

Unveiling the digital classroom: Exploring students' perspectives on engaging online discussions in English language education at a private university in Yogyakarta

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ABSTRACT

The integration of technology in education has transformed the teaching and learning of the English language. Online discussions had gained significant attention due to their potential to enhance students' linguistic proficiency, critical thinking skills, and overall engagement. However, there was a lack of research on students' perspectives on engaging in online discussions specifically within the context of English Language Education departments at private universities in Yogyakarta. This study aimed to address this gap by exploring students' experiences, perceptions, and challenges when participating in online discussions at a private university in Yogyakarta. The research investigated the benefits, drawbacks, and challenges encountered by students in online group discussions. A qualitative research methodology was employed, and data was collected through interviews with five English education students. The findings revealed that engaging in online discussions offered benefits such as increased interest, flexibility, improved preparation and performance, and enhanced writing skills. However, limitations included the loss of an authentic discussion experience, inadequate acquisition of detailed information, and frustration due to a lack of responses and comments. Challenges faced by students included low internet connection. The study contributed to the existing literature by shedding light on students' perspectives and informing pedagogical practices in the specific context of English Language Education in Yogyakarta's private universities.



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1. Introduction

The introduction of technology has revolutionized the field of education, specifically the teaching and learning of the English language. Due to its potential to improve students' linguistic proficiency, critical thinking skills, and overall engagement, the incorporation of online discussions into language education has garnered considerable attention in recent years (Anshari et al., 2016; Gillett-Swan, 2017; Hernández & Gómez, 2022). As departments of English Language Education acclimate to the shifting educational landscape, it becomes essential to investigate students' perspectives on engaging online discussions in order to inform pedagogical practices and maximize the benefits of this digital medium.

Numerous studies on the use of online discussions in language education have yielded valuable insights into their effects on students' learning experiences. For instance, Chen and Fu (2017) investigated the advantages of online discussions for enhancing students' oral English as a second language proficiency. They discovered that online discussions promoted meaningful interactions and boosted students' confidence in expressing their ideas. Similarly, Smith and Johnson (2019) investigated the impact of online discussions on the critical thinking skills of English language learners. According to their findings, online discussions promoted higher-order thinking and encouraged students to evaluate and analyze diverse perspectives.

Although previous studies have shed light on the benefits of online discussions in language education, there is a significant gap in the literature regarding students' perspectives on engaging in these digital interactions in the context of English Language Education departments at private universities in Yogyakarta. This knowledge gap underscores the need for additional research in order to acquire a comprehensive understanding of students' perceptions, experiences, and challenges when participating in online discussions in this particular setting.

Existing literature focuses predominantly on online discussions in general language learning contexts (Almahasees, Husienat, & Husienat, 2022; Faggiano & Fasanella, 2022), with limited focus on the context of English Language Education departments at private universities in Yogyakarta. Therefore, there is a lack of knowledge regarding how students in this context perceive and participate in online discussions. In addition, while previous research has examined the benefits of online discussions, there is a paucity of studies investigating the potential challenges and disadvantages of this digital medium. Understanding the potential limitations of online discussions can provide educators with valuable insights for devising strategies to mitigate these obstacles and optimize the student learning experience (Ferri, Grifoni, & Guzzo, 2020).

This study seeks to address the aforementioned voids by investigating students' perspectives on engaging online discussions in the English Language Education department of a Yogyakarta private university. The researchers has formulated the research queries that will serve as a framework for this study. The subsequent research issues are:

1. What are the benefits perceived by students when engaging in online discussions?
2. What are the drawbacks perceived by students when engaging in online discussions?
3. What challenges do students encounter when participating in online discussions?

By delving into students' experiences, perceptions, and challenges, this study seeks to contribute to the existing literature and inform pedagogical practices within this specific educational context.

2. Literature Review

Online discussions (OD) are now recognized as a valuable instrument in language education, providing numerous advantages for students' language proficiency and critical thinking skills (Chunhare & Jadhav, 2022). This section examines previous research on the benefits of online discussions in language learning contexts, followed by a discussion of the voids in the literature.

Several studies have investigated the effect of online discussions on the oral proficiency of students. Chen and Fu (2017) conducted a study on the benefits of online discussions for developing second-language oral proficiency. The researchers discovered that online discussions facilitated meaningful interactions among students, allowing them to convey their ideas with greater assurance. In a similar vein, Johnson and Smith (2018) examined the effects of online discussions on the speaking abilities of students and reported improvements in fluency, vocabulary, and pronunciation.

Online discussions have been shown to enhance students' critical thinking skills in addition to their oral proficiency. Smith and Johnson (2019) investigated the influence of online discussions on critical thinking in English language classrooms. According to their research, online discussions promoted higher-order thinking by encouraging students to evaluate and analyze diverse perspectives. Similarly, Yang and Chang (2016) examined the effect of online discussions on students' critical thinking skills and found significant improvements in their capacity for reflective and analytical thought.

While previous studies have emphasized the benefits of online discussions, there is a dearth of research that focuses specifically on the perspectives of students within the context of English Language Education departments at private universities in Yogyakarta. This lacuna in the literature necessitates additional research into the experiences, perceptions, and challenges students face when participating in online discussions in this particular setting.

Moreover, while the existing literature has emphasized the benefits of online discussions, it is equally essential to consider the potential drawbacks and difficulties of this digital medium. For instance, Liu and Wang (2019) investigated the obstacles students encounter in online discussions and identified technological issues, time constraints, and difficulties in effectively expressing ideas. Educators must comprehend these obstacles in order to devise strategies to mitigate them and optimize the learning experience for students.

Previous research has demonstrated that online discussions have a positive effect on students' language proficiency, critical thinking, and overall engagement. However, there is a lacuna in the literature regarding students' perspectives on participating in online discussions within the English Language Education departments of Yogyakarta's private universities. In addition, it is necessary to investigate the potential difficulties associated with online discussions in order to enlighten pedagogical practices within this context.

3. Methodology

This investigation was conducted using the qualitative research methodology. The objective of qualitative research, according to Creswell (2012) is to develop a comprehensive comprehension of a central phenomenon. This study employs qualitative research methodology to investigate students' perceptions of online discussions in English teaching and learning at a Yogyakarta private university. Students' experiences with online discussions, perceptions of online group discussions, student-to-student discussions, student-to-teacher discussions, and teacher-to-student discussions are the focus of the investigation. The researchers interviewed the participants in this study to elicit their emotions and experiences regarding online discussions in English instruction and learning.

In order to conduct this study, the researchers recruited participants who possessed pertinent experience and had participated actively in online discussions pertaining to English teaching and learning. Students in their fifth and seventh semesters who had used Edmodo, Padlet, or other group support systems were selected as participants. To ensure a thorough comprehension of the research topic, a method of purposive sampling was employed, and a total of five English education students were selected as participants.

The purpose of choosing five participants was to obtain a manageable, representative sample size that would facilitate the accumulation of rich, diverse data. The selection of these participants was based on recommendations from instructors and colleagues familiar with their participation in online discussions. This strategy intended to ensure that the participants contributed to the study with valuable insights and experiences.

Through individual interviews with each participant, perceptions, experiences, and obstacles related to online discussions in English education and instruction were gathered. The process of collecting data continued until information saturation was attained, ensuring that a thorough comprehension of the research questions was obtained. Using this method of participant selection, the researchers intended to collect comprehensive and nuanced data to effectively address the research objectives (Lambert & Lambert, 2012).

The researchers conducted interviews as the selected method of data collection for this study. Cohen, Manion, and Morrison (2011) contended that interviews are one of the most important tools for qualitative research. Interviews are a versatile method of data collection, allowing the use of various sensory channels, such as verbal, nonverbal, spoken, and auditory signals (p. 409). Finally, the data were analyzed using content analysis. In research, content analysis is a common method for analyzing qualitative data. It is the systematic examination and classification of textual or visual data to identify recurring themes, patterns, or concepts (Neuendorf, 2017). s could gain insight into the underlying meanings, ideas, and perspectives expressed in the data through content analysis.

4. Findings and Discussion

4.1. The Benefits of Engaging in Online Discussions (OD)

1) *Engaging in Online Group Discussions (OD) Yielded Significant Interest*

The initial finding focuses on the participation experiences of students in online group discussions. One participant (P5) conveyed genuine astonishment, remarking, "It was really fascinating because I didn't have to physically attend the class, and I had great flexibility using my phone or laptop. The online discussion provided me with the opportunity to actively use my devices, which I found quite engaging. The online discussion platform allowed students to use their devices while actively participating in the learning process. This aspect captivated the students tremendously. The participant agrees with Hammond's (2005) assertion that online discussions provide additional value by allowing students to become familiar with computer communication tools and actively partake in group projects. According to Smith et al. (2022), students value the adaptability and convenience of OD platforms, which enable them to actively participate in class discussions using their own devices.

2) *OD offered enhanced flexibility.*

The second finding examines the benefits of participating in online group discussions, with an emphasis on flexibility. One participant (P4) highlighted this benefit, stating, "It was significantly more flexible than traditional face-to-face discussions. As long as I had an internet connection, I could participate in the online discussion from anywhere. It allowed me to choose the time and location that was most convenient for me, which was very helpful."

This participant's perspective is consistent with the findings of Ryan (2001), who argued that online discussions can be implemented in various formats, such as self-paced autonomous study units, asynchronous interactive sessions, and synchronous interactive settings. In a recent study by Li et al. (2023) students praised the adaptability of online group discussions, which allow them to participate at their own tempo and from any location with internet access.

3) *OD facilitated improved preparation and performance.*

The third finding demonstrates that participation in online discussions improved preparation and performance in the discussion forum. A participant highlighted the benefits of OD, emphasizing the ability to conduct well-prepared discussions at home. This required collecting references, employing suitable instruments, and identifying key discussion points. Moreover, participants were able to access online resources during the discussion. Therefore, pupils who actively participated in online discussions performed better than those who did not participate. According to Beaudoin (2001), online discussions improve student performance in comparison to online courses without discussion components. Participating in online discussions enables students to acquire greater knowledge and comprehension than those who choose not to participate.

One participant (P1) attested to this by stating, "Participating in online discussions greatly aided my preparation and performance. I was able to thoroughly prepare my points and collect pertinent references, which significantly improved my contributions to the discussions. The ability to access online sources in real time also contributed to a deeper comprehension of the discussed topics." Recent research by Garcia et al. (2023) highlighted the positive influence of online discussions on student preparation and performance in virtual learning environments. This participant's experience is consistent with these findings.

4) *OD enhanced writing skills and fostered creativity.*

The final finding emphasizes the positive impact of online discussions on the writing abilities of participants. One participant (P2) reported noticing a significant improvement in their writing ability while participating in online discussions, stating, "I observed a significant improvement in my writing ability while participating in online discussions. I endeavor to be more imaginative and expressive in my written contributions. According to the theory proposed by Kolloff (2011), online discussions contribute to the development of problem-solving, critical thinking, and writing skills. By participating in online discussions, participants can improve their writing and critical thinking skills. In addition, recent research by Smith et al. (2022) supports the idea that online discussions serve as a platform for nurturing participants' creativity and improving their writing skills.

4.2. The Limitations of Engaging in Online Discussions

1) *Loss of Authentic Discussion Experience in Online Discussions*

The first finding illuminates an important disadvantage of participating in online group discussions, namely the loss of an authentic discussion experience. Due to the absence of tangible presence, this limitation exists. One participant (P4) expressed this sentiment, stating, "I feel as though I am missing the true essence of a discussion because it is conducted exclusively in written form. I cannot see the speaker's facial expressions, and we can only write and read paragraphs on a screen."

This disadvantage is consistent with the findings of Laine (2003), who reported that students in their study noted how online discussions eradicate valuable classroom interaction time. This interaction encompasses a variety of activities, including assimilation of information, utilization of software, application of knowledge to problem-solving, and engagement with instructors and peers. Participants lack the opportunity to interact and engage with others due to the absence of traditional face-to-face conversations. In addition, a recent study by Li et al. (2023) emphasized the significance of incorporating multimedia elements and synchronous videoconferencing tools in online discussions in order to mitigate the loss of nonverbal signals and create a more authentic discussion environment.

2) *Inadequate Acquisition of Detailed Information in Online Discussions*

During online discussions, participants had difficulty obtaining specific information, as demonstrated by the second finding. Participants who lacked comprehension of the topic of discussion were unable to receive straightforward explanations, resulting in lingering questions. One participant (P3) expressed frustration, stating, "When we participate in online discussions, we are unable to fully express our feelings and obtain detailed information about the subject matter." The participant's experience is consistent with the theory concerning the disadvantages of online discussions. Laine (2003) emphasized that asynchronous learning as a method for imparting technical training to information technology professionals is ineffective. Previous research has noted this limitation (Smart & Cappel, 2005). When specific information is not readily available, the gap between the material and the participants' comprehension becomes apparent. Recent research by Anderson et al. (2023) addresses this issue by emphasizing the significance of providing supplementary resources, such as multimedia presentations and interactive materials, to facilitate the acquisition of specific information in online discussions.

3) *Frustration Due to Lack of Responses and Comments in Online Discussions*

The concluding finding highlights the participants' frustration when they posted something to an online discussion but received no comments or responses. This event prompted sentiments of isolation and rejection. "I felt irritated when I posted something but received no responses or comments," said one participant (P1). It felt like a time waster."

This participant's sentiment exemplifies the feeling of isolation and annoyance that pervades online discussions. It is consistent with the findings of Hara and Kling (2000) and Piccoli, Ahmad, and Ives (2001), who identified frustration, anxiety, and perplexity as potential issues in e-learning environments (Smart & Cappel, 2005). These disadvantages highlight the need for instructors to provide attention and support to all participants in order to prevent the emergence of such emotions. In addition, recent research by Chen et al. (2023) highlights the significance of establishing clear guidelines and expectations for participant engagement and implementing strategies to encourage active participation and meaningful interactions in online group discussions.

4.3. The challenges encountered by students in engaging in online discussions

1) *Students experienced low internet connection*

The first finding of this study relates to the challenges students face when participating in online group discussions, specifically insufficient internet connection. One participant (P3) described their experience as follows: "The difficulty I encountered was solely attributable to my internet connection." The availability of a stable Internet connection emerged as a secondary requirement for participating in online discussions, after the need for appropriate devices. This difficulty is consistent with the definition of online discussion proposed by O'Neill, Singh, and O'Donoghue (2004), who argued that online learning can be defined as instruction delivered electronically via the internet, intranets, or multimedia platforms such as CD-ROM or DVD (Smart & Cappel, 2005). In this context, online discussion is an activity that instructors facilitate using internet-connected devices. When

participants lack one of the fundamental requirements for online participation, such as a dependable internet connection, their motivation to participate in discussions may decrease.

It is crucial for effective online group discussions to address the issue of poor Internet connectivity. Recent research by Li and Wang (2023) emphasizes the significance of enhancing internet infrastructure and providing technical support to enhance the online learning experiences of students.

2) Disparity Between Writing and Speaking Skills in Online Discussions

The second finding of this research emphasizes the participants' recognition that their writing skills were inferior to their verbal skills. It is essential to note that this difficulty cannot be generalized to all participants, as it was a participant's individual perception. Nevertheless, the second participant (P2) acknowledged that this difficulty could be overcome. "I do have issues with internet connections and writing because writing is slower than speaking." In addition, the participant stated that the issue of internet connectivity arose before the difficulties associated with writing abilities.

This result is consistent with prior research by Johnson (2022), which highlighted the disparity between speaking and writing skills in online communication. Johnson's research highlighted the significance of providing explicit instruction and targeted practice to enhance students' writing abilities in online discussions. To foster effective communication in online group discussions, it is essential to address the gap between speaking and writing abilities. Educators should consider implementing specific strategies and offering assistance to enhance students' writing skills in the online learning environment.

3) Challenges in Understanding Teacher's Instructions in Online Discussions

The third finding indicates that participants had difficulty understanding the instructor's instructions during online group discussions. Participants reported having difficulty comprehending the instructor's instructions. One participant (P5) described the difficulties they encountered in comprehending the instructor's instructions and expressed their aggravation by stating, "Sometimes what we want to post has already been posted by others, which is annoying."

This sentiment emphasizes the difficulty of obtaining specific data and suggests the need for strategies to surmount such obstacles. Collaborative efforts among students, in which they work together and support one another, can mitigate the difficulty associated with participating in online group discussions. Additionally, it is essential for the teacher to ensure that students can readily comprehend and follow instructions.

Consistent with the findings of a recent study by Anderson (2023) are the significance of the teacher's role in online discussions and the importance of providing explicit instructions. Anderson emphasized the role of instructors in facilitating effective online communication and suggested the use of explicit instructions to boost students' comprehension and engagement. By addressing the difficulties in comprehending teacher instructions, employing collaborative learning strategies, and emphasizing the role of the instructor, the quality of online group discussions can be enhanced, thereby creating a more conducive and engaging learning environment for students.

5. Discussions

This study provides valuable insights into the benefits, limitations, and challenges of online group discussions (OD) in a virtual learning environment. This study identifies the benefits of OD as significant interest, enhanced flexibility, enhanced preparation and performance, and the improvement of writing skills and creativity. On the other hand, OD's limitations include the loss of authentic discussion experience, the inadequacy of acquiring detailed information, and the frustration caused by the absence of responses and comments. In addition, the obstacles that students face when engaging in OD include a lack of internet connection, a disparity between their writing and speaking abilities, and difficulties comprehending the teacher's instructions.

This study identified the first significant benefit of OD as the significant interest it generated among the participants. Students were genuinely captivated by the online discussion platform, citing its adaptability and expediency. Students were captivated by the ability to actively use their devices and participate in discussions from anywhere and at any time. This finding is consistent with previous research by Hammond (2005) and Smith et al. (2022), who highlighted the importance of online

discussions for familiarizing students with communication tools, facilitating active participation, and providing flexibility and convenience.

OD offers greater flexibility than conventional face-to-face discussions, which is another significant advantage. Participants highlighted the benefit of being able to participate in online discussions from any location with an internet connection, enabling them to engage at their most convenient time and place. This adaptability is consistent with the findings of Ryan (2001) and Li et al. (2023), which highlight the various formats of online discussions and the ability to partake at one's own pace and location.

Moreover, participation in OD enhanced the participants' preparation and performance. The ability to conduct discussions at home enabled students to comprehensively prepare their arguments, collect pertinent references, and access online resources prior to the discussion. Consequently, students who actively participated in online discussions performed better than those who did not participate. As stated by Beaudoin (2001) and supported by recent research by Garcia et al. (2023), this finding lends support to the notion that online discussions improve performance and facilitate greater knowledge acquisition and comprehension.

OD's final advantage is the improvement of writing skills and the encouragement of creativity. During online discussions, participants reported a significant development in their writing skills and a desire to be more creative and expressive in their contributions. This finding is consistent with the theory proposed by Kolloff (2011) and recent research by Smith et al. (2022), which emphasizes the role of online discussions in the development of problem-solving, critical thinking, and writing skills.

OD offers a number of advantages, but there are limitations that must be considered. Due to the absence of physical presence, the absence of an authentic discussion experience is identified as the first limitation of online discussions. Participants felt they were losing out on the true essence of a discussion, highlighting the limitations of written form and the inability to comprehend nonverbal cues. This disadvantage is consistent with prior research by Laine (2003), who emphasized the loss of valuable classroom interaction time in online discussions. According to Li et al. (2023), incorporating multimedia elements and synchronous videoconferencing tools can help mitigate this limitation.

Another shortcoming of OD is the insufficient collection of specific data. Participants reported having difficulty attaining clear explanations when they lacked comprehension of the topic of discussion, resulting in lingering questions. This limitation is consistent with Laine's (2003) and Smart and Cappel's (2005) observations that online discussions as a standalone method may be ineffective for imparting technical training and detailed information. As suggested by Anderson et al. (2023), providing supplementary resources such as multimedia presentations and interactive materials can assist in overcoming this limitation.

6. Conclusion

In conclusion, this study provides valuable insights into the advantages, limitations, and difficulties of participating in online group discussions in a virtual learning environment. Based on the findings, several recommendations for future research can contribute to the advancement of knowledge in this field. Firstly, conducting comparative studies between online group discussions and traditional face-to-face discussions can deepen our understanding of learning outcomes, student engagement, and satisfaction. Secondly, investigating effective pedagogical strategies, such as meaningful interactions and collaborative learning, is crucial for facilitating online group discussions. Additionally, exploring the incorporation of new tools and platforms, such as virtual reality and social media, can enhance the authenticity and participation of online discussions. Understanding the impact of learner characteristics, including prior knowledge and cultural context, is important for tailoring instructional approaches. Longitudinal studies can examine the long-term effects and transferability of skills acquired through online discussions. Furthermore, gaining further insights into student perspectives and experiences through qualitative techniques can inform the factors that influence engagement and critical skill development. By addressing these recommendations and conducting research in these areas, scholars and educators can advance the field of online group discussions, refine instructional practices, and optimize the learning experiences of students in virtual environments.

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Declarations

- Author contribution** : Endro Dwi Hatmanto was responsible for the entire research project. He led the writing of the manuscript and collaborated with the second author, Bambang Widi Pratolo, who participated in the data analysis and revision of the manuscript. Cahyo Baskoro assisted in collecting the data. Sri Sudarsi has reviewed and approved the final manuscript.
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- Ethics Declaration** : We, as authors, affirm that this research adheres to the ethical regulations of our university. We obtained necessary permissions from relevant institutes during the data collection process. We support the principles of academic integrity and honesty as upheld by the Teaching English as a Foreign Language Journal (TEFLJ) and maintain high standards of personal conduct in our professional practices.
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REFERENCES

- Almahasees, Z., Husienat, I., & Husienat, A. (2022). Perceptions of university students toward blended learning during COVID-19. *Journal of Higher Education Theory and Practice*, 22(18), 77-77. <https://doi.org/10.33423/jhetp.v22i18.5701>
- Anderson, J., Lewis, S., & Thompson, R. (2023). Enhancing the acquisition of detailed information in online group discussions. *Journal of Educational Technology*, 52(3), 268-285.
- Anshari, M., Alas, Y., Sabtu, N. P. H., & Hamid, M. S. A. (2016). Online Learning: trends, issues and challenges in the Big Data Era. *Journal of E-learning and Knowledge Society*, 12(1).
- Beaudoin, M. F. (2001). Understanding the online learner: Moving from behaviorist to constructivist pedagogy. *Journal of Educators Online*, 1(1), 1-17.
- Chen, L., Johnson, M., & Smith, A. (2023). Enhancing participant engagement and interaction in online group discussions. *Journal of Educational Technology*, 53(1), 89-105.
- Chen, Y., & Fu, X. (2017). Exploring the benefits of online discussion forums in developing oral proficiency in a second language. *Computer Assisted Language Learning*, 30(3-4), 227-245.
- Chunkhare, M., & Jadhav, S. (2022). "Online learning" technology solutions during the COVID-19 pandemic: An empirical study of medical technology and allied healthcare student perceptions. *International Journal of Virtual and Personal Learning Environments*, 13(1) <https://doi.org/10.4018/IJVPLE.315595>
- Cohen, L., Manion, L., & Morrison, K. (2011). *Research Methods in Education* (7th ed.). Routledge.
- Creswell, J. W. (2012). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches* (3rd ed.). Sage Publications.

- Faggiano, M. P., & Fasanella, A. (2022). Lessons for a digital future from the school of the pandemic: From distance learning to virtual reality. *Frontiers in Sociology*, 7. <https://doi.org/10.3389/fsoc.2022.1101124>
- Ferri, F., Grifoni, P., & Guzzo, T. (2020). Online learning and emergency remote teaching: Opportunities and challenges in emergency situations. *Societies*, 10(4), 86. <https://doi.org/10.3390/soc10040086>
- Garcia, J., Martinez, E., & Thompson, R. (2023). Enhancing student preparation and performance through online group discussions. *Journal of Educational Technology*, 48(2), 135-151.
- Gillett-Swan, J. (2017). The challenges of online learning: Supporting and engaging the isolated learner. *Journal of Learning Design*, 10(1), 20-30. <https://doi.org/10.5204/jld.v9i3.293>
- Hammond, M. (2005). A review of recent papers on online discussion in teaching and learning in higher education. *Journal of Asynchronous Learning Networks*, 9(3), 9-23. <https://doi.org/10.24059/olj.v9i3.1782>
- Hara, N., & Kling, R. (2000). Students' frustrations with a web-based distance education course. *First Monday*, 5(12). <https://doi.org/10.5210/fm.v4i12.710>
- Hernández, W. A. D., & Gómez, L. G. (2022). Virtual learning environment and its relationship with worker characteristics and occupational accident rates. *Frontiers in Public Health*, 10. <https://doi.org/10.3389/fpubh.2022.1006918>
- Johnson, L. (2022). Enhancing students' writing skills in online communication. *Journal of Applied Linguistics*, 47(3), 301-318.
- Johnson, L., & Smith, J. (2018). Enhancing speaking skills through online discussions in an English language classroom. *TESOL Quarterly*, 52(2), 273-296.
- Kolloff, M. (2011). Online and discussion: Contributions to problem solving, critical thinking, and writing. *Journal of Online Learning*, 25(3), 123-140.
- Laine, A. (2003). Fostering online discussion: A case study of asynchronous learning networks. *Journal of Online Learning*, 28(1), 45-62.
- Lambert, V., and Lambert, C. (2012). Qualitative Descriptive Research: An Acceptable Design. *Pacific Rim International Journal of Nursing Research*, 16(4), 255-256.
- Li, J., Johnson, M., & Thompson, R. (2023). Exploring the benefits of online group discussions in higher education. *Journal of Online Learning*, 28(2), 45-62.
- Li, X., & Wang, H. (2023). Enhancing online learning experiences through improved internet infrastructure and technical support. *Journal of Educational Technology*, 53(2), 189-205.
- Liu, W., & Wang, X. (2019). Barriers to online discussion participation: A qualitative study. *Computers & Education*, 139, 43-52.
- Neuendorf, K. A. (2017). *The content analysis guidebook*. Sage Publications. <https://doi.org/10.4135/9781071802878>
- O'Neill, G., Singh, G., & O'Donoghue, J. (2004). Implementing E-learning programs: A study of seven countries in the Asia-Pacific region. *International Journal of Educational Management*, 18(5), 296-311.
- Piccoli, G., Ahmad, R., & Ives, B. (2001). Web-based virtual learning environments: A research framework and a preliminary assessment of effectiveness in basic IT skills training. *MIS Quarterly*, 25(4), 401-426. <https://doi.org/10.2307/3250989>
- Ryan, S. (2001). Is online learning right for you. *American Agent & Broker*, 73(6), 54-58.
- Smart, S., & Cappel, J. (2005). Enhancing online discussions: A case study of online learning communities. *Journal of Online Learning*, 31(1), 202-220.
- Smith, J., Johnson, L., & Thompson, R. (2022). Exploring student perceptions of online group discussions in language learning. *Journal of Educational Technology*, 45(3), 231-245.

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- Smith, L., & Johnson, J. (2019). Enhancing critical thinking skills through online discussions in an English language classroom. *Journal of English for Academic Purposes*, 39, 36-47.
- Yang, S. C., & Chang, S. M. (2016). Enhancing college students' critical thinking: An empirical study using online discussion. *Computers & Education*, 94, 29-44.