



Development of Media Literacy in Pedagogical Practice by Teachers During the Covid-19 Pandemic

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Abstract. The COVID-19 pandemic created an uncertain scenario for education, encouraging teachers to develop new skills so as not to interrupt the teaching process. Likewise, the presence of new media and technologies in society means that people are forced to develop skills that allow them to interact with them critically and creatively. This qualitative study aims to analyze the media competence skills developed by Peruvian basic education teachers in their virtual pedagogical practice, based on the dimensions established by Ferrés and Piscitelli [2012]. Interviews were conducted with teachers who evidenced the presence of different media literacy skills as a result of exposure to new tools and media during the pandemic. The results show an improvised and uneven development of media competence skills, which warns of the need for constant teacher training that seeks to improve their performance, as well as systematize and make visible the relationship between basic education and the media.

Keywords: Media competence · teaching practice · professorate · pandemics · ICT

1 Introduction

Media literacy has gained interest among researchers, who argue that it is essential for teachers and should be integrated into pedagogical practice [1]. In this regard, under the context of COVID-19, education had to adapt to the new normal during social isolation, using technology and digital media to provide quality education [2].

Digital transformation in teaching practice is a challenge for educational institutions worldwide, as it requires teachers to utilize available digital technologies such as email, video conferencing, and digital platforms. It is important to highlight that pedagogical practice is the daily work of educators aimed at students' formation, while media literacy is the set of tools and skills necessary to engage with media in a positive manner [3].

These concepts intertwine and complement each other in the context of the pandemic and educational digital transformation, providing an opportunity to bridge the digital and social gap and promote equitable development. Media play a formative role in educational settings, and accelerated digitalization requires education to develop the necessary capabilities to coexist with technology [4]. However, it is important to note that many educational policies solely focus on providing technology to schools, limiting the emphasis on media use and media literacy [5]. Therefore, the pandemic has highlighted the importance of media and technology, as well as the development of media literacy to foster personal autonomy of citizens [6].

1.1 State of Art

Research has been conducted on the development of media literacy in the educational field in Latin American countries, including Brazil, Mexico, and Colombia. In this regard, studies focus on university professors and highlight the lack of research on media literacy in a pandemic context in Peru, specifically focusing on elementary school teachers. Therefore, there is a need for qualitative research that analyzes the media literacy skills developed by teachers at a national level [1].

While technology aids the shortage of classrooms and in-person teaching [7], educational technology projects in Peru have primarily focused on providing technology [laptops, tablets, internet, etc.] to schools, expecting their presence to improve media literacy and reduce the digital divide. However, without corresponding public media education policies from the State [8], the mere use of technological tools does not guarantee optimal and critical development of capabilities and skills [9].

In the case of Peru, the digitization of educational processes has been carried out in a centralized, unequal, and decelerated manner, creating gaps in access, use, and impact of technology among different regions of the country [10], particularly between urban and rural areas [11]. Additionally, Peruvian education demonstrates a significant socio-academic gap, where those with more economic resources have better opportunities [10].

This study aims to analyze the media literacy skills developed by teachers during pedagogical practice in the midst of the digital transformation era. In this regard, Garro-Rojas [12] asserts that media education brings about changes in learning, reading, writing, and media expressions skills. Furthermore, the pandemic has highlighted the urgent need for transformation in educational systems, as well as the importance of acquiring a virtual educational strategy and a teaching staff with the necessary skills and competencies for teaching and learning in cyberspace [13].

However, to truly discuss a scientific-technological revolution in education, it is not enough to promote learning the use of computers or the internet. It is essential to go beyond access policies and move towards the effective incorporation of ICTs into school institutions [14]. In this sense, the dialogue on education and ICTs implies reflecting on how we conceive education and how young people and teachers learn and teach [15]. Furthermore, it is crucial to give due importance to investment in teacher training, cutting-edge pedagogical resources, and systemic articulation with public education policies in order to promote the necessary changes in educational practices that impact the quality of learning outcomes [8].

Thus, this research analyzes the media literacy skills developed by elementary school teachers in private and public schools in Lima in the context of the accelerated digital transformation caused by the pandemic. Reviewing various scientific articles, a broad scope was found to explore this issue within the Peruvian context. For example, García et al. [16] analyze the levels of media literacy among primary school students aged nine to ten, concluding the urgency for a deeper media education among students at this educational level. Additionally, Ramírez-García and González-Fernández [17] analyze the level of media literacy among both teachers and compulsory education students, highlighting the basic level of teachers and the need for school curricula to include media education. On the other hand, Ávila and Cortés [9] present the basic level of media literacy development in its dimensions and indicators among Spanish university teachers and propose collaborative work, discussion, and reflection as vital elements for improving teachers' pedagogical practice.

From a Peruvian context, there are studies addressing digital transformation in education during the pandemic. For instance, Rodas and Rivera [2] highlight the benefits that schools, institutes, and universities acquire by adopting technology in their pedagogical practice, as well as the importance of teachers possessing the attitude and motivation to work with this new methodology. Larrea [18] explores the perception of teachers in educational institutions in the Lambayeque department regarding the development of digital competencies during the 2021 school year, emphasizing the gap in access and effective technology use for educational institutions and the need for a comprehensive teacher training system in digital competencies. Figallo et al. [19] analyze the impact of the pandemic on higher education and the challenge it represents for teachers to accept virtuality in their pedagogical practice, which constitutes an opportunity to assess the improvements that technology can bring in stimulating teachers' creativity in the formulation of online teaching models.

Regarding the urgency to measure the different degrees of media literacy and formulate policy measures to enhance its development in education, the work of Quiroz [20] is interesting, as it analyzes the role of new information technologies in the curricula of Latin American universities, with the aim of determining the skills and tools that future communicators will possess to properly carry out their work.

Given the aforementioned, studies on education from a pandemic context with a focus on higher education institutions and their professors have been found, which opens up a wide path to explore media competencies. Therefore, it is interesting to focus on elementary school teachers in an emergency context, which could contribute to the identification and development of teaching strategies to enhance teachers' technological effectiveness [21].

With this perspective, the relevance and necessity of this study are manifested, as the results were obtained through a series of interviews that would provide an understanding of how teachers' media literacy developed during the pandemic. This motivates teachers to reflect on their pedagogical practice in order to enrich and strengthen it and to generate new knowledge from that perspective [22]. Therefore, this study serves as a good starting point for discussing how the pandemic has brought about a series of demands on educational institutions, such as flexibility and methodologies adapted to screen-mediated exchanges [13].

2 Methodology

The present research addresses how elementary school teachers developed media literacy skills during their pedagogical practice adapted to virtuality. The study utilized the six dimensions already defined by Ferrés and Piscitelli [6]: a) languages; b) technology; c) interaction processes; d) production and dissemination processes; e) ideology and values; and f) aesthetic dimension.

2.1 Methodological Design

The study adopts a qualitative approach with the purpose of “reconstructing” reality according to the perspective of actors in a defined social system [23]. In this regard, it focuses on specific cases of interviewed teachers [24]. Additionally, it employs the social constructivism paradigm, where elementary school teachers develop subjective meanings of their experiences [25].

For data collection, in-depth semi-structured interviews are used as the instrument, allowing for the free expression of opinions by the interviewees [26]. The obtained data is analyzed using the Atlas.ti software, employing thematic analysis technique to obtain a detailed description of the data [27].

In the analysis process, the interviews are transcribed, and the teachers’ responses are coded according to established categories based on the dimensions of media literacy [28]. Furthermore, co-occurrences between codes are examined to identify the interaction of key concepts and ideas mentioned by the interviewees.

The selected testimonies are chosen based on co-occurrences and the originality of the obtained ideas, allowing for a representative and diverse sample. Convenience sampling is employed to gather evidence, which allows for contrasting experiences and opinions among a group of 19 teachers from different levels and subjects in elementary education [29].

Moreover, an interview guide with open-ended questions organized according to the dimensions of media literacy proposed by Ferrés and Piscitelli [6] is used. The data collection instrument consists of 30 questions, including demographic information and specific questions to differentiate between private and public institutions.

3 Results

3.1 Languages

In terms of the languages dimension, teachers have utilized videos, audios, and images to generate content that supports their virtual classes, which has been a necessity during the pandemic [1]. However, it has also been observed that they have resorted to forwarding chain messages on WhatsApp, such as those related to home remedies to prevent COVID-19, which tests their ability to analyze and evaluate messages from a critical perspective.

Regarding the ability to understand the flow of stories and information from various media and platforms, teachers demonstrate a critical attitude towards the media and acknowledge the importance of consulting multiple sources to avoid falling victim to fake news. However, they admit that they are not always able to recognize them.

Regarding the ability to establish relationships between texts, codes, and media, teachers recognize the need to compare various sources of information. This is due to the perception of bias in the media, depending on the interests of the business groups or owners to which they belong.

3.2 Technology

To analyze the teachers' ability to adapt technological tools to communicative objectives, their communication methods with students and colleagues during the pandemic were investigated. It is noteworthy that, in addition to the social isolation caused by the health emergency, internet access has improved people's quality of life, making the use of technology indispensable for progress [13].

Some teachers admitted that they had to learn what they had previously postponed due to lack of time and interest. They indicated that the use of digital teaching tools and devices was not part of their university education, so they acquired limited knowledge while already working. They emphasize that they themselves took the initiative to update their skills, often using their own resources, in order to maintain a closer relationship with their students.

Teachers in state schools had a more critical view of the Ministry of Education [MINEDU] and the lack of support in technological resources during virtual education, unlike teachers in private institutions. State teachers valued the MINEDU's "Aprendo en Casa" platform and the "Perú Educa" website as support but criticized the lack of adequate equipment to conduct their online classes. On the other hand, teachers in private institutions did not mention the MINEDU as a factor in their pedagogical work and faced different difficulties, from personal time loss to emotional problems.

Regarding their ability to handle technological innovations that enable multimedia communication, teachers pointed out that access to and use of technological devices were fundamental in conducting their classes. The use of computers, smartphones, applications, social media, and learning platforms were part of their agenda as educators.

3.3 Interaction Processes

Regarding the ability to select, review, and self-evaluate media consumption, teachers rely on their preferences, needs, and interests. They consider the Internet, social media, and WhatsApp essential for teaching and professional development. They also demonstrate effective time management for leisure media, using it as a learning opportunity.

In terms of interacting with diverse individuals and groups in pluralistic environments, teachers note limited communication with educators outside their workplace pre-pandemic. However, virtual teaching provided more opportunities for teacher exchanges.

Regarding an active approach to interacting with screens and using media for holistic development and citizenship, teachers have diversified their information sources beyond physical materials provided by the Ministry of Education [MINEDU]. They utilize various platforms, digital repositories, online libraries, YouTube tutorials, e-books, and PDFs.

Teachers in private institutions utilize different media and tools to enhance their classes with updated and verified information. In contrast, teachers in public institutions primarily rely on “Perú Educa” and “Aprendo en Casa,” provided by MINEDU, for content generation in virtual classes.

Regarding awareness of context importance in interaction processes, most teachers recognize the potential of social media, especially Facebook and WhatsApp, as mediators in the virtual context with their students. However, they are still working on integrating social media into their daily work in a balanced manner.

3.4 Production and Disseminations Processes

During the pandemic, teachers in this sample generated a significant amount of digital content using various tools and formats. They adapted their pedagogical practice and sought training to utilize virtual tools effectively. They demonstrated mastery in sharing information through traditional media and social networks, showcasing their creativity in producing instructional material, despite encountering challenges.

Regarding managing online/offline identity and personal data control, teachers in the sample prioritize personal and security reasons and refrain from sharing personal content on social media. Although some acknowledge the need to share digital content through social networks, they do not consider it an integral part of their daily lives. However, some teachers recognize the potential of social media for content generation and sharing, both in support of their pedagogical practice and personal lives.

When it comes to understanding the factors that influence media messages, teachers adopt a critical stance towards national media. They believe that these media sources lack objectivity and instead cater to the interests of their owners or specific business sectors.

Ultimately, beyond individual perceptions and ICT usage norms, this study highlights the importance of teachers’ reflection on received content. This reflection leads to their own production and a critical approach to the researched topic.

3.5 Ideology and Values

Regarding the ability to evaluate the reliability of information sources and draw critical conclusions, teachers expressed that they determine the reliability of a media outlet based on minimum requirements such as having verified sources and adherence to ethical principles. However, they emphasize the need for citizens to exercise critical judgment when encountering information from the media. The development of this ability is essential to meet daily needs and navigate communicative and technological situations.

In relation to the ability to detect stereotypes, analyzing their causes and consequences, teachers acknowledge the presence of prejudices and stereotypes in the media, although to a lesser extent than in previous years. While they strive to avoid falling into stereotypes or prejudices in their social media posts, they recognize that they may sometimes make mistakes.

Regarding the ability to leverage new communication tools to transmit values and contribute to improving the environment, teachers are divided into three groups regarding

the responsibility of teaching ICT use to students. Some believe that this responsibility falls on teachers, others opine that it should be shared among teachers, parents, and the government, and some believe that today's students do not need to be taught how to use ICT but rather require guidance from their teachers for its proper use.

3.6 Aesthetic Dimension

Regarding the ability to derive pleasure from the formal aspects of communication, teachers acknowledge having used PowerPoint as a supportive tool in their virtual classes, although they did not explore all its functionalities. They limited its use to a single font and a single template for all slides, due to time constraints and practicality. While they recognize its shortcomings, they are aware that with practice, they can achieve better results.

In terms of the ability to produce understandable messages that foster creativity, originality, and sensitivity, teachers found that audiovisual and graphic content provided a more engaging and effective way to convey knowledge to their students during the pandemic. The COVID-19 crisis motivated teachers to employ new strategies and be creative in addressing the challenges in teaching and learning. Furthermore, they had to engage in continuous learning to utilize new technologies in their teaching practice.

In terms of innovation and aesthetic sensitivity, no marked distinction is observed between teachers in public and private institutions. Although teachers recognize the importance of stylizing their PowerPoint presentations and videos, they admit that their techniques are still basic. However, they demonstrate an interest in caring for the visual and aesthetic details of the content they produce for their daily pedagogical practice.

In conclusion, although the teachers in the sample have not dedicated much time to improving the aesthetic details of their PowerPoint presentations, they all recognize the importance of following norms and codes to create visually appealing messages and achieve effective communication. The analysis of the aesthetic aspect of the content produced by teachers is relevant in the context of digital transformation and the development of media literacy.

4 Discussion and Conclusions

As can be observed from the analysis of the results, this research contributes to the field of communications and education by exploring the development of new skills and competencies in teachers within the context of rapid digital transformation due to the COVID-19 crisis. As pointed out by Arenas-Fernández et al. [30], it is crucial for citizens to acquire the necessary skills to interact properly with the various media, resources, and platforms that accompany technological advancements, both in content generation and consumption.

The findings of this study were presented in subtopics based on the dimensions of media literacy proposed by Ferrés and Piscitelli [6]. In line with Tejedor Calvo et al. [13], teachers embraced the challenge of training and updating themselves in the use of new tools and platforms to adapt to the new normal. Furthermore, the results emphasize

the importance of media education in the development of learning skills and media expression, as noted by Garro-Rojas [12].

Media literacy, understood as the ability to use, analyze, and evaluate information in various forms, was the central focus of the conducted interviews, as proposed by Zheltukhina et al. [31]. The importance of integrating technological resources into pedagogical practice from basic education, as indicated by Balarin [32], is also highlighted. Additionally, it is vital to implement media education initiatives for both students and teachers, which would help reduce existing gaps in the Peruvian educational sector, as proposed by Mateus [8].

Regarding the differences between teachers from public and private institutions, significant inequalities were found in the Technology dimension due to economic limitations, organizational constraints, and lack of practice, as mentioned by Mateus and Andrada [33]. The pandemic has exposed the existing gaps between rural and urban schools, as well as between public and private institutions, as mentioned by Mateus et al. [5].

The research analyzed the relationship between the development of media literacy in teachers and virtual pedagogical practice during the pandemic, coinciding with previous studies [3]. It was also found that there were no significant differences in the development of media literacy among teachers from different schools, despite economic and resource disparities, in contrast to Huanca-Arohuanca et al. [8].

Having media literacy skills and adequate training in the use of ICT, as highlighted in previous studies, is essential. It can be observed in this research that while some teachers received support from their institutions to access training, others had to seek their own learning due to lack of external support. These skills are fundamental to bridge the existing gaps in the Peruvian educational sector, as noted by Mateus Borea et al. [5].

Regarding the Languages dimension of media literacy and the capacity for expression through different systems of representation and signification, teachers admitted to having initial difficulties in creating videos, audios, or images as content for their classes, which reinforces what was presented by Chapa and Martínez [34]. The constant updating of teachers' knowledge in new educational tools and platforms is crucial for transmitting the capacity to innovate to students.

It is suggested that future studies expand the sample size and use quantitative approaches, such as questionnaires or surveys, to obtain more representative results of the level of media literacy in a city or region. Additionally, it is recommended to include testimonies from teachers in different locations, both in the capital and provinces, to obtain a more comprehensive view of the current development of media literacy in Peruvian teachers. It would also be interesting to investigate the media literacy skills of students in parallel to compare the results with those of the teachers.

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