

Making Teenagers Read Newspapers: A Nationwide Experiment in French High Schools

Simon Briole¹, **Julia Cagé**², Andrea Prat³

¹University of Montpellier

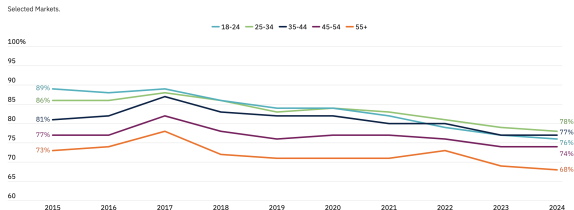
²Sciences Po Paris and CEPR

³Columbia University

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Drop in news consumption and willingness-to-pay for news

Proportion who got news online in the last week



Q3. Which, if any, of the following have you used in the last week as a source of news? Please select all that apply.

Data from 17 markets tracked since 2015: UK, US, France, Germany, Denmark, Finland, Italy, Spain, Japan, Brazil, Australia, Ireland, Poland, Czech Republic, Portugal, Austria, Netherlands.

Source: Digital News Report.

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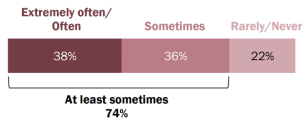
- Important trend in world of digital news: across countries, people are **turning away from news**, despite **availability of free online news content**.

Source: Reuters Institute (2025).

Drop in news consumption and willingness-to-pay for news

About three-quarters of Americans run into paywalls sometimes or more often

% of U.S. adults who say, when looking for news online, they ___ come across articles that block them from viewing unless they pay for the article or a subscription



Note: Respondents who did not answer, or who don't use the internet (and thus didn't receive this question), are not shown.
Source: Pew Research Center survey of U.S. adults conducted March 10-16, 2025.

PEW RESEARCH CENTER

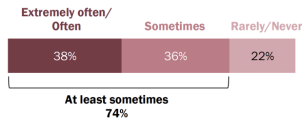
- ▶ Important trend in world of digital news: across countries, people are **turning away from news**, despite **availability of free online news content**.
- ▶ Furthermore, people **run into paywall** when looking for news online, and few pay in such case.

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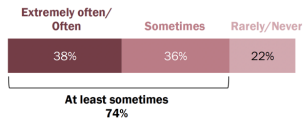
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- ▶ Particularly true among the **youth**, who may thus face declining trends in **news and political knowledge**.

⇒ What can be done?

This paper

Studies the effects of a two-pronged intervention aimed at high-school students:

1. **Free digital subscription** to the leading national daily newspaper (*Le Monde* in France).
2. **Media education modules** implemented by teachers.

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Approach:

- ▶ Measure objective and subjective effects on news consumption and demand for news, news knowledge and information inequality, media literacy skills, civic engagement and well-being.

Empirical framework: Intervention

- ▶ Sample: large scale experiment, with **243** high schools and **379** classes included in the baseline, for a total number of **9,628** high-school students.
 - ▶ 10, 11 and 12 grades.

Empirical framework: Intervention

- ▶ Sample: large scale experiment, with **243** high schools and **379** classes included in the baseline, for a total number of **9,628** high-school students.
- ▶ Randomization: at the school-level.
 - ▶ Stratified by: school socioeconomic status (*Indice de Position Sociale* – IPS);
 - ▶ school type (General & Technological vs. Vocational);
 - ▶ grade level (10th vs. 11st & 12th);
 - ▶ intensity of media education practices of participating teachers within the school (before intervention).

Empirical framework: Intervention

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- ▶ Randomization: at the school-level.
- ▶ 3 treatments (+ 1 control group):
 1. Free online access to *Le Monde*.
 2. Media education.
 3. Free online access to *Le Monde* + Media education (combined).
- ▶ Academic year 2024-2025.

Preview of the results

1. **Free media access** increases both the observed and the reported **news consumption**.
 - ▶ Very large uptake of the experiment: 70.3% of the students eligible to the free subscription activated it, and among them, 98.6% visited the news site more than once.
 - ▶ Increase in (future) **demand** for high-quality news (enhanced by media education).

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 - ⇒ **1/3 to 1/2 reduction in information inequality.**
3. **Free media access** and **media education** increase **media literacy** skills.

Contribution to the existing literature – Media economics

- ▶ Very large literature on the impact of information, but few experiments.
 - ▶ Existing literature mostly takes news consumption as given, and investigates its consequences.
 - ▶ E.g. Gentzkow et al. (2011) & Cagé (2020) on newspapers; Stromberg (2004) on radio; Gentzkow (2006) on TV; Gavazza et al. (2019) on the Internet; etc.
- ⇒ Our paper: attempt at modifying news consumption patterns.

Contribution to the existing literature – Media economics

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 - ▶ Existing literature mostly takes news consumption as given, and investigates its consequences.
- ⇒ Our paper: attempt at modifying news consumption patterns.
- ▶ Previous **field experiments** focus on:
 - ▶ The impact of **partisan media** (Broockman and Kalla, 2025; Levy, 2021).
 - ▶ The negative consequences of **social media** (Allcott & al., 2022, 2024).
 - ▶ The impact of information on **political outcomes** (Chen and Yang, 2019; Banerjee et al., 2011).
- ⇒ Compared to these experiments:
 1. We do not incentivize participants – attempt at a “real life” experiment.
 2. We are interested in news consumption per se; long-term experiment.

Contribution to the existing literature – Media economics (ct'd)

- ▶ Only previous attempt at encouraging news consumption: **Hopkins and Gorton (2024)** who performed an RCT in Pennsylvania ($N = 5,059$).
 - ▶ 2,529 individuals offered free online subscriptions... but only 44 subscribed.
 - ▶ Due to *local news* provision (sub-national politics)?
 - ▶ Also concerns regarding experimental sample: survey respondents recruited online (Facebook & Google) and likely motivated by political engagement and partisanship.
 - ▶ Very low uptake result replicated in **Trexler (2025)**: related experiment with registered voters in Chatam county, North Carolina – 3.8% subscription uptake.

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 - ▶ Very low uptake result replicated in **Trexler (2025)**: related experiment with registered voters in Chatam county, North Carolina – 3.8% subscription uptake.
- ▶ Our experiment: much higher uptake!
 - ▶ Furthermore, combining free news subscription with media education allows us to go beyond the only price barrier, and to **disentangle price vs. lack of knowledge effect**.
 - ▶ Besides, additional results on **political knowledge** and **information inequality**.

Contribution to the existing literature – Civic education

- ▶ Large literature on the effect of education on political participation, but mostly correlational (Willeck and Mendelberg, 2022).
- ▶ Causal evidence is scarce.
 - ▶ Civic education can change youth political knowledge and attitudes.
 - ▶ Harder to change behaviour.

Contribution to the existing literature – Civic education

- ▶ Large literature on the effect of education on political participation, but mostly correlational (Willeck and Mendelberg, 2022).
 - ▶ Causal evidence is scarce.
 - ▶ While – in particular in **Finland** – ambitious media literacy policies have been implemented in schools, no empirical work providing a causal estimation of these policies (e.g. of the media-literacy programmes implemented since 2016).
 - ▶ This study: one of the first RCTs evaluating the impact of civic education on civic skills at large scale.
 - ▶ Briole et al (2024): school-based RCT in European countries → implementation of citizenship projects in schools can boost civic skills.
- ⇒ First study to rigorously evaluate a program targeted at **media literacy**.

Introduction

The experiment

Data sources and Outcomes of interest

Descriptive statistics on baseline news consumption

Empirical results – News consumption and demand for news

Empirical results – News Knowledge

Empirical results – Media literacy skills

Empirical results – Political Engagement and Well-Being

Policy implications and Conclusion

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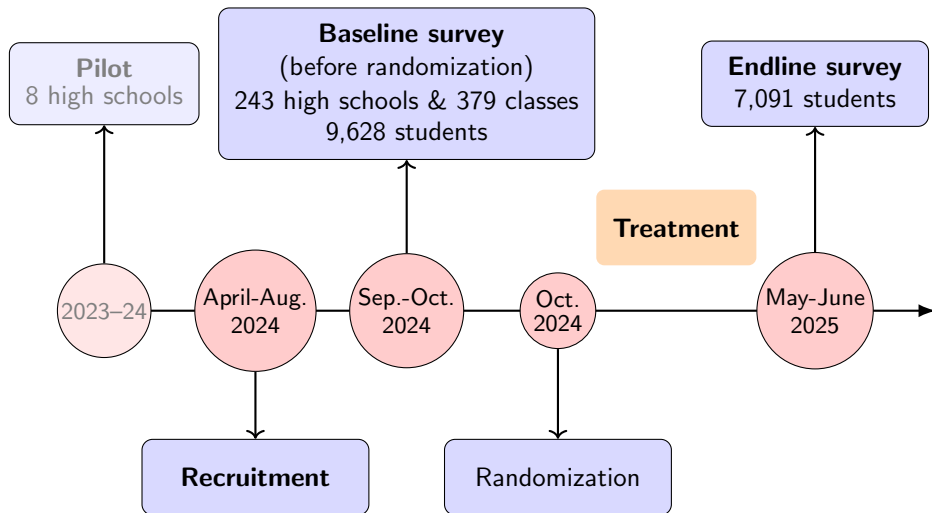
Policy implications and Conclusion

Objective and implementation

- ⇒ Understand why the young do not consume news, and what can be done.
 - ▶ In particular, measure the extent to which high-quality news content is too expensive, and/or
 - ▶ whether the young are uninformed about the advantage of high-quality news consumption (e.g. compared to social media).
- ▶ Partnership with the **French leading national daily newspaper**: *Le Monde*.
 - ▶ Generalist, independent news media.
 - ▶ Over 500 journalists, and 660K subscribers.
 - ▶ Average readership per issue: 2.7 millions; total monthly number of visits: 123 million (2025).

and pre-registered **randomized experiment** among high-school students.

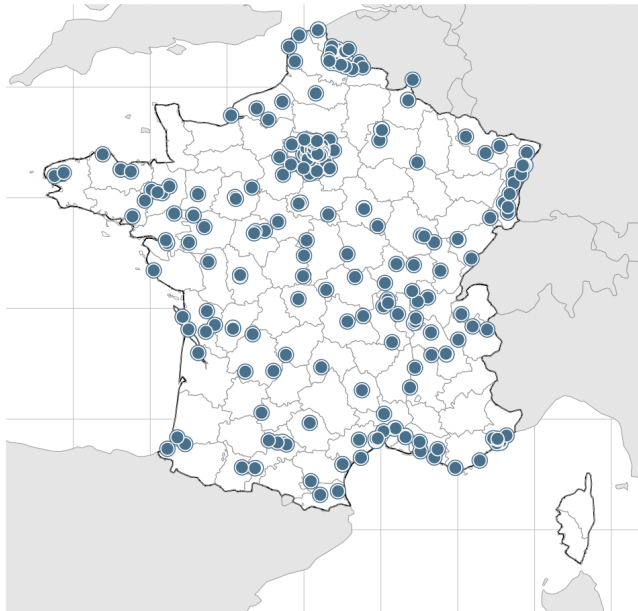
Timeline of the experiment



Experiment: Sample – High Schools

- ▶ Our sample includes all the French **high schools** that agreed to participate in the study (recruitment).
 - ▶ General and technological high schools and vocational high schools.
 - ▶ Students from year 10 (*Seconde*), 11 (*Première*) and 12 (*Terminale*) grades.
 - ▶ No eligibility criterion for high schools.
 - ▶ Volunteer high schools provided us with the names of the teacher(s) and students who would take part in the program.
 - ▶ Mandatory step for the schools to be actually included in the random selection.
- ⇒ 243 schools and 379 classes in randomization sample – from all over France.

High schools in the sample



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

Social Composition Index (*"Indice de Position Sociale"*): indicator calculated by the DEPP that summarizes the socioeconomic and cultural conditions of the students' families enrolled in the schools (varies btw 45 and 185; national average: 109).

Recruitment design

- ▶ Advantage of our **recruitment design**: we recruited the schools (/teachers) and not the students.
 - ▶ While there might of course be some selection in the schools (and teachers' characteristics) interested in participating,
 - ▶ there is **no selection** regarding the students.
 - ▶ We do not recruit a subset of students interested in getting news for free.
 - ▶ We do not pay the participants.
- ⇒ Much better in terms of **external validity** than what has been previously done in the media economics literature.

Experiment: Treatments

1. Free access to an online news media.

- ▶ One-year long free online subscription to *Le Monde*.
- ▶ Goal: reduce financial barriers to quality information.
- ▶ [While lot of free content available online, vast majority of the people still declare that they run into paywalls at least sometimes when they are looking for news online – e.g. 74% in the case of the US (Pew Research Center, 2025).]

Experiment: Treatments

1. Free access to an online news media.

2. Media education.

- ▶ Teachers in participating schools are given the opportunity to undergo training to deliver media education modules developed by the CLEMI (*Centre de liaison de l'enseignement et des médias d'information*) (take-up).
- ▶ In practice, 3 links sent for asynchronous training (up to 8 hours of training).
- ▶ + 1 link for "Classe Investigation" online training (delivered by the CLEMI).
- ▶ + 5 activities sent from December 2024 to March 2025 to teachers that can be easily implemented in class, without specific training, in case teachers did not go through the training materials.

⇒ Goal: inform students regarding the importance of high-quality information.

Experiment: Treatments

1. **Free access to an online news media.**
2. **Media education.**
3. **Combined intervention:** Free access to online news media + Media education.

Experiment: Randomization & Balanceness

- ▶ To avoid capturing spillover effects, we perform the randomization at the level of the **schools**.
 - ▶ We indeed know from the existing literature that people can learn via shared news (e.g. Bowen *et al*, 2023).
- ▶ Stratification by:
 - ▶ School socioeconomic status (*Indice de Position Sociale* – IPS).
 - ▶ School type (General & Technological vs. Vocational).
 - ▶ Grade level (10th vs. 11st & 12th).
 - ▶ Intensity of media education practices of participating teachers within the school (before intervention).

Analysis sample

Students who answer to *both* the baseline and the endline survey

	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

⇒ Balanced groups: no significant variation in students (table), teachers (table), or classes characteristics (table).

Differential attrition

- ▶ **Randomization sample:** 243 high schools, 379 classes & 9,628 students.
 - ▶ **Attrition:** 3 high schools in the randomization sample (for a total of 9 classes & 191 students) drop out of the study during the academic year and so are not included in our final analysis sample.
 - ▶ 1 from T1 and 2 from T2.
 - ▶ In the remaining high schools, some students and/or teachers did not answer the endline questionnaire.
 - ▶ Average response rate = 74.8% for students and = 93.3% for teachers.
 - ▶ “Low” students’ response rate partly driven by a 2024-25 school calendar reform (some students finished school year six weeks earlier than expected).
- ⇒ Attrition balanced between 4 groups for both teachers (table) and students (table).

Empirical specification

Following our Pre-Analysis Plan (PAP)

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

- ▶ i : student; s : school; r : strata.
- ▶ T_s : binary treatment indicator.
- ▶ X_{is} : vector of controls selected in each individual regression through a Lasso procedure (Belloni *et al.* 2014) (list of potential controls).
- ▶ $\hat{\beta}$: intention-to-treat effect.
- ▶ Standard errors clustered at the strata level (De Chaisemartin *et al.* 2024).
- ▶ When estimating treatment effects on sub-indexes, report adjusted p-values for False Discovery Rate (Benjamini and Hochberg, 1995), in order to account for multiple hypotheses testing.

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Data sources

1. **Student surveys:** surveys administered at the start of the experimentation and at the end of the school year.
 - ▶ Surveys administered on the school computers under the supervision of teachers or other members of the school staff.
2. **Teacher surveys:** surveys transmitted at the beginning and end of school year.
 - ▶ Teachers are sent a link and asked to go to a website to fill a form.
 - ▶ Specific additional questions related to the media education curriculum delivered for the subset of teachers in the “media education” treatment groups.
3. **News consumption data:** for the subset of students in the “free media access” treatment groups, data on actual online news consumption.
 - ▶ Data collected by *Le Monde*: number of articles read, time spent on the platform, etc.

Data sources (ct'd): Follow-up survey

April-May 2026 (after 2026 municipal elections)

	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				

- ▶ No differential attrition, and
- ▶ balanced characteristics.
- ▶ [More on follow-up.](#)

Outcomes of interest

5 categories of outcomes:

1. **News consumption:** usage levels, trust in newspapers, and demand for news.
2. **Media literacy skills:** citing precise news source, fact-checking, fake news sharing.
3. **News knowledge.**
4. **Political and civic engagement.**
5. **Well-being.**

Following Anderson (2008), we average indexes (i.e. the outcomes built from several outcomes) into a standardized measure.

- And switch the signs where necessary so that positive direction always indicates a “better” outcome.

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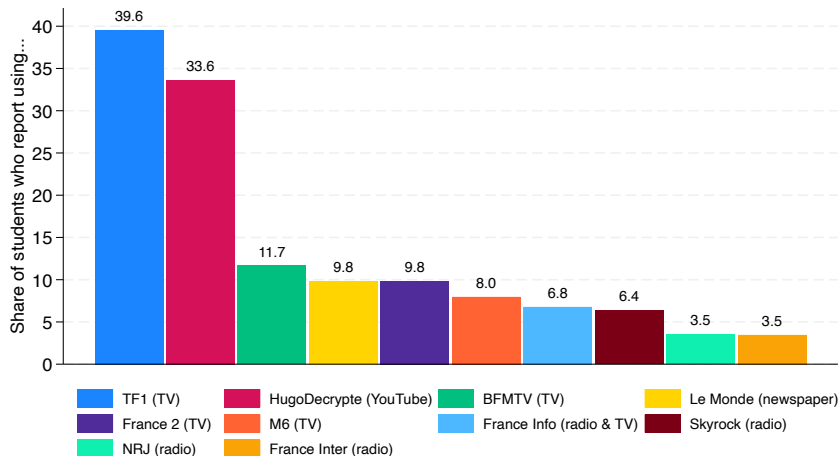
Empirical results – Political Engagement and Well-Being

Policy implications and Conclusion

Students' news consumption at baseline: Descriptive statistics

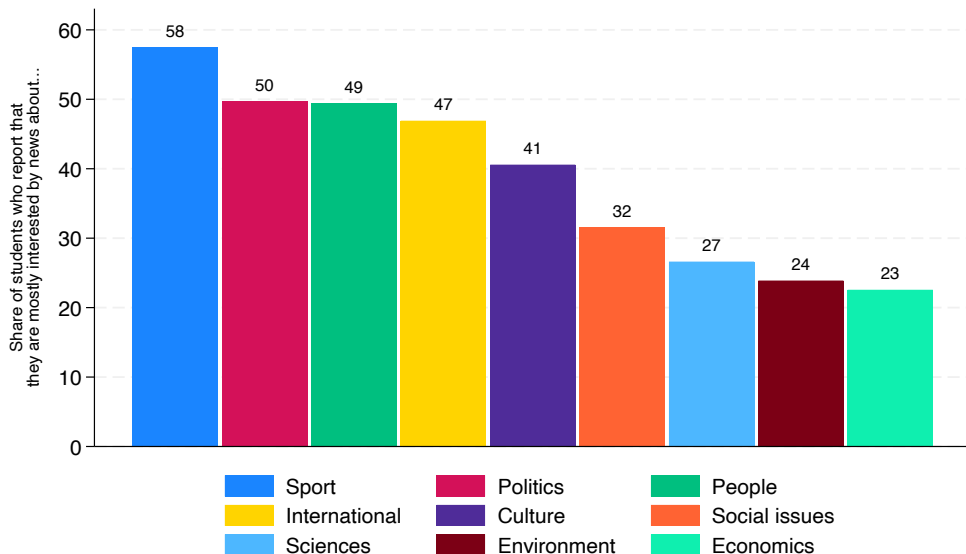
	Mean	St.Dev	P25	Median	P75
Keeping up with news					
Never	0.07	0.26	0.00	0.00	0.00
Rarely	0.47	0.50	0.00	0.00	1.00
Often	0.36	0.48	0.00	0.00	1.00
Very often	0.09	0.29	0.00	0.00	0.00
News sources (past 7 days)					
Television	0.65	0.48	0.00	1.00	1.00
Radio	0.27	0.44	0.00	0.00	1.00
Podcasts	0.41	0.49	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				

Most frequently used news sources (past 7 days)



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

Students' interest in news at baseline, Depending on the topic



Introduction

The experiment

- Calendar and recruitment

- Interventions and Randomization

- Empirical specification

Data sources and Outcomes of interest

Descriptive statistics on baseline news consumption

Empirical results – News consumption and demand for news

- Take-up: Free newspaper access

- Treatment effects: Reported news consumption

- Treatment effects: Trust in newspapers and Demand for news

Empirical results – News Knowledge

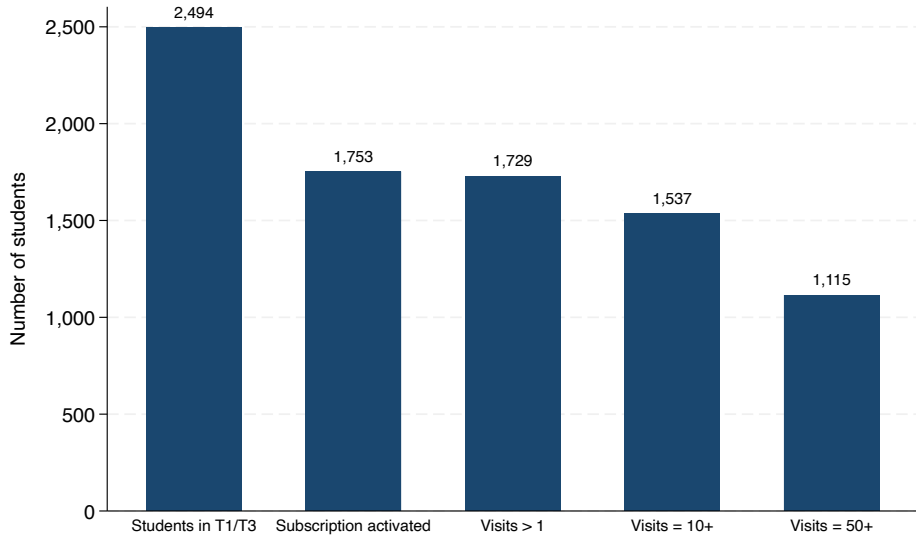
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Empirical results – Political Engagement and Well-Being

Policy implications and Conclusion

Uptake of the free subscription

- ▶ 2,494 individuals in the “free media access” treatment groups.
 - ▶ 1,351 in the “free media access” treatment group and 1,143 in the combined (“free media access” + media education) treatment group.
- ▶ Out of them, 1,753 students activated their subscription.
 - ▶ **Share of activated subscriptions:** 70.3%.
 - ⇒ Compared to existing literature, very high uptake.
- ▶ Out of the 1,753 activated subscription, 1,729 have made more than one action on the news site (98.6%).
 - ▶ Between October 10, 2024 and May 31, 2025, i.e. 234 days.



(distribution of the number of visits)

Information on devices used

At the action level

	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
Observations	316,958	

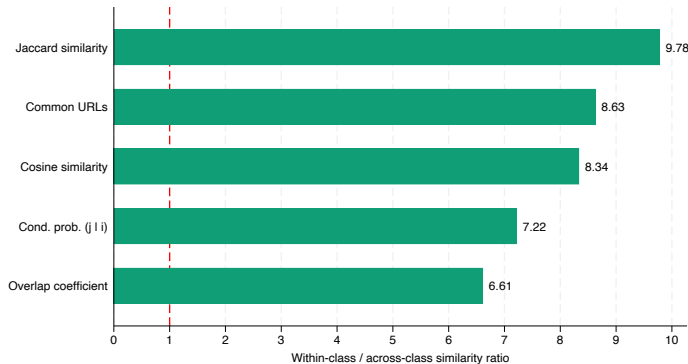
Information on timing of news consumption

Not only during class hour

	Mean	St.Dev
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	

Within-class exposure to *Le Monde*

Within-class vs. across-class similarity in news consumption

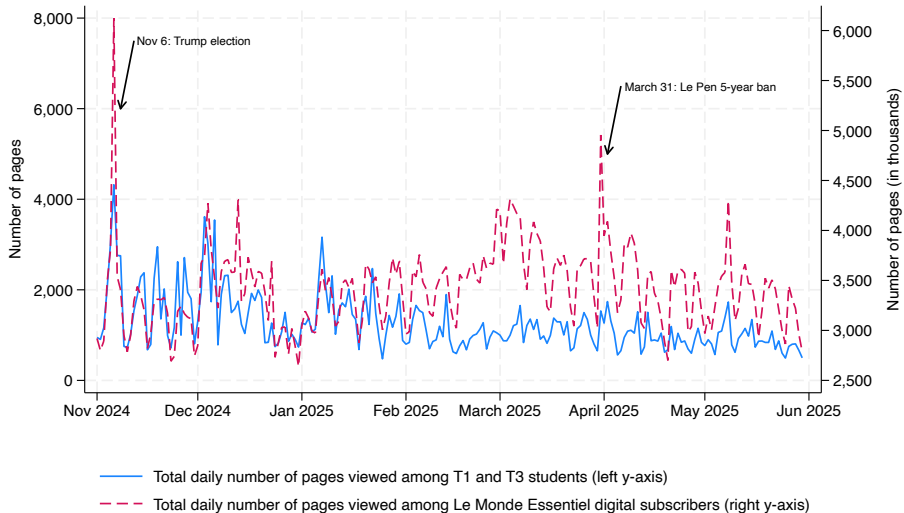


Notes: N=1,586,340 (total number of pairs of students).
1,260 students in T1 and T3 for which we observe at least one specific article read are included.
A ratio of 1 (red dashed line) would indicate no class-level segregation in news consumption.

⇒ Students in the same class are 8.34 times more likely to consume the same news content than students in different classes (cosine similarity measure).

Timing of news consumption compared to “similar” subscribers

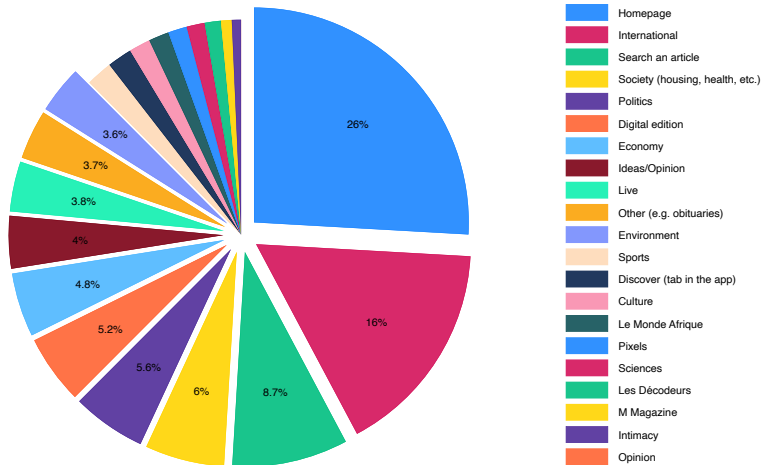
Total daily number of pages viewed on Le Monde website



Type of news consumed: T1 and T3 students

Essential digital subscribers

News produced



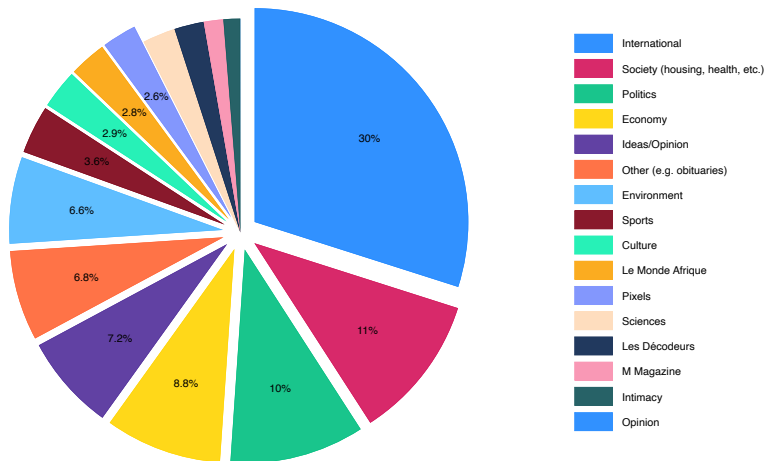
Notes: N = 272,920 pages viewed for which information on the page consulted is available.

Figure: All pages viewed

Type of news consumed: T1 and T3 students

Essential digital subscribers

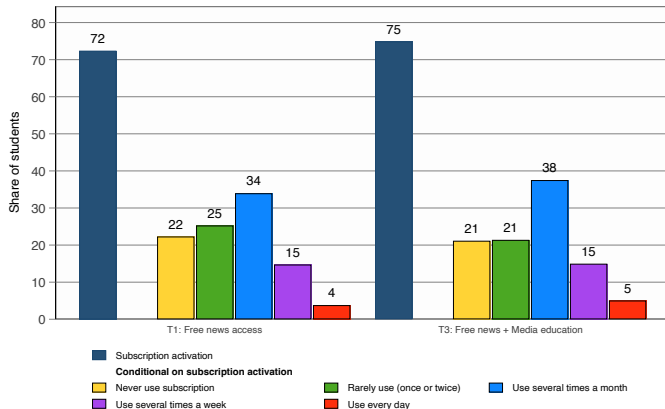
News produced



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

Figure: Pages viewed for which we have information on the section

Usage data vs. survey data



N = 2494 (students in T1 or T3).

► Observed *Le Monde*'s usage data consistent with reported news consumption in endline survey.

⇒ No “social bias” in reporting.

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- Treatment effects: Reported news consumption**

- Treatment effects: Trust in newspapers and Demand for news

Empirical results – News Knowledge

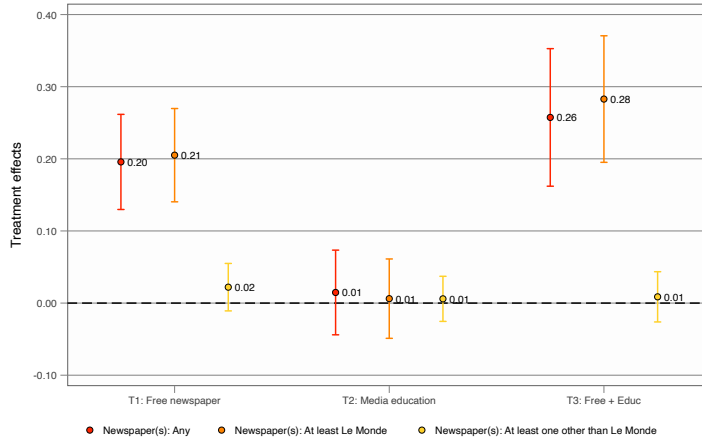
Empirical results – Media literacy skills

Empirical results – Political Engagement and Well-Being

Policy implications and Conclusion

Increase in newspaper consumption

Newspapers among five main sources of information

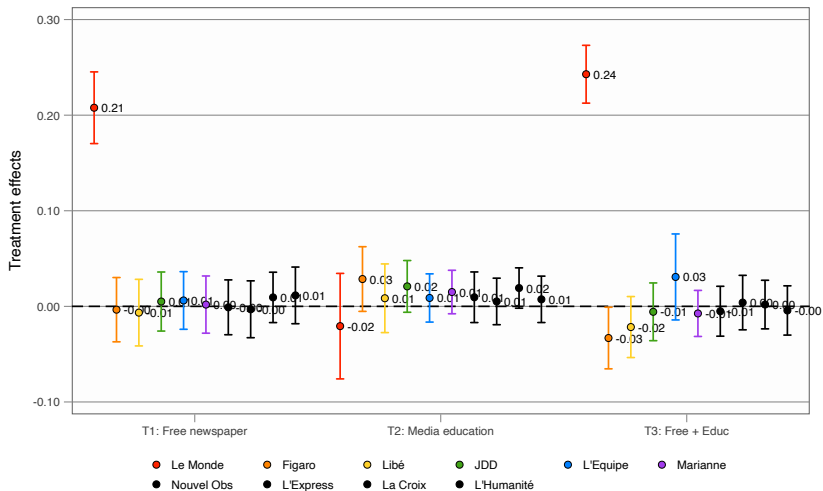


Control mean: Newspapers (any) = 0.21 ; Newspaper(s): At least Le Monde = 0.18 ; Newspapers: At least one other than Le Monde = 0.10.

T1: 21 percentage points increase for *Le Monde*, corresponding to 116% of the control group mean.

Mainly driven by *Le Monde*

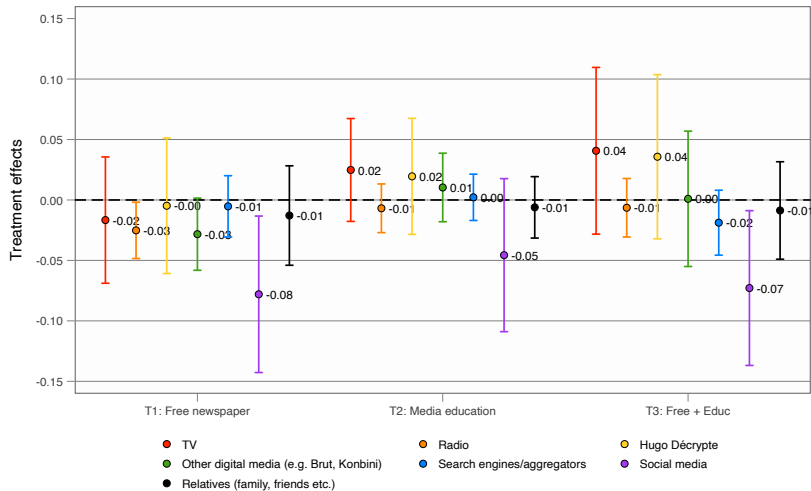
Newspapers consulted during the last seven days (on the app or website, including videos and podcasts)



Control mean: Le Monde = 0.34 ; Le Figaro = 0.17 ; Libé = 0.11 ; Le JDD = 0.08 ; L'Équipe = 0.20 ; Marianne = 0.06 ; Le Nouvel Obs = 0.06 ; L'Express = 0.09 ; La Croix = 0.07 ; L'Humanité = 0.09.

A substitution between newspapers and social media

Use of other types of media among main sources of information



Control mean: TV = 0.24; Radio = 0.07; Hugo Décrypte = 0.24; Other digital media = 0.11; Search engines/aggregators = 0.07; Social media = 0.52; Relatives = 0.09.

An increase in news diversity

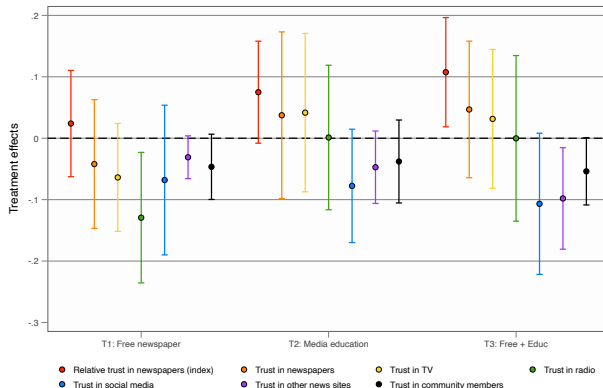
- ▶ Furthermore, increase in **diversity of information sources** [\(table\)](#).
 - ▶ Measured by an indicator = 1 if student cites at least two distinct and valid sources among its five main news sources.
 - ▶ +12.5pp for T3 (40% increase compared to the mean); +4pp increase for T1 (12% increase).

An increase in news diversity

- ▶ Furthermore, increase in **diversity of information sources** (table).
 - ▶ Measured by an indicator = 1 if student cites at least two distinct and valid sources among its five main news sources.
 - ▶ +12.5pp for T3 (40% increase compared to the mean); +4pp increase for T1 (12% increase).
- ⇒ Students seem to internalize value of **verifying information** and **relying on diverse sources**.
 - ▶ Consistently, 64% (69%) of students in T1 (T3) report using their *Le Monde* subscription to verify information encountered elsewhere (figure).

Small increase in *relative* trust in newspapers

0,111 sd increase in relative trust in newspapers index (T3)

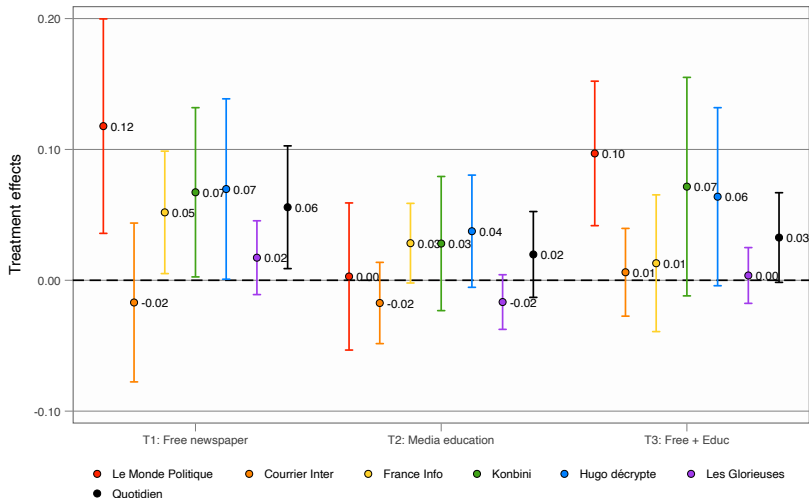


(Relative trust in newspapers index defined as the difference between reported trust in newspapers and the average reported trust in other media outlets (television, radio, social media, and websites) and community members (parents, teachers, students, and friends).)

But no overall change in trust in journalists (figure).

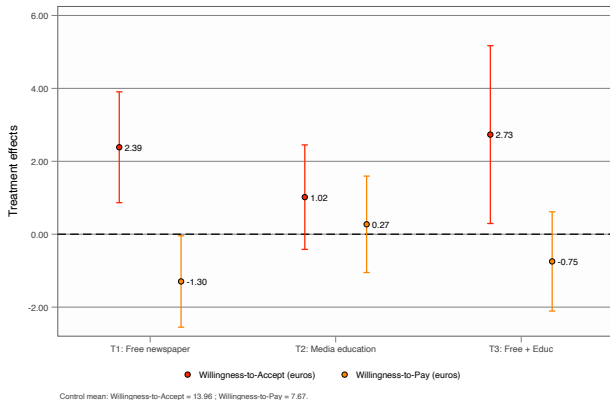
Increase in (our hard measure of) demand for news

Newsletter subscription: $+0.063$ sd for T3



Control mean: Le Monde = 0.46 ; Courrier Inter = 0.19 ; France Info = 0.29 ; Konbini = 0.36 ; Hugo Décrypte = 0.58 ; Les Glorieuses = 0.09 ; Quotidien = 0.26

Increase in Willingness-to-Accept (WTA) (but decrease in Willingness-to-Pay (WTP)) for news



- **WTP:** if you had to pay for a one-year subscription to *Le Monde*, what would be the maximum amount you would be willing to pay each month?
- **WTA:** if you had a one-year subscription to *Le Monde* and had the opportunity to resell it, what would be the minimum amount you would sell it for?

⇒ Consistent with existing literature (e.g. Plott & Zeiler 2005), and might reflect drop in valuation for something received for free.

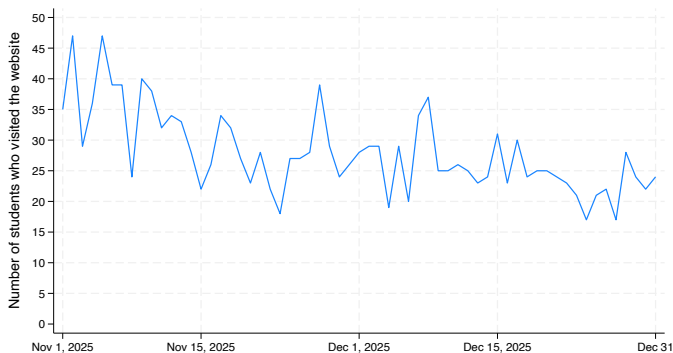
Distribution WTP

Distribution WTA

Price of a student digital subscription to *Le Monde*: €6.99.

Demand for news after the end of the experiment: Daily number of T1/T3 students who visited *Le Monde's* website

November 1st, 2025 - December 31st, 2025

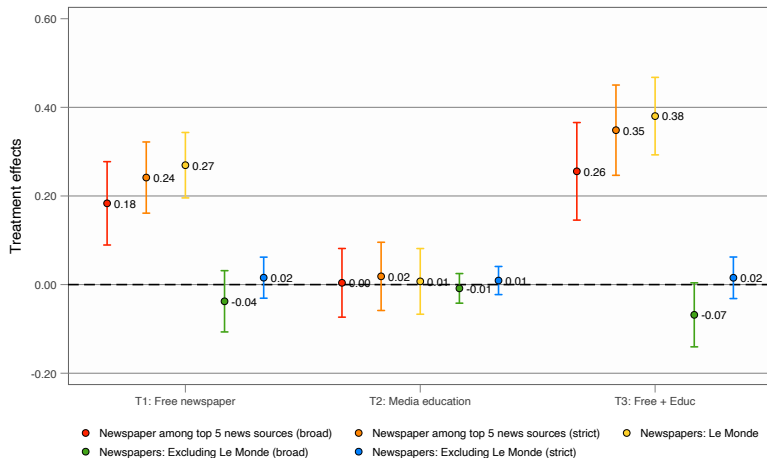


Notes: N=344 students who visited *Le Monde's* website at least once between Nov 1 and Dec 31, 2025.

⇒ Nearly 20% of the T1/T3 students renew their subscription or took another subscription to *Le Monde* at the end of the free newspaper access treatment.

Long-term effects on news consumption: Follow-up survey

Main news sources: Newspapers

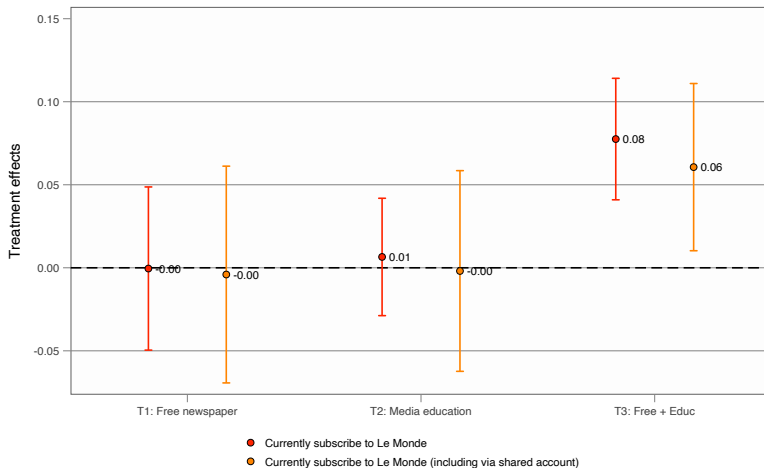


Notes: N=2912 (students who answered the follow-up survey).

Control mean: Newspaper among top 5 news sources (broad) = 0.42; Newspaper among top 5 news sources (strict) = 0.26; Newspapers: Le Monde = 0.22; Newspapers: Excluding Le Monde (broad) = 0.30; Newspapers: Excluding Le Monde (strict) = 0.13.

Long-term effects on news consumption: Follow-up survey

Subscription to *Le Monde*



Notes: N=2912 (students who answered the follow-up survey).

Control mean: Currently subscribe to Le Monde = 0.12; Currently subscribe to Le Monde (including via shared account)= 0.19.

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Empirical results – Media literacy skills

Empirical results – Political Engagement and Well-Being

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Treatment effects: News knowledge

Outcome variable	(1) C	(2) T1-C	(3) S.E.	(4) <i>p</i>	(5) <i>p</i> adj.	(6) T2-C	(7) S.E.	(8) <i>p</i>	(9) <i>p</i> adj.	(10) T3-C	(11) S.E.	(12) <i>p</i>	(13) <i>p</i> 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

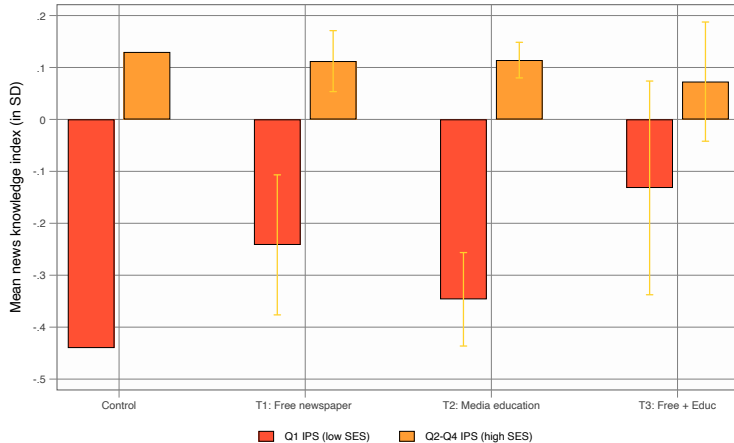
⇒ No statistically significant average treatment effects on **news knowledge**.

- ▶ **Discernment:** ability to identify correct information about recent current events in France, in the world, and in the European Union.
- ▶ **Political knowledge:** (i) identifying French trade union acronyms, (ii) naming the French Prime Minister, (iii) matching prominent politicians with their political party, (iv) identifying the country holding the rotating presidency of the Council of the European Union in the first half of 2025, (v) true/false question regarding the political affiliation of the President of the European Commission, (vi) identifying the current President of the European Commission.
- ▶ **Economic knowledge:** assesses awareness of recent economic indicators and policies in France (unemployment, public deficit, inflation, economic growth, and public debt levels).

Treatment effects: News knowledge – Heterogeneity depending on Socioeconomic Status

- ▶ Absence of treatment effect on news knowledge could be due to the fact that overall the students are sufficiently well informed; therefore, there is no additional “informational gain” from reading the newspapers.
 - ▶ Angelucci and Prat (2024): the most disadvantaged have, on average, a very low level of knowledge.
- ▶ PAP: **heterogeneity of the effect depending on the IPS** (low vs. high Socioeconomic Status (SES) students).
 - ▶ Q1 vs. Q2-Q4.
 - ▶ Sub-samples are balanced (table for Q1).

News Knowledge: Treatment effects depending on IPS – Low vs. high



Note: Bars correspond to adjusted treatment-specific levels from the full specification with controls and strata fixed effects. 95% CIs are shown for treatment arms.

A large drop in information inequality

- ⇒ All treatments lead to large and statistically significant **increase in news knowledge among students enrolled in low-IPS schools**, but no statistically significant effects for students enrolled in high-IPS schools.
- ▶ Compared to the control group, free access to information (respectively the combination of free access and media education) increases news knowledge by 0.20 (resp. 0.31) SD.
- ▶ In the absence of any treatment effect (control group), 0.45 SD difference in news knowledge between high-SES students and low-SES students.
- ⇒ Free access to newspapers (as well as its combination with media education) reduces inequalities in information between one third and half.

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- ▶ In the absence of any treatment effect (control group), 0.45 SD difference in news knowledge between high-SES students and low-SES students.
- ⇒ Free access to newspapers (as well as its combination with media education) reduces inequalities in information between one third and half.
- ▶ No heterogeneous treatment effects for other outcomes, in particular news consumption (table).

Robustness: Generic Machine Learning Inference on Heterogeneous Treatment Effects

- ▶ Robust to using **machine learning methods** to study treatment effect heterogeneity (Chernozhukov et al., 2025).
- ⇒ Confirms the presence of **substantial heterogeneity in treatment effects** for all treatments (table).
- ⇒ Confirms that **socio-economic background** (as measured by school IPS) is **strongly correlated with treatment effects**.
 - ▶ The classification analysis (CLAN) shows 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 (table).

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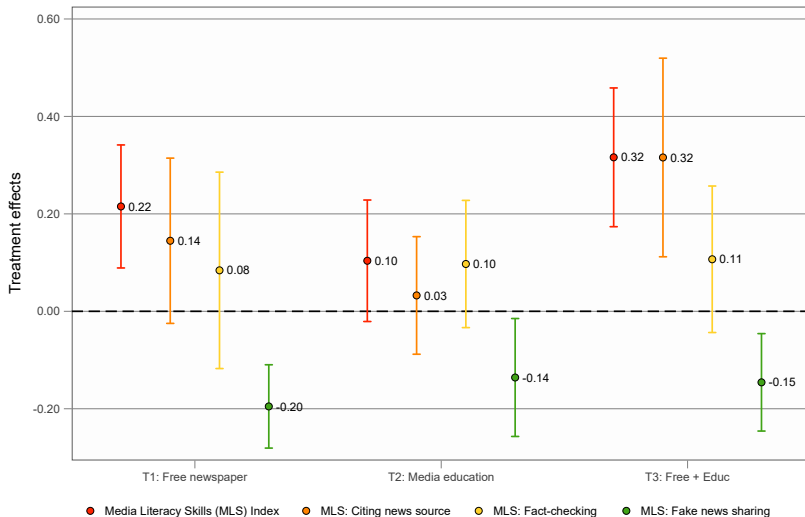
Empirical results – Media literacy skills

Empirical results – Political Engagement and Well-Being

Policy implications and Conclusion

Increase in *observed* media literacy skills

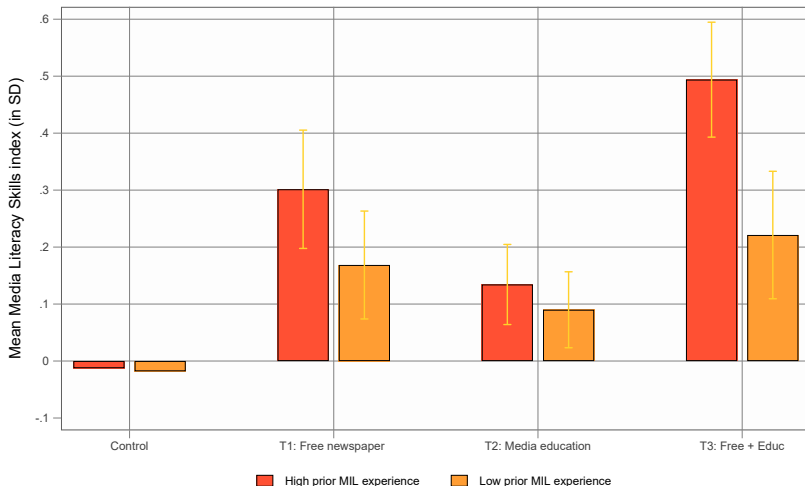
+0.22-0.32 SD for media literacy skills index (index)



Media literacy skills: Heterogeneity depending on teachers' prior MIL teaching experience

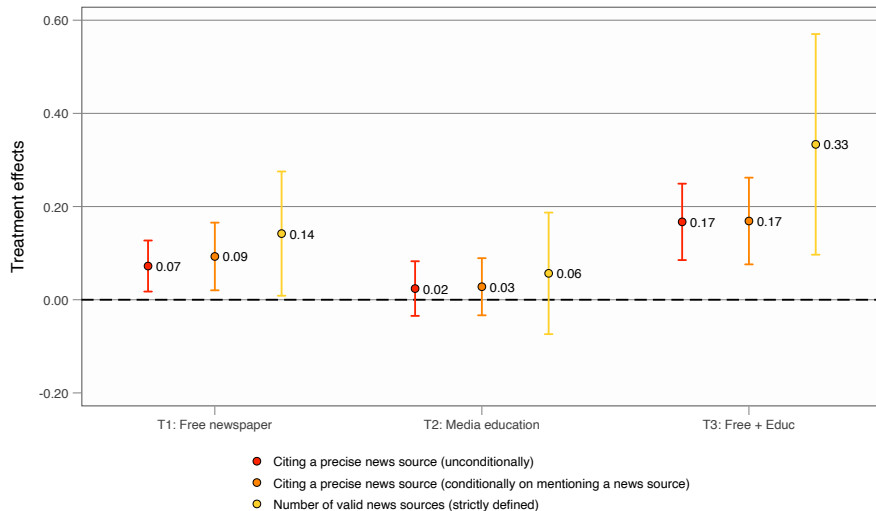
- ▶ Heterogeneity depending on teachers' **prior MIL teaching experience**: dimension of heterogeneity discussed in PAP.
 - ▶ Prior MIL teaching experience may indeed affect how “good” teachers are at media education.
 - ▶ I.e. how “efficient” they are at implementing it.
- ▶ Prior experience measured at baseline using answer to following question: *“Have you ever implemented media literacy programs for middle or high school students in the past five years?”*
 - ▶ 4 possible answers: (i) Yes, more than five times; (ii) Yes, between one and five times; (iii) Yes, once; (iv) No, never.
 - ▶ High prior MIL teaching experience = Yes, more than five times ($\simeq 40\%$).

Media literacy skills: Heterogeneity depending on teachers' prior MIL teaching experience



Note: Bars correspond to adjusted treatment-specific levels from the full specification with controls and strata fixed effects. 95% CIs are shown for treatment arms.

Long-term effects on citing precise news source: Follow-up survey



Notes: N=2912 (students who answered the follow-up survey).

Control mean: Citing a precise news source (conditionally on mentioning a news source) = 0.45

Citing a precise news source (uncond) = 0.38.

The number of valid news sources variable is standardized and so the coefficient on this variable should be interpreted in SD terms.

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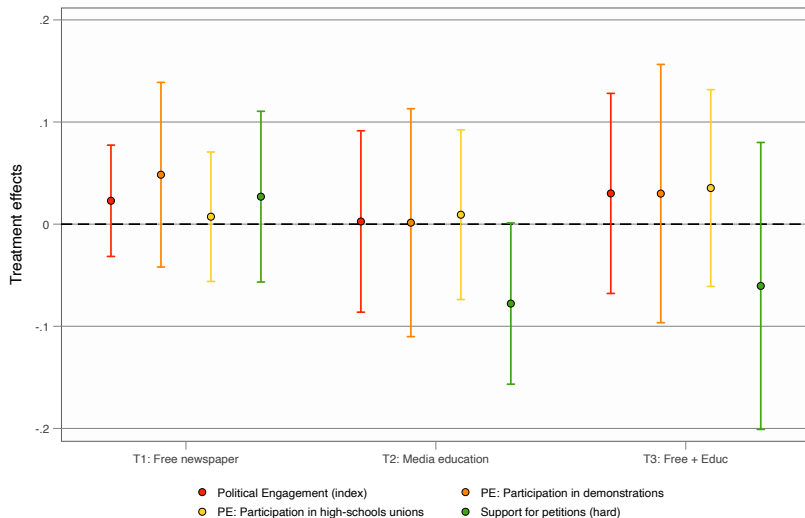
Empirical results – News Knowledge

Empirical results – Media literacy skills

Empirical results – Political Engagement and Well-Being

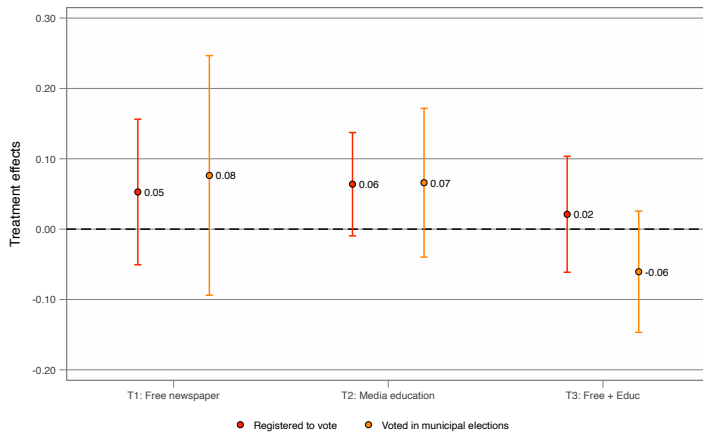
Policy implications and Conclusion

Civic and political engagement: No treatment effects in the endline survey



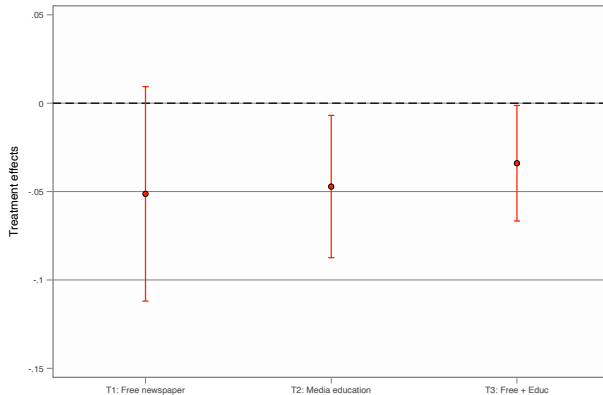
Small long-term increase in voter registration for T1 and T2, but no effect on participation (at local elections)

Follow-up survey: Sample of voting-age students



Notes: N=846 (voting-age students who answered the follow-up survey).
Control mean: Registered to vote = 0.80; Voted in elections = 0.61.

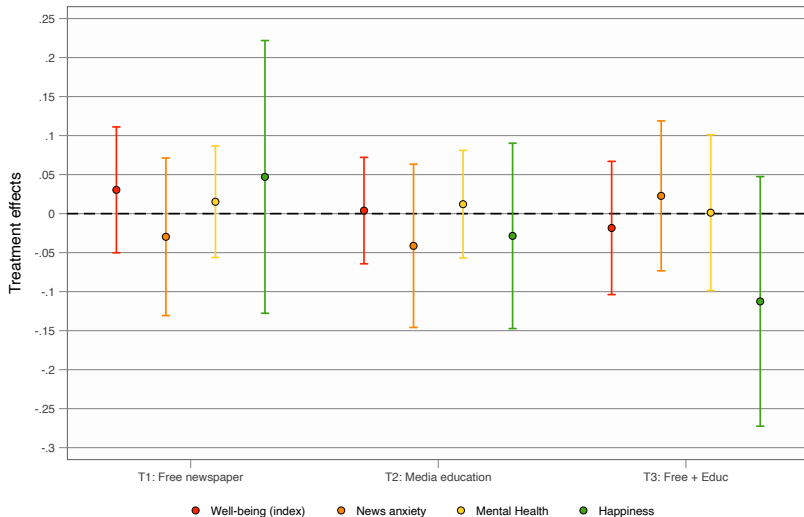
Decrease in (reported) political self-efficacy (index)



- ⇒ Due to the fact that consuming quality information makes subjects more aware of the complexity of politics and the difficulty of changing the status quo?
- ▶ Consistently, small increase in probability to report in follow-up survey that did not vote because did not feel **entitled to express political opinion** (figure).

No negative effect on well-being despite increased news consumption

Due to the fact that they spend less time on social media?



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Empirical results – Media literacy skills

Empirical results – Political Engagement and Well-Being

Policy implications and Conclusion

In summary...

- ▶ **Main results** from our randomized experiment:
 - ▶ Very large increase in **newspaper consumption** as a source of information for T1 and T3.
 - ▶ Positive effect on **demand for high-quality news** for all treatment arms.
 - ⇒ Long-lasting effect: 20% of the T1/T3 high-school students renewed their subscription at the end of the experiment, and
 - ▶ Persistent effects observed in follow-up survey.
 - ▶ Improvement in **media literacy** for all treatments.
 - ▶ More fact-checking, less sharing of false information.
 - ▶ No effect on **news and political knowledge** overall... but very strong effect among low socioeconomic background high-school students.
 - ▶ Significant reduction in **information inequality**.

Policy implications

- ▶ Encouraging results: **relaxing the price barrier** to high-quality information leads to a sizable increase in news consumption and a substantial reduction in information inequality.
 - ▶ **Media education** interventions also show significant effects, but may be harder to implement (and more costly).
- ⇒ Despite durability of online habits, **news consumption can be changed.**

Policy implications

- ▶ Encouraging results: **relaxing the price barrier** to high-quality information leads to a sizable increase in news consumption and a substantial reduction in information inequality.
 - ▶ **Media education** interventions also show significant effects, but may be harder to implement (and more costly).
 - ⇒ Despite durability of online habits, **news consumption can be changed**.
- ▶ Furthermore, intervention that is **easy to scale-up** and **relatively inexpensive**: at most a few euros per student per month.
 - ▶ The payment goes directly to high-quality news providers – and so to the overall production of information that could benefit other citizens.
 - ⇒ “Ecological” intervention: it is not under “research steroids” / no “voltage effects” (Al Ubaydli et al., 2017, 2021): students were not paid to participate.
- ⇒ One might expect our program not to fail to deliver its promises at scale.

Thank you for your attention!

High schools recruitment

back

- ▶ We rely on **several channels** to convince high schools to participate.
 - ▶ Endorsement from DEPP and CLEMI.
 - ▶ Help from IDEE (J-PAL).
 - ▶ Contact through the RAEMI (*“Référent Académique Éducation aux Médias et à l’Information”*).
 - ▶ Email sent to all the *“professeurs documentalistes”* (librarian) in every French high school (email addresses scrapped online).
 - ▶ Webinar offered to interested high schools.
- ▶ Experiment implemented thanks to the crucial support of **Eval-Lab** (and in particular Quentin Daviot).

Asynchronous training

back

- ▶ Each session is divided into 3 sections:
 1. Discovering the subject;
 2. Confronting one's own perceptions about the subject, and
 3. Reflecting on one's teaching practices with some activities that can be implemented in the classroom.
- ▶ Training 1 (2 hours): The prioritization of information.
- ▶ Training 2 (3 hours): The construction of information.
- ▶ Training 3 (3 hours): Information disorders.

Classe Investigation

back

- ▶ "Classe Investigation" is a media education game where students are immersed in an investigative journalism experience.
 - ▶ In pairs, students must transcribe the information they discover through text, audio, and video, ultimately producing a journalistic piece (in print or digital format).
- ▶ Training to CI lasts around 2.5 hours and is organized thrice a month by the CLEMI.

Non-prescriptive activities

back

- ▶ We sent 5 hands-on, non-prescriptive activities that teachers can easily adapt in class, even if they did not undergo the training (intensive and extensive purposes).
 1. A1: How to look for information and prioritize different sources of information.
 2. A2: Presenting true and false information in front of the classroom, using different pictures.
 3. A3: Understanding the different type of false information.
 4. A4: Using fact-checking to verify information.
 5. A5: Constructing information
- ▶ Activities constructed using (i) existing activities offered by specialized NGOs and (ii) teachers' recommendations.

List of potential controls

back

- ▶ **Students'** pre-determined characteristics: gender, age, geographical origin, family background, experience as representative, outcomes at baseline.
 - ▶ Controls may be selected at the individual student-level or averaged at the school-level.
- ▶ **Teachers'** sociodemographic and professional characteristics: age, gender, experience, seniority.

Student attrition

[back](#)

	(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

2024-25 school calendar reform

back

- ▶ In 2024-25, Emmanuel Macron introduced a school calendar reform for vocational high school students.
- ▶ Differentiated track offered to students with the option to complete an internship during the **last six weeks** instead of attending classes.
 - ▶ Vocational training program vs.
 - ▶ Preparing to pursue higher education.

Teacher Attrition

[back](#)

	(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

“Indice de Position Sociale” (IPS) – Socioeconomic status (SES)

back

- ▶ A school's **Social Position Index** is a measure that summarizes the **socioeconomic and cultural conditions** of the families of the students it serves.
- ▶ Index based on parents' **occupation and socio-professional categories** (PCS).
 - ▶ Idea: construct a **unidimensional measure of social stratification** by assigning a numerical value to each PCS, or to each pair of PCS (father and mother).
 - ▶ Specifically, compute the **weighted average** of characteristics describing students' **living conditions** to determine the index values for each PCS (or pair of PCSs).
- ▶ Main components:
 - ▶ Cultural practices,
 - ▶ Parents' educational attainment (diploma),
 - ▶ Ambition and involvement,
 - ▶ Material conditions (including revenue but also Internet access etc.),
 - ▶ Cultural capital.

Balancing Checks: Student Characteristics

[back](#)

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

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

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

Balancing Checks: Teacher Characteristics

[back](#)

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

Balancing Checks: Class Characteristics

[back](#)

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

Standard errors in parentheses

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

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

Follow-up survey

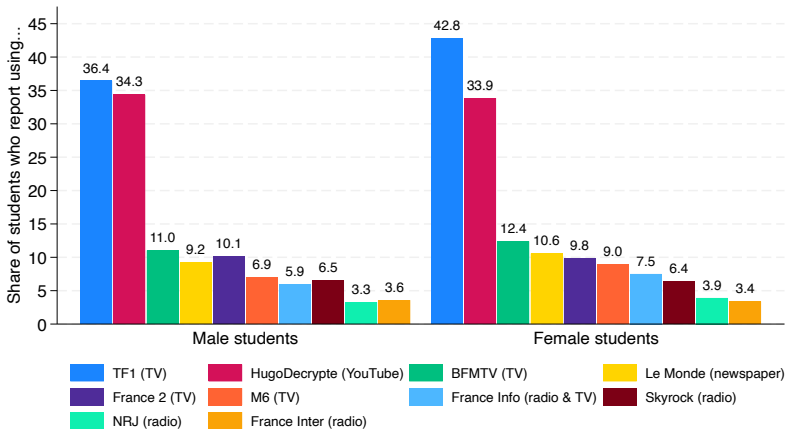
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- ▶ The follow-up survey was administered to all participants through three contact channels: email, SMS, and telephone interviews.
 1. **Email campaign:** campaign launched on March 27 2026, five days after the second round of the municipal elections.
 - ▶ Emails were sent one randomization stratum at a time to avoid temporal imbalances across groups, and limited to 1,500 sends per day.
 2. **SMS campaign:** participants with a valid phone number were then sent an SMS, following the same stratum-by-stratum order.
 - ▶ Campaign ran from April 3 to April 13, subject to an operator-imposed limit of 200 messages per day.
 3. **Telephone campaign:** conducted to maximize response rates, targeting all participants who had not yet responded and had a valid phone number.
- ⇒ In total, 2,580 out of the 7,091 students in the analysis sample responded (overall response rate of 36.4%).

Most frequently used news sources (past 7 days)

Heterogeneity depending on gender

[back](#)

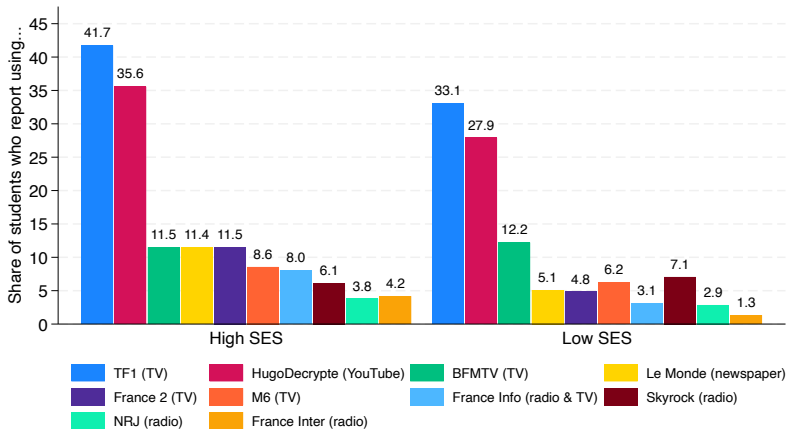


N = 6819 (high-school students who completed both the baseline and the endline surveys).

Most frequently used news sources (past 7 days)

Heterogeneity depending on socio-economic status

[back](#)

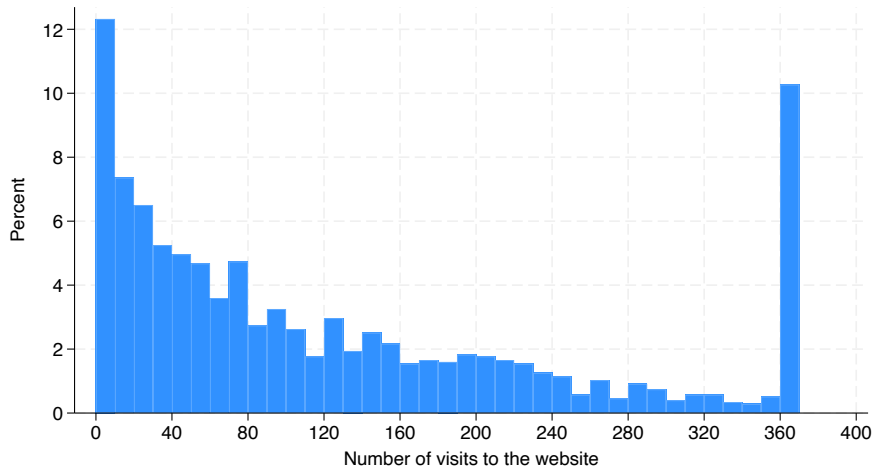


N = 7091 (high-school students who completed both the baseline and the endline surveys).

Distribution of the number of visits on the website

An observation is a treated student (T1 or T3)

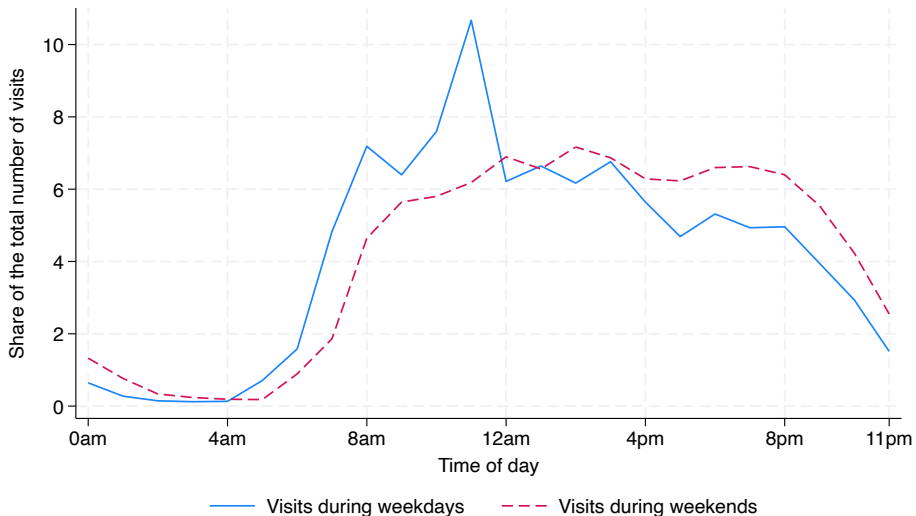
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N=1753 (students who went at least once on the website). Bins are of size 10.
The number of visits is winsorized at the 90th percentile.

News access by time of day: Weekdays vs. weekends

[back](#)



Type of news consumed: *Le Monde* Essential digital subscribers

(back)

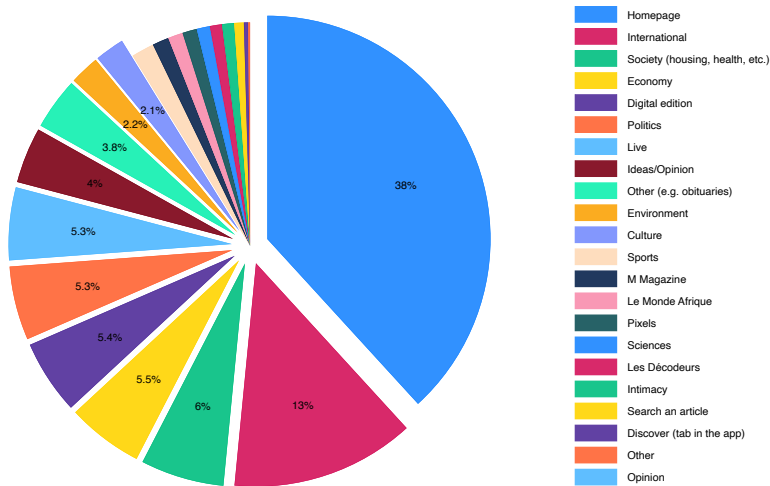


Figure: All pages viewed

Type of news consumed: *Le Monde* Essential digital subscribers

(back)

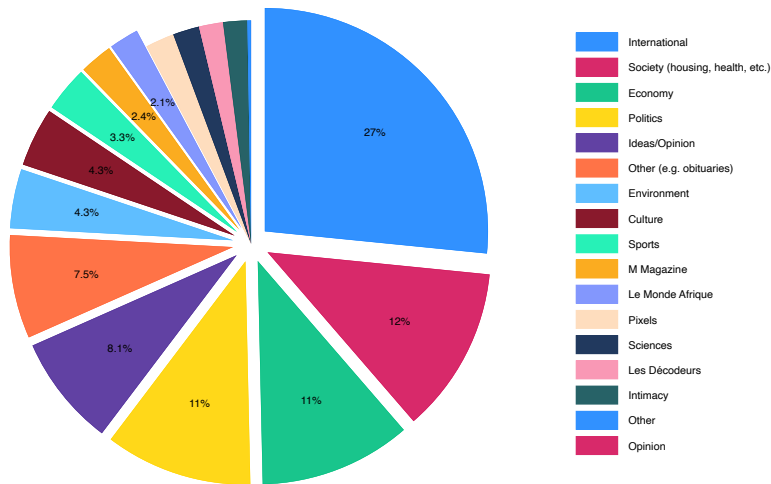
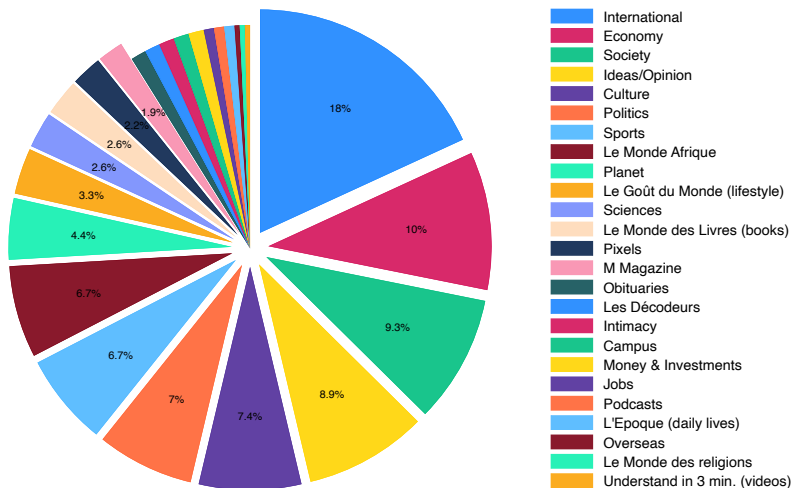


Figure: Pages viewed for which we have information on the section

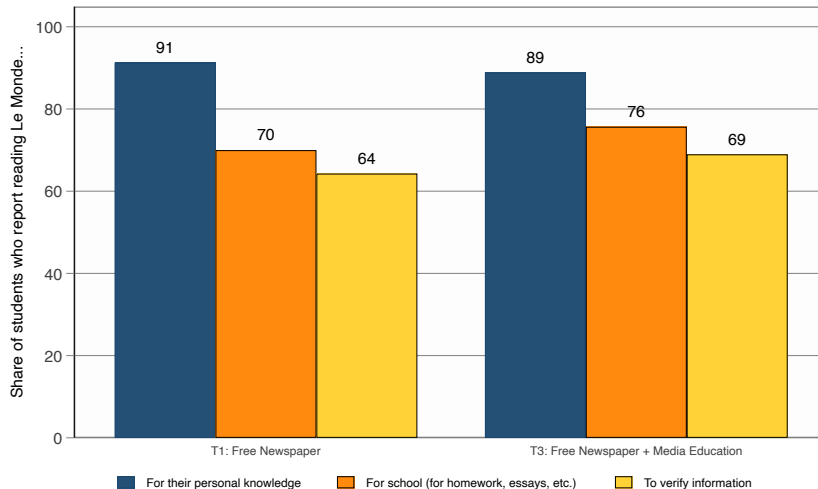
Share of the articles produced by *Le Monde* by section

[\(back\)](#)



Reasons for reading *Le Monde*

[back](#)

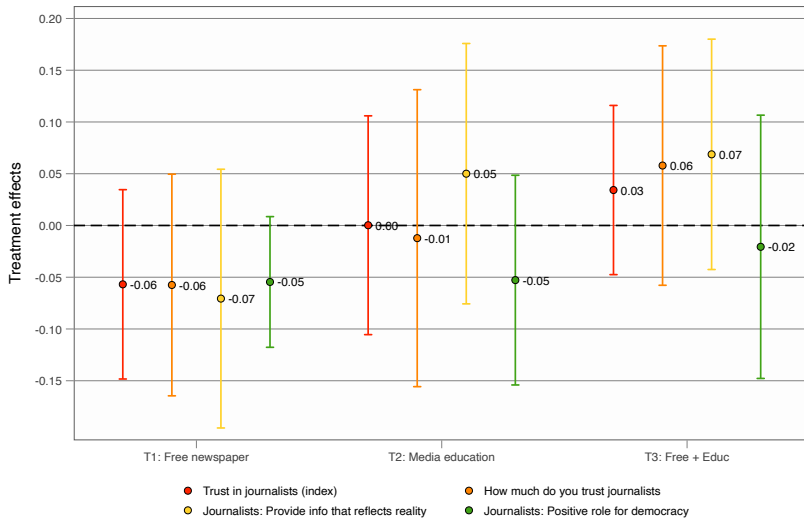


For what reason(s) do you read *Le Monde* newspaper?

N = 1005 (students who report using *Le Monde* several times a month or more and answer the question).

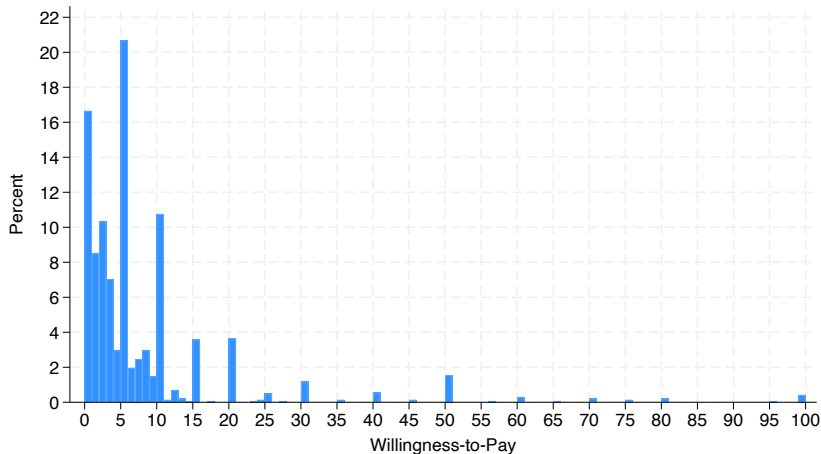
No overall change in trust in journalists

[back](#)



Distribution of the Willingness-to-Pay (control-group students)

[back](#)

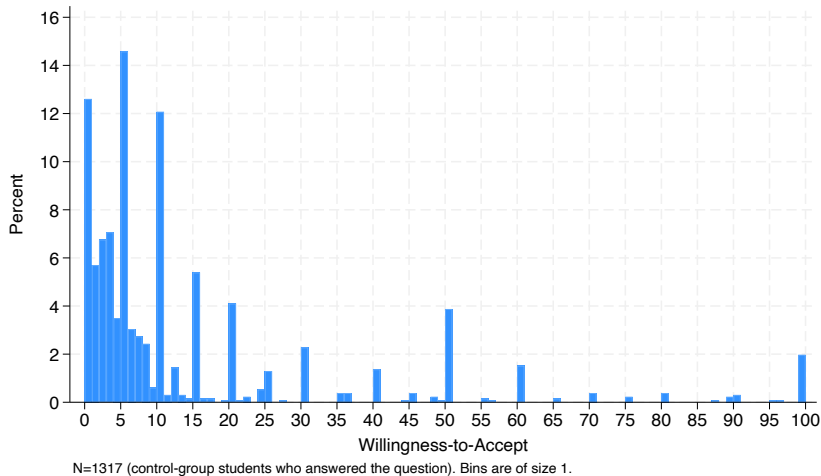


N=1423 (control-group students who answered the question). Bins are of size 1.

The median value is €5 (the price of a digital subscription to *Le Monde* for students is €6.99).

Distribution of the Willingness-to-Accept (control-group students)

[back](#)



The median value is €5.99 (the price of a digital subscription to *Le Monde* for students is €6.99).

Generic Machine Learning results: BLP and GATES

[back](#)

	ATE (1)	HET (2)	TE for G1 (3)	TE for G4 (4)
<i>Treatment 1:</i>				
News Knowledge (NK) Index	0.021 [0.68]	0.264 [0.03]	-0.075 [0.33]	0.136 [0.11]
<i>Treatment 2:</i>				
News Knowledge (NK) Index	-0.027 [0.48]	0.181 [0]	-0.142 [0.03]	0.111 [0.10]
<i>Treatment 3:</i>				
News Knowledge (NK) Index	0.011 [0.81]	0.285 [0.04]	-0.061 [0.46]	0.119 [0.17]

Generic Machine Learning results: Classification Analysis (CLAN) results

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Heterogeneity variables	25% least affected	25% most affected	P-value (2) – (3)
(1)	(2)	(3)	(4)
<i>Outcome: News Knowledge (NK) Index – Treatment 1</i>			
(1) IPS	113.725	106.717	0.000
(2) Teacher female	0.606	0.887	0.000
(3) Baseline political knowledge	0.103	-0.239	0.000
(4) Active learning practices	-0.167	0.050	0.000
(5) MIL activities	-0.233	0.139	0.000
(6) Share of scholarship students	0.227	0.274	0.000
(7) School engagement (teacher)	-0.086	0.114	0.000
(8) Female student	0.613	0.489	0.001
(9) Baseline newspaper consumption	0.187	0.110	0.002
(10) Teacher experience (years)	21.875	20.323	0.025
(11) Baseline political participation	0.068	-0.052	0.021
<i>Outcome: News Knowledge (NK) Index – Treatment 2</i>			
(1) Active learning practices	-0.111	0.015	0.000
(2) Teacher female	0.630	0.712	0.002
(3) Share of scholarship students	0.215	0.234	0.010
(4) Teacher experience (years)	20.576	21.941	0.011
(5) MIL activities	-0.018	0.108	0.014
<i>Outcome: News Knowledge (NK) Index – Treatment 3</i>			
(1) IPS	113.132	110.044	0.006
(2) Share of scholarship students	0.224	0.262	0.000
(3) Teacher experience (years)	20.898	19.003	0.003
(4) Baseline political participation	-0.060	0.089	0.010
(5) School engagement (teacher)	-0.076	0.019	0.025

Outcome of interest: Media literacy skills

back

Media literacy skills index built from *observed* outcomes including:

1. Experimental **social media sharing task**, in which students are randomly shown either a true or a false news story and later invited to share it.
2. A subsample of students have access to a **fact-checking tool**, before the sharing prompt.

Randomization sample: Descriptive statistics on teachers

[back](#)

	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	

Compared to French average:

- ▶ similar average age;
- ▶ but higher share of women in our sample (69% vs. 55.5% in French high schools);
- ▶ and higher qualifications ("only" 19% Agregation & 42.8% CAPES on average in French high schools).

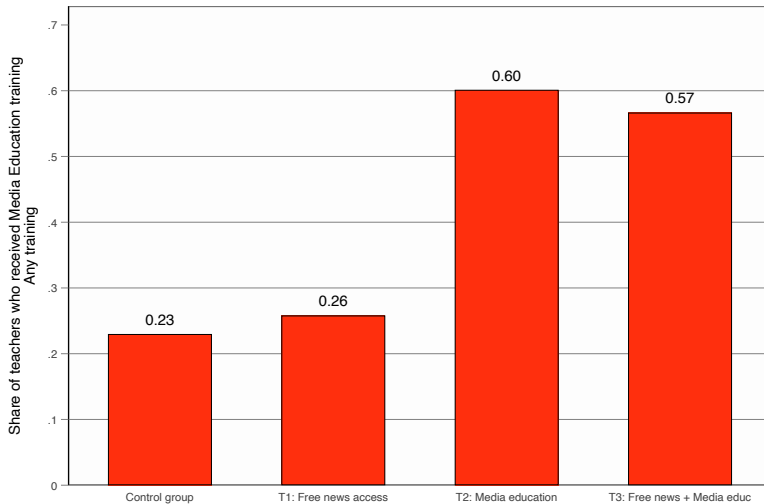
Media education take-up

back

- ▶ Not all teachers included in T2 and T3 followed the media education training they were offered. ⇒ Our estimates have to be interpreted as **Intent-to-Treat (ITT)** effects.
 - ▶ 60% of them did so in T2 and 57% in T3 (figure).
- ▶ Low take-up mainly driven by a **lack of time** (figure).
 - ▶ Should be taken into account when implementing media education policies in the future.
- ▶ Furthermore, 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.

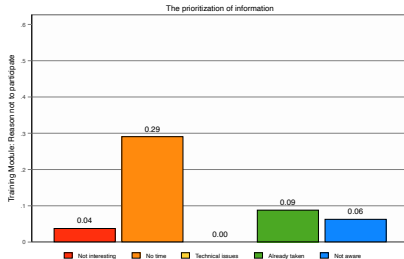
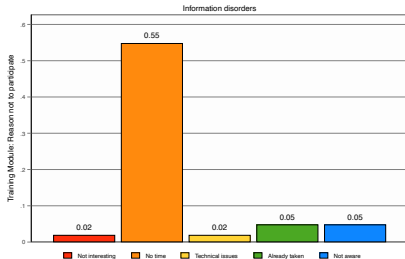
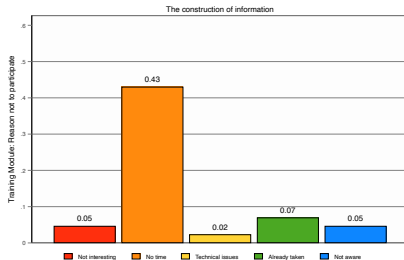
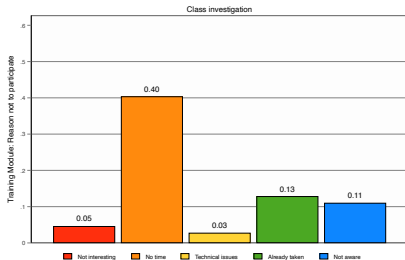
Media education take-up: Teacher training

[back](#)



Media education training activities: Reasons for not taking the training

[back](#)



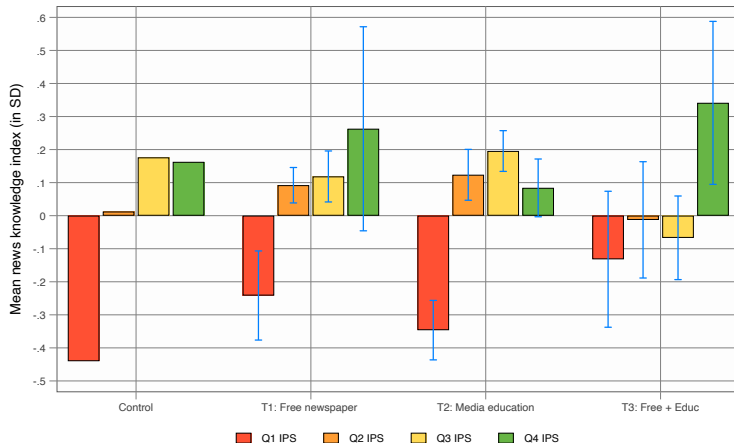
Balancing Checks in Low IPS Schools (below 1st quartile)

[back](#)

Variable	(1) Control	(2) T1 - C	(3) T2 - C	(4) T3 - C	(5) N
Panel A: Student Characteristics and Baseline Skills					
Age	15.63 (0.134)	0.094 (0.053)	-0.038 (0.053)	0.098 (0.238)	1,706
Female student (0/1)	0.53 (0.061)	-0.034 (0.035)	-0.025 (0.035)	-0.096 (0.047)	1,751
Foreign origins (0/1)	0.42 (0.087)	-0.145 (0.093)	-0.114 (0.093)	-0.215 (0.139)	1,786
Presence on social media (0/1)	0.51 (0.019)	-0.035 (0.036)	-0.057 (0.035)	-0.017 (0.023)	1,781
Exposure to EMI interventions	1.20 (0.062)	-0.053 (0.036)	-0.031 (0.062)	0.082 (0.062)	1,460
Newspaper Consumption Index	0.09 (0.021)	0.034 (0.027)	0.005 (0.023)	0.023 (0.023)	1,781
Media Literacy Skills Index	-0.10 (0.038)	0.022 (0.041)	-0.031 (0.034)	0.039 (0.034)	1,766
News Knowledge Index	-0.34 (0.084)	0.056 (0.061)	0.095 (0.101)	0.186 (0.101)	1,757
Political Participation Index	0.02 (0.078)	-0.019 (0.056)	-0.013 (0.080)	0.057 (0.080)	1,727
Panel B: Teacher Characteristics, Skills, and Subjects					
Female teacher (0/1)	0.72 (0.223)	0.059 (0.087)	0.041 (0.118)	-0.110 (0.118)	89
Age	46.40 (5.001)	2.182 (2.195)	2.247 (4.366)	3.894 (4.366)	89
Teaching experience	18.36 (5.257)	2.793 (3.935)	2.432 (3.512)	1.717 (3.512)	87
High-level certification (Agrégation) (0/1)	0.19 (0.093)	-0.128 (0.090)	-0.086 (0.087)	-0.306 (0.087)	89
Head teacher (0/1)	0.28 (0.160)	0.029 (0.122)	0.008 (0.142)	0.077 (0.142)	89
Trained in MIL (0/1)	0.49 (0.079)	0.066 (0.155)	-0.074 (0.154)	0.086 (0.154)	89
Trained in MIL - CLEM (0/1)	0.28 (0.062)	0.089 (0.142)	-0.049 (0.087)	0.089 (0.087)	89
MIL teaching self-confidence	0.00 (0.253)	0.259 (0.177)	-0.118 (0.361)	0.221 (0.361)	89
MIL class activities	0.00 (0.402)	-0.349 (0.438)	-0.661 (0.268)	-0.404 (0.268)	89
MIL topics	0.00 (0.402)	-0.254 (0.223)	-0.150 (0.345)	-0.205 (0.345)	89
History-Geography (0/1)	0.52 (0.166)	0.156 (0.090)	-0.009 (0.127)	0.068 (0.127)	89
Civics (0/1)	0.32 (0.126)	0.120 (0.148)	-0.103 (0.127)	-0.068 (0.127)	89
Economics and Social Sciences (0/1)	0.08 (0.081)	-0.029 (0.136)	0.070 (0.141)	0.024 (0.141)	89
Panel C: Class Characteristics					
School climate (BL)	-0.00 (0.430)	0.053 (0.405)	-0.002 (0.444)	0.307 (0.444)	85
General track (0/1)	0.38 (0.122)	-0.102 (0.105)	-0.037 (0.098)	-0.037 (0.098)	89
Number of students in the class (admin. data)	22.82 (1.478)	1.534 (1.839)	1.782 (1.858)	-2.373 (1.858)	89
Seconde (10th grade)	0.53 (0.073)	-0.121 (0.034)	-0.027 (0.117)	-0.043 (0.117)	89
Première (11th grade)	0.23 (0.063)	0.099 (0.042)	0.067 (0.147)	-0.114 (0.147)	89
Terminale (12th grade)	0.20 (0.031)	0.011 (0.043)	-0.064 (0.152)	0.082 (0.152)	89

News Knowledge: Treatment effects depending on IPS - Quartiles

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Note: Bars correspond to adjusted treatment-specific levels from the full specification with controls and strata fixed effects. 95% CIs are shown for treatment arms.

News Knowledge: Treatment effects depending on IPS

[back](#)

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

Treatment effects by socio-economic status (IPS quartiles)

[back](#)

	(1) Control	(2) T1 - C	(3) T2 - C	(4) T3 - C	(5) N
Panel A: Low-SES schools (IPS below first quartile)					
Newspaper Consumption Index	-0.17	0.424*** (0.100)	-0.078 (0.057)	0.535*** (0.134)	1,786
Social Media among 5 main news sources (0/1)	0.49	-0.103 (0.055)	-0.082 (0.067)	0.014 (0.039)	1,786
Diverse news sources (0/1)	0.24	0.011 (0.048)	-0.010 (0.023)	0.090** (0.027)	1,786
Trust in Newspapers (relative)	-0.34	0.087 (0.114)	0.180** (0.056)	0.259** (0.102)	1,676
Newsletter Subscription (0/1)	0.67	0.114** (0.047)	0.005 (0.030)	0.133*** (0.037)	1,786
Panel B: High-SES schools (IPS above first quartile)					
Newspaper Consumption Index	0.05	0.521*** (0.072)	0.047 (0.060)	0.638*** (0.059)	5,305
Social Media among 5 main news sources (0/1)	0.53	-0.053 (0.030)	-0.034 (0.028)	-0.094** (0.034)	5,305
Diverse news sources (0/1)	0.34	0.048* (0.024)	0.018 (0.022)	0.140** (0.044)	5,305
Trust in Newspapers (relative)	0.10	0.006 (0.053)	0.048 (0.038)	0.073 (0.049)	5,042
Newsletter Subscription (0/1)	0.69	0.093** (0.029)	0.057* (0.026)	0.062** (0.026)	5,305

Outcome: Political self-efficacy index

back

Political self-efficacy index based on the answer to the following questions: How much do you agree with the following statements?

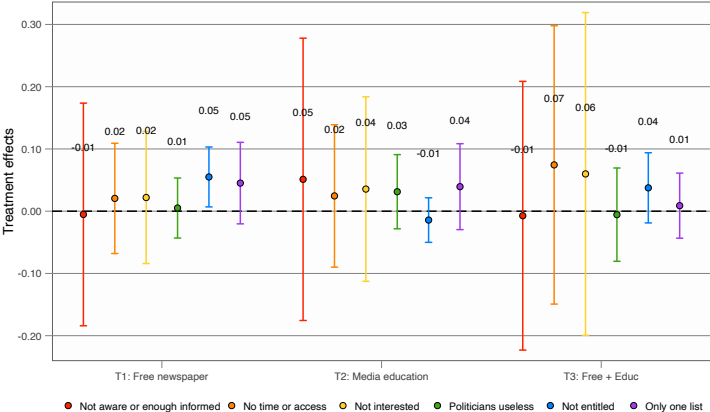
1. When political issues are discussed, I usually have something to say.
2. I can easily understand most political issues.
3. I have political opinions that would be interesting to hear.
4. I feel capable of participating in political life.
5. I have a good understanding of political issues concerning France.

For each of the questions, respondents were offered five possible choices: (i) Strongly disagree; (ii) Disagree; (iii) Neither agree nor disagree; (iv) Agree; and (v) Strongly agree.

Treatment Effects, Follow-Up Survey: Reasons for not voting in the 2026 Municipal Elections

Among eligible voters

[back](#)



Notes: N=307 (voting-age students who answered the follow-up survey and did not vote in the elections).
Control mean: Not aware = 0.19; No time or access = 0.55; Not interested = 0.15; Politicians useless = 0.02; Not entitled = 0.01;
Only one list = 0.02