

## **Supporting Students' Critical Media Literacy Skills Using Digital Storytelling through the Flipgrid Application**

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### **Abstract**

The demand for communication and critical media literacy (CML) skills cannot be disregarded in this age of digital information and media advancement. The case study included an English as a Foreign Language (EFL) teacher and 198 Indonesian high school students who studied English. Data analysis, synthesis, and transferability of digital storytelling for CML learning in EFL contexts were addressed using Flipgrid applications as teaching media. To obtain qualitative outcomes from participants' instructional experiences, we used pedagogical observations, recordings of students' and teachers' reflections on their teaching and learning experiences, and expert evaluation. The study's findings highlight the sound dynamics of reflective evaluation skills, collaboration, analytical inquiry, creativity, problem-solving, and communication development. The study's findings also demonstrated that, despite the constraints, students contributed to the improvement of instructional activities by investigating the use of the Flipgrid app and digital storytelling for CML learning. The findings of this study may be helpful for teachers and practitioners interested in adopting digital storytelling with the Flipgrid application to improve students' communication and critical media literacy skills.

*Keywords:* critical media literacy, critical media literacy skills, digital storytelling, Flipgrid application

### **Introduction**

Multimedia has advanced and rapidly developed in recent decades (Afrilyasanti & Basthomi, 2011; Meghawati et al., 2018), resulting in a tremendous integration of media culture and technological advancements, as well as the adoption of digital media in education (Afrilyasanti & Basthomi, 2022; Wu, 2019). Digital media is undeniably beneficial for educational purposes. For example, behavioral anxiety, students are not nervous when communicating using digital technology, such as social networking sites (Bailey, 2019). Additionally, students can strengthen their reflective practices using technological media by experiencing and re-experiencing access to learning sources (Mohammadi, 2022).

Various studies (i.e., Atinafu, 2021; Kahne & Bowyer, 2017) mention that students, as members of Generation Z or centennials (Bilotserkovets et al., 2021), prefer getting their daily news via Facebook, Instagram, Twitter, webcasts, or YouTube videos provided by sources whose trustworthiness is hardly verified. As a result, misinformation and false news are frequently more popular and propagate more quickly than accurate information (Shu et al., 2020). It should be a big concern since certain groups may have particular agendas and use social media to attract followers and use it as a means to propagate their agendas and views (Singer & Brooking, 2018). In this regard, teachers are responsible for ensuring that their students can read, comprehend, and write about the world using various media and technology to become better contributors to the construction of positive discourses.

In educational enterprises, storytelling methods are widely regarded as one of the most effective ways to introduce CML learning into the EFL classroom since everyone is likely to enjoy telling or listening to stories. The advancement of digital technology has resulted in a shift in storytelling, from traditional to digital. Goodman's (2003) study has shown that digital storytelling is an excellent teaching method to engage students in communication practices and media literacy or to learn about how the media affects our perceptions of the world. Digital storytelling, moreover, provides tremendous CML learning opportunities since students take part in the production and analysis of the media in which they are involved. In digital storytelling learning activities, students are encouraged to synthesize their specific research findings, relate them to their prior knowledge, and communicate these discoveries as storytelling (Afrilyasanti & Basthomi, 2020). They are engaged in active conversation (Afrilyasanti & Basthomi, 2011).

Analyzing the relevance of CML learning and the efficacy of digital storytelling as a teaching technique in learning literacy and target language, we came up with the idea of using digital storytelling in CML learning. Several studies have investigated the use of stories in teaching CML (i.e., Black, 2009; Ranieri & Bruni, 2018). These studies, however, do not appear to give sufficient insight into how digital storytelling is used step by step to foster students' communication and CML skills, particularly in the setting of EFL. As a result, this study reflects on voices from the field, including teachers' and students' reflections on CML learning in their EFL classes, through digital storytelling in exciting and engaging activities.

Different applications and video maker programs, such as Vidyard, Vimeo, Animaker, Book Creator, My Story, Storybird, Wakelet, Movie Maker, Adobe Premiere, and Movavi Video Suite, may be used for digital storytelling production have been developed. However, based on user reviews from <https://www.trustradius.com/> and our experiences in instructional practices using video creation tools, the results of the analysis of different applications used for video creation tools led us to a comparison of Flipgrid to two applications that have functionality similar to Flipgrid's. To provide a clear picture of Flipgrid's functionality, we present the comparisons between the three applications using Chapelle's (2001) criteria for CALL (Computer Assisted Language Learning) evaluation in Table 1.

**Table 1**  
*Comparisons between Vidyard, Vimeo, and Flipgrid*

<b>Comparison</b>	<b>Vidyard</b>	<b>Vimeo</b>	<b>Flipgrid</b>
Language learning potential	Students can learn listening, speaking, vocabulary, pronunciation, and fluency by listening to or creating a video.	Students can learn listening, speaking, vocabulary, pronunciation, and fluency by listening to or creating a video.	Students can learn listening, speaking, vocabulary, pronunciation, and fluency by listening to or creating a video.
Meaning focus	Students can understand the content displayed in the video.	Students can understand the content displayed in the video.	Students can experience a more engaging discussion through videos.
Learner fit	It applies to learners at all levels. Yet, this application is mainly used for business.	It applies to learners at all levels, but this application is mainly used for business.	It applies to learners at all levels and is specifically used for education.
Authenticity	Students can use it inside or outside the classroom.	Students can use it inside and/or outside the classroom.	Students can use it inside and/or outside the classroom.
Positive impact	It creates an exciting and engaging classroom.	It creates an exciting classroom.	It creates an exciting and very engaging classroom.
Practicality	<ul style="list-style-type: none"> <li>• User-friendly.</li> <li>• It is linked to an email application.</li> <li>• It offers powerful video hosting features.</li> <li>• It includes a free version, but the cost does not correspond to the features provided for the pro apps.</li> <li>• At most pricing ranges, the number of videos that may be uploaded is limited.</li> <li>• Its video player is not very configurable.</li> </ul>	<ul style="list-style-type: none"> <li>• User-friendly.</li> <li>• It is linked to an email application.</li> <li>• It provides a large amount of storage.</li> <li>• It offers powerful video hosting features.</li> <li>• The uploading process is time-consuming.</li> <li>• It has a free version; however, the pricing of the pro applications does not match the functionality offered.</li> <li>• It restricts the amount of data that may be uploaded each week.</li> </ul>	<ul style="list-style-type: none"> <li>• More user-friendly.</li> <li>• It offers a broad range of methods to share the activity (Google Classroom, Teams, etc.)</li> <li>• It enables users to upload images, videos, documents, etc.</li> <li>• It includes a free and paid version, but the overall cost is meager compared to other apps.</li> <li>• It enables users to provide enormous amounts of video material within an LMS without using disk space or compromising bandwidth.</li> </ul>

We also compare the feature ratings for the three applications to give more comprehensive and compelling information on the comparisons of those three applications.

**Table 2**

*The Feature Ratings of Vidyard, Vimeo, and Flipgrid Applications Adopted from <https://www.trustradius.com/>*

<b>Feature</b>	<b>Rating for Vidyard</b>	<b>Rating for Vimeo</b>	<b>Rating for Flipgrid</b>
Video Marketing	6.7	5.8	9.0
Video Platform Integrations	7.9	6.1	10.0
Video Security	9.0	7.6	8.3
Video Player	8.6	7.7	7.6
Video Analytics	7.7	5.8	9.5
Video Hosting, Management, and Storage	7.8	7.0	9.4
Video Engagement	8.7	4.8	10.0

The Flipgrid features have the highest rank based on the feature ratings above. Although Flipgrid ranks second behind Vidyard in video security and player, its score for those two features is still over 7.5, proving that it is reasonable. Some programs are not web-based; thus, students must upload their videos, and they are not from the other two applications. Meanwhile, Flipgrid is automatically linked to its class as a learning management system (LMS). Besides, for video engagement, according to the feature rating, Flipgrid has a perfect score of 10. Referring to its good rating, it is undoubtedly a critical consideration for having Flipgrid as the learning tool because engagement is one of the key points in language learning. Engagement is the aim that most teachers strive to represent the ideal classroom. Several theoretical frameworks have been linked to it, suggesting its relevance as a construct transcending any paradigm (Oga-Baldwin, 2019).

Furthermore, given its features, Flipgrid is appropriate for our learning objectives. The application of Flipgrid in the educational process, considerable study has been conducted to determine how effective Flipgrid is (Basko & McCabe, 2018; Budiarta & Santosa, 2020; Holbeck & Hartman, 2018). Flipgrid, a free online video conversation tool, provides a secure and welcoming environment for students of all ages with different skills and backgrounds to explore new ideas and interact with others. Flipgrid also encourages engagement and social learning atmosphere (Flipgrid, 2022) as the students are grouped into class sites called 'grids' where they can see and comment on the videos posted by their teacher and peers (Past, 2021). Learning on Flipgrid allows students to develop their speaking skills socially and personally (Fahey et al., 2019). Finally, based on the evidence of its benefits and the drawbacks of other apps, the Flipgrid application was employed as a media for CML learning in EFL setting through digital storytelling in this study. In brief, the study intends to examine how digital storytelling activities using the Flipgrid application contribute to students' learning of CML. It also advocated determining whether digital storytelling through the Flipgrid application has the potential to enhance students' communication and CML skills. The goals of the study were to examine:

- 1) how storytelling activities using the Flipgrid application contribute to students' learning of CML,
- 2) aspects that influenced how students' communication and CML skills evolve as a result of their learning,
- 3) further efforts that teachers should make to aid students' learning using digital storytelling activities through Flipgrid.

## **Literature Review**

### **Critical media literacy in the EFL Context**

Media literacy is a type of education that seeks to boost students' comprehension of how media works, how media is produced, how media is organized, and how media is used to assemble reality (Denardis & Hack, 2015). Hence, CML encompasses not only media understanding but also the expression of ideas and the production of information or viable news in any form of media. Christ and Potter (1998) explained that the ability to criticize media is classified into three categories of behavior. The classification includes the analytical group from which subjects understand impairments in social processes, including the exposure to media ownership, the reflective ability to apply knowledge analytically for themselves or action-based and ethically, and the different aspects of media literacy.

CML is considered meaningful and applicable to students' language skill development, sociocultural awareness, and agentive advancement. Similarly, from the language learning point of view, language learning becomes meaningful when it is connected to the context (Mercer & Dornyei, 2020), and CML education presents authentic learning materials and activities (Marull & Kuman, 2020). CML education, moreover, enables students to make connections between the materials and real-world situations (Fuson, 2004) and learning activities through analysis of what is going on in the learners' context, or what is referred to as critical social literacy (Currie & Kelly, 2021). Thus, incorporating CML pedagogy into language teaching is regarded as essential.

Furthermore, as media channels grow more biased, the ordinary person must become more skeptical of the content they read (Wineburg et al., 2020). As a result, in language learning, rather than concentrating just on assignments to analyze the contents, students should also identify the source, investigate the source, and search for other sources on the Internet. The broader area of CML thus aims to grasp better the strength of the connection that underpins media creation and delivery. Students can begin producing their own stories once they have mastered critically examining and generating their material (Garcia et al., 2013; Jocson, 2015; Norris, 2014). Additionally, CML instruction is well suited to the EFL context, as language and literacy skills benefit from social structuring, which is unquestionably inherent in CML learning (Duke & Block, 2012). Finally, with a more profound knowledge of information sources, students can distinguish, analyze, and evaluate sources for more purposeful use of digital media and social networks. They will subsequently be able to construct and build meaningful and compelling stories.

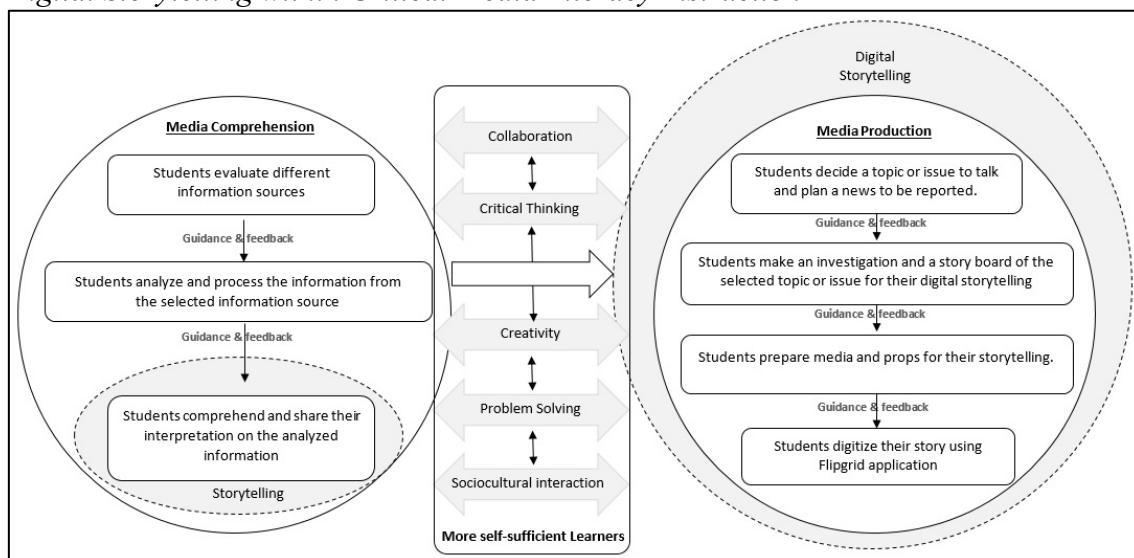
### **Digital storytelling strategy in critical media literacy instructions**

Many researchers have highlighted the importance of storytelling in providing meaningful learning to students (e.g., Brewster et al., 2002; Hendrickson, 1992; Isbel et al., 2004; Wajnryb, 2003). Furthermore, digital stories, whose most important feature is the deep processing of personal, affective, social, and cultural information, effectively introduce students to linguistic and nonlinguistic input and output by incorporating learners' interest and enthusiasm or willingness to communicate as well as promoting their technological skills. In addition, according to Wajnryb (2003), the story's manuscript offers opportunities for comprehensible input through language within the students' range of exposure.

Furthermore, digital storytelling involves externalizing thoughts and following criticisms, reasons, and justifications; students rebuild their thinking structures, resolve conflicts in the obtained information, and comprehend opposing viewpoints (Chen, 2016). In this approach, sociocultural connections can affect all levels of cognitive activity. Collaboration, digital literacy, critical thinking, creativity, problem-solving, and sociocultural interactions are undeniably essential qualities to have as part of the CML skills driven by digital storytelling, as illustrated in Figure 1. The largely culturally constrained narratives can be effective educational tools for CML learning and prompt higher-order thinking through comments and discussions. As students gain their higher-order thinking abilities through story construction, they become more self-sufficient in using these skills. Students' competency improvement is consistent with Vygotsky's (1978) theory of scaffolding in the zone of proximal development, which denotes regulating knowledge structure formation through social interaction with the teacher, resourceful partners, and other media.

**Figure 1**

*Digital Storytelling within Critical Media Literacy Instruction*



### Flipgrid as a language-learning media

As part of 21st-century learning skills (Bialik & Fadel, 2015), incorporating technology into the educational framework has become critical in teaching and learning. Teachers should have an instinctual understanding of the dynamic interactions between

three main components of knowledge: content, pedagogy, and technology when teaching material using appropriate pedagogical approaches and technologies (Mishra & Koehler, 2006; Schmidt et al., 2009). One technological-based learning media in the form of an online video discussion platform that can be utilized to assist students in gaining critical media literacy skills through digital storytelling is the Flipgrid application. According to Fahey et al. (2019), using Flipgrid is about social and personal learning rather than only creating videos. It can prolong students' learning perseverance and establish cognitive engagement and interaction (Basko & McCabe, 2018; Holbeck & Hartman, 2018). Furthermore, Flipgrid provides sufficient opportunities for students to practice speaking and telling stories because they can socially and individually learn anywhere and at any time.

When it comes to storytelling, the 21st century has enhanced student voices. With the advancement of technology, students can communicate their stories through direct verbal communication and digital tools that allow them to design, develop, and construct what they want to share. Students may choose the proper technological tool that allows their ideas to come to life and their ideas to be heard using digital storytelling tools such as the Flipgrid application. The use of digital storytelling can put students into CML learning in an enjoyable setting, and Flipgrid is an appropriate media that enables students to share their stories with other students (Basko & McCabe, 2018). In digital storytelling, students externalize thoughts, follow criticisms, reasons, and justifications, rebuild their thinking structures, resolve conflicts in the obtained information, and comprehend opposing viewpoints (Chen, 2016), which all represent skills needed in CML. Then, Flipgrid enables students to create innovative and interactive videos and provide better learning experiences (Fatimah et al., 2019).

## **Method**

### **The design of the study**

This study is a case study in which we attempted to address field voices, including teachers' and students' reflections on CML learning, through digital storytelling with the Flipgrid application. A reflective approach (Karlsson, 2012; Miyahara, 2015) is required to understand the implications of the researcher's role in the research and research participants. Each perception and interpretation will be distinct because it reflects the researcher's perspectives and contexts. According to Karlsson (2012), the researchers become the studied area and will need to practice reflexivity as a researcher. They should perceive how their ideas, feelings, motivations, educational, social, and personal narratives influence the process and, crucially, their writing (Karlsson, 2018).

### **Participants and the context**

We used the Flipgrid application to construct a digital storytelling teaching technique to teach CML in six EFL classrooms at Sekolah Menengah Atas (senior high school) Negeri Taruna Nala Jawa Timur in Malang, East Java, Indonesia. The school is a public senior high school in Malang, one of the autonomous areas and the second largest city in East Java, Indonesia. Consequently, the learning facilities are pretty well equipped.

The students come from throughout Indonesia with homogenous English language backgrounds.

The students range in age from 16 to 17, and each class has 33-34 students. All 198 students learned CML through digital storytelling with the Flipgrid application and produced a digital storytelling video. The student's English proficiency varied from low to intermediate. They also spoke little to no English outside of the classroom. However, all the students had smartphones, which allowed them to be exposed to digital media regularly via social media, search engines, and other digital platforms. The students were invited to reflect on their learning experiences through classroom discussions. The reflections were performed informally alongside the teaching and learning process through classroom discussions to get the natural setting, non-tension contact, and deeper information from the student participants.

Besides students' reflections data on their learning experience, the data were also derived from the teacher's teaching reflection, who was also positioned as one of the researchers in this study. The teacher had 12 years of EFL teaching experience, including four years at the school where the research was conducted and could integrate technology into teaching and learning.

### Data collection and analysis

CML was learned through digital storytelling in five meetings. CML learning included media comprehension and production. Two learning objectives were established: 1) to evaluate the credibility of news articles (identify bias, prejudice, or stereotyping news), and 2) to investigate and express their ideas, comprehension, arguments, and conclusions for various audiences and purposes. Through classroom discussions, we ran a need analysis to gain the students' voices about their learning interests and needs before CML learning through digital storytelling using the Flipgrid application. We asked the students about the digital media they usually used to get information, the topics they wanted to know more about, and their prior experiences with CML learning. After analyzing the data on the student's learning needs and interests, the Flipgrid application was used to teach CML in EFL classes through digital storytelling. Table 3 provides a detailed summary of the classroom activities.

**Table 3**

*CML Learning Activities using Digital Storytelling*

<b>Meeting 1</b>		
<b>Learning objective:</b> to evaluate news stories in terms of trustworthiness (detect bias, prejudice, or stereotyping news).		
<b>Procedure</b>	<b>Time</b>	<b>Interaction</b>
• Ask the students to read and understand the news article.	45 minutes	Whole class
• Ask the students to talk with an elbow partner using the following focus questions. <ul style="list-style-type: none"> <li>○ <i>Who are the publisher and author of the news? How do you know? Is there any information about it?</i></li> <li>○ <i>What is the author's bias or perspective?</i></li> </ul>	Student - student	



- *Why has this news been written? Is it to persuade you of a particular point of view? Is it attempting to sell you something? Are you being triggered?*
- *Are other publishers reporting it? What do other sources say about it? Is there more to the news?*
- *Does the news contain a lot of facts (quotes from experts, survey data, accurate pictures or images, and official statistics)? Is the evidence conclusive that something occurred?*
- Invite students to share their ideas with the whole class randomly. Students-teacher
- Ask the students to share their interpretations of messages about the news article based on the student's findings on the news trustworthiness. Give an example, such as. Students-teacher  
*After analyzing the data provided in the article, I believe the news is reliable. The article's source is a legal institution, and the author is a professional journalist. Furthermore, the news is published based on facts, not the author's bias or perspective. There are some professional quotes and accurate images. Based on this information, I believe the report is accurate.*
- Continue the discussion and help students to conclude. Students-teacher
- Have a reflective discussion on the learning experience for the day. Students-teacher

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### Meeting 2

**Learning Objective:** to explore and express their ideas, comprehension, arguments, and conclusions for different audiences and purposes.

Procedure	Time	Interaction
● Invite the students to join a virtual class in Flipgrid through the join code or link that was provided. Students can learn how to participate by reading the instruction at <a href="https://help.flipgrid.com/hc/en-us/articles/360051542894-Getting-Started-Members">https://help.flipgrid.com/hc/en-us/articles/360051542894-Getting-Started-Members</a>	45 minutes	Whole class
● Ask the students to choose a topic or issue to discuss and be reported.		Students-teacher
● Ask the students to examine the chosen issue and collect the evidence needed.		Students-teacher
● Ask the students to make a storyboard for their digital storytelling (See student worksheet).		Students-teacher
● Ask the students to exchange their work with an elbow partner, give feedback on each other pieces and revise their storyboards.		Student - student

- Have a reflective discussion on the learning experience for the day. Students-teacher

#### Meeting 3&4

**Learning Objective:** to explore and express their ideas, comprehension, arguments, and conclusions for different audiences and purposes.

Procedure	Time	Interaction
<ul style="list-style-type: none"> <li>• Ask the students to prepare the media needed for their digital storytelling as they write on the storyboard.</li> <li>• Give an overview of the digital storytelling production process.</li> <li>• Invite the students to digitalize the storyboard.</li> </ul>	45 minutes	Individual work Whole class
<ul style="list-style-type: none"> <li>• Ask the students to combine all digital storytelling elements using Flipgrid. Students can learn how to create a video post in Flipgrid by reading the instruction at <a href="https://help.flipgrid.com/hc/en-us/articles/360044723514-Create-and-post-a-video-response">https://help.flipgrid.com/hc/en-us/articles/360044723514-Create-and-post-a-video-response</a></li> </ul>		Individual work Individual work
<ul style="list-style-type: none"> <li>• Have a reflective discussion on the learning experience for the day.</li> </ul>		Students-teacher

#### Meeting 5

**Learning Objective:** to explore and express their ideas, comprehension, arguments, and conclusions for different audiences and purposes.

Procedure	Time	Interaction
<ul style="list-style-type: none"> <li>• Ask the students to present their work.</li> </ul>	45 minutes	Individual work
<ul style="list-style-type: none"> <li>• Ask the students to give feedback on each other's work on the Flipgrid application.</li> <li>• Provide feedback on students' digital storytelling.</li> </ul>		Student – student Students-teacher
<ul style="list-style-type: none"> <li>• Have a reflective discussion on the learning experience for the day.</li> </ul>		Students-teacher

We adapted Brain's et al. (2002) reflective questions provided in Table 4 to address three formulated research problems. The first stage of reflection, reporting and responding, is designed to answer the first research question. The relating and reasoning reflection level addresses the second research question, while the reconstructing reflection level clarifies the third research question. These self-reflection discussion questions were asked to the students through classroom discussions alongside the teaching and learning process. The teacher also employed these reflection discussion questions to lead her reflection journal. Following each meeting, the instructor recorded the findings of the classroom observation and the self-reflection journal.

**Table 4***The Self-Reflection Discussion Questions Adapted from Bain et al. (2002)*

The Reflection Level	Descriptions	Questions
Reporting and responding	The questions are intended to encourage students and teachers to clearly express their teaching and learning experiences and their sentiments, opinions, subjective judgments, and evaluations of the strengths and drawbacks of the experienced teaching and learning activities.	<ul style="list-style-type: none"> <li>• How the learning/teaching of English and CML was performed using digital storytelling via the Flipgrid application?</li> <li>• How do you feel about learning/teaching English and CML through digital storytelling with the Flipgrid app?</li> <li>• What do you think about using digital storytelling to learn/teach English and CML through the Flipgrid app?</li> <li>• What do you like and dislike about learning/teaching English and CML through digital storytelling with the Flipgrid app?</li> <li>• What are the advantages and disadvantages of adopting digital storytelling with the Flipgrid application to learn/teach English and CML?</li> </ul>
Relating and reasoning	The questions posed to students and teachers are designed to urge them to describe their prior knowledge and how the teaching and learning relate to it.	<ul style="list-style-type: none"> <li>• How did you become aware of CML before the implementation of digital storytelling through Flipgrid applications in your English class?</li> <li>• Can you connect the topics covered in class to your practical experience?</li> <li>• What activities or features of digital storytelling and Flipgrid enable you to develop your CML skills?</li> </ul>
Reconstructing	The questions are designed to encourage teachers and students to demonstrate how their thought contributes to new insights, which leads to additional learning.	<ul style="list-style-type: none"> <li>• How has your learning/teaching experience with digital storytelling via Flipgrid apps influenced your/your students' CML?</li> <li>• How will your learning/teaching experience improve your future CML learning?</li> </ul>

Through classroom discussions, we engaged the students in reflection-in-action (Schon, 1987). The recorded classroom observations and journals in which she had to respond to the questions in Table 4 were used for the teacher's reflection. Then, we transcribed the relevant parts of the tapes and students' discussions. We combined and related information from students and teachers. Then, we simultaneously develop assumptions.

The transcribed data was interpreted through data reduction, coding, and categorization, and validation of the findings. Data reduction was accomplished by

editing, segmenting, and summarizing the data. Following that, coding and meaning-making were used to examine emerging categories and patterns. The coding categories were then applied to the relevant column during the data display stage to gain a better understanding of the message evident in the data. Concurrently with data reduction and data display, conclusions were produced and confirmed. In this process, we went back to and from the categories and the database until we had a complete set of categories.

To confirm the data's validity and reliability, we reviewed and re-read written data, cross-checked among the research team, took notes, and listened to recordings while seeking to explain phenomena. In addition, we examined assumptions with colleagues while engaging in purpose-reflective discussion (Kato, 2012). We revisited the literature on critical media literacy, digital storytelling methods, and implementing the Flipgrid application.

## **Findings and Discussion**

### **The improvement of students' CML skills**

A reflective discussion was arranged at the end of each lesson to discover the students' inclinations, feelings, thoughts, condemning components of the learning experiences, and students perceived benefits and drawbacks of using digital storytelling with the Flipgrid application in CML learning. During CML learning in an EFL context, social media posts, news programs, and materials from multiple online channels on a similar issue but from different sources were discussed and compared to revive their distinctive properties and the trustworthiness of the media sources and information. The analyses were generally conducted through discussions to examine various viewpoints that emerged among the students on the same topic while developing their communication skills. Students were asked to offer a solution to an issue, convey their perspective, or justify their position on a particular component of the controversial topic. Furthermore, the students examined multiple facets of their professional endeavors in the information society and gained the insights required to assess the information in available media sources objectively. Secondly, the students practised evaluating, reflecting, criticizing, and comprehending various media content, including visual and textual features.

The students gained various personal and professional skills during the session. The first skill gained was their increased awareness of sociocultural interaction in the professional arena via social media and other networking platforms. Students gained an understanding of social and cultural phenomena by evaluating societal issues. They become more democratically active, critically evaluative, and culturally expressive media users as a result of their discussions and interactions with others on social media platforms (Forsman, 2018; 2019). Students claimed they did not just use social or networking media for fun but also for learning and upgrading particular knowledge.

#### *Excerpt 1*

*"Flipgrid interactive spaces allow me to discuss ideas, evaluate others' work, be criticized, have fun, and socialize. This exchange allows me to learn about diverse cultures and to be more tolerant."*

*"I acquire a lot of information and learn a lot from social media, particularly Twitter. Surfing social media helps me feel like an adult citizen who is becoming more informed of what is happening in our society."*

*"Discussions with peers and other feed viewers allow me to learn from one another while also strengthening my social competency. Furthermore, the freedom to express oneself through digital media enables me to be more critical and analytical in determining what content to share and consume."*

The students' remarks also reflect how CML benefits and challenges students' awareness of the world around them. The analysis and discussions on the media sources and news articles enable them to develop their critical thinking, problem-solving skills, collaboration, and communication skills as part of CML skills (Afrilyasanti & Basthomi, 2022). Students' developed skills as their learning results are presented in Figure 2. Aside from that, students' ability to access digital media shows a range of soft skills, technological knowledge, and critical literacies that they did not perceive as media literacies. As a result, CML learning should be taught in an appealing and easy-to-follow way.

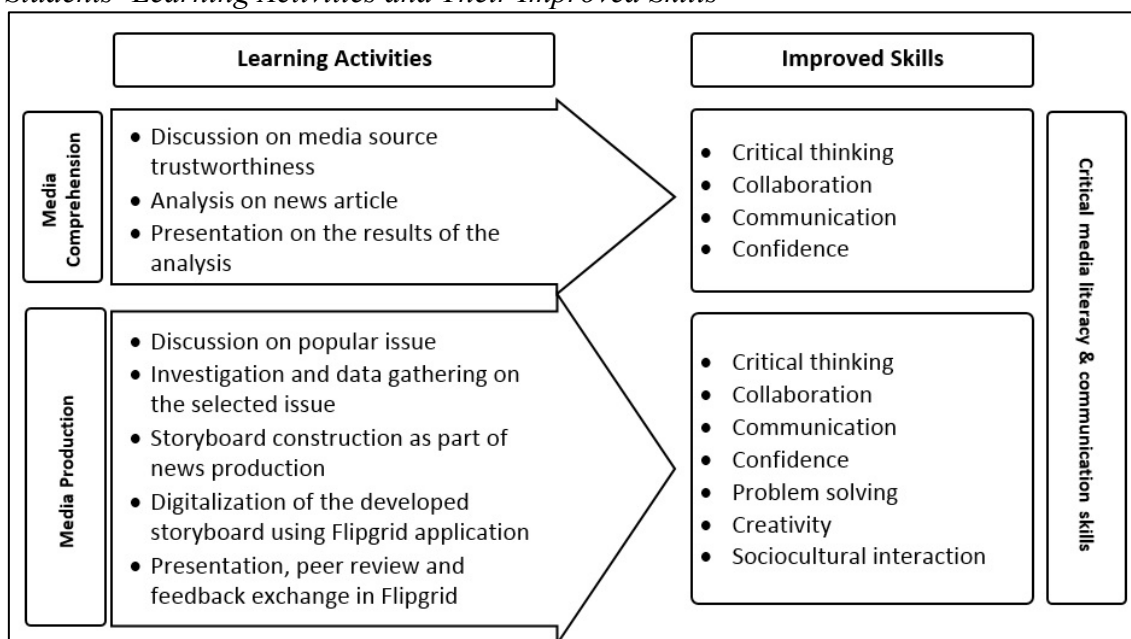
*Excerpt 2*

*"The discussions and digital storytelling project helped me to collaboratively work with others and enabled me to strengthen my communication and problem-solving skills. I think the project also helped me to be more confident"*

In class, we used the digital storytelling phases of pre-production, production, and post-production (presenting the constructed digital story and reflecting on the learning experiences). Meanwhile, CML learning corresponded to Denardis and Hack's (2015) idea, which incorporates media understanding and production. The digital storytelling instructional method completed the media understanding process at the beginning and end of the lesson. During the pre-production phase, the students had to verify the trustworthiness of the news and gather the necessary information for their storytelling production. Another media understanding was experienced in the last phase of the digital storytelling production, in which students should be able to examine the media created by their peers. The media production process included storyboarding or planning, peer-checking for the storytelling plan, producing digital storytelling, and publishing and presenting the digital storytelling.

Further, the teacher's reflection revealed that the students had no difficulties accessing technological devices in all learning stages, finding and analyzing media sources, producing digital storytelling, and publishing it. Current students, who are part of Generation Z or centennials (Bilotserkovets et al., 2021), tend to rely on technology, quickly assimilate vast amounts of information and multitask. Students' willingness to develop and interact with news sources and foster better analytical thinking and communication skills through their engagement with the media outlet as digital storytelling demonstrate expressiveness, creativity, and self-reflection skills. These findings, in essence, are what Goodman (2003) explains: digital storytelling is an effective teaching method for engaging students in media literacy or learning about how the media impacts our point of view.

**Figure 1**  
*Students' Learning Activities and Their Improved Skills*



### **Digital storytelling and Flipgrid components affecting the development of students' communication and CML skills**

CML covers both technological and cognitive necessary abilities. In terms of technical competencies, students have good technical skills because of their frequent use of social media and other online platforms. According to students' reflections on learning by utilizing digital storytelling via the Flipgrid application, the students recognize the simple process of storytelling production. They remark that the opportunity to join 'grids' allows them to share with other students (Basko & McCabe, 2018) and receive direct feedback from their teachers and classmates (Past, 2021). Presenting and receiving feedback enabled them to learn and reflect on their work and learning. As a result, they thought that this learning process assisted them in improving their communication skills.

#### *Excerpt 3*

*"I believe that the ability to discuss in grids aids us in understanding media. By discussing with my friends, I can easily and quickly cross-check the trustworthiness of the information sources."*

*"The grids feature allows me to communicate with my friends and teachers by commenting on each other's work and exchanging our perspectives and understanding of a certain problem. Those processes, of course, aid in my ability to communicate more fluently."*

Interaction and discussion are considered to be meaningful throughout the learning experience. The students can strengthen their speaking skills (Fahey et al., 2019) while developing life skills such as cooperation, creativity, and critical thinking (Budiarta & Santosa, 2020). Students agreed that they comprehend the content materials more than

they would in a conventional English class, where they only focus on linguistic components. This finding is demonstrated not only by students' improved scores but also by their active participation in discussions and the quality of their arguments.

Additionally, the discussion during the pre-production phase is essential to encourage students to identify bias, prejudice, or stereotyping news when preparing materials for their digital storytelling and assists them in exploring ideas, concepts, arguments, and conclusions for various audiences and purposes.

*Excerpt 4*

*"The teacher's intervention in the discussions helped me and my friends understand more about how to spot bias and draw conclusions about the trustworthiness of various media sources or information."*

*"I enjoy the discussion activities because they allow me to get more insight while examining certain news items, particularly those featuring bias or discrimination. I believe it is because my classmates are from different regions in Indonesia, allowing us to gain a boarder understanding."*

The discussion during the post-production phase is just as vital as during the pre-production phase since it allows students to analyze media generated by their peers to provide feedback on each other's work. These lengthy discussion sessions enable students to practice communicating in the target language more frequently, which is particularly helpful for language skill learning. Observing and listening to students' video comments may make the discussion more enjoyable since personalities and ideas come through, and students can express their critical thoughts promptly. Likewise, students can co-construct meaning by collaborating with their peers (Past, 2021), an essential sub-skill in CML. However, the students admitted that using the Flipgrid program for CML instruction through digital storytelling limits them from adding new elements in the middle of the video and other restricted video editing tools.

*Excerpt 5*

*"Flipgrid application is simple to use, but it lacks a variety of features that would allow us to create a sophisticated digital storytelling product."*

*"It is simple to use for video production, but the end product is also simple. However, the stickers and other features are entertaining to explore."*

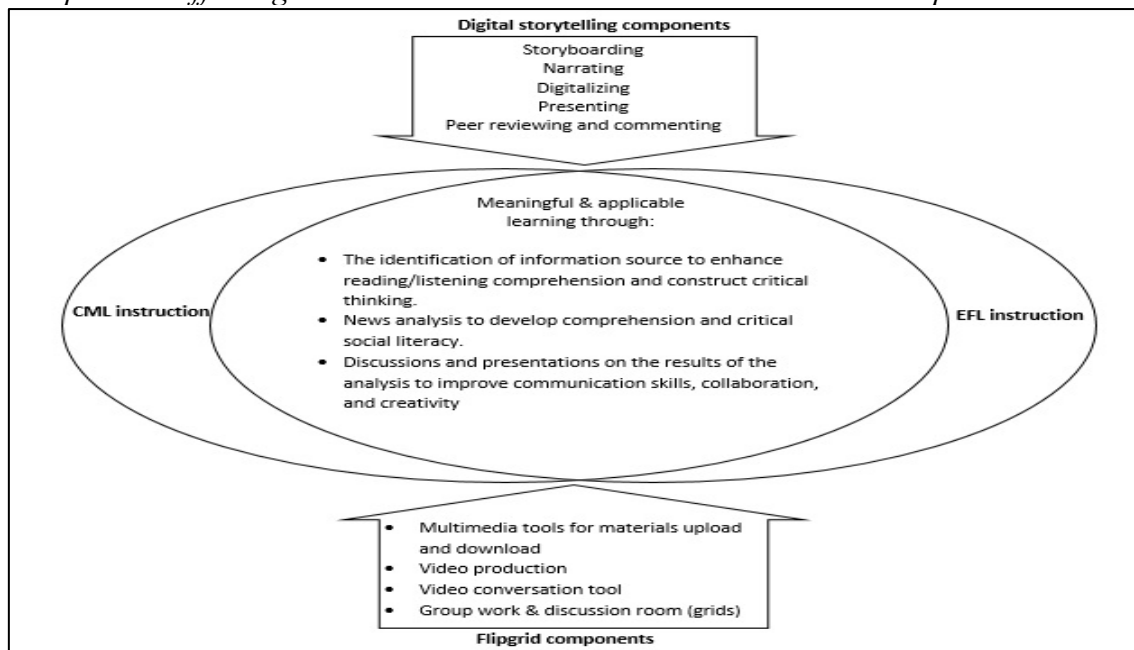
Flipgrid's modest features, as described by students, are not a concern because Flipgrid is merely a medium for creating digital storytelling, but the focus of CML learning is on enhancing students' CML skills. On the other hand, the simplicity of operation and usage of Flipgrid is a crucial point to highlight since the easier an application is to use, the less time is spent on introducing applications or learning media. Further, analyzing the Flipgrid application and digital storytelling for students' CML learning contributes to the growth of instructional plan ideas for CML teaching. Students thought their engagement had increased their media understanding and its functions, making them better communicators and storytellers. The CML learning experience

enables them to gain reliable facts, edit, produce, benefit from and take part in social media, and enhance media production skills.

Additionally, according to the teacher, students learn to enhance their speaking skills while also increasing their language skills by critically assessing and providing feedback on their peers' work and revising their own. Their performance demonstrates students' CML skill development during discussions, in which students could provide elaboration for their judgment and show their analytical and reflective abilities (Christ & Potter, 1998). Following a thorough examination of the overall teaching and learning process, it has been determined that various components of digital storytelling and Flipgrid have an impact on students' development of communication and CML skills (See Figure 3).

**Figure 3**

*Components Affecting Students' CML and Communication Skills Development*



### **More efforts needed in implementing digital storytelling activities using the Flipgrid application**

The students admitted that they did not find any difficulties accessing technological devices in all learning stages using the Flipgrid application, including finding and analyzing media sources, producing digital storytelling, and publishing it. It can be due to the students' nature as Generation Z (Bilotserkovets et al., 2021), who tend to rely on technology, quickly assimilate vast amounts of information and multitask. The students' willingness to develop and interact with news sources and foster better analytical thinking and communication skills through their engagement with the media outlet as digital storytelling demonstrate expressiveness, creativity, and self-reflection skills. These findings, in essence, are what Goodman (2003) explains: digital storytelling is an appropriate teaching method for engaging students in CML or learning about how the media impacts our point of view.



In the media production process, students had no difficulties because, through the meaningful learning experience provided by digital storytelling, they could seamlessly relate theory to practice (Brewster et al., 2002; Hendrickson, 1992; Isbel et al., 2004; Wajnryb, 2003). The production and publishing processes became more engaging because of the utilization of the Flipgrid application. The students acknowledged that Flipgrid provides chances for social and individual learning (Fahey et al., 2019). Likewise, the analysis of peers' works and interaction with viewers contribute to the students' heightened analytical and critical thinking abilities, which is part of the objectives of CML and the capacity to seek the potential of technology.

The teacher's remark also mentioned that students' CML increased at the end of the procedure. Students could develop their skills in analyzing and developing their media via the lengthy process of CML learning, from pre-production through post-production. When students have gained the skills of critically examining and creating their media, they might make their own stories. This conclusion is consistent with other research (e.g., Garcia et al., 2013; Jocson, 2015; Norris, 2014) that established the importance of media comprehension and analytical learning before media creation. Finally, with a better understanding of information sources, students can differentiate, analyze, and assess sources for more meaningful use of digital and social media and will be able to design and develop their own relevant and captivating stories.

The fascinating features and easy access of the Flipgrid application, however, make the application intrigue the students, which led them to want to explore it, and they might use part of their class time to do so. Therefore, in the future teaching using digital storytelling through Flipgrid, teachers must pay close attention to the production of digital storytelling. Time management and control of students' learning activities should take place. Continuous feedback on every student's learning stage is also essentially needed to assist them in producing innovative storytelling videos with credible information.

## **Conclusion**

This study includes detailed step-by-step teaching instructions for CML learning using digital storytelling as the learning method and Flipgrid as the learning media and teachers' and students' reflections on CML learning. In CML learning, it is critical for students to first possess abilities in media understanding and analysis before engaging in media production. Using appropriate learning media, Flipgrid contributes to students' engagement while acquiring CML and communication skills through digital storytelling. Flipgrid facilitates interaction between students and between students and teachers.

Flipgrid allows for both social and individual learning. Analysis of peers' work and interactions with viewers all support students' enhanced analytical and critical thinking abilities, which is one of CML's aims, as well as the opportunity to explore the potential of technology. Students' participation in learning increased their understanding of the media and its functions. Their learning process also allows them to become better communicators and creative professionals capable of gathering reliable facts, editing, producing, benefiting from and participating in social media, and improving media production skills.

However, while using the Flipgrid application for CML learning through digital storytelling, one thing to remember is its feature constraint, which inhibits students from

adding new components throughout the video and other limited video editing tools. However, this application is ideal for our students' level because it is simple to use and run. Students are not bothered with or become familiar with the software and can instead focus on the information they are studying. Moreover, despite limitations, investigating the Flipgrid application and digital storytelling for students' critical media literacy learning adds to the growth of instructional plan ideas for CML learning. In addition to this study, further investigation is required to quantify and assess students' improvement in written and spoken English and CML skill development shown in the CML learning using digital storytelling through the Flipgrid application.

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### References

- Afrilyasanti, R., & Basthomi, Y. (2011). Digital Storytelling: A case study on the teaching of speaking to Indonesian EFL students. *Language in India: Strength for Today and Bright Hope for Tomorrow*, 11, 81-91. <http://www.languageinindia.com/feb2011/ridastorytellingfinal.pdf>
- Afrilyasanti, R. & Basthomi, Y. (2020). Trimming the digital storytelling instructions by flipping the classroom: A response to pedagogical challenges in implementing digital storytelling for language learning. In F. Nami (Eds.), *Digital Storytelling in Second and Foreign Language Teaching* (pp. 81-104). Peter Lang Publishing.
- Afrilyasanti, R., & Basthomi, Y. (2022a). A sudden shifting: Students', teachers', and parents' adaptation to learning during and after Covid-19 learning. *Pegem Journal of Education and Instruction*. 12(2): 143-150. <https://doi.org/10.47750/pegegog.12.02.14>.
- Afrilyasanti, R., & Basthomi, Y. (2022b). The implications of instructors' digital literacy skills for their attitudes to teach critical media literacy in EFL classrooms. *International Journal of Media and Information Literacy*, 7(2), 283-292.
- Atinafu, B. (2021). Higher education students' social media literacy in Ethiopia: A case of Bahir Dar University. *Journal of Media Literacy Education*, 13(3), 86-96. <https://doi.org/10.23860/JMLE-2021-13-3-7>.
- Bailey, D. (2019). Social networking for language learning participation in relation to task value and L2 writing anxiety. *Computer-assisted Language Learning*, 20(1), 1-18. <http://callej.org/journal/20-1/Bailey2019.pdf>
- Brain, J. D., Ballantyne, R., Mills, C., & Lester, N. C. (2002). *Reflecting on practice: Student teachers' perspectives*. Post Pressed.
- Basko, L., & McCabe, C. (2018). Keeping your sanity while keeping your students: how teacher engagement can increase student persistence when teaching students

- during their first college course. *Journal of Instructional Research*, 7, 119-123. <https://files.eric.ed.gov/fulltext/EJ1188337.pdf>
- Bialik, M., & Fadel, C. (2015). *Skills for the 21st century: What should students learn?* Center for Curriculum Redesign.
- Bilotserkovets, M., Fomenko, T., Gubina, O., Klochkova, T., & Lytvinko, O. (2021). Fostering media literacy skills in the EFL virtual classroom: A case study in the COVID-19 lockdown period. *International Journal of Learning, Teaching and Educational Research*, 20(2), 251-269. <https://doi.org/10.26803/ijlter.20.2.14>
- Black, R. (2009). Online fan fiction and critical media literacy. *Journal of Computing in Teacher Education*, 26(2), 75-80. <https://files.eric.ed.gov/fulltext/EJ907122.pdf>
- Brewster, J., Ellis, G., & Girard, D. (2002). *The primary English teacher's guide* (2nd Eds.). Penguin.
- Budiarta, I K. & Santosa, M. H. (2020). TPS-Flipgrid: Transforming EFL speaking class in the 21st century. *English Review: Journal of English Education*, 9(1), 13-20. <https://doi.org/10.25134/erjee.v9i1.3824>.
- Chapelle, C. (2001). *Computer applications in second language acquisition: Foundations for teaching, testing, and research*. Cambridge University Press.
- Chen, M. H. (2016). Theoretical framework for integrating higher-order thinking into L2 speaking. *Theory and Practice in Language Studies*, 6(2), 217-226. <http://dx.doi.org/10.17507/tpls.0602.01>
- Christ, W. G. & Potter, W. J. (1998). Media literacy, media education, and the academy. *Journal of Communication*, 48(1), 5-15. <https://doi.org/10.1111/j.1460-2466.1998.tb02733.x>
- Currie, D. H., & Kelley, D. M. (2021). Critical social literacy: Media engagement as an exercise of power. *Review of Education, Pedagogy, and Cultural Studies*, 1-41. <https://doi.org/10.1080/10714413.2021.1941551>
- Denardis, L. & Hackl, A. M. (2015). Internet governance by social media platforms. *Telecommunications Policy*, 29(9), 761-770. <https://doi.org/10.1016/j.telpol.2015.04.003>
- Duke, N. K., and M. K. Block. 2012. Improving reading in the primary grades. *The Future of Children*, 22(2),:55-72. <https://psycnet.apa.org/doi/10.1353/foc.2012.0017>
- Fahey, S., Moura, K., & Saarinen, J. (2019). *The educator's guide to Flipgrid: Version 4, Fall 2019*. [https://static.flipgrid.com/docs/Flipgrid\\_eBook\\_2nd\\_edition.pdf](https://static.flipgrid.com/docs/Flipgrid_eBook_2nd_edition.pdf)
- Fatimah, A. S., Santiana, & Saputra, Y. (2019). Digital comic: An innovation of using toondoo as media technology for teaching English short story. *English Review: Journal of English Education*, 7(2), 101-108. <https://journal.uniku.ac.id/index.php/ERJEE/article/view/1526/0>
- Flipgrid. (2022). *What is Flipgrid?* <https://info.flipgrid.com/about.html>.
- Forsman, M. (2018). Digital competence and the future media citizen: A preliminary conceptual analysis. *The Journal of Media Literacy*, 1(2): 24-29.
- Forsman, M. (2019). Rebalancing MIL: The revised Swedish curriculum and the emerging media citizen in a new media ecology. In Carlsson, U. (Eds.). *Understanding media and information literacy (MIL) in the digital age: A question of democracy*. Gothenburg: Nordicom, University of Gothenburg: 149-156.
- Fuson, K. (2004). Pre-K to Grade 2 goals and standards: achieving 21st century mastery for all. In D. Clements & J. Sarama (Eds.), *Engaging Young Children in*

- Mathematics: Standards for Early Childhood Mathematics Education*. Lawrence Erlbaum Associates.
- Garcia, A., Seglem, R., & Share, J. (2013). Transforming teaching and learning through critical media literacy pedagogy. *Learning Landscapes*, 6(2), 109-124. <https://doi.org/10.36510/learnland.v6i2.608>
- Goodman, S. (2003). *Teaching youth media: A critical guide to literacy, video production & social change*. Teachers College Press.
- Hendrickson, J. (1992). Storytelling for foreign language and linguistics (ED355824). ERIC. <https://files.eric.ed.gov/fulltext/ED355824.pdf>
- Holbeck, R. & Hartman, J. (2018). Efficient strategies for maximizing online student satisfaction: Applying technologies to increase cognitive presence, social presence, and teaching presence. *Journal of Educators Online*, 15(3), 1-5.
- Isbell, R., Sobol, J., Lindauer, L., & Lowrance, A. (2004). The effects of storytelling and story reading on the oral language complexity and story comprehension of young children. *Early Childhood Education Journal*, 32(3), 157-163. <https://doi.org/10.1023/B:ECEJ.0000048967.94189.a3>
- Jocson, K. M. (2015). New media literacies as social action: The centrality of pedagogy in the politics of knowledge production. *Curriculum Inquiry*, 45(1), 30-51. <http://dx.doi.org/10.1080/03626784.2014.982490>
- Kahne, J., & Bowyer, B. (2017). Educating for democracy in a partisan age: Confronting the challenges of motivated reasoning and misinformation. *American Educational Research Journal*, 54(1), 3-34. <https://doi.org/10.3102/0002831216679817>
- Karlsson, L. (2012). Sharing stories: Autobiographical narratives in advising. In J. Mynard & L. Carson (Eds.), *Advising in language learning: Dialogue, tools, and context* (pp. 185-204). Pearson Education.
- Karlsson, L. (2018). A few thoughts on reading "Reflective Practice in Advising: Introduction to the Column." *Relay Journal*, 1(1). [https://kuis.kandagaigo.ac.jp/relayjournal/issues/jan18/mynard\\_kato\\_yamamoto/](https://kuis.kandagaigo.ac.jp/relayjournal/issues/jan18/mynard_kato_yamamoto/)
- Kato, S. (2012). Professional development for learning advisors: Facilitating the intentional reflective dialogue. *Studies in Self-Access Learning Journal*, 3(1), 74-92. <https://doi.org/10.37237/030106>
- Marull C, & Kumar S. (2020). Authentic language learning through telecollaboration in online courses. *TechTrends*. 64, 628-635. <https://doi.org/10.1007/s11528-020-00488-2>
- Meghawati, M., Yadav, S., Yin, Y., Shah, R.R., & Zimmermann, R. (2018). *A multimodal approach to predict social media popularity*. [Paper presentation]. IEEE Conference on Multimedia Information Processing and Retrieval (MIPR) Miami, FL. <https://doi.org/10.1109/MIPR.2018.00042>.
- Mercer, S., & Dornyei, Z. (2020). *Engaging language learners in contemporary classrooms*. Cambridge University Press.
- Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: a framework for teacher knowledge. *Teachers College Record*, 108(6), 1017-1054. <https://doi.org/10.1111/j.1467-9620.2006.00684.x>
- Miyahara, M. (2015). *Emerging self-identities and emotions in foreign language learning: A narrative-oriented approach*. Multilingual Matters.

- Mohammadi, G. (2022). Developing teachers' reflective practices through a virtual exchange program. *Computer-assisted Language Learning*, 23(1), 215-232. <http://callej.org/journal/23-1/Mohammadi-Tafazoli.pdf>
- Norris, A. (2014). Make-her-spaces as hybrid places: Designing and resisting self-constructions in urban classrooms. *Equity and Excellence in Education*, 47(1), 63-77. <https://doi.org/10.1080/10665684.2014.866879>
- Oga-Baldwin, W. L. Q. (2019). Acting, thinking, feeling, making, collaborating: The engagement process in foreign language learning. *System*, 86, 102128. <https://doi.org/10.1016/j.system.2019.102128>.
- Past, T. H. (2021). Once upon a time: Digital storytelling to enrich asynchronous classrooms. In Shaffer, D. & Kimball, J. (Eds.), *Proceedings of the 28th Korea TESOL International Conference* (pp. 199-208). Korea TESOL.
- Ranieri M., Bruni I. (2018). Digital and media literacy in teacher education: Preparing undergraduate teachers through an academic program on digital storytelling. In J. Cabbage (Eds.), *Media Literacy in Higher Education Environments*, (pp. 90-111). IGI.
- Schmidt, D. A., Baran, E., Thompson, A. D., Mishra, P., Koehler, M. J., & Shin, T. S. (2009). Technological Pedagogical Content Knowledge (TPACK): The development and validation of an assessment instrument for preservice teachers. *Journal of Research on Technology in Education*, 42(2), 123-149. <https://doi.org/10.1080/15391523.2009.10782544>
- Schön, D. (1987). *Educating the reflective practitioner*. Jossey-Bass.
- Shu, K., Wang, S., Lee, D., & Liu, H. (2020). Mining disinformation and fake news: Concepts, methods, and recent advancements. In Shu, K., Wang, S., Lee, D., & Liu, H. (Eds.) *Disinformation, misinformation, and fake news in social media. Lecture Notes in Social Networks*. Springer, Cham. [https://doi.org/10.1007/978-3-030-42699-6\\_1](https://doi.org/10.1007/978-3-030-42699-6_1).
- Singer, P. W., & Brooking, E. T. (2018). *Like war: The weaponization of social media*. Houghton Mifflin Harcourt Publishing.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological process*. (Eds. M. Cole, V. John-Steiner, S. Scribner, & E. Souberman). Harvard University Press.
- Wajnryb, R. (2003). *Stories: Narrative activities in the language classroom*. Cambridge Handbooks for Language Teachers. Cambridge University Press.
- Wineburg, S., Breakstone, J., Ziv, N., & Smith, M. (2020). *Educating for Misunderstanding: How Approaches to Teaching Digital Literacy Make Students Susceptible to Scammers, Rogues, Bad Actors, and Hate Mongers* (Working Paper A-21322, Stanford History Education Group). Stanford University. <https://purl.stanford.edu/mf412bt5333>
- Wu, J. G. (2019). The use of mobile devices in language learning: A survey on Chinese university learners' experiences. *Computer-assisted Language Learning*, 20(3), 6-20. <http://callej.org/journal/20-3/Wu2019.pdf>