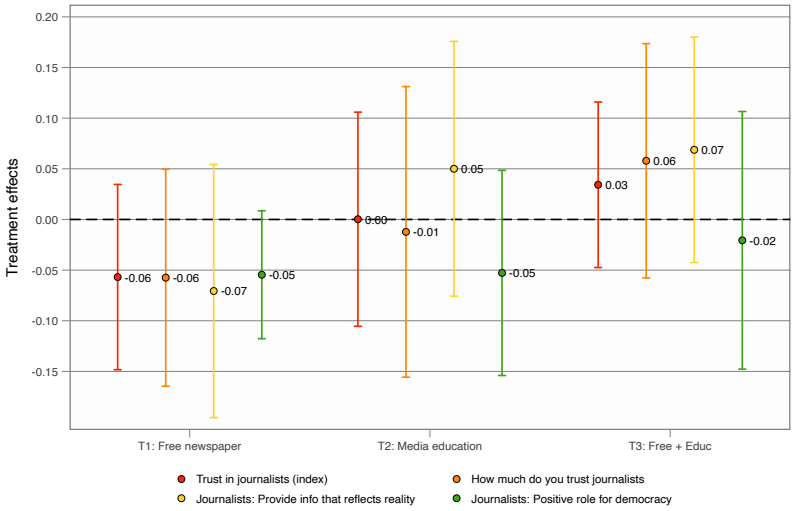
Notes: This table reports Classification Analysis (CLAN) results based on Generic Machine Learning estimates of heterogeneous treatment effects (Chernozhukov et al., 2025). The outcome is the Media Literacy Skills Index. Columns (2) and (3) report mean values of baseline covariates for the 25% least and 25% most affected groups, respectively. Column (4) reports the p-value of the difference between these two groups.

I Additional Figures



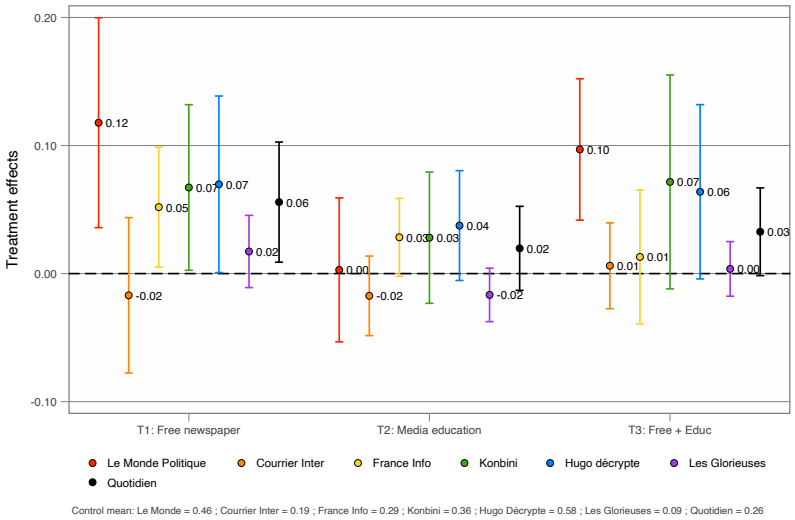
Notes: The Figure reports the treatment effects for our measure of trust in different media sources (answer to the question "In general, how much do you trust information from the following sources?").

Figure I.1: Treatment effects: Trust in media sources



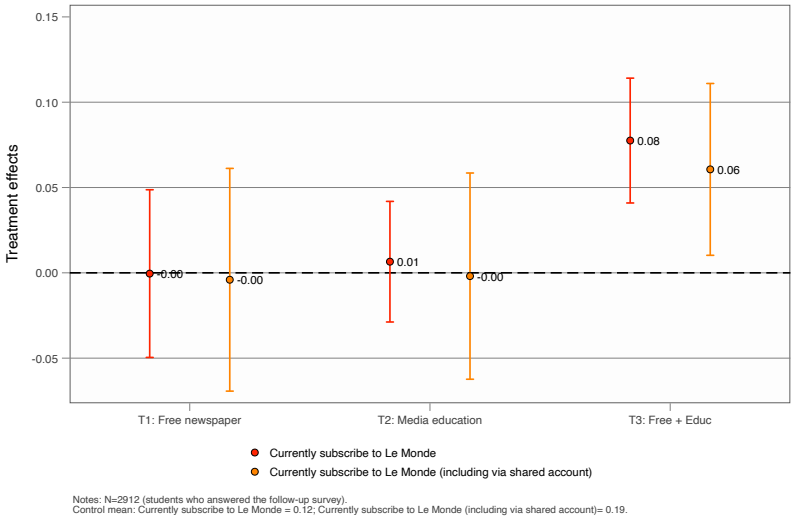
Notes: The Figure reports the treatment effects for the three components of our trust in newspapers index considered separately: (i) trust in journalists (red), (ii) the extent to which students agree with the following statement: "journalists report information accurately and truthfully" (orange), and (iii) the extent to which students agree with the following statement: "journalists play an important role in the political and democratic life of our country" (yellow).

Figure I.2: Treatment effects: Trust in journalists and perception of their work



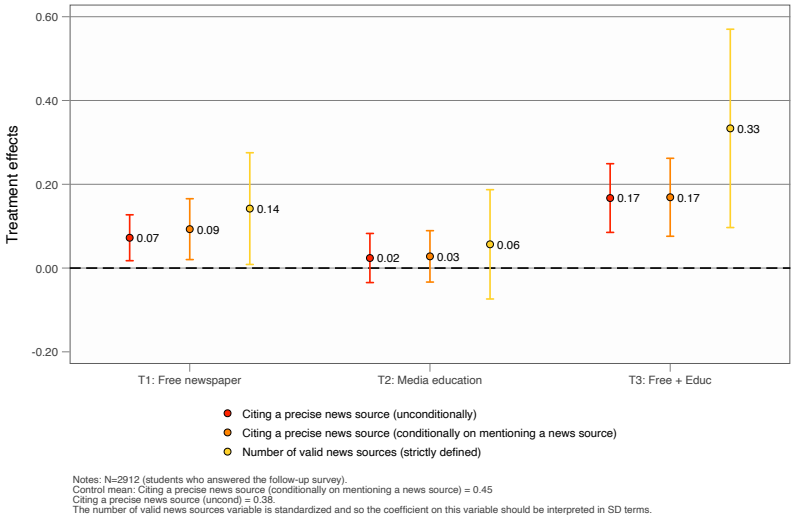
Notes: The Figure reports the treatment effects for the set of newsletter subscription indicator variables (each color corresponds to the associated newsletter whose name is reported in the legend; e.g. red for *Le Monde* newsletter). The question asked was the following: "As part of this study, we invite you to subscribe to one or more free newsletters that will help you follow and understand major political, economic, and social issues in France and around the world. If you are interested in one or more of the newsletters below, check Yes: you will be automatically subscribed and will receive the newsletter every week starting next week! There is no commitment and you can unsubscribe from the newsletter at any time."

Figure I.3: Treatment effects: Newsletter subscription



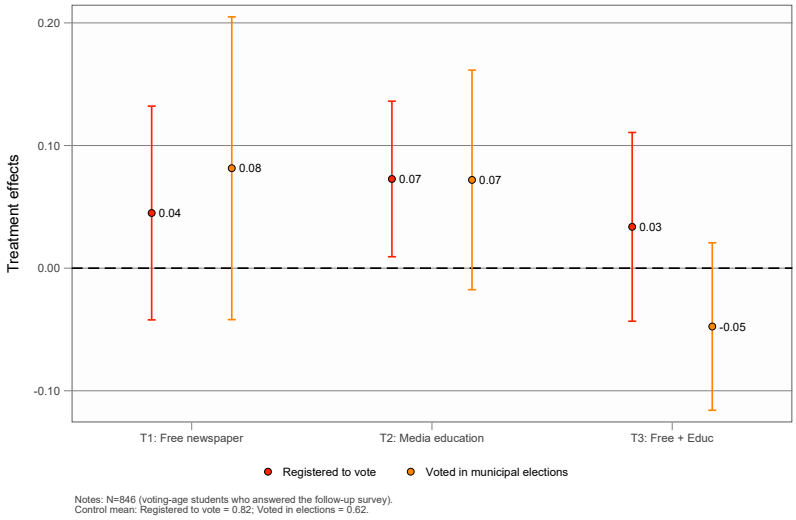
Notes: This Figure reports treatment effects on two different indicator variables measuring whether the students currently subscribe to *Le Monde*.

Figure I.4: Treatment effects, Follow-up survey: Subscription to *Le Monde*



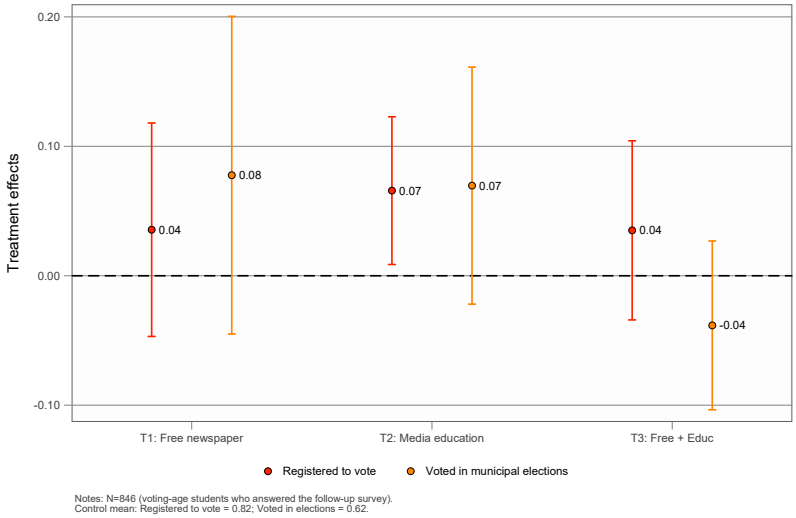
Notes: This Figure reports treatment effects on three different variables measuring the ability to mention a precise news source. For the subset of students who mention at least one news source, "Citing a precise news source (conditionally on mentioning a news source)" is an indicator variable equal to one if the student mentions at least a precise news source, and to zero otherwise. "Citing a precise news source (unconditionally)" is an indicator variable equal to one if the student mentions at least a precise news source (whether or not it mentions a source), and to zero otherwise. "Number of valid news sources (strictly defined)" is the standardized number of valid specific news sources mentioned by the student.

Figure I.5: Treatment effects, Follow-up survey: Ability to cite a precise news source



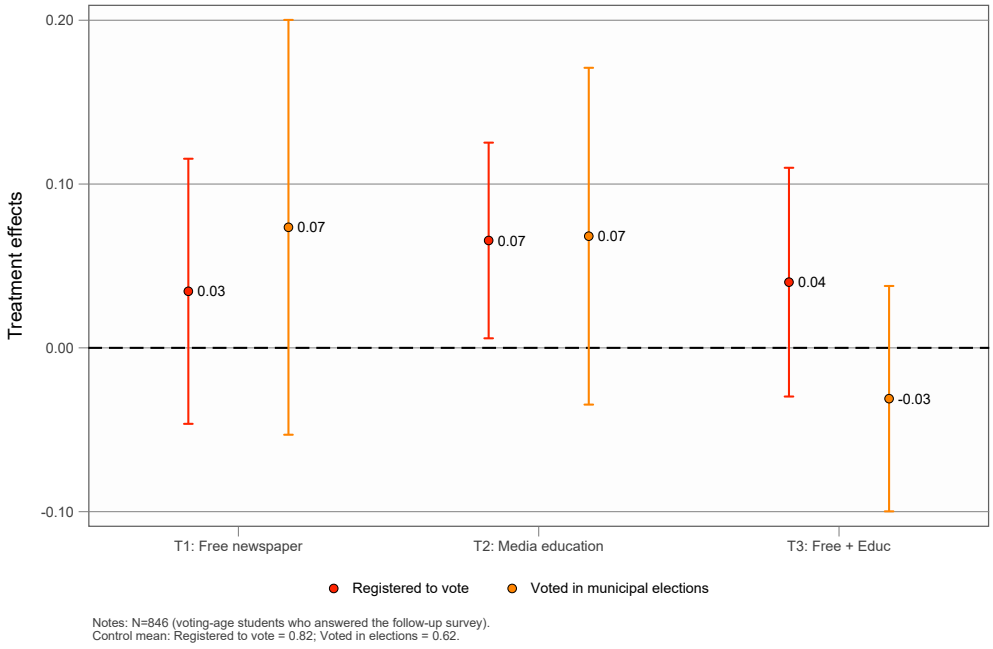
Notes: The Figure reports the treatment effects on the political participation variables. Only voting-age students at the time of the 2026 Municipal Elections are included. "Registered to vote" is an indicator variable equal to one if the student reports that it is registered to vote, and to zero otherwise. "Voted in municipal elections" is an indicator variable equal to one if the student reports that it voted in the municipal elections (either in the first and/or in the second round) and to zero otherwise.

Figure I.6: Treatment effects, Follow-up survey: Political participation in the 2026 municipal elections



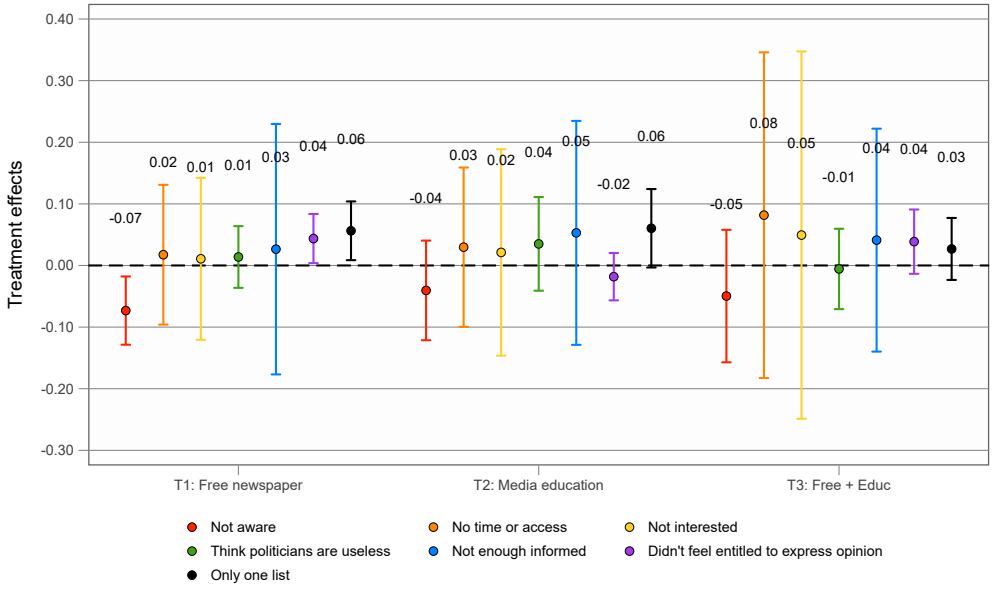
Notes: The Figure reports treatment effects on political participation outcomes using the robustness specification described in equation (2). Following Athey and Imbens (2017a), students are partitioned according to whether their baseline political participation index is above or below the sample median. The reported coefficients correspond to the average treatment effects for T1, T2, and T3.

Figure I.7: Treatment effects, Follow-up survey: Political participation in the 2026 municipal elections, robustness check I



Notes: The Figure reports treatment effects on political participation outcomes using the robustness specification described in equation (2). Following Athey and Imbens (2017a), students are partitioned into four groups based on quartiles of the baseline political participation index. The reported coefficients correspond to the average treatment effects for T1, T2, and T3.

Figure I.8: Treatment effects, Follow-up survey: Political participation in the 2026 municipal elections, robustness check II



Notes: The Figure reports the treatment effects on the reasons for not voting indicator variables. "Not aware" is an indicator variable equal to one if the student reports that they did not know that there were any elections, and to zero otherwise. "No time or access" is an indicator variable equal to one if the student reports either that they did not have the time or that it couldn't make it to the polling place, and to zero otherwise. "Not interested" is an indicator variable equal to one if the student reports that they were not interested, and to zero otherwise. "Think politicians are useless" is an indicator variable equal to one if the student reports that they think so, and to zero otherwise. "Not enough informed" is an indicator variable equal to one if the student reports that they were not sufficiently informed, and to zero otherwise. "Didn't feel entitled to express opinion" is an indicator variable equal to one if the student reports that they did not feel entitled to express its political opinion, and to zero otherwise. "Only one list" is an indicator variable equal to one if the student reports that they did not vote because there was only one list, and to zero otherwise.

Figure I.9: Treatment effects, Follow-up survey: Reasons for not voting in the 2026 municipal elections (among eligible voters)

References

Allcott, Hunt, Luca Braghieri, Sarah Eichmeyer, and Matthew Gentzkow, "The welfare effects of social media," *American economic review*, 2020, *110* (3), 629–676.

Anderson, Michael L, "Multiple Inference and Gender Differences in the Effects of Early Intervention: A reevaluation of the Abecedarian, Perry Preschool, and Early Training Projects," *Journal of the American statistical Association*, 2008, *103* (484), 1481–1495.

Athey, Susan and Guido W Imbens, "The econometrics of randomized experiments," in "Handbook of economic field experiments," Vol. 1, Elsevier, 2017, pp. 73–140.

__ **and** __ , "The State of Applied Econometrics: Causality and Policy Evaluation," *Journal of Economic Perspectives*, 5 2017, *31*, 3–32.

Belloni, Alexandre, Victor Chernozhukov, and Christian Hansen, "High-Dimensional Methods and Inference on Structural and Treatment Effects," *Journal of Economic Perspectives*, 2014, *28* (2), 29–50.

Benjamini, Yoav and Yosef Hochberg, "Controlling the False Discovery Rate: A Practical and Powerful Approach to Multiple Testing," *Journal of the Royal statistical society: series B (Methodological)*, 1995, *57* (1), 289–300.

Bodas, Moran, Maya Siman-Tov, Kobi Peleg, and Zahava Solomon, "Anxiety-inducing media: The effect of constant news broadcasting on the well-being of Israeli television viewers," *Psychiatry*, 2015, *78* (3), 265–276.

Briole, Simon, "From teacher quality to teaching quality: Instructional productivity and teaching practices," *Economics of Education Review*, 2026, *111*, 102759.

Chernozhukov, Victor, Mert Demirer, Esther Duflo, and Iván Fernández-Val, "Fisher–Schultz Lecture: Generic Machine Learning Inference on Heterogeneous Treatment Effects in Randomized Experiments, With an Application to Immunization in India," *Econometrica*, July 2025, *93* (4), 1121–1164.

Cohen, Sheldon, Tom Kamarck, and Robin Mermelstein, "A global measure of perceived stress," *Journal of health and social behavior*, 1983, pp. 385–396.

Lesage, Francois-Xavier, Sophie Berjot, and Frederic Deschamps, "Psychometric properties of the French versions of the Perceived Stress Scale," *International journal of occupational medicine and environmental health*, 2012, *25*, 178–184.

Niemi, Richard G., Stephen C. Craig, and Franco Mattei, "Measuring Internal Political Efficacy in the 1988 National Election Study," *American Political Science Review*, 1991, *85* (4), 1407–1413.

Piquemal, Louise, "Quel est le profil social des lycées ?," 2025.