

Education never stands still—it moves, adapts, and transform in response to new realities, while reshaping society in turn. This collection explores some forces defining learning today: digital tools, intercultural dialogue, artistic expression, and the call for ecological responsibility. At its core, education remains a space for negotiation and reinvention.

third international conference  
of the journal *Scuola Democratica*

# education and/for social justice

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# PROCEEDINGS

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02

Cultures, Practices, and Change



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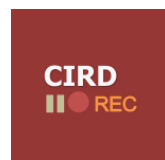
# PROCEEDINGS

Vol. 2

**Cultures,  
Practices,  
and Change**

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# EMPOWERING EDUCATORS AGAINST DISINFORMATION: A STUDY ON ASSESSING MEDIA LITERACY SKILLS AMONG SECONDARY SCHOOL TEACHERS

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This study explores the media literacy skills of Italian secondary school teachers, focusing on their ability to teach critical evaluation of digital sources and tackle disinformation. The research analyzed data from 63 secondary school teachers participating in a professional development course on evaluating digital content reliability. Results indicate significant deficiencies in teachers' abilities to assess deceptive news, manipulated images, and decontextualized content, with less than 46% achieving sufficient scores in each question of the pre-test. The findings underscore the urgent need for systematic teacher training initiatives to bridge these gaps and empower educators to foster students' critical thinking and information resilience. This preliminary analysis contributes to the broader discourse on integrating media literacy into education and emphasizes the importance of equipping teachers with the skills necessary to counteract disinformation effectively.

media literacy; teachers education; sources evaluation; disinformation

## 1. INTRODUCTION

Disinformation, characterized as the intentional spread of false or deceptive information, is a substantial danger to democracy, public health, and societal trust (Pérez-Escobar et al., 2023; Bennet et al., 2018). While the use of digital sources for information among young people continues to grow (Rossi et al., 2023; Common Sense, 2022), gaps in the educational system's capacity to alleviate the effects of disinformation have become increasingly evident: students frequently find it challenging to differentiate between trustworthy, biased, or incorrect information, rendering them susceptible to manipulation (Wineburg et al., 2016; Jones-Jang, 2019). In light of the escalating prevalence of disinformation, academic, civil, and governmental organizations increasingly acknowledge the necessity of integrating media literacy skills into education. International organizations like UNESCO and the European Union assert that media literacy—the capacity to critically analyze, assess,

and comprehend information sources—provides a robust basis for countering disinformation. Frameworks such as DigComp 2.2 and DigCompEdu emphasize the necessity of providing students with the competencies to proficiently access and critically evaluate digital content by embedding the development of media and information literacy skills in formal education (European Commission, 2022).

Research regularly indicates that numerous educators perceive themselves as inadequately equipped to impart these competences, highlighting a discrepancy between institutional expectations and teachers' capacity to fulfill educational requirements (Breakstone et al., 2021; Erdem et al., 2018).

A report by IDMO (2023) reveals that both educators and students consider themselves regularly exposed to disinformation and exhibit considerable interest in engaging in media literacy initiatives. Nonetheless, despite the potential of media literacy interventions, they predominantly exist as standalone efforts without systematic integration into school curricula and adequate teacher training (Jones & Shao, 2011).

Educators are essential to the effectiveness of media literacy teaching in schools. Although some educators proficiently integrate digital tools in the classroom (McNelly, 2021), their capacity to instruct on the critical assessment of information frequently lacks effectiveness (Ranieri et al., 2018). This gap underscores the pressing necessity for professional development initiatives aimed at enhancing media literacy and disinformation resilience among educators (European Commission, 2022).

Building on these considerations, this study analyzes the existing media literacy abilities of Italian secondary school educators, emphasizing their readiness to instruct on disinformation and information resilience. This research analyzes pre-test data from educators in a professional development course to identify deficiencies in teachers' media literacy skills and their use of these competencies in the classroom. The findings enhance the existing literature supporting systematic media literacy education, with the objective of enabling educators to cultivate a generation of students possessing critical awareness (Livingstone, 2012; Greenhow & Lewin, 2016; Ranieri et al., 2021).

## **2. METHODS**

The research is realized using a one-group pretest-posttest design (Ary et al., 2010). We administered a pre- and post-test to teachers in courses on the changing landscape of digital information, methods for verifying websites, techniques for identifying manipulated images, and strategies for assessing data sources and visualizations.

The questionnaire, administered according to CAWI (Computer Assisted Web Interviewing) methodology and inspired by similar instruments by Stanford University (Breakstone et al., 2021; Breakstone et al., 2022), collected data in four areas:

1. general information;
2. media habits;
3. knowledge of course-specific topics;
4. the ability to evaluate the reliability of textual/visual sources.

The sources to assess in the fourth part of the questionnaire were:

- reliable/misleading website;
- reliable/misleading news content;
- sponsored content;
- verified social media profile;
- satirical content;
- decontextualized image;
- doctored photo.

For each typology of content, we asked teachers to evaluate its reliability through two questions:

1. *Closed question* (25% of the final score): “Do you consider this content Reliable / Not reliable / I don’t know” or “Which one of the following do you consider more reliable?”. Teachers would get one point for answering correctly.
2. *Open question* (75% of the final score): “Can you explain why?”. The two authors independently assessed each teachers’ answer on a scale from 1 to 5. The score has been calculated as the mean between the scores given by the authors.

Afterwards, we calculated the final score between 0 and 4 for each source by summing 25% of the score of the closed answer with 75% of the open answer.

This solution allowed us to distribute the scores on a more detailed scale and to consider both the correctness of the answer and the reasons behind it in the final score.

The study presented here shows a preliminary analysis of the results of the pre-test administered to 63 teachers in one of the courses in the research, in particular, a 40-hour online training course delivered in the project “Digital Active Schools”, funded by the National Recovery and Resilience Plan in “Scuola Futura” teachers’ training program. It provides a depiction of teachers’ levels of media and data literacy through the tools of descriptive statistics.

### 3. RESULTS AND DISCUSSION

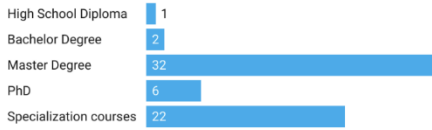
The sample is made of 63 units after removing missing values.

Figure 1 shows a summary of the main features of teachers in the analysis. Teachers mainly had a high level of educational attainment as Master Degree (50.8%) or Specialization Courses (34.9%). They taught in secondary schools, and there is quite a variety of subjects taught: humanities (41.3%), science (22.2%), technical fields

(12.7%), foreign languages (11.1%) and others (12.7%). Half of them were residents of North Italy.

Figure 1 – Teachers’ general information (N=63).

**High level of education**



**Area of origin**



**Where they teach**



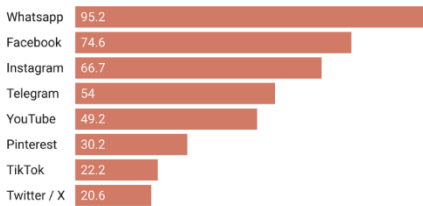
**What they teach**



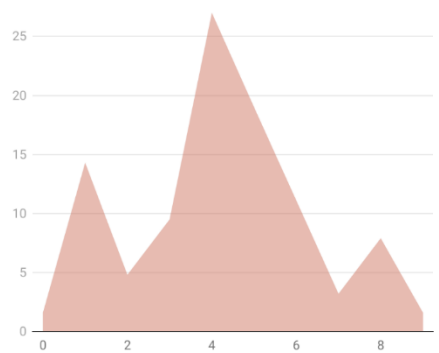
The social networks used by more than half of the teachers in the sample were WhatsApp (95.2%), Facebook (74.6%), Instagram (66.7%), Telegram (54.0%). One-third of teachers used less than 3 social networks; 57.1% used between 4-6; the remaining 12.7% had between 7-9 social networks (see Figure 2).

Figure 2 – Percentages of social network use by teachers (N=63).

**What social network do you use?**



**How many social networks do you use?**



As seen in Figure 3, the sources that teachers mainly used to get information were TV (74.6%), online newspapers (73.0%), and social media (61.9%). Radio was less chosen by teachers for information (38.1%) but is among the most trusted sources for them, together with online newspapers and family. On the contrary, social media, even if chosen by a high percentage of teachers to get information, was the tool considered the least reliable by them.

Going to teachers’ ability to recognize the reliability of textual and visual sources, Figure 4 shows the percentage of teachers who received a sufficient score. Before attending the professional development course, generally, the percentage for sufficient scores in each question was lower than 46.0%, showing that many teachers

in the sample are not ready to assess the reliability of the sources and, as a consequence, to make their students acquire this skill.

Figure 3 – Percentages of preferred sources of information by teachers (N=63). [the percentages on the right graph are the sum of teachers choosing 4 or 5 to express their trust on a scale between 1 and 5].

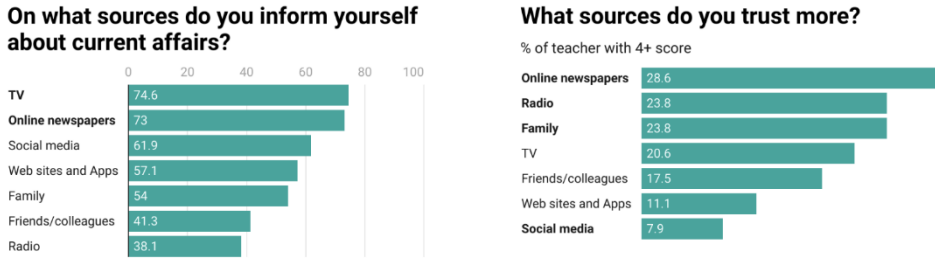
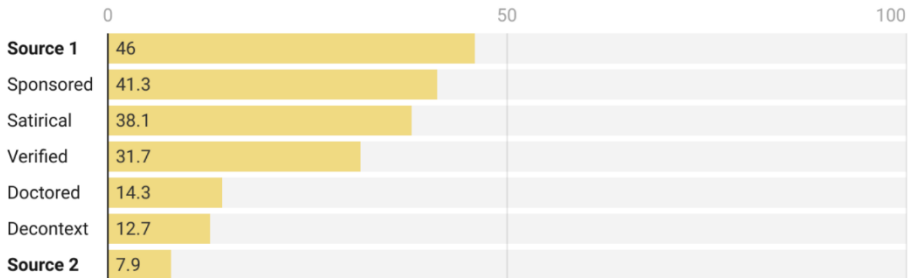


Figure 4 – Teachers’ ability to assess the reliability of digital content: percentage of teachers that were assessed with a score higher than 60% (N=63).

### Ability to evaluate digital content

% of teachers above the pass mark (2.4 out of 4)



Most teachers had strong difficulties in evaluating visual content (decontextualised or manipulated images, respectively 12.7% and 14.3%) and misleading news content (7.9%).

About half seemed to have minor difficulties in identifying:

- reliable website (46.0%);
- sponsored content (41.3%);
- satirical content (38.1%).

## DISCUSSION

This study’s findings indicate substantial gaps in the media literacy skills of secondary school teachers, underscoring an urgent requirement for focused interventions. Educators exhibited significant obstacles in assessing deceptive news, altered photos, and decontextualized material, corroborating prior studies that highlight

the difficulties of actively understanding the digital information environment (Breakstone et al., 2021; Erdem & Eristi, 2018). These inadequacies are especially alarming in light of the rising prevalence of disinformation and the essential role educators have in cultivating critical thinking abilities in their students.

These findings align with previous research indicating that although educators may proficiently integrate digital methodologies into their classrooms, they frequently exhibit a deficiency in confidence about the instruction of crucial media literacy skills (McNelly & Harvey, 2022). The gap between institutional requirements and teachers' readiness highlights the critical necessity for professional development programs designed to enhance resilience against disinformation.

Notwithstanding its merits, this study possesses significant drawbacks. The sample size was limited (n=63), hence constraining the generalizability of the findings. Increasing the sample size in future studies will result in a more thorough comprehension of educators' media literacy levels across various contexts. This study provides initial findings from the pre-test data; however, subsequent research should incorporate pre- and post-test comparisons to assess the training's efficacy (Ary et al., 2010). This would provide a more comprehensive evaluation of the influence of professional development programs on educators' capacity to critically appraise digital material. Furthermore, examining the relationships among variables like demographics, media use, and prior knowledge may illuminate the elements that most profoundly affect instructors' skills (Dupont, 2019).

This study's broader ramifications involve the systemic incorporation of media literacy into educational settings. García, Seglem, and Share (2020) emphasize that integrating media literacy into teacher preparation is essential for providing educators with the resources necessary to enhance students' important cultural competences. In the absence of systematic initiatives to train educators, the capacity of media literacy to counter disinformation and foster informed digital citizenship will remain insufficiently leveraged. This is particularly significant given research demonstrating that persons with robust media literacy abilities are more adept at identifying and combating disinformation (Breakstone et al., 2022).

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