

Countering Misinformation and Disinformation in Philippine Education: A Systematic Review of Strategies, Challenges, and the Role of Media and Information Literacy

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ABSTRACT

The Philippine education system plays a vital role in the promotion of critical thinking and Media and Information Literacy (MIL) to counter misinformation and disinformation. This systematic review covers twenty (20) peer-reviewed research studies with full papers available in the database from 2015 to 2025. Specifically, this review seeks to address the following research questions: (1) What strategies have been utilized to counter misinformation and disinformation in Philippine education? (2) What are the challenges encountered by teachers? (3) How effective is media and information literacy in countering misinformation and disinformation in Philippine education? Results revealed that strategies are utilized in the institutional and classroom levels to address the issue, but inconsistencies in the curriculum, lack of professional training for teachers, and limited available resources hinder the successful cultivation of students equipped with critical thinking and MIL skills.

Keywords: Misinformation, disinformation, media and information literacy, Philippine education, systematic review

INTRODUCTION

In an era where people can access digital information instantaneously, having the ability to critically and accurately navigate different media platforms on the internet has become a crucial skill to possess. Around the world, the proliferation of mis-, dis- and malinformation has influenced public opinion and democratic activities that eventually lead to social divide (Wardle & Derakhshan, 2017).

In the Philippines, where most of the population use social media as their main medium to access information, the effects of mis- and dis-information become apparent to the vulnerable masses (Ong & Cabañes, 2018). This reality emphasizes the need to equip our children and young people, who mostly have access to the internet whether at home or at school (Livingstone & Helsper, 2007) with valuable skills to critically analyze information and credibility of their information sources.

In line with this, education plays a very crucial role in developing necessary skills to address this challenge. Integrating a Media and Information Literacy (MIL) subject to students will allow them to be equipped with vital tools to develop their critical thinking to safely navigate and engage with information online (UNESCO, 2022). This will enable students to make informed decisions by allowing themselves to be exposed to accurate and reliable information, thus improving their participation in civic engagements (Jones, 2024).

However, the implementation within the Philippine education system remains inconsistent over the years as educators face several barriers that prevent them to fulfill their duties and responsibilities to their students.

Thus, this systematic review of literature covers how the Philippine education is responding to the challenges regarding misinformation and disinformation. Specifically, it seeks to answer the following research questions:

1. What strategies have been utilized to counter misinformation and disinformation in Philippine education?
2. What are the challenges encountered by teachers?

3. How effective is media and information literacy in countering misinformation and disinformation in Philippine education?

METHODOLOGY

A systematic review of literature answers well-formulated questions through thorough identification and selection of available research and resources that were critically and systematically appraised (Sambunjak et al., 2025). It involves a methodical and systematic process to locate published or unpublished research necessary to provide comprehensive answers to research questions in which the characteristics and findings of the results were presented and synthesized (Siddaway et al., 2018). Since a systematic review of literature does not involve data collection for new research and instead uses data from already published or unpublished works, it can only be categorized as secondary research (Eguac et al., 2024). Moreover, a systematic review is classified as secondary research since it employs existing research rather than acquiring data for a novel research topic.

In addition, a systematic literature review will allow researchers to look for patterns and ongoing trends in existing studies, and discover gaps and inconsistencies within the literature (Sylvester, Tate, & Johnstone, 2013, as cited in Paré & Kitsiou, 2017). A literature review plays an important role in guiding practice, shaping policy, and supporting informed decision-making. Thus, a systematic review of the literature has been used in this study.

The first step to accomplish the objectives of this study was to find research articles and studies on the strategies to counteract misinformation and disinformation in the Philippine education system through media and information literacy in databases such as Google Scholar, ERIC, and Research Gate. This literature search was conducted between March and April 2025.

The following keywords were used in various combinations with Boolean operators: ("misinformation" OR "disinformation") AND ("education" OR "school" OR "higher education") AND ("Philippines" OR "Filipino") AND ("media and information literacy" OR "MIL" OR "fact-checking" OR "critical thinking").

The selection process utilized the PRISMA 2020 statement as it can be used to help answer problems and address gaps that cannot be answered by one research alone through a systematic literature review (Page et al., 2021). A quality appraisal was also conducted using the Mixed Methods Appraisal Tool (MMAT), which allowed for systematic evaluation across qualitative, quantitative, and mixed-method designs (Hong et al., 2018).

Initially, eighty-six (86) research articles were identified through databases, of which twenty (20) matched the inclusion and exclusion criteria. Inclusion criteria also include research articles published from January 2015 to March 2025 that were conducted within the Philippine context and focused on high school, senior high school, and college settings. Quantitative, qualitative, or mixed methods research designs that cover misinformation, disinformation, media and information literacy (MIL) in the Philippine education were all eligible. Additionally, published research articles should be peer reviewed, with full papers available in databases. On the other hand, exclusion criteria included research articles outside the Philippine education, theoretical essays without empirical data, articles focused solely on political disinformation unrelated to education, and studies without accessible full-text versions.

Table 1. Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
Research articles that address either misinformation, disinformation, and media and information literacy (MIL) in the Philippine education system	Research articles that address either misinformation, disinformation, and media and information literacy (MIL) outside the Philippine education system
Primary research published in peer-reviewed journals	Theoretical essays without empirical data
Full paper available in the database	Contains title and abstract only
Published articles from 2015 to 2025	Published articles outside the 2015 to 2025 range

RESULTS

This systematic review of literature included a total of twenty (20) peer-reviewed research articles from several journal databases published between 2021 to 2025. Each research articles covered how misinformation and disinformation were being addressed in the Philippine education. The results were organized according to the three (3) research questions and are discussed within their common themes.

Table 2 shows research articles included in the systematic review with their respective author/s and year of publication that cover the strategies utilized to counter misinformation and disinformation in the Philippine education.

Table 2. Research Articles on Strategies to Counter Misinformation and Disinformation

Research No.	Author/s	Research Title	Year of Publication
1	Petalla & Tatlonghari	Preventive Practices against Fraudulent Imitation of Information on Social Media Platforms among Senior High School Students	2023
2	Prabowo, T. T., & Manabat, A. R.	The role of selected Indonesian and Philippine Academic Libraries amidst fake news.	2021
3	Santos, R.	Output-based approach in media and information literacy toward 21st-century skills development in the Philippines	2020

Meanwhile, Table 3 shows the research articles included in the systematic review with their respective author/s and year of publication that cover the challenges encountered by teachers in integrating MIL in their classes.

Table 3. Research Articles on Challenges Encountered by Teachers in Integrating MIL in their Classes

Research No.	Author/s	Research Title	Year of Publication
4	Pandan, M. S., Bantugan, L. J., Liguio, R., Albarico, G., & Doria, E.	Historical Thinking Skills and Fake News Susceptibility of Grade 10 Learners	2023
5	Grata, A. & Llaneta, R	Understanding Philippine History Education in the Age of Disinformation: A Phenomenological Exploration	2024
6	Bautista, A.	Teaching Media and Information Literacy in Philippine Senior High Schools: Strategies Used and Challenges Faced by Selected Teachers.	2021
7	Labangon, D. L. & Zabala, J. L.	Towards a literate studentry: Media and information literacy implementation in the Philippines.	2018
8	Alagaran II, J.	Training Needs, Attitude toward Teaching and Media and Information Literacy Competencies of Selected Teachers in The Philippines	2023
9	Gajes, M. J., & Moreno, D. J.	Personal and Pedagogical-Didactical Competencies of Senior High School Media Educators	2024
10	Perlas, R.	Perspectives of Select Media And Information Literacy (MIL) Educators on the MIL Curriculum	2024

11	Lacerna, R. A.	Assessment on Media and Information Literacy (MIL) Competency of Senior High School Teachers in the National Capital Region (Philippines): Basis for a Competency Framework	2024
12	Garcia, M.	Co-constructing MIL in Public Senior High Schools: Harnessing the Potential of Participatory and Self-Reflexive Inquiry	2024
13	Soguilon, J., Buaron, M. L., & Tagpuno, D. G. S	Fact Check: Investigating historical distortions in educational learning sources	2024
14	Calilung, A. J., Flores, P. A., Pertes, L. M., & Ustaris, C. D.	Efficacy of Reward and Punishment on Improving Misinformation detection of individuals with different levels of educational attainment	2021

Lastly, Table 4 shows the research articles included in the systematic review with their respective author/s and year of publication that cover the effectiveness of MIL in countering misinformation and disinformation in the Philippine education.

Table 4. Research Articles on the Effectiveness of MIL in Countering Misinformation and Disinformation

Research No.	Author/s	Research Title	Year of Publication
15	Ricardo-Cayaban, D.	Media and Information Literacy (MIL) of College Freshmen of a Public Higher Education Institution (HEI) in Cagayan Valley, Philippines: Towards A Proposed Library Media and Information Literacy Instruction Program.	2024
16	Schijf, C. M	Senior High School (SHS) Information Literacy (IL) Skills Assessment Using the Tool for Real-time Assessment of Information Literacy Skills (TRAILS)	2024
17	Esguerra, A. Q., Bhattra, J. L., Licong, L. B., Agum., A. N., Aclan, E. M.	Fake or Not: Media, News, Information and Digital Literacy, and the Ability of Undergraduate Development Communication Students to Identify Fake News	2021
18	Samillano, A.	Fight Fake News: Critical Reading of Digital Texts and Spotting Fake News and Disinformation Tactics	2025
19	Pazon, A. N. R.	Socioscientific Perspectives on “Fake News” in the Era of Social Media among Generation Z Filipinos	2019
20	Fajardo, M. F.	Filipino students’ competency in evaluating digital media content credibility: ‘Beginning’ to ‘emerging’ levels	2023

DISCUSSION

Strategies to Counter Misinformation and Disinformation in Philippine Education

Studies have shown that there have been strategies implemented to counter misinformation and disinformation in the Philippine education sector at the institutional and classroom levels. Traditional libraries, equipped with modern technologies, have been playing a crucial role in implementing programs to help students validate information and data that further enhances their critical thinking, supplemented with lectures, workshops, and interactive activities (Prabowo & Manabat, 2021). These efforts done at the institutional level further support

student empowerment in their ability to discern credible resources from false content, which is a highly valuable MIL skill.

Meanwhile, within classroom settings, integration of a project-based approach in MIL instruction has shown positive results on students' development of their cognitive, interpersonal, and intrapersonal skills, evident by the strong correlations of these skills to their class performance (Santos, 2020). This result completely aligns with the development of the 21st-century skills of the students.

Moreover, in the study of Petalla & Tatlonghari (2023), Senior High School students have shown a high level of preventive practices against misinformation and disinformation used in different forms of propaganda using social media. This shows that strategies implemented on institutional and classroom levels are not only being utilized in school but also in other areas of the students' lives.

Complementing these strategies is Potter's (2004) Media Literacy Theory, which frames media literacy as a multidimensional competency involving emotional, cognitive, and moral dimensions. This framework highlights the importance of cultivating reflective judgement and ethical responsibility in students rather than solely focusing on the development of technical skills for students.

Challenges Encountered by Teachers in Integrating MIL in their Classes

The reviewed research articles pointed out numerous and consistent challenges faced by teachers teaching and integrating Media and Information Literacy (MIL). Amongst these is the lack of professional media and information literacy training. Many teachers of Media and Information Literacy (MIL) in Senior High School reported having only intermediate pedagogical-didactical competencies in teaching the subject, which highlights the gap in their instructional skills (Gajes & Moreno, 2024). This was supported by the study of Alagaran II (2023), that despite the positive attitude of teachers in teaching MIL to Senior High School students, they still recognize the need to improve their skills through training, most particularly in search strategies, and understanding media-related regulatory and ethical considerations.

Further, studies indicate that the lack of sufficient resources, including teaching materials, enabling technologies, and structures, hinders effective MIL instruction (Labangon & Zabala, 2018; Bautista, 2021). Another hindrance in effective MIL instruction was shown in the studies of Perlas (2024) and Lacerna (2024), where teachers expressed their concerns about the lack of curriculum clarity and inconsistencies in available resources.

Additionally, studies found that teachers teaching history subjects in Junior High School and College find it difficult to prevent their students from being exposed in unreliable and inaccurate history content or resources found online due to their inadequate levels of MIL competencies (Pandan, et al., 2023; Grata & Llaneta, 2024). This adds to the challenge of teachers teaching history to ensure that students' knowledge is valid and accurate, therefore, requiring teachers to exert more effort to balance the lack of adequate resources (Soguilon et al., 2024).

These challenges support the Diffusion of Innovations Theory (Rogers, 2003), which explains that MIL practices vary among teachers as innovators and early implementers can actively integrate MIL practices in their teaching methods while others resist or experience delays due to their perceived complexity, lack of incentives, or absence of administrative support.

Actions were exerted to address these challenges through collaborative efforts among teachers teaching MIL subjects, fostering an inclusive and responsive approach in facing the curriculum insufficiencies and its implementation (Garcia, 2024), however, this remains at the classroom level and not in a more systematized and wider level that targets all stakeholders.

Effectiveness of MIL in Countering Misinformation and Disinformation

Research studies have shown mixed results, with persistent gaps, in the effectiveness of Media and Information Literacy (MIL) in countering misinformation and disinformation in Philippine education. On one hand, Grade 12 students and freshmen College students, who supposedly have higher levels of MIL competencies due to the

inclusion of the subject in their present and previous curriculum, respectively, have demonstrated low efficiency in accessing, evaluating, and producing media and digital content (Ricardo-Cayaban, 2024; Schijf, 2024). This is consistent with the study of Naparota & Rusiana (2021), which shows that Senior High School students, depending on their academic strand, struggle in the technical aspects of MIL. On the other hand, Generation Z or Gen Z, themselves report having several layers of personal metrics to determine the validity of data and information on different social media platforms (Pazon, 2019).

Meanwhile, higher-year college students and post-graduate students displayed higher levels of accuracy in social media content evaluation, which suggests the correlation of MIL efficiency and academic maturity (Esguerra et al., 2021; Fajardo, 2023). This is in line with the Protection Motivation Theory (Rogers, 1975), which proposes that people who perceive threats and believe that they can respond accordingly are more likely to adopt protective behaviors.

However, in a recent study of Samillano (2025), higher-year teacher education students, with English as their major, of a state university show an average level of knowledge in critical reading and identifying fake news, which is relatively low considering their college degree program. Those students may have improved after several series of interventions, but this still highlights the inconsistencies and gaps in the effectiveness of MIL in countering misinformation and disinformation.

CONCLUSION

This systematic review of literature highlights the role of Philippine education in addressing the concerns of misinformation and disinformation. While there are actions to address the issue such as the implementation of teaching Media and Information Literacy as a core subject in Senior High School, the initiatives exerted on the institutional level, and the efforts of educators to integrate MIL in their discussions, their impact is hindered by the inconsistencies in the implementation, lack of professional support system to teachers, and limited access to resources.

To truly equip Filipino students with skills to counter misinformation and disinformation, education reform is needed. This involves improving the current curriculum design through clearer guidelines and enhancing the implementation of existing institutional policies, such as creating more coherent guidelines and embedding MIL across subjects at all levels of basic education rather than a standalone discipline. Equally important is to further the professional development of all teachers in basic education in relation to MIL pedagogical and technological competencies, not only those teaching the subject in Senior High School, but also to all stakeholders involved in the teaching process. At the policy-making level, stronger institutional support and thorough investments in technological and educational resources are necessary to ensure equity in access.

Through these reforms, the Philippine education system can move towards a well-coordinated, long-term strategy towards cultivating digital citizenship education that will help nurture students who are critical consumers of information and responsible participants in civic engagements.

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