HOW

Information Literacy and Discourse Analysis for Verifying Information among EFL Learners1

Alfabetización Informacional y Análisis del Discurso para Verificar la Información entre Estudiantes de Inglés como Lengua Extranjera

Yaseen Ali Azi²
Sami Abdullah Hamdi³
Mohammed Ahmad Okasha⁴
Jazan University, Jazan, Saudi Arabia

Abstract

The task of verifying credible and original information is now more complicated, especially for undergraduate students. This study uses information literacy and discourse analysis to develop English as a foreign language learners' critical reading skills while verifying information on social media. A

2   He is an assistant professor of educational linguistics. He received his Ph.D. from the University of New Mexico, USA. His research interests include Classroom Discourse, Teacher Talk, L2 Writing and Feedback; he has also published articles on areas related to Conversation Analysis, Sociocultural Theory, and Scaffolding.
     yazi@jazanu.edu.sa
     ORCID: https://orcid.org/0000-0003-3409-5178

3   He is an assistant professor of educational linguistics. He received his Ph.D. from the University of New Mexico, USA. His research interests include critical discourse studies/analysis, text analytics, and critical language learning. He has published several studies on linguistics and language learning issues.
     shamdi@jazanu.edu.sa
     ORCID: https://orcid.org/0000-0002-7742-4771

4   He received his Ph.D. in 2011 in English Teaching Methodology from the University of Banha, Egypt. He is mainly interested in strategic writing as well as teaching writing skills to EFL learners. He has a long experience in teaching English to high school and college students.
     mokasha@jazanu.edu.sa
     ORCID: https://orcid.org/0000-0001-6146-6742

reading test including false news was used to assess the learners' awareness of the credibility of social media information. Then, they were divided into experimental and control groups. The experimental group was trained in evaluating a set of false news using information literacy and discourse analysis skills. The control group did not receive any training. The experiment was conducted again on both groups. The results show a significant improvement among the experimental group compared to the control group. The findings of this study shed light on the growing need for creating a pedagogical space in English as a foreign language classroom that focuses on raising learners' awareness of information literacy and discourse analysis skills to read with critical perspectives.

Keywords: fake news, information literacy skills, discourse analysis skills, EFL teaching

Resumen

La tarea de verificar información creíble y original es ahora más complicada, especialmente para los estudiantes universitarios. Este estudio utiliza la alfabetización informacional y el análisis del discurso para desarrollar las habilidades de lectura crítica de los estudiantes de inglés como lengua extranjera al verificar información en las redes sociales. Se utilizó una prueba de lectura que incluía noticias falsas para evaluar el conocimiento de los estudiantes sobre la credibilidad de la información en las redes sociales. Luego, los estudiantes se dividieron en grupos experimentales y de control. El grupo experimental se capacitó en la evaluación de un conjunto de noticias falsas con la utilización de habilidades de alfabetización informacional y análisis del discurso. El grupo de control no recibió ningún entrenamiento. El experimento se realizó de nuevo en ambos grupos. Los resultados muestran una mejora significativa entre el grupo experimental en comparación con el grupo de control. Los hallazgos de este estudio arrojan luz sobre la creciente necesidad de crear un espacio pedagógico en las aulas de inglés como lengua extranjera que se centre en aumentar la conciencia de los estudiantes sobre la alfabetización informacional y las habilidades de análisis del discurso para leer con perspectivas críticas.

Palabras clave: noticias falsas, habilidades de alfabetización informacional, habilidades de análisis del discurso, enseñanza de ILE

Introduction

The advancing technology in media and information systems has led to a growing increase in "participatory culture" where individuals are allowed to create and publish media; however, the authenticity and validity of knowledge have become highly questionable (Gretter & Yadav, 2016, p. 510). Social media such as Twitter, Facebook, and WhatsApp have become a central hub through which an increasing amount of information is published, making it easier for people to access, use, create, and share different content (e.g., text, images, videos). This flow of information makes users subject to unlimited streaming of information leading many people, particularly college students, to be victims of "information overload" as well as "information anxiety" (Bawden & Robinson, 2009). The exposure to social media is likely accompanied by the threat of spreading false or inaccurate information deliberately or accidentally. Several terms and classifications have been introduced to refer to false/

149

inaccurate information. For instance, *fake news*, *misinformation*, *disinformation*, and *rumors* have been proposed to suggest the level of facticity and intention (see Tandoc et al., 2018; Wardle, 2017). Due to the lack of a clear-cut definition of the phenomenon, we, the researchers of this study, do not use a particular term, but instead, refer to them broadly as false or inaccurate information.

As reported in previous research (e.g. Arafah & Hasyim, 2022; Gretter & Yadav, 2016), the digital world and the internet make it available to exchange information worldwide, some information is created or manipulated by unknown parties to mislead readers. Consequently, many social media users fall victim to such unauthentic information. Since social media covers a broad spectrum of topics and issues, they have become a source of learning for college students. Lacking the skills to evaluate information may result in risks (e.g., legal, environmental, and health) due to an imperfect learning experience. To face such a challenge, college students need to possess skills that empower them to function more critically in today's digital world.

Findings from previous research on discourse analysis and language teaching/learning contend that learning a new language requires developing discourse skills that are necessary for coding and decoding different messages in that language (see Amari, 2015; Cots, 2006; Dar et al., 2010; Hammond, 2006; Hashemi & Ghanizadeh, 2012). Thus, studies on the use of discourse analysis in English as a foreign language (EFL) classrooms have concluded that discourse-based approaches are "central to the process of enabling learners to become competent and efficient users of a new language" (Amari, 2015, p. 87). Further, as Hazaea and Alzubi (2017) point out, by using discourse analysis in classroom practices, students have become more active and critical language users in dealing with different texts and evaluating their contents. A similar observation was also reported by Celce-Murcia and Olshtain (2000) who stress that incorporating a discourse-oriented approach in language teaching is found to be more effective for language learning than the traditional grammar-oriented approach in which learners are not equipped with the necessary skills for evaluating the text.

As it can be noted, investigating EFL learners' skills to evaluate the credibility and reliability of information is a research area that has not been explored enough in the literature. This situation urges us, as academicians, to examine college students' ability to verify and evaluate the credibility of information on social media to obtain, make use of, and share reliable and valuable information. Thus, this study aims to explore how EFL undergraduates' critical reading practices can be improved using information literacy and discourse analysis skills. It focuses on Saudi EFL undergraduate students. To accomplish this goal, we, as the researchers, invest in training EFL learners on information literacy and discourse analysis skills to help them gain lifelong learning while critically evaluating information on social media and assessing their credibility. Since information on social media can be textual or

with images and videos, we are concerned mainly with textual content such as written posts and tweets.

Literature Review

Information Literacy

Traditionally, *information literacy* has been used to introduce to and train students and researchers on searching, finding, and using print resources such as books and encyclopedias. Several definitions and frameworks of information literacy have been proposed to describe a range of essential competencies to learn. For instance, the Association of College and Research Libraries and the American Library Association (2000, 2001) have broadly defined information literacy as a set of abilities requiring individuals to discern when information is needed and to find, assess, and apply that information effectively and proposed a set of standards and performance indicators (2000, p. 64). Also, the Chartered Institute of Library Information Professionals (CILIP; 2018) defined information literacy as the capacity to analyze information critically and reach fair conclusions about any data people discover and use. It enables citizens to reach and express knowledgeable opinions and actively participate in society. Other organizations, such as UNESCO (2005), defined information literacy as a process of developing people's abilities to evaluate and judge opinions or claims. Information literacy emerged as a response to a host of communication that requires specific competencies such as finding authentic sources and identifying authorship. The goals of obtaining information literacy skills are for individuals to build lifelong learning and make educated decisions on varying content with a critical eye. These goals developed throughout the formation of the information literacy concept and are shared in almost all definitions. Although the main goals of information literacy are still relevant, the methods and techniques to achieve them change in line with the recent advances in technology and teaching or training.

The internet allows people from different parts of the world to access and publish information not subject to editorial review. Thus, the concept of modern information literacy was developed, recognizing the overlap with other forms of literacies (e.g., digital, media, and the web), which all share common aspects. The variety of literacy forms can be explained in terms of emerging technologies and by emphasizing specific domains. Mackey and Jacobson (2011) point out that this situation calls for reframing information literacy, and thus, propose an overarching concept to combine emerging technologies and other literacy forms under "metaliteracy." This is driven by social media in which different modalities are utilized and distinguished by "the recognition of producing and sharing information in

collaborative online environments" (Mackey & Jacobson, 2011, p. 64) and open the door widely for emerging literacy forms.

Discourse Analysis and Information Literacy

As the internet and social media have become essential tools to delineate how people communicate, there has been a growing interest in using discourse analysis as an approach to explore language and discourses of contexts (Bouvier, 2015). Michel Foucault was the first scholar to introduce discourse analysis as a research approach. According to Foucault (1972, p. 117), discourse is a system for "knowledge formation" where statements go to the same *discursive formation*. In this *discourse formation,* the statements are reported to have four features as summarized in the following: they signify the same object, are articulated in the same way, have a common system of "conceptualizations", and have similar topics or concepts (Jansen, 2008, p. 109).

Discourse analysis has become an important analytical approach for "capturing the socially and culturally shaped ways of understanding information competencies and information practices" (Limberg et al., 2012, p. 110). The focus of the discourse analysts is on *interpretive repertoires* through which meanings to "information competences and practices" are constructed. As Limberg et al. (2012) point out, this means that discourse as an analytical approach sets out to investigate information literacy discourses rather than having the information competencies unchallenged. Further, studies have shown that discourse analysis functions as an interdisciplinary research tool alongside other research methods to demonstrate different perspectives for studying the underlying meanings of various texts (see Hamdi, 2018; Wodak & Meyer, 2001).

By looking at the literature on discourse analysis and information literacy, it can be noted that such studies have different concentrations. Although there is a growing research interest in information literacy discourses (see Haider & Bawden, 2007; Heok & Luyt, 2010; Kapitzke, 2003a, 2003b; Pawley, 2003; Tuominen et al., 2005), many other discourse-analytical studies have focused on topics related to library and information science. Also, there are other areas related to research in information literacy such as information type, information desires, and information and interaction facilities (see Hedemark et al., 2005; Olsson, 2009; Talja, 1997).

Critical Discourse Analysis and Language Teaching

Over the last two decades, there has been a growing interest in critical discourse analysis (CDA) in English as a foreign or second language (EFL/ESL) studies (Amari, 2015). For instance, Cook (1989) explains in more detail how discourse analysis can be an essential resource for both language teachers and learners. According to Cook (1989), the regularly used language teaching approach is not enough to make language learners aware of critical

components of their discourse community (p. 75). Thus, he contends that doing discourse analysis is like using a "top-down" reading method, which is necessary for making learners aware of critical discourse perspectives related to "textual and social context" (p. 81). Similar conclusions were also reported in other studies in which the use of discourse analysis as an approach in language teaching is found to effect significant shifts "from pure linguistic study of text to the study of language in use, from bottom-up via top-down to interactive approach, from prior knowledge-oriented approach to awareness-oriented approach" (Ivanov, 2009, p. 24).

Furthermore, the situation becomes more problematic in EFL reading classes where students "are often marginalized as readers; their goals in interacting with written texts are perceived to be primarily those of language learners" (Wallace, 1992, p. 62). Likewise, Fairclough (1992) also contends that not enough attention has been given to important social factors in language teaching that are related to language and power. This might be due to the pedagogical practices in EFL reading classes that focus only on "the propositional content" and do not pay attention to the underlying "ideological assumptions" embedded in the texts (Amari, 2015, p. 88).

To bridge the existing gap between theories of learning and CDA, researchers have called for the use of CDA as a practical framework in EFL classrooms for exploring the students' abilities of the inquisitive and reflective skills of the materials they are learning. Thus, like the findings of previous research that have shown the significant role that CDA plays in EFL research (see Al Ghazali, 2007; Hammond, 2006), recent studies have also concluded with the same observations where CDA is found to provide detailed insights into language use that communicate important messages embedded in the texts (see Amari, 2015; Hazaea & Alzubi, 2017). As for the significant impact of CDA on developing EFL students' critical thinking skills, results from EFL classes have reached the same conclusion (see Dar et al., 2010; Hashemi & Ghanizadeh, 2012; Rahimi, 2013).

To sum up, previous studies' findings emphasized the need to develop EFL learners' evaluative skills of online information by raising students' awareness of some critical discursive features. However, when looking at the literature, no study so far has attempted to explore the phenomenon in the Saudi EFL context. The present study addresses this limitation in the literature by investigating social media news stories to enhance Saudi EFL learners' digital awareness and critical reading skills. So, motivated by previous research findings, this study adopted a functional analytical framework to fully understand language in use, demonstrating an analysis that links language use to the elements required for meaning interpretation. These elements are known as the seven building blocks, which are used in this study to explain how misinformation functions in communication.

153

Yaseen Ali Azi, Sami Abdullah Hamdi and
Mohammed Ahmad Okasha

Theoretical Framework

This study is grounded in Gee's (2011, 2010) theory of the Seven Building Tasks. As Gee's theory states, "language-in-use is about saying-doing-being and gains its meaning from the game or practice it is part of and enacts" (2011, p. 11). This means that our understanding as researchers of language in use requires a comprehensive analysis that incorporates "what is being said, who is saying it and what they are trying to be or do", and different types of discourses involved in the process (Jaime, 2014, p. 274). Thus, our argument for the use of Gee's theory is supported by the fact that Gee's method provides a functional framework that connects language use with the factors necessary for the interpretations of the meanings. These factors are presented as seven-building tasks which are employed in this study to explicate the communicative functions of false news.

The seven-building tasks assume that language is used to perform some actions to build things in the world, such as warning and making requests. These tasks include *significance*, *practice*, *identity*, *relationships*, *politics*, *connection*, and *sign system and knowledge*. One or more of the seven-building tasks are assumed to be present in every actual language use.

Accordingly, a set of questions adapted from Gee's seven-building tasks (2010, 2011) to analyze discourse was designed. The questions were used to draw participants' attention to the discursive features of real language use of misinformation. Four multiple answers-questions were designed based on only four tasks: *significance*, *practice*, *identity*, and *relationships*. These tasks were thought more relevant to the readings since they were identified based on the subject matter of the readings. The researchers simplified the format and language of the questions so that participants could understand them.

Methods

Study Design

An experimental pre-post-test design was used in which an experimental and a control group participated before and after treatment. The participants were randomly assigned to the experimental and control groups. To examine if the participants exercise a critical approach toward the credibility of social media information, a reading test comprising false news stories was prepared. The reading test was projected on a smartboard; then, the participants were given the following instructions: (1) this is a reading test but is not graded, (2) the reading was taken from one of the messages exchanged on social media, (3) the participant has 45 minutes to finish the test. Following the pre-test, the participants attended a training program on critical reading of information on social media and they were tested again on the

same experiment to check if their reading skills improved. The control group did not receive any treatment and was tested again to compare their scores with the experimental group.

Research Context

The study was conducted in a public university setting located in the southern part of the Kingdom of Saudi Arabia where EFL undergraduates take a compulsory fifteen-weekly hour English course. The course aims to develop core language skills (listening, speaking, reading, and writing) to enable EFL undergraduates to communicate successfully with an emphasis on academic purposes.

Participants

The participants were about sixty male undergraduates studying English as a foreign language at the intermediate level based on the *Common European Framework of Reference for Languages* (CEFR- level B1). They were first-year college students whose ages were between 18 and 20 with Arabic as their first language. These students share similar characteristics: gender, age, and linguistic and cultural background. Two classes of 30 students each were conveniently selected. The two classes had the same instructor, course plan, and teaching hours. All participants consented before the experiment.

Intervention

The experimental group participated in a training program of 12 sessions over six weeks before the post-test. The program trained the participants in evaluating the news stories on social media. To check the source of the news/information, the researcher would ask and guide participants to verify if the news was published on other websites or platforms and whether such websites are run by institutions, organizations, or business entities. The participants were encouraged to see if the news was published professionally in which sufficient information about the source was given and if there were grammatical or spelling mistakes. The readings selected for the training comprised false information like those used for the reading test.

The researchers explained the four building tasks in more detail. For the significance-building task, the participants' attention was drawn to the words and phrases used to increase or decrease the significance of information, e.g., *apparently* and *of course*. The identity-building task introduced the participants to the use of language to enact or exhibit varying social identities, such as a doctor and journalist. Also, the practice-building task was explained, emphasizing training the participants on using language to enact several practices or activities such as writing and publishing news. Finally, the participants were familiarized with the

155

relationship-building task such as using language to project social relationships in formal and informal contexts.

The participants were also encouraged to go beyond the texts and think about social practices and relationships that authors of the false news exploit to get their message across. Furthermore, the participants were guided and reminded to use the worksheet's recommended procedures such as identifying the source information and the writer and whether the same information is published on other websites or platforms.

The program included further discussion to raise awareness about social media and the need to evaluate its content before using or sharing it. The researchers interacted with the participants and engaged in their learning, encouraging them to be independent, responsible, and more critical about unauthentic information on social media as informed citizens incorporating examples of issues and problems from different parts of the world.

Data Sources

The data were collected from pre- and post-reading tests. The reading test used in the experiment consisted of two parts: the first part comprised ten false news messages circulating on social media platforms (Twitter, WhatsApp, Facebook, and Instagram). The second part of the reading test was a short false news story of approximately 80 words debunked by Snopse.com (a fact-checking website). The selection of the materials in the reading test was based on whether it is widely circulated on social media and has a simple, straightforward language for EFL learners. As stated before, the participants in the two groups were not aware if the news was false or not.

A lesson plan (on teaching English) and a worksheet on identifying fake news adapted from the British Council (2019) were utilized along with the seven-building tasks (Gee, 2010, 2011). This lesson plan does not follow a specific model of information literacy but rather is concerned with the practical aspects (e.g., evaluating information and identifying/using reliable search tools) that are commonly addressed by several models. However, the focus was on the web and social media environments, including access, use, and share functionalities. The worksheet encouraged the participants to check the validity of the website or platform by asking five major questions such as "Where does the information come from?" and "When was the post put online?"

The statistic t-test was used to determine if there was a significant difference between the experimental and control groups before and after the treatment. A paired-samples *t*-test was employed to get means, standard deviations, and significances. The collected data from the pre- and post-reading tests were analyzed. For triangulation purposes, the paired-samples *t*-test was also used to compare the data and correlate the results. So, to decide whether there

156

are statically significant differences between the two groups before and after treatment, the paired-samples pre- and post-*t*-tests were conducted to the two groups at the four tasks (significance, activity, identity, and relationship).

Data Analysis & Results

The pre-reading tests were conducted on the experimental and control groups separately administered by the researchers. The participants' responses and scores were saved in tabular forms in a spreadsheet software. The same procedures were followed for the post-reading test. Descriptive statistics were performed using the software. Regarding the first part of the reading test, identifying ten news messages as true or false, the results showed that the participants of the experimental and control groups had difficulty identifying false news in the pre-test. However, the experimental group participants achieved significant progress in recognizing false news and applying all four tasks (significance, activity, identity, and relationship) in the post-test. On the other hand, the participants of the control group were generally unable to recognize false news in the post-test, though they improved in using the identity and relationship tasks. Table 1 below summarizes in percentages the participants' failure to identify false news before treatment, whereas Table 2 shows their progress after treatment.

Table 1. The Participants' Failure to Identify False News Pre-treatment

News #	Experimental Group	Control Group
N1	95%	92%
N2	80%	83%
N3	79%	77%
N4	57%	67%
N5	70%	75%
N6	84%	84%
N7	80%	84%
N8	84%	75%
N9	84%	84%
N10	84%	84%

Table 2. The Participants' Failure to Identify False News Post-treatment

News #	Experimental Group	Control Group
N1	25%	92%
N2	30%	60%
N3	25%	84%
N4	25%	84%
N5	30%	59%
N6	7%	92%
N7	30%	35%
N8	30%	25%
N9	50%	58%
N10	20%	60%

As to applying the four tasks (significance, activity, identity, and relationship) from the seven building tasks, both experimental and control groups were roughly homogenous in their lack of critical reading skills before the intervention. The participants responded to the questions of the second part of the reading test. These questions corresponded to the four building tasks; each of which was assigned one point. The participants' scores in the pre-tests and post-tests were recorded and saved. The statistical analysis was performed, and the following is a breakout of the participants' scores which *effective* indicates students' ability to apply the task.

Significance Task Pre-treatment

The paired-samples pre-*t*-test shows that both groups had similar mean scores. The standard deviation was also the same (1.31) for both groups and there was no statistically significant difference as demonstrated in Table 3 below:

Table 3. Significance Task Paired-samples Pre-t-test

Treatment		Mean	SD	SE
Experimental Group	Effective	2.00	1.31	0.16
Control Group	Effective	2.00		

Significance Task Post-treatment

The significance task paired-samples post-*t*-test demonstrates that the experimental group's participants achieved better progress than the control group. The experimental group's mean score was 5.50, while the control group's mean score was 2.50. The standard deviation was 3.50 and there was a significant difference between both groups in favor of the experimental group at a significance rate of 2.50 (see Table 4).

Table 4. Significance Task Paired-samples Post-t-test

Treatment		Mean	SD	SE
Experimental Group	Effective	5.50	3.54	2.50
Control Group	Effective	2.50		

Activity Task Pre-treatment

The paired-samples pre-*t*-test shows that both groups had similar mean scores. The standard deviation was also the same (1.41) for both groups and there was no statistically significant difference as demonstrated in Table 5 below:

Table 5. Activity Task Paired-samples Pre-t-test

Treatment		Mean	SD	SE
Experimental Group	Effective	2.30	1.41	0.16
Control Group	Effective	2.30		

Activity Task Post-treatment

The activity paired-samples post-*t*-test shows that the experimental group achieved noticeable progress in applying the activity-building task. There were significant differences between both groups in the post-test in favor of the experimental group where the significance rate was 4.00, as illustrated in Table 6.

Table 6. Activity Task Paired-samples Post-t-test

Treatment		Mean	SD	SE
Experimental Group	Effective	7.00	5.66	4.00
Control Group	Effective	5.00		

Identity Task Pre-treatment

The paired-samples pre-*t*-test shows that both groups had similar mean scores. The standard deviation was also the same 0.71 for both groups and there was no statistically significant difference as demonstrated in Table 7 below:

Table 7. Identity Task Paired-samples Pre-t-test

Treatment		Mean	SD	SE
Experimental Group	Effective	3.50	0.71	0.13
Control Group	Effective	3.50		

Identity Task Post-treatment

The paired-samples post-*t*-test of both groups shows little progress in favor of the experimental group, but this difference was not significant as shown in Table 8.

Table 8. Identity Task Paired-samples Post-t-test

Treatment		Mean	SD	SE
Experimental Group	Effective	6.50	0.71	0.50
Control Group	Effective	5.50		

Relationship Task Pre-treatment

Both the experimental and control groups were homogenous in the mean scores of the relationship-building task paired-samples pre-test. They were also similar in the standard deviation and there was no statistically significant difference between both groups (see Table 9).

Table 9. Relationship Task Paired-samples Pre-t-test

Treatment		Mean	SD	SE
Experimental Group	Effective	3.50	0.71	0.13
Control Group	Effective	3.50		

Relationship Task Post-treatment

As to the relationship paired-samples post-*t*-test, both groups achieved progress but the students in the experimental group advanced the control group participants as illustrated in Table 10.

Table 10. Relationship Task Paired-samples Post-t-test

Treatment		Mean	SD	SE
Experimental Group	Effective	9.00	2.83	2.00
Control Group	Effective	4.00		

The findings from the paired-samples pre-*t*-test at the four skills demonstrate that both experimental and control groups lack the critical reading skills needed when accessing news stories on social media. Before the treatment, the participants were not aware of the manipulated content as their main goal was to understand the text rather than to evaluate its content. However, there was an overall satisfactory level of improvement among the experimental-group participants to evaluate the credibility of social media news after the treatment compared to the control group. This improvement in the critical reading practices of these participants explicitly communicates to us as researchers and language teachers the significant role of effective classroom pedagogy in fostering critical thinking and critical reading skills in EFL classrooms. These participants developed critical perspectives to evaluate the text instead of accepting it as it is.

The differences between the experimental and control groups can be attributed to three factors: Language proficiency in which EFL learners in both groups vary in their reading skills which, consequently, accounts for their comprehension. The teaching methods during the intervention might not be effective for some participants. Naturally, some participants are not active in social life and social media, and thus, may not be interested in critical issues or trending topics. Additionally, other possible factors can be related to the fact that the participants in the two groups may not be aware of the format of the posts, which makes them more susceptible to being misinformed.

Discussion

Throughout the intervention, the participants were responsive and interactive in learning the strategies and techniques to check the validity of news stories. Their attachment to social

media attracted them to participate in this study actively and learn something new while, at the same time, allowing their digital literacies, voices, and ideas to grow (Jerasa & Boffone, 2021). They were aware of the spread of false news on social media, but they thought it was too difficult to recognize and that such topics were not part of their academic studies. This reaction was not unexpected since most undergraduates' familiarity with information literacy is confined to study skills (e.g., using libraries and online resources for academic purposes). Thus, it may be wise to adopt a more comprehensive model of information literacy that acknowledges the innovations of Web 2.0 and social media (Arafah & Hasyim, 2022; Karman, 2014; Mackey & Jacobson, 2011) and train individuals on a range of literacy perspectives.

One of the significant benefits of empowering students to evaluate news and information is maintaining responsible citizenship (Craft et al., 2016), and empowering students to act and make a difference (Delaney et al., 2022) which this study is thought to achieve. Similarly, the findings of this study call for incorporating critical media literacy pedagogy in classroom practices in which "media representation, power, and ideology" are important concepts to be integrated into teaching (Garcia et al., 2013, p. 110). In such classroom practices, teachers should encourage students to raise inquiries about media content and "to evaluate and analyze media messages, to reflect on the media they create, and to remain open to changing their minds as they take in new information and hear others' perspectives" (Rogow, 2011, p. 18).

Training students on the four building tasks complemented their learning to check the validity of news published on social media platforms. By asking questions from the worksheet about the source, date of publishing, and the writer/author, a reasonable amount of contextual information is created making it easier for subsequent discourse analysis using Gee's (2010, 2011) building tasks. Since the building tasks adopt a functional approach to language that prioritizes communication and social interaction, such as Halliday's (see Halliday & Mathiessen, 2014; Thompson, 2014), emphasis was placed on the meanings expressed by false news. Thus, engaging students in the larger social context by discussing current issues and trending topics at the local and international levels spark their enthusiasm to assume a more active role in evaluating news stories in circulation. It was remarkable to see improvement in using the post-test relationship task among the experimental and control groups. This improvement may be referred to memory effect "observer memory" and partly due to the students' efforts to carefully seek a better answer to the question.

Investigating the impact of information literacy and discourse analysis skills on EFL students' ability to verify social media information has provided us, as researchers and teachers, with important insights into EFL classroom pedagogy that need to be highlighted in EFL classroom research. Accordingly, results have shown that incorporating important pedagogical concepts in classroom practices such as critical media literacy can raise students' awareness and make them more prepared to evaluate textual materials with conceptual and

critical acumen. Like the findings of previous research (Amari, 2015; Hashemi & Ghanizadeh, 2012; Hazaea & Alzubi, 2017; Rahimi, 2013), incorporating skills from discourse analysis in classroom pedagogy can help to make students more active language learners to inquire about the credibility of knowledge instead of being passive learners.

There are two limitations to this study. Although the findings of this study show how EFL students' critical reading skills developed with the necessary training, they did not reveal what general evaluative skills students had before the intervention. A critical viewpoint was exhibited as a set of behavioral conditions toward the knowledge as it may have affected how the students approached the information. Yet, further research is needed to confirm whether the conceptual, more cognitive work was changed because of this intervention.

Conclusion

Recent advances in information and media have made it challenging to analyze and explore the validity and reliability of online texts as the authenticity of knowledge has become highly questionable. This study used information literacy and discourse analysis skills to improve EFL learners' critical reading skills to verify social media information. A reading test including false news was used to evaluate students' awareness of the credibility of social media information. The participants were divided into experimental and control groups. Although the results showed that the experimental and control groups' participants had difficulty identifying false news in the pre-test, the experimental group improved in applying all four tasks (significance, activity, identity, and relationship) in the post-test. The results reflect an urgent need to empower undergraduate students with information literacy and discourse analysis skills to deal with an ongoing flow of information online. Educational institutions should assume the responsibility of designing training programs on information literacy and discourse analysis skills for undergraduate students. A critical perspective of language use, through information literacy and discourse analysis skills, should help students respond to evolving world events and make informed decisions. Based on the results of this study, further research on digital discourse analysis should be encouraged.

References

163

Al Ghazali, F. (2007, February). Critical discourse analysis: How can awareness of CDA influence teaching techniques? Presented at TESOL Arabia, United Arab Emirates

Amari, F. Z. (2015). The role of critical discourse analysis in EFL teaching/learning. *Frontiers of Language and Teaching*, *6*, 87-93.

Arafah, B., & Hasyim, M. (2022). Social media as a gateway to information: Digital literacy on current issues in social media. *Webology*, *19*(1), 2491-2503.

Association of College & Research Libraries. (2000). *Information literacy competency standards for higher education*. American Library Association.

Association of College and Research Libraries & American Library Association (ACRL/ALA). (2001). *Objectives for information literacy instruction: A model statement for academic librarians*. ACRL/ALA.

Bawden, D., & Robinson, L. (2009). The dark side of information: Overload, anxiety and other paradoxes and pathologies. *Journal of Information Science, 35*(2), 180–191.

Bouvier, G. (2015). What is a discourse approach to Twitter, Facebook, YouTube and other social media: Connecting with other academic fields. *Journal of Multicultural Discourses, 10*(2), 149–162.

British Council, The. (2019). *Fake news: Can you spot it?*

Celce-Murcia, M., & Olshtain, E. (2000). *Discourse and context in language teaching: A guide for language teachers*. Cambridge University Press.

Chartered Institute of Library Information Professionals. (2018). *CILIP definition of information literacy 2018*.

Cook, G. (1989). *Discourse*. Oxford University Press.

Cots, J. M. (2006). Teaching 'with an attitude': Critical Discourse Analysis in EFL teaching. *ELT Journal, 60*(4), 336-345.

Craft, S., Ashley, S., & Maksl, A. (2016). Elements of news literacy: A focus group study of how teenagers define news and why they consume it. *Electronic News*, *10*(3), 143–160.

Dar, Z. K., Shams, M. R., & Rahimi, A. (2010). Teaching reading with a critical attitude: Using critical discourse analysis (CDA) to raise EFL university students' critical language awareness (CLA). *International Journal of Criminology and Sociological Theory, 3*(2).

Delaney, C. J., Bacon, H. R., & Matson, S. F. (2022). From fake news to racism: A study of change in a reading intervention class. *Journal of Adolescent & Adult Literacy*, 65(5), 419-429.

Fairclough, N. (Ed.) (1992). *Critical language awareness*. Longman.

Foucault, M. (1972). *The archaeology of knowledge and the discourse on language*. Pantheon Books.

Garcia, A., Seglem, R., & Share, J. (2013). Transforming teaching and learning through critical media literacy pedagogy. *Learning Landscapes, 6*(2), 109–124.

Gee, J. P. (2010). *How to do discourse analysis: A toolkit*. Routledge.

Gee, J. P. (2011). *An introduction to discourse analysis: Theory and method*. Routledge.

Gretter, S., & Yadav, A. (2016). Computational thinking and media & information literacy: An integrated approach to teaching twenty-first century skills. *TechTrends, 60*(5), 510–516.

Haider, J., & Bawden, D. (2007). Conceptions of "information poverty" in LIS: A discourse analysis. *Journal of Documentation, 63*(4), 534–557.

Halliday, M. A. K., & Matthiessen, C. M. (2014). *Halliday's introduction to functional grammar*. Routledge.

Hamdi, S. A. (2018). *The impact of ideology on lexical borrowing in Arabic: A synergy of corpus linguistics and CDA* [Unpublished doctoral dissertation]. The University of New Mexico.

Hammond, K. (2006). More than a game: A critical discourse analysis of a racial inequality exercise in Japan. *TESOL Quarterly*, 545-571.

Hashemi, M. R., & Ghanizadeh, A. (2012). Critical discourse analysis and critical thinking: An experimental study in an EFL context. *System, 40*(1), 37–47.

Hazaea, A. N., & Alzubi, A. A. (2017). Effects of CDA Instruction on EFL Analytical Reading Practices. *Novitas-ROYAL (Research on Youth and Language), 11*(2), 88-101.

Hedemark, A., Hedman, J., & Sundin, O. (2005). Speaking of users: On user discourses in the field of public libraries. *Information Research: An International Electronic Journal, 10*(2), 2.

Heok, A. K. H., & Luyt, B. (2010). Imagining the Internet: Learning and access to information in Singapore's public libraries. *Journal of Documentation, 66*(4), 475–490.

Ivanov, S. (2009). Discourse Analysis in EFL Reading (Dissertation, Malmö högskola/Lärarutbildningen). Retrieved from https://urn.kb.se/resolve?urn=urn:nbn:se:mau:diva-31070

Jaime, J. A. (2014). *The talk of unwed adolescent fathers of Mexican origin: A discourse analysis*. ETD Collection for the University of Texas at El Paso.

Jansen, I. (2008). Discourse analysis and Foucault's archaeology of knowledge. *International Journal of Caring Sciences, 1*(3), 107.

Jerasa, S., & Boffone, T. (2021). BookTok 101: TikTok, digital literacies, and out-of-school reading practices. *J Adolesc Adult Liter, 65*(3), 219– 226.

Kapitzke, C. (2003a). Information literacy: A positivist epistemology and a politics of outformation. *Educational Theory, 53*(1), 37–53.

Kapitzke, C. (2003b). Information literacy: A review and poststructural critique. *Australian Journal of Language and Literacy, 26*(1), 53–66.

Karman, K. (2014). Social media: Between freedom and exploitation. *Jurnal Studi Komunikasi dan Media, 18*(1), 75–88.

Limberg, L., Sundin, O., & Talja, S. (2012). Three theoretical perspectives on information literacy. *Human IT: Journal for Information Technology Studies as a Human Science, 11*(2), 93–130.

Mackey, T. P., & Jacobson, T. E. (2011). Reframing information literacy as a metaliteracy. *College & Research Libraries, 72*(1), 62–78.

Olsson, M. (2009). Rethinking our concept of users. *Australian Academic & Research Libraries, 40*(1), 22–35.

Pawley, C. (2003). Information literacy: A contradictory coupling. *Library Quarterly, 73*(4), 422–452.

Rahimi, S. (2013). Promoting the reading comprehension of high-school students through critical discourse analysis. *Modern Journal of Language Teaching Methods, 3*(4), 56.

Rogow, F. (2011). Ask, don't tell: Pedagogy for media literacy education in the next decade. *Journal of Media Literacy Education, 3*(1), 16–22.

Talja, S. (1997). Constituting "information" and "user" as research objects: A theory of knowledge formations as an alternative to the information man-theory. In P. Vakkari, R. Savolainen, & B. Dervin (Eds.), *Information seeking in context* (pp. 67–80). Taylor Graham.

Tandoc Jr., E. C., Lim, Z. W., & Ling, R. (2018). Defining fake news: A typology of scholarly definitions. *Digital Journalism, 6*(2), 137–153.

Thompson, G. (2014). *Introducing functional grammar*. Routledge.

Tuominen, K., Savolainen, R., & Talja, S. (2005). Information literacy as a sociotechnical practice. *Library Quarterly, 75*(3), 329–345.

UNESCO. (2005). *Media and information literacy*.

Wallace, C. (1992). Critical literacy awareness in the EFL classroom. In N. Fairclough (Ed.), *Critical Language Awareness* (pp. 59-92). Longman.

Wardle, C. (2017). Fake news. It's complicated. *First Draft News*. Retrieved from https://firstdraft-news.org/articles/fake-news-complicated/

Wodak, R., & Meyer, M. (Eds.). (2001). *Methods of critical discourse analysis*. Sage Publications.

166