UTILIZING CRITICAL DISCOURSE ANALYSIS ON DEVELOPING STUDENTS' DIGITAL LITERACY SKILLS

by

Irene Brainnita Oktarin*
Department of Management, STIE Gentiaras, Indonesia
irenebrainnita.ib@gmail.com

Tommy Hastomo
English Department, STKIP PGRI Bandar Lampung, Indonesia
tomhas182@gmail.com

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*corresponding author

Abstract:
In today's digital era, students need digital literacy skills to critically navigate, evaluate, and analyze a large amount of online information. Digital literacy uses digital technology to obtain, evaluate, create, and communicate information in various contexts. This research aimed to investigate the impact of CDA in improving students' digital literacy, explore the role of CDA in enhancing students' digital literacy, and identify the lecturer's strategy in using CDA for enhancing students' digital literacy. This current study used classroom action research as a research design, which consisted of two cycles. The participants in this research were college students at STIE Gentiaras Lampung. The instruments of this research consisted of tests and non-tests. Quantitative data was taken from students' digital literacy tests, and qualitative data was taken from observation and interviews. The researchers employed one sample t-test using SPSS version 23 to analyze the mean score improvement of students' digital literacy ability. Meanwhile, thematic analysis was conducted for analyzing qualitative data. The findings show that CDA can improve students' digital literacy. Moreover, CDA has five roles in enhancing students' digital literacy: fostering critical thinking, promoting media literacy, enhancing textual analysis, encouraging social awareness, and cultivating responsible digital citizenship. The last finding is that the teacher employed three strategies to improve students' digital literacy: acquainting them with the fundamental principles of CDA, selecting diverse texts for comprehensive CDA analysis, and encouraging classroom discussions. According to the findings, policymakers can consider integrating CDA into educational curricula to enhance students' digital literacy skills.

Keywords: Action Research, CDA, Digital Literacy

Abstrak:
Di era digital saat ini, mahasiswa membutuhkan keterampilan literasi digital untuk secara kritis menavigasi, mengevaluasi, dan menganalisis sejumlah besar informasi online. Literasi digital menggunakan teknologi digital untuk mendapatkan, mengevaluasi, menciptakan, dan berkomunikasi informasi dalam berbagai konteks. Penelitian ini bertujuan untuk menyelidiki dampak CDA dalam meningkatkan literasi digital mahasiswa, mengekspor peran CDA dalam meningkatkan literasi digital mahasiswa, dan mengidentifikasi strategi dosen dalam menggunakan CDA untuk meningkatkan literasi digital mahasiswa dalam pembelajaran Bahasa Inggris. Penelitian ini menggunakan desain penelitian tindakan kelas yang terdiri dari dua siklus. Partisipan dalam penelitian ini adalah mahasiswa perguruan tinggi di STIE Gentiaras Lampung. Instrumen penelitian ini terdiri dari tes dan non-tes. Data kuantitatif

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In today's digital era, students need digital literacy skills to critically navigate, evaluate, and analyze a large amount of online information. Digital literacy uses digital technology to obtain, evaluate, create, and communicate information in various contexts (Blue, 2014). However, many students do not have digital literacy skills. Therefore, they cannot understand the information presented critically. Incorporating digital literacy into the education curriculum can support students in developing essential skills in distinguishing credible information from misinformation. Thus, the benefits of digital literacy can play a critical role in student's academic and personal development. Mastery of digital literacy can also pave the way for students to be more informed and responsible (McGarry, 2019).

Critical Discourse Analysis (CDA) is a text analysis method that examines how language is used to reproduce social relations and inequalities (Nasution et al., 2022). CDA is essential in analyzing and criticizing a person's way of speaking in various forms, including digital media. Students can identify the ideologies, assumptions, and biases found in digital sources by applying CDA to digital media. Moreover, CDA can help them understand and critically analyze digital information. Students can become proficient in recognizing digital text forms indicated as hoaxes by incorporating CDA into classroom learning. CDA can help students think, be intelligent, and be critical to avoid processing wrong information. Therefore, there is an increased in-depth understanding of digital literacy skills so that students can become content creators and consumers of digital content who are more responsible and ethical (Jafari, 2021).
According to the explanation above, there is a need to analyze the role of CDA in digital learning in the university environment. Lecturers can facilitate students' use of CDA to critically analyze digital media to understand and process various existing information responsibly (Finkelstein, 2019). On the other hand, using CDA in learning digital literacy can also help students develop the power dynamics contained in digital media and know the influence of CDA in processing the information obtained (Hazaea & Hazaea, 2021). Educators can equip students with reliable digital literacy skills by applying the CDA method in university learning. Using CDA can foster media literacy and empower students to become active participants in shaping public discourse through their digital engagement. On the other hand, using CDA in digital learning can help students adapt and respond to the growing digital information ecosystem.

The increasing importance of digital media in everyday life is urgent for CDA research addressing improving students' digital literacy skills (Alakrash et al., 2021). Students need digital literacy skills to process easily accessible information and think critically (Mosley Wetzel & Rogers, 2015). However, many students do not have this digital literacy ability (Durriyah & Zuhdi, 2018). Hence, they cannot make sense of the data and make informed decisions. Educators can overcome this by integrating a CDA-based approach into learning so students can process digital information with sharpness and critical thinking. Students can better distinguish between credible sources and misinformation, contributing to a more informed and responsible digital community. In addition, using CDA to improve students' digital literacy skills can encourage students to become active and ethically engaged online participants.

The urgency of researching the role of CDA in enhancing digital literacy skills among students lies in the growing importance of digital media in our daily lives (Alakrash et al., 2021). With the exponential growth of digital media and the ease of access to vast amounts of information, it is becoming increasingly necessary for individuals to possess solid digital literacy skills (Istiara et al., 2023). However, many students lack these skills, making them unable to comprehend the information and fully make informed decisions (Ferguson & Rollins, 2020). Facilitating students with digital literacy skills through CDA can help students become more confident and improve critical acuity. The university also fosters a generation of
digitally savvy individuals who differentiate and evaluate information effectively to avoid the spread of misinformation and disinformation.

Every individual must develop digital literacy skills as digital media advances (Jalil et al., 2021). The rapid development of digital media can lead to misinformation if students do not have digital literacy skills to process existing information. Thus, there is an interest in examining the role of CDA in improving digital literacy skills. However, many educators are unfamiliar with effective teaching methods to enhance digital literacy skills because learning digital literacy is new (Esquivel, 2019). This study identifies the role of CDA as an effective learning strategy to provide insight and prepare students to process complex digital information. The goal of study supports students and authors to further share their thought in framework of industrial revolution 4.0 where publication in English has become important tool to hold (Turmudi, 2020).

Meanwhile, several studies have investigated the role of CDA in improving literacy skills among university students. Rogers and Schaanen (2013) conducted a literature review analyzing 76 empirical studies and theoretical papers regarding the role of CDA in literacy studies between 2004 and 2012 (Rogers & Schaanen, 2014). The review identified trends in topics related to literacy studies, including bilingual education, assessment, curricular design, content textbooks, professional development, teacher preparation, academic writing, and education policy. Esquivel (2019) conducted a case study that used critical literacy practices to examine the discourse power of bilingual Latin students in the classroom (Esquivel, 2019). Hazaea and Abduljalil (2021) propose a creative media literacy teaching method that focuses on global issues using CDA and four perspectives on media and discourse in the context of globalization (Hazaea & Hazaea, 2021).

According to the previous discussion, previous research was limited in its analysis of the use of CDA in the EFL context. No study discusses the impact, role, and strategy of using CDA in improving students' literacy skills so that they can critically analyze information related to world issues in a global context. Therefore, this present research has three research questions, namely:

1. What is the impact of using CDA in improving students' literacy skills?
2. What is the role of CDA in increasing students' digital literacy?
3. What strategies do lecturers use to incorporate CDA and literacy practice in EFL classes?

**METHOD**

**Design**

The researchers utilized classroom action research as the research method used in this study. The research design used consisted of several cycles, where one cycle consisted of four steps: planning, action, observation, and reflection (Mason, 2010). The researcher identified some areas for improvement, formulated plans to address problems, implemented strategies, observed results, and reflected on results to determine the effectiveness of CDA implementation. They used another cycle to perfect CDA implementation because there was no improvement in students’ digital literacy abilities.

**Participant**

This current study used one class from STIE Gentiaras, which consisted of 30 students who were English as a Foreign Language (EFL) learners. They are Accounting Major students at STIE Gentiaras. The researcher employed a total sampling technique to determine the research sample because this research focused on the role of CDA in improving digital literacy skills among EFL students in Accounting Majors.

**Instrument**

In this research, the researcher collected qualitative and quantitative data. Quantitative data were collected from the test. This test was the Digital Literacy Assessment Test in the EFL context. The scoring rubric for this instrument consisted of Information Retrieval and Online Search, Critical Evaluation of Online Sources, Digital Communication and Social Media, Privacy and Security Awareness, and Responsible Digital Citizenship. The form of this test was a multiple choice test. Meanwhile, qualitative data were collected from class observation and interviews.

**Data collecting technique**

This study used tests, class observations, and interviews to collect research data. The test was used to collect quantitative data before and after using CDA in EFL learning. Class observations assessed students' digital literacy skills and identified lecturers' learning strategies for implementing CDA in EFL learning. Interviews were used to collect qualitative data about the role of CDA in improving students' digital literacy skills and to identify lecturers' learning strategies in implementing CDA in EFL learning.
Oktarin and Hastomo (2024)

Data analysis technique

The mixed method was a technique used by researchers to analyze research data. A digital literacy test was used to conduct quantitative statistical analysis, which helped answer the first research goal. Meanwhile, interviews and class observations were used to identify recurring patterns and themes that help respond to the second and third research goals. The researchers employed one sample t-test using SPSS version 23 to analyze the mean score improvement of students' digital literacy ability. Meanwhile, thematic analysis was conducted to analyze qualitative data. In addition, authors also employ model online automatic citing using Mendeley Cite (Turmudi, 2020).

RESULT AND DISCUSSION

Result

The Impact of Using CDA in Improving Students' Literacy Skills

There were two cycles in this research. There were two researchers in this research. The first researcher acted as a lecturer who taught English using CDA, and the second was an observer who assisted the teacher in collecting the data. There were some steps for teaching CDA in this action research that consisted of planning, acting, observing, and reflecting. In the planning stage, researchers collaborated to design digital literacy enhancements in comprehensive English learning through CDA. Meanwhile, lecturers integrated various CDA principles into English learning while experiencing carefully documented class interactions and student engagement. This iterative process allowed for thorough reflection so the team could refine their approach and help students improve their digital literacy skills.

In the first cycle, the lecturer taught English using the CDA approach to improve students' digital literacy skills. There were several steps in this learning. The lecturer introduced the concept of CDA in learning English, especially in digital literacy material listed in the curriculum. Furthermore, the lecturer familiarized students with CDA principles and helped them uncover hidden meanings and power dynamics in digital media. In the next stage, lecturers encouraged students to apply CDA techniques in critically evaluating language and the assumptions underlying various online sources. After that, the lecturer facilitated class discussions and debates based on student analysis. Procurement of digital literacy projects was the next stage, where this stage was evidence of the practical

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Oktarin and Hastomo (2024) implementation of CDA in real-world contexts. After that, the lecturer provided constructive feedback to students so that they could improve their analytical skills and understand the concept of CDA. Procurement of pre-tests and post-tests, project assessments, and qualitative feedback were the next steps taken to evaluate student's progress in learning. Finally, lecturers promoted the development of digital literacy to encourage students to become digitally literate individuals.

Table 1. The Improvement of Mean Score of Students' Digital Literacy Ability

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cycle 1</td>
<td>65.32</td>
<td>30</td>
<td>6.32</td>
<td>1.10113</td>
</tr>
<tr>
<td>Cycle 2</td>
<td>85.48</td>
<td>30</td>
<td>3.81</td>
<td>.66838</td>
</tr>
</tbody>
</table>

The findings show that students' digital literacy ability score was 65.32. The researchers continued the second cycle because the results did not achieve the learning target. Therefore, the lecturer continued employing CDA to enhance the students' digital literacy skills through ongoing teaching. After finishing the second cycle, the mean score of students was 85.48. It means that CDA can improve students' digital literacy because the mean score increased by 20 points, indicating a significant improvement in students' digital literacy skills. Applying CDA principles allowed students to navigate better, critically evaluate, and interpret online information, empowering them to become more discerning and responsible digital citizens.

The Role of CDA in Improving Students' Literacy Skills

CDA plays an essential role in increasing student literacy because CDA encourages students to think critically by analyzing various forms of text, including written, spoken and digital media. CDA was an approach that could help students examine how language was used to shape and reproduce social relations, power structures, and ideologies. CDA could significantly benefit students in several ways when applied in an educational context.
After conducting observations and interviews with the lecturer and students, the researchers conducted a thematic analysis examining patterns in research data. Researchers encoded the data and reported the various ways to arrange these patterns in a thematic structure. Based on the thematic analysis, the researchers found that CDA played four crucial roles in increasing student digital literacy. First, CDA fostered critical thinking skills by encouraging students to question language and narratives in texts. Second, CDA promoted media literacy by affirming credible and reliable information. Third, CDA improved students' textual analysis. Finally, CDA encouraged social awareness so that students could uncover language reflections.

Lecturers' strategy in using CDA for improving students' digital literacy

Researchers applied thematic analysis to determine what strategies lecturers used to use CDA to improve students' digital literacy skills. Thematic analysis was used to analyze data obtained from interviews and class observations. Based on this analysis, it was found that lecturers used three strategies in implementing CDA to improve students' digital literacy skills. First, the lecturer introduced CDA to students so that they could recognize the principles used in implementing CDA and enhance their digital literacy skills. Second, the lecturer applied a text selection and analysis strategy to ask students to apply careful and thorough curation in analyzing various texts. Finally, lecturers actively promote class discussion so students can exchange insights and interpretations from CDA analysis to create a collaborative learning atmosphere.

Discussion

The impact of using CDA in improving students' literacy skills
According to the findings above, CDA significantly improved students' digital literacy skills. This statement is supported by the results of the mean score in cycle one and cycle 2. In cycle one, the mean score was 65.32; in cycle two, it experienced a significant increase, reaching 85.42. This increase in the mean score illustrated the successful integration of CDA as an instructional approach to improving students' digital literacy skills. Based on class observations and in-depth interviews, four reasons underscore the impact of CDA in increasing student digital literacy: deeper textual understanding, identification of bias and manipulation, enhanced critical thinking, and development of media literacy.

First, the lecturer encouraged students to explore the ins and outs beyond the superficial layers of text and digital media by applying CDA in learning English. Based on the information obtained, CDA could help students uncover hidden meanings, underlying ideologies, and complex power dynamics. A deeper analytical approach could enrich their understanding of digital content and foster students' capacity to interpret meaning. Students could develop persuasive, retrospective strategic and narrative construction skills commonly used in digital communication. As a result, CDA could provide students with the critical intelligence needed to evaluate information from multiple perspectives and make sound judgments about the credibility and intent of digital sources. Therefore, CDA could cultivate in-depth textual insights beyond passive consumption, enabling students to engage with digital content more innovatively and intellectually enrichingly (Rahimi & Sharififar, 2015).

Second, CDA could help students become proficient at differentiating biases, uncovering hidden agendas, and deciphering the manipulative language intricately intertwined in the fabric of digital media. Students could be protected from misinformation traps by honing the skills above. Students could critically digest digital information to identify and deconstruct persuasive tactics. This sharpness enhanced the ability to filter the various narratives presented and increased resistance to the impact of distorted or inaccurate content. Therefore, students could navigate the complex digital media landscape, make informed decisions, and contribute to a more thoughtful and knowledgeable online community (Al-Issa, 2015).

Third, students get the opportunity to experience intellectual development because they apply the strategic principles of CDA. This principle empowered students to think critically to integrate assumptions, identify propaganda fine threads, and navigate complex networks from various points of view in digital texts. These activities could foster and
Oktarin and Hastomo (2024)

strengthen students' critical thinking capacity to think critically about the digital content they acquire. In addition, students could also develop cognitive abilities in evaluating information based on high supervision so that their involvement with the digital world (Nasution et al., 2022)

Fourth, CDA could help students develop media literacy to dissect and understand the complex interactions of visual and linguistic strategies intrinsic to digital media. Students could decode the image, design, and language choices hidden beneath the surface. In addition, students could also learn to identify various categories of news that aim to influence opinion to sift through the vast online content with a critical eye. Moreover, CDA could equip students to navigate the intricate webs of biases and ideologies in digital communication by cultivating awareness of the socio-cultural context that shaped media production (Brown, 2019). As a result, they can become savvy consumers and responsible media creators, contributing to a more informed and thoughtful online discourse.

In conclusion, CDA could enhance students' digital literacy for several reasons. Students were empowered to explore depth beyond the superficial layers of text and digital media, uncovering hidden meanings through CDA. The use of CDA improved students' ability to evaluate digital content critically. Simultaneously, CDA equipped students with a sharp analytical lens to identify bias and manipulative language in digital media and fortify them from misinformation. In addition, students learnt to question assumptions and navigate various perspectives effectively. Finally, CDA was a tool that guided students in developing digital literacy skills because they could apply visual and linguistic decomposition strategies in digital media.

The role of using CDA in improving students' literacy skills

According to the findings, CDA plays four critical roles in increasing student digital literacy. First, CDA facilitated students to question language and narratives in texts to develop necessary thinking skills. Second, CDA promoted media literacy by affirming credible and misleading information. In addition, CDA also helped students interpret language choices, rhetoric, and meaning in various forms of media. Finally, CDA encouraged students' social awareness to reveal language reflections about societal norms and inequalities.

The application of CDA in learning English improved students' critical thinking skills. CDA acted as a catalyst for questioning, dissecting, and revealing the complex layers of
meaning embedded in digital content. In this activity, students learnt more deeply about the underlying motivations, intentions, and ideologies that shaped how digital information is used. In addition, students cultivated intellectual curiosity that triggered their pursuit of holistic understanding. Thus, students formed opinions that referred to a comprehensive understanding of the essence of the content and aligned their perspectives with the nuances of the discourse. Therefore, CDA is essential in encouraging students to think critically, learn the ins and outs of language, and go beyond surface-level interpretations in digital texts to shape them into wise and informed students (Kim, 2019).

CDA’s impact on improving media literacy was becoming increasingly profound in this modern era. Students embarked on a transformative journey that equipped them with the understanding needed to navigate the complex landscape of digital content once they had mastered CDA principles. In addition, students could distinguish between credible and well-researched sources and sources veiled by bias or misinformation. Thus, students could research the validity, accuracy, and objectivity of the content they encountered. On the other hand, CDA could empower students to become informed and responsible users of digital information. Therefore, students increased their media literacy skills and enhanced their capacity to engage wisely with the various data obtained (Knight et al., 2020).

Furthermore, integrating CDA into educational practice can improve students’ textual analysis skills. Students developed arguments beyond words when mastering textual analysis through CDA. They distinguished the interaction between language and context and recognized visual cues, metaphors and cultural references contributing to messages. Moreover, CDA helped students decode complex language techniques and understand how texts convey ideas across various media. These skills enriched understanding of content and facilitated students to interact critically with multiple media sources, helping them navigate the complexities of modern communication with an informed perspective (Hazaea & Hazaea, 2021).

Moreover, CDA enhanced students’ social awareness. Students could uncover the relationship between language and societal norms by studying complex languages. Using CDA, students were sensitive to how language reflects the power of culture. Moreover, when analysing language choices, students identify hidden biases, assumptions, and privileges in digital texts. This prompted them to interrogate implied messages and engage critically, recognizing how language reinforces hierarchies or challenges paradigms. CDA empowered
students to critically analyze the social implications of language use. It enriched their understanding of society and helped in conversations about diversity and inclusion. In conclusion, students can encourage students' social awareness by using CDA in an educational context (Breakstone et al., 2018).

**Lecturer's Strategy in Using CDA for Improving Students' Digital Literacy**

In teaching, lecturers apply three main strategies based on the findings and data analysis. The first is an introduction to CDA, in which the core principles of CDA are presented to students with an emphasis on its role in enhancing digital literacy and critical thinking skills. The second strategy is text selection and analysis, in which students carefully curate various texts for in-depth examination using CDA techniques to uncover the underlying meanings and ideologies. Lastly, through facilitated discussion, students can participate in a class dialogue, which allows for the exchange of insights and interpretations derived from their CDA analysis.

"Introducing CDA" was a strategy that encouraged lecturers to initiate students into CDA excitingly. Lecturers could explain various principles in CDA implementation to explain the complex network of guides and the importance of these principles in developing students' digital literacy skills. Students learnt how to deal with the complex interactions between meaning, power, and language in digital resources. After mastering the basic concepts of CDA, students can explore the layers of language that often hide the dynamics of meaning, power, and hidden language in digital communication (Hunt & MacPhee, 2020). In addition, this strategy could help students analyze narratives in digital discourse from a critical perspective.

The lecturer used the "Text Selection and Analysis" strategy to search for various text types as a student exploratory tool in this CDA research. Lecturers carefully selected multiple forms of text, including writing, visual media, digital narratives, and interactive platforms, that reflected the diversity of digital communications. Students could explore various complex things in various digital texts by using CDA. Thus, students' digital literacy could increase because they could reveal multiple items hidden in digital textbooks (Brown, 2019).

"Facilitated Discussion" is the final strategy lecturers use to improve students' digital
literacy skills. Students can develop discussion skills to increase their insights and digital literacy skills. In this strategy, students can jointly exchange ideas and thoughts about their CDA results to analyze the text. In this strategy, lecturers create an environment that supports increased curiosity and critical thinking to speak from many perspectives. Students can exchange ideas, opinions, assumptions, and insights in discussion sessions. Thus, discussions can increase students' understanding of CDA and improve students' digital literacy skills (Esquivel, 2019).

CONCLUSION AND IMPLICATION

Conclusion

According to the findings and discussion above, the researchers concluded that CDA can improve students' digital literacy. Moreover, CDA played a pivotal role in enhancing students' digital literacy by fostering critical thinking, promoting media literacy, enhancing textual analysis and encouraging social awareness. Meanwhile, the lecturer employed three strategies to improve students' digital literacy: acquainting them with the fundamental principles of Critical Discourse Analysis (CDA) and its impact on digital literacy and critical thinking improvement, selecting diverse texts for comprehensive CDA analysis to uncover underlying meanings, and encouraging classroom discussions to promote collaborative learning through insights gained from CDA analyses.

Limitation

This study only used one class as the research sample, so the data obtained were limited. In addition, only two variables were used, namely CDA and digital literacy. Meanwhile, action research was a research design that was used because researchers had limited time in terms of time and number of researchers. This study suggests that future researchers should further explore the effectiveness of CDA through its use in experimental research designs. This experiment will provide a structured framework for evaluating the causal relationship between CDA and improving digital literacy. Adding other variables, such as different types of digital media platforms or content genres, can provide insight into the impact of variations on CDA on various aspects of digital literacy. To make the findings more general, involving a more extensive and diverse population would provide a broader view of
the influence of CDA across different groups and educational contexts. These steps can assist in understanding the CDA’s more holistic role in developing critical digital literacy skills and the implications for education and society.

**Implication**

Policymakers may consider integrating CDA into educational curricula to enhance students' digital literacy skills. Therefore, students can be better prepared to assess online information critically. This approach can also contribute to the students becoming informed and responsible students.

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**BIO-PROFILE:**

**Irene Brainnita Oktarin** earned her bachelor's degree from Lampung University and her master's degree from Sebelas Maret University. She works as an English lecturer at STIE Gentiaras. You can contact her at irenebrainnita.ib@gmail.com

**Tommy Hastomo** works as an English lecturer at STKIP PGRI Bandar Lampung. His expertise is in ELT, educational technology, and linguistics. His email is tomhas182@gmail.com
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