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The Implications of Instructors' Digital Literacy Skills for their Attitudes to Teach Critical Media Literacy in EFL Classrooms

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Abstract

We nowadays are heavily reliant on media and information technology. With the proliferation of technological media, easily accessible information, and people's dependence on technological tools, it is critical to cultivate critical attitudes among internet users. Hence, at schools, teachers should assist students in acquiring critical media literacy (CML) skills. Having this consideration, teachers need to become more digitally literate. This study aims to: 1) inspect teachers' digital literacy skills; 2) investigate teachers' attitudes toward the application of CML based on their different digital literacy abilities; and 3) scrutinize the implications. We collected data from EFL teachers at a high school in East Java, Indonesia, through interviews, focus group discussions, and classroom observations. We used theme-based analysis to identify and categorize the data before presenting the findings. The findings show the instructors are computer literate. However, not all instructors are proficient in digital literacy. There are instructors who exhibit insufficient digital literacy skills, as seen by the teachers stumbling when using technology. The competent digital literacy teachers show positive attitudes for teaching CML abilities. Meanwhile, the less digital literate teachers display negative attitudes for teaching CML abilities. Finally, the study suggests that instructors should strengthen their digital literacy and CML skills.

Keywords: media literacy, critical media literacy, CML, digital literacy, EFL teachers, information technology, teacher attitude.

1. Introduction

The rapid advancement of technology has had a far-reaching effect on many aspects of modern society including the needs for educational innovation (Byundyugova et al., 2022). The confluence of media and technology has ultimately transformed the way individuals learn and perceive about the world and undermining the basic foundations of education. Furthermore, the characteristics of digital natives who regularly interact with technology and rely on more on-screen resources rather than on-page materials (Galik, 2020; Galik, Oprala, 2021) requires epistemological adjustments in the educational system pertaining to pedagogical and technological goals, considering that the internet has revolutionized generating the content, interacting, entertaining, and accumulating information (Rayna, Striukova, 2021). Moreover, the pandemic that began in 2020 has had significant effects for the educational system (Afrilyasanti, Basthomi, 2022a; 2022b) and has hastened the digital transformation significantly by driving us to adopt digital realms in our day-to-day school and job.

Therefore, teaching should include strategies for identifying various types of skills that students must attain in order to prepare for their career paths and regularly analyze whether their

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teaching suited students' competencies and learning methods (Gonzalez-Perez, Ramirez-Montoya, 2022). Teachers should also be technologically literate in order to develop students' digital literacy and other abilities needed at this age (Pratolo, Solikhati, 2021). Digital literacy refers to the ability for accessing and using digital tools and applications in their classrooms (Koltay, 2011), which comprises cognitive, social, motoric, and emotional abilities, to give what individuals intended (Eshet, 2004), as well as the ability to digest information from a range of computer-based sources (Gilster, 1997). Similarly, digital literacy skills enable teachers to use digital technology successfully, responsibly, and ethically, in collaboration with critical thinking skills or conscious information analysis skills, both of which are unquestionably at the heart of media literacy.

Digital literacy skills that encompass computational thinking help students gain essential informatics skills, such as problem analysis, problem solving, human behavior understanding, etc. (Svensson et al., 2022; Wing, 2006). There have been various studies on educational technology; nonetheless, the results indicate that the major barrier to digital literacy education is a lack of time in designing technology teaching (Hosseini, 2018). Besides their limited time, teachers also have many duties other than teaching during school hours (Skaalvik, 2016) as well as technical problems (Shatri et al., 2021). Therefore, most instructors prefer using a practical approach to integrating technology. However, it is not only teachers' limitations in using technology but also the students' inability to learn through technology (McCord, 2015). This verifies that both, instructors and students need to understand how digital tools communicate information via language (McCord, 2015), because websites and computers have all been acknowledged as beneficial technologies for improving and altering education (Howard-Jones, Jay, 2016).

However, the urge to master technology for instructors is considered being tough since adult learners can hardly be focused in the absence of new technologies (Wiseman et al., 2016) that connect the classroom to the outside world (Wilson et al., 2014). Therefore, media platforms and libraries play an important role in investing teachers in digital literacy practices because the emergence of self-assured information assembly reinforces thinking process in generating and using information, while also preparing them for the digital transformation of the various methods (Deja et al., 2021). Additionally, fostering a digital environment for the development of teachers' digital competence within pedagogical conditions is required (Fursykova et al., 2022; Tahir et al., 2021). By enhancing their digital competencies, teachers can help students learn more effectively by utilizing digital media. Teachers can also assist students improve important hands-on language skills required for success in subsequent education and future career (Ugur, 2010).

Furthermore, with the explosion of media and the spread of fake or misleading information (Lazer et al., 2017; Vziatysheva, 2020), instructors must integrate digital media instructions to promote digital and media literacy abilities to students. The media literacy skills can only be actively nurtured in students by teachers who are media literate (Hobbs, 2017; Ugur, 2010). The term 'media literacy' corresponds to the eligibility, socialization, and perspective of the growing media consumers, who are seen as democratically active, critically evaluative, culturally expressive community members prepared for a professionally mediatized society (Forsman, 2018; 2019). Learning from that term, it can be concluded that media literacy is employed not just personally, but also communally throughout the media community. Thus, there is a close-fitting connection between media literacy and social life and society. When learning media literacy, it is then equally essential to be able to respond to the veracity of the information and to raise students' understanding of the danger of media use, which involves awareness, analysis, judgment, and action skills (Lebid et al., 2020; Riesmeyer et al., 2019; Ugaling et al., 2022).

Therefore, it is critical for instructors to be both digital and media literate in order to support students in their media literacy skill development. Prior research (Rivkin et al., 2005) has shown that teachers' competencies have substantial effects on students' accomplishment, with teacher effects accounting for up to three quarters of school effects on students' results. Concerning teachers' digital literacy abilities, some studies (Inan, Lowther, 2010; Seraji et al., 2017) found out that younger or less experienced instructors have more positive technology attitudes and lower computer apprehension than older instructors. It is verified that teaching experience has a detrimental influence on teachers' digital literacy, beliefs, and technology use (Karaca et al., 2013). Hence, teachers' professional development program in using technology must continue. Teachers with more teaching experience must determine the trainings they require for technology use. Interestingly, some other studies (Baek et al., 2008; Lau, Sim, 2008; Russel et al., 2007) revealed that senior instructors use computer more often than newer teachers or teachers with less teaching

experience, and are more enthusiastic about implementing technology in education. These results suggest that factors besides teaching experience influence teachers' attitudes toward the use of technology in their instruction.

The previously mentioned studies validate how teaching practices in integrating technology positively influence teachers' attitudes toward the use of technology in education (Inan, Lowther, 2010; Karaca et al., 2013; Ocaik, Akdemir, 2008; Sadik, 2005; Seraji et al., 2017), which in turn influences their teaching of media literacy. When teachers enhance their digital literacy, they are more likely to teach media literacy skills that will assist students to digest information amid media proliferation. A research is needed to determine whether instructors' digital literacy skills and attitudes affect CML education. Therefore, this article aims to discover EFL teachers' digital literacy skills, teachers' attitudes toward the application of CML based on their various digital literacy abilities, and the implications.

2. Materials and methods

We carried this descriptive qualitative research out in a public senior high school in East Java, Indonesia. We could not meet the large sample size because of time and resource constraints. As a qualitative research design is concerned with how representative the population's participants are; hence, fewer participants with diverse and rich experiences, such as those in this study, were adequate in order to properly extract relevant data from each participant (Dornyei, 2007). The detailed for the participants of the study are presented in Table 1.

Table 1. Participants' demographic information

Participant (P)	Age	Educational Background	Length of Teaching Experience
1	24	B.A. in English Language Education	Less than 5 years
2	34	M.A. in English Language Education	10-15 years
3	37	M.A. in English Language Education	5-10 years
4	54	M.A. in English Language Education	Over 30 years

In order to derive relevant findings from our research questions, we considered a purposely constructed semi-structured interview that was executed through a focus group discussion (FGD) and field notes as the outcomes of classroom observations to be the primary measuring method for our study. We used a semi-structured interview since it enabled us to customize the nature and flexibility of the interview (Rabionet, Lauderdale, 2009). Teachers' perspectives on the role of digital literacy integration in CML instructions, teachers' digital literacy skills and practices, teachers' perspectives on CML instructions, and the internal and external conditions related to implementing digital literacy in CML instructions were all covered in the instruments. Individual and group interviews were conducted with the participants. In addition, the data was analyzed using theme analysis approach in which all replies from the participants were classified and sorted into the same themes and investigated further (Braun, Clarke, 2006).

3. Discussion

EFL Teachers' Digital Literacy Skills and Practices

According to the results of the FGD and observations on teachers' CML instructions, two teachers (P.1 and P.2) exhibited good digital literacy skills. Meanwhile, the other two participants (P.3 and P.4) demonstrated poor digital literacy skills, as evidenced by the teachers stumbling when using technology. Further, when we compare on the teachers' ages and their digital literacy skills as shown by their classroom teaching performance and the interview results, we find a similar finding to the earlier study (Seraji et al., 2017) in which young instructors have lower computer anxiety than older instructors.

However, in terms of laptop use, all four participants used laptops frequently. The teachers showed their digital literacy skills by teaching using laptops and mobile phones. However, P. 3 and P. 4 mostly only use simple writing tools like Microsoft Word and PowerPoint presentation tools to carry out their administrative tasks in the classroom. Furthermore, neither of them explored or learned about various applications and other technologies that could be used in their teaching.

According to the findings of those two participants, teachers are digitally literate but insufficient because they have not used digital media as a creative means of teaching.

During the interviews, when P.3 and P.4 were asked about their reasons for not using technology extensively during instruction during the interviews, those two participants stated they would like to learn about various applications for CML instructions but could not do so because of insufficient time allotment and energy as well as excessive administrative tasks besides teaching. This finding confirms the previous research (Hosseini, 2018; Shatri et al., 2021; Skaalvik, 2016) on factors affecting teachers' lacking of digital literacy skills, including insufficient time for attending professional development program, excessive work-loads besides teaching, and the insufficient facilities as well as technical issues.

Furthermore, the results of the interview and observation, we found that there are still teachers (P.3 and P.4) who are anxious about using Information and Communication Technology (ICT) in the classroom. This anxiety then prevents them from learning and integrating digital tools and applications. The other two participants, on the other hand, actively used technology in their instructions. They also explored and tried various applications that could be used in their teaching instructions. Moreover, when it comes to the devices they use, they stated they are comfortable using laptops and mobile phones in their classroom.

Teachers' contented use of laptops and smartphones for teaching is consistent with an earlier study (Howard-Jones, Jay, 2016) on the beneficial technologies for improving and transforming education. Then, when we analyze these results further, we perceive that younger instructors have more positive digital attitudes and lower levels of digital anxiety than older instructors. Furthermore, as the teachers stated in the interview, it was discovered that using technology for instruction could indeed benefit their students as digital native generations. Teachers' perceptions of the importance of integrating technology into their instruction are consistent with previous research (Galik, 2020; Galik, Oprala, 2021; Pratolo, Solikhati, 2021), which emphasizes the benefits of digital media instruction to aid the learning of our digital native students.

Regardless of students' technological needs, there are still teachers who are inadequately digitally literate and are hesitant to explore and then use digital tools and applications in the classroom. Furthermore, some teachers also show that they prefer using a practical approach to classroom instruction over technology-based instruction. In addition, the teachers assert it is not only from their side that they do not integrate technology into the classrooms, but it can also be from the students' side. This could be because of restrictions on using smartphones during school hours, which contribute to the inability to use technological learning media, confirming McCord's previous findings (McCord, 2015).

EFL Teachers' Attitudes toward CML Instructions based on their Digital Literacy Abilities

The findings of a content analysis of interview data, which resulted in descriptions of prominent attitudes among teachers regarding their perspectives and intentions to present CML instructions based on their digital literacy skills. There are three categories of the findings on the teachers' attitudes, including behavioral component, normative component, and control components.

Behavioral component is the first category. The behavioral component includes distinguishing characteristics that portray attitudes, which result in favorable outcomes (Underwood, 2012). The interview findings reveal specific behavioral attitudes held by the instructors to implement CML instructions based on their digital literacy skills, namely: media proliferation, response to Z-generation characteristics, and future world needs (see Table 2).

Table 2. Teachers' attitudes observed from the behavioral component

Categories	Intention to implement CML Instructions
Media proliferation	Media proliferation necessitates teachers' awareness in order for students to access and share information wisely; thus, CML instruction is required. Teachers' digital literacy skills allow them to access a variety of media that can be used for CML instruction. Teachers' digital literacy skills enable them to assist students in developing skills in managing unlimited information and generating creativity when using digital media for learning.
Response to Z-	Teachers should have digital literacy skills in order to meet the needs of the Z-

generation characteristics	generation, who are digital and media natives. Teachers can increase students' motivation by integrating digital and media literacy instruction, which is aligned with their z-generation characteristics.
Future world needs	Digital and media literacy are two essential skills for preparing students for future careers. Students who are digital and media literate are more likely to succeed in today's media-saturated worlds.

Table 2 revealed that teachers' intention to implement CML instructions based on their digital literacy skills is because of media proliferation, student characteristics and Z-generation, and future world needs. Data from interviews show that teachers are aware of the easy spread of media and information as a result of technological advancements. All four teachers stated during the interview that they need to improve their digital literacy skills to provide better CML instruction. They also emphasize how digital and media literacy can facilitate students develop their problem-solving, creativity, communication, and critical thinking skills. They consider students must learn to be wise digital media users and responsible media sharing participants. Similarly, all teacher participants believe that incorporating digital tools and information media into their lessons teaches students to perceive information and think critically about the whole picture.

Furthermore, all teachers see the importance of developing their digital literacy as urgent because they are teaching 21st century learners who are typically digital natives, as stated in earlier studies (Galik, 2020; Galik, Oprala, 2021). Instructions tailored to the characteristics of the learners will keep them engaged and motivated to learn. Furthermore, despite the fact that P.3 and P.4 are inadequately digitally literate, they agree that they must evaluate whether the learning methods they provide are suited to assisting students in achieving their learning goals and that they should always develop their digital literacy skills. This finding echoes earlier findings (Gonzalez-Perez, Ramirez-Montoya, 2022) explanation of the need for teachers to analyze and reflect in order to adapt their instruction to 21st century skills.

The teacher participants also agreed that incorporating digital and media literacy can assist students to learn essential skills necessary for their career paths, which will require them to use technological tools and access various media and information to research specific topics, communicate, interact, and improve their work efficiency. Moreover, all the teacher participants believe that those who are digitally and media literate are more likely to succeed in today's media-saturated worlds, which is consistent with previous research (Deja et al., 2021; Ugur, 2010). It is not apparent, then, that P.2 emphasized the importance of incorporating digital and media literacy into the school curriculum.

The second category is the normative component. The normative component characterizes how many individuals believe germane to what others anticipate them to carry out the desired manners (Ajzen, 1991). The interview results (see Table 3) revealed that social demands from schools, parents, and students were the most frequently reported impacts on teachers with varying levels of digital literacy to implement CML instructions.

All the teacher participants acknowledged CML has not been integrated into the school curriculum. As it was previously mentioned hence, P.2 stated that it is required for schools to incorporate digital and media literacy into their curriculum. Furthermore, while the government intends students to develop critical thinking and problem solving-skills, as well as digital and media literacy skills, the school supports implementation of the most important one. Not only the government and teachers recognize the significance of digital and media literacy, but so do parents and students.

The four teacher participants agree it is their responsibility to respond to parents' and students' expectations for the students' learning outcomes and the preparation for future education and career.

Table 3. Teachers' attitudes observed from the normative component

Categories	Social demand to implement CML Instructions
School and Curriculum	CML has not been integrated as the main focus in the curriculum. The government has been encouraging students to develop their 21st century

Parents	skills, as well as digital and media literacy. Parents expect teachers to be creative in their teaching by incorporating technology as well as CML learning. Parents also expect teachers assist students' development of their self-awareness and critical thinking skills in order for them to face the digital and media-free era.
Students	Digital native students have certain expectations regarding the use of technology in learning.

As a result, the teachers asserted they should be technologically literate. They believe that by becoming digitally literate, they can help their students develop their digital and media literacy skills, as well as other important informatics skills. Previous research (Koltay, 2011; Pratolo, Solikhati, 2021; Wing, 2006) found that teachers' digital literacy skills and practices affect students' abilities to gain digital and media literacy skills, as well as other crucial skills necessary in this age.

The third category is the control component. Table 4 shows how, with their diverse digital literacy skills, the teacher participants showed three categories influencing their attitudes toward implementing CML instructions.

Table 4. Teachers' attitudes observed from the control component

Categories	Factors influencing CML Instructions
Knowledge and Self-motivation	The ability of teachers in integrating technology in their instructions affects their ability to carry out CML instructions There is no teacher who believes that CML teaching is unnecessary.
Resource and Facility supports	Technology accessibility has become a critical concern for teachers in order for them to be competent of digital literacy and integrate media literacy into their instructions. The lack of workshops, seminars, and guidance in using technology for learning and generating CML skills can have a considerable impact on CML instructions.
Peers and community support	The availability of peers, family members or other people who are capable of using technologies and are willing to share and guide, influences the teachers' digital literacy skills and the frequency with which they teach CML.

CML instructions are important, according to the teachers. However, teachers' digital literacy skills limit their ability to effectively implement CML instructions. Similarly, they stated that updated technology, as well as credible and accessible information sources, could be favorable in CML integration. Furthermore, they stated they must always stay current with technology, so workshops, seminars, and other supports to develop their abilities in accessing and using technology for teaching are critical. The availability of digital technology professional development programs, as well as a supportive digital environment represented by support from institutions, peers, and communities, is essential for the growth of teachers' digital literacy skills (Fursykova et al., 2022). Although the teachers also mentioned having limited time and energy to learn due to excessive administrative tasks and other responsibilities, they admitted that supports to develop teachers' digital literacy skills is urgent. As a result, regardless of their preference in technology integration, teachers should become acquainted with various types of technology in order to teach CML more effectively.

4. Results

This study focuses on understanding teachers' attitudes toward CML instructions based on their digital literacy skills in order to assist teachers and educational institutions in delivering enhanced CML instructions and preparing students for 21st century skills. Teachers' digital literacy skills should be developed so that they can effectively integrate CML instructions. Teachers should be digital and media literate in order to aid students develop their 21st century skills, such as critical thinking, problem solving, communication, creativity, collaboration, media literacy, and

engagement. Strenuous efforts to promote digital and media literacy skills, and also develop lesson plans with CML and 21st century skills as key components, would help teachers reflect how digital and CML could be implemented and integrated. Similarly, these initiatives allow teachers to consider the benefits and challenges of technology and media integration in classrooms. Furthermore, teachers must have sufficient media literacy competencies, learn some basic skills in using technology, and own pedagogical knowledge of how the technology can support their instructional strategies and present CML instructions effectively (Hobbs, 2017).

Moreover, teachers can model practices for improving their own digital literacy skills and integrating CML instructions. These practices can be done by assisting teachers in learning when, how, and why digital literacy skills are integrated for the development and betterment of the students' media literacy and 21st century skills. Besides, more teacher professional development programs focusing on transforming instructional practices to digital media learning in incorporating digital literacy skills and media understanding into EFL teaching would make integrating digital and media literacy easier. Schools' support and participation provide a significant impact on teachers' CML integration in their classrooms once they have learned the tools, applications, and pedagogies. Schools, parents, and communities that impact teachers' decisions must provide implementation support for developing teachers' digital literacy skills and integrating CML in the classrooms. Furthermore, teachers should have easy access to technology as well as resources and examples of successful CML instructions in order to improve their digital literacy skills. With such access and developed digital literacy skills, they are more likely to effectively integrate CML in teaching, allowing students to own digital and CML skills as well (Ugur, 2010).

This finding echoes the findings of the previous research (Atsoglu, Jimoyiannis, 2012; Fursykova et al., 2022), which found that personal support from school administrators influenced teachers' beliefs and attitudes. Furthermore, this finding indicated that, when teachers received support from their school administrators, parents, and communities, they were ultimately integrating digital literacy into their instructions. The availability of technological devices and access to them were also mentioned to be able to affect teachers' attitudes positively that in turn drive them to implement digital and media literacy instructions. This is in line with the previous theories, which mentioned that the accessibility of specific technology as well as supportive digital environment has an important effect on the effective implementation of intentions into practice (Fursykova et al., 2022; Sadaf, Johnson, 2017; Tahir et al., 2021).

Future research can also identify specific intervention strategies that correspond with teachers' attitudes and may aid teachers' preparation for CML instruction as well as professional development programs to improve their skills in integrating CML into their teaching. Future research could look into whether these attitudes toward integrating CML instructions based on teachers' digital literacy skills translate into actual classroom use. To achieve more accurate results, it would be favorable to observe more classrooms implementing CML instructions. More comprehensive focus group discussions, and other documentation besides interviews.

5. Conclusion

This study sheds light on teachers' attitudes toward integrating CML based on their digital literacy skills. The study confirmed that the instructors are computer literate. However, not all instructors are digitally literate. Two participants have insufficient digital literacy skills, as evidenced by the teachers stumbling when using technology. Competent digital literacy teachers are enthusiastic about teaching CML skills. Meanwhile, teachers who are less digitally literate have negative attitudes toward teaching CML skills. As a result, these teachers' attitudes emphasize on the need for professional development programs for teachers to focus on facilitating digital and media literacy as well as 21st century skills to prepare for CML integration in classrooms, providing strong administrative support to integrate CML into school curriculum, and giving access to resources, media, and technology to make it easier for effectively incorporating CML.

Teachers are the catalysts of educational change; thus, teachers' competencies should be reviewed regularly in tandem with changes and reforms. The data from the interviews and observations show it is necessary to improve teachers' understanding and skills in digital literacy, as well as to boost motivation, in order to increase the number of teachers who recognize the significance of digital and media literacy. Teachers' lack of digital literacy expertise, as well as their lack of motivation to improve their digital literacy skills, can be viewed as a significant threat to introducing transversal skills, which

in turn can have a significant impact on the transition to a competence-based learning approach and content. Changing the situation necessitates systematic educational work, including the development of digital and media literacy didactics and methodologies, as well as the organization of training and professional development from various fields.

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