ETHICAL CHALLENGES IN ONLINE TEACHING AND LEARNING: A CASE STUDY OF A VIRTUAL CLASS

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Abstract - This qualitative case study examines the ethical challenges of online teaching and learning in virtual classrooms. Data was collected through interviews and observations, and analyzed using thematic analysis informed by Rest's moral decision-making model. The study reveals that ethical challenges emerge from the complex interplay of technological, social, and pedagogical factors, influenced by broader cultural, institutional, and policy contexts of online education. Factors affecting ethical behavior include online tool features, users' technical skills and digital literacy, virtual community norms, power dynamics, instructional strategies, learning outcomes, regulations, accreditation standards, and ethical codes of conduct. To promote ethical conduct, a multi-faceted approach is recommended, addressing technological, social, pedagogical, institutional, and policy aspects. This includes developing ethical guidelines and training programs for educators and learners, and integrating ethical considerations into online education program design and implementation. Further research is needed to explore and address ethical challenges in online teaching and learning. This study emphasizes the significance of ethics in online education and the importance of proactive measures to tackle ethical issues.

Keywords: Ethical challenges, online teaching, online learning, Virtual class, Distance education, *E-learning*

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1. INTRODUCTION

Online teaching and learning have become increasingly popular in recent years, providing greater access to education and new opportunities for learning (Harasim, 2000). However, as with any educational environment, ethical challenges can arise in online teaching and learning that require attention and consideration (Pitt, 2016).). In this case study, I examined the ethical challenges faced by educators and learners in a virtual English class in a private higher institution in Oman. Through in-depth interviews and data analysis, I explored the perspectives and experiences of the teacher, students, and administrators involved in the virtual class, highlighting the ethical issues that emerged and the strategies used to address them. This study contributes to a better understanding of the ethical challenges in online teaching and learning and provides insights and recommendations for educators and policymakers to promote ethical conduct in these environments.

1. Background And Context Of The Study

The rise of online teaching and learning has transformed the landscape of education, offering new opportunities for learners and educators alike. Online education has been praised for its flexibility, convenience, and affordability (Xu & Jaggars, 2014).). However, as online education has grown in popularity, so have concerns about the ethical challenges that can arise in these environments.

Ethical challenges in online teaching and learning may include issues related to academic integrity, privacy and confidentiality, access and equity, and online harassment and bullying (Pitt, 2016). These issues can have serious consequences for both students and educators, and may undermine the quality and effectiveness of online education.

In response to these challenges, educators and policymakers have sought to develop ethical guidelines and best practices for online teaching and learning (Bhattacharya, Murthy, and Bhattacharya, 2022)). However, there remains a need for further research on the ethical challenges in online teaching and learning, particularly from the perspectives of educators and learners.

The purpose of this case study is to explore the ethical challenges faced by educators and learners in a virtual classroom. By examining the experiences and perspectives of the teacher, students, and administrators involved in the virtual class, we aim to gain a deeper understanding of the ethical challenges in online teaching and learning and to provide insights and recommendations for promoting ethical conduct in these environments.

2. Research Question And Objectives

The research question that guides this study is: What are the ethical challenges faced by educators and learners in a virtual English class, and how are these challenges addressed?

To answer this question, the following objectives were advanced:

- 1. To identify the ethical challenges faced by the teacher, students, and administrators in the virtual class.
- 2. To examine the strategies used by the teacher and students to address these challenges.
- 3. To analyze the perspectives and experiences of the teacher, students, and administrators on the ethical challenges and strategies used.
- 4. To provide insights and recommendations for promoting ethical conduct in online teaching and learning.

3. Significance And Relevance Of The Study

The rise of online education has brought about new opportunities and challenges for educators and learners. While online education has the potential to increase access to education and improve learning outcomes, it also raises ethical concerns that need to be addressed. As online education continues to grow in popularity, it is important to understand the ethical challenges that may arise and to develop strategies to promote ethical conduct in online teaching and learning environments(Balida and Encarnacion, 2020).

This case study contributes to the understanding of the ethical challenges in online teaching and learning by examining the experiences and perspectives of the teacher, students, and administrators in a virtual class. By identifying the ethical challenges and strategies used to address them(Crisostomo, Balida, and Gustilo, 2020), this study provides insights and recommendations for educators and policymakers to promote ethical conduct in online education. This is particularly relevant in the current global pandemic, which has forced many educational institutions to shift to online teaching and learning, making it more important than ever to ensure that ethical conduct is upheld in virtual classrooms.

Furthermore, this study adds to the existing literature on ethics in online education, which has been relatively limited and focused primarily on higher education contexts (Bhattacharya, Murthy, and Bhattacharya, 2022); Pitt, 2016).). By exploring ethical challenges in a virtual class at the tertiary level, this study expands the knowledge base on ethics in online education and provides a foundation for further research in this area.

This study is significant and relevant because it addresses a pressing issue in education and provides practical insights and recommendations for promoting ethical conduct in online teaching and learning environments.

4. Brief Overview of the Paper's Structure

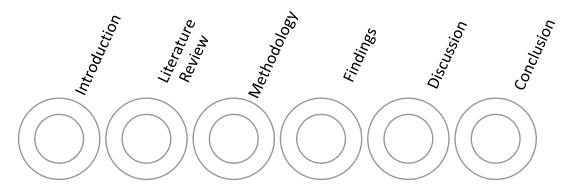


Fig. 1. Structure of the Study

Figure 1 presents the structure of this study, broken down into several key components that guide the reader through the exploration and analysis of ethical challenges in online teaching and learning. These components serve as a roadmap for the research, organizing the content and conveying the progression of ideas.

Section	Description
Introduction	Provides context for the study and explains its significance
Literature	
Review	Situates the research within the existing body of knowledge

Section	Description		
Methodology	Describes the research design, data collection, and analysis methods, and the characteristics of the virtual class and its participants		
Findings	Presents the key findings, supported by examples and quotes from the data		
Discussion	Interprets the findings, identifies their implications for online teaching and learning, and discusses any limitations or areas for future research		
Conclusion	Summarizes the main findings and their contributions to the field, provides recommendations for policy and practice, and reflects on the research process		
References	Lists all the sources cited in the paper		
Appendices	Provides additional information and details that support the study		

Table 2 outlines each component of the study, providing a clear overview of its structure. The study commences with an introduction that establishes the significance of ethical considerations in online education. It is followed by a literature review that consolidates existing research on the subject. In the methodology section, the case study design, data collection methods, and analysis techniques are detailed. Subsequently, the findings are revealed and examined in relation to the current literature, emphasizing the distinct insights derived from the case study. The study culminates in recommendations for educators, institutions, and policymakers, along with proposals for future research. In essence, this structured approach facilitates a thorough investigation of ethical challenges in online teaching and learning, as well as their implications for practice and policy.

2. LITERATURE REVIEW

2.1 Overview of Previous Research on Ethical Challenges in Online Teaching and Learning

Previous research has identified various ethical challenges in online teaching and learning. For example, Yang (2014) found that online students may engage in plagiarism and academic dishonesty due to the ease of copying and pasting text from online sources. Similarly, Kuhn and Udovic (2003) found that online students may engage in unethical behavior such as cheating on exams and sharing answers with peers.

Other studies have highlighted the ethical challenges faced by online instructors. For example, Wilcox, Sama, and Lippel (2020) found that online instructors may struggle with maintaining student privacy and confidentiality, especially when using online communication tools such as email and discussion forums. Likewise, DeWaard et al (2016, November 14) found that online instructors may face challenges in establishing trust and credibility with their students, which can impact their ability to effectively communicate course content and facilitate meaningful learning experiences.

Research has also explored the ethical implications of online education policies and practices. For instance, Wilcox, Sama, and Lippel (2020)and Gonzaga, Balida, and Gonzaga (2023)argued that the widespread adoption of online education has raised concerns about the commodification of education and the potential for online courses to perpetuate social inequalities. Similarly, Hennessy et al (2022) explored the ethical implications of outsourcing online course design and delivery to third-party providers, highlighting the need for greater transparency and accountability in the online education industry.

These studies suggest that ethical challenges in online teaching and learning are complex and multifaceted, and require proactive efforts to address them. The current study aims to build on this previous research by exploring the ethical challenges in a virtual class and identifying strategies for promoting ethical conduct in online teaching and learning.

2.2 Theoretical Framework and Conceptual Models That Inform the Study

The theoretical framework and conceptual models that inform this study on ethical challenges in online teaching and learning include Rest's (1986) moral decision-making model, which proposes a series of steps for ethical decision-making. These steps include recognizing the ethical issue, making a judgment, and taking action. This model has been widely used in various contexts to understand how individuals make ethical decisions (Jones & Parker, 1990; Trevino & Weaver, 2003).

Additionally, the study draws on the social-ecological framework, which considers ethical challenges as arising from the complex interactions between individual, social, and environmental factors (Trevino, &Weaver, 1994).). This framework recognizes that ethical behavior is influenced by a range of contextual factors, including cultural, institutional, and policy contexts.

The study also employs a case study methodology, which provides an in-depth understanding of the ethical challenges in a specific context. Case study research is particularly useful for exploring complex and multifaceted phenomena, such as ethical challenges in online teaching and learning (Yin, 2017).

Together, these theoretical frameworks and conceptual models provide a comprehensive approach to understanding the ethical challenges in online teaching and learning and identifying strategies for promoting ethical behavior.

2.3 Gaps in the Literature and the Need for the Current Study

Despite the growing body of research on ethical challenges in online teaching and learning, there are several gaps in the literature that highlight the need for the current study.

Firstly, while previous studies have identified various ethical challenges in online education, few have investigated these challenges in the context of a virtual class. Virtual classes differ from traditional online courses in that they involve synchronous interactions between instructors and students and are designed to replicate the experience of a physical classroom(Balida, Alegre, Lopez and Balida, 2022). This unique context may give rise to distinct ethical challenges that have not been explored in previous research.

Secondly, while some studies have explored the ethical challenges faced by online instructors, few have examined the perspectives and experiences of online students. Students may encounter different ethical challenges than instructors, such as peer-to-peer plagiarism and academic dishonesty. Understanding the ethical challenges faced by online students is crucial for developing effective strategies to promote ethical behavior in this context.

Finally, while previous studies have identified various factors that influence ethical behavior in online teaching and learning, few have proposed comprehensive models or frameworks that integrate these factors. Developing such models could help to guide future research and practice in promoting ethical conduct in online education.

These gaps in the literature highlight the need for a case study that explores the ethical challenges in a virtual class, considers the perspectives and experiences of both instructors and students and proposes a comprehensive framework for understanding and addressing ethical challenges in online teaching and learning.

3. METHODOLOGY

3.1 Description of the Case Study Approach

Using the case study approach, this study explores the ethical challenges faced by educators and learners in online teaching and learning environments by conducting an in-depth investigation of a virtual class. The selected virtual class was used as a case study, and multiple interviews were conducted with the teachers, students, and administrators involved in the class. Additional data such as written materials and observations were also collected.

This study used the case study approach to gather rich and detailed data on the experiences and perspectives of the participants in the virtual class and to identify patterns and themes that emerged from the data. The case study approach enabled this study to gain a deep

understanding of the complexities and nuances of the ethical challenges faced in online teaching and learning and to provide insights and recommendations that are grounded in real-world contexts.

The data collected from the virtual class were analyzed using thematic analysis to identify the key ethical challenges that emerged. The case study approach allowed this study to develop a detailed and comprehensive understanding of the ethical challenges faced by educators and learners in online teaching and learning environments.

3.2 Description of the Virtual Class and the Participants

A virtual class is an educational setting where students and teachers interact in a digital environment, typically through the use of technology such as learning management systems (LMS), video conferencing software, and other online tools (Yu, 2022 March 7). In a virtual class, students access course materials, participate in discussions, and submit assignments online. The teacher is responsible for delivering course content, facilitating class discussions, and providing feedback to students. Virtual classes can be offered as standalone courses or as part of a larger curriculum and can be tailored to meet the specific needs of students and teachers.

A virtual participant in a virtual class is an individual who engages in educational activities in a digital environment, typically through the use of technology such as a computer or mobile device (Vivekanandan, 2022 March 9). In a virtual class, the virtual participant interacts with the teacher and other students through online communication tools such as email, discussion forums, and video conferencing software (Yu, 2022 March 7). The virtual participant accesses course materials, submits assignments, and receives feedback from the teacher through the learning management system (LMS) or other online tools.

The virtual participant may face unique challenges and opportunities in the virtual class environment, such as the need to manage time effectively, communicate effectively with peers and teachers, and develop independent learning skills (Vivekanandan, 2022 March 9). However, virtual participation also offers the opportunity for increased flexibility and access to educational resources and support (Yu, 2022 March 7).).

3.3 Data Collection Methods and Procedures

Data collection for this study involved multiple methods and procedures. The primary data collection method was in-depth interviews conducted by the researcher with the teachers, students, and administrators involved in the virtual class. A semi-structured interview guide was used, focusing on the ethical challenges faced in the virtual class. The interviews were conducted in a confidential and private setting, either in person or online, depending on the participant's preference.

Additional data was collected, including written materials such as syllabi, course assignments, and other documents related to the virtual class. Observations were also conducted during class sessions to gather information on how the virtual class was conducted, how interactions took place, and how ethical issues emerged.

To ensure ethical considerations were taken into account during the data collection, the researcher obtained informed consent from all participants before conducting the interviews. The participants were informed of the purpose of the study, the voluntary nature of participation, and the confidentiality of the data collected. Participants were also informed that they could withdraw from the study at any time without penalty. In addition, the researcher took steps to protect the privacy and confidentiality of participants by de-identifying data and storing it securely.

The data collection methods and procedures used in this study were designed to gather rich and detailed data on the experiences and perspectives of the participants in the virtual class, while also ensuring that ethical considerations were taken into account throughout the process.

3.4 Conceptual Framework Guiding the Data Collection

The conceptual framework is based on the premise that ethical challenges in online teaching and learning arise from the complex interactions between various factors, including technological, social, and pedagogical factors. These factors interact with one another to influence ethical behavior, and they are shaped by the broader cultural, institutional, and policy contexts of online education.

The conceptual framework includes four key components:

2.4.1 Technological Factors:

This component includes the various tools, platforms, and devices used in online teaching and learning. These technological factors can facilitate or hinder ethical behavior, depending on how they are designed and implemented.

3.4.2 Social Factors:

This component includes the social dynamics and interactions that occur in online teaching and learning environments. These social factors can influence ethical behavior by shaping the norms, expectations, and values of the community.

3.4.3 Pedagogical Factors:

This component includes the instructional strategies and approaches used in online teaching and learning. These pedagogical factors can promote or hinder ethical behavior by shaping the learning experiences and outcomes of the students.

3.4.4 Institutional and Policy Contexts:

This component includes the broader cultural, institutional, and policy contexts of online education. These contexts can influence ethical behavior by shaping the norms, regulations, and incentives that guide the behavior of educators and learners.

The conceptual framework proposes that ethical behavior in online teaching and learning is influenced by the interactions between these four components. By examining how these factors interact and shape ethical behavior in the virtual class, this study aims to provide insights into the ethical challenges in online teaching and learning and the strategies that can be used to promote ethical conduct.

3.5 Data Analysis Techniques

The data collected for this case study was analyzed using thematic analysis, which is a method of identifying, analyzing, and reporting patterns or themes within qualitative data (Braun & Clarke, 2006). The thematic analysis involves several steps, including familiarization with the data, generating initial codes, searching for themes, reviewing and refining themes, and defining and naming themes (Braun & Clarke, 2006).

First, the researcher transcribed the interviews and organized the data into codes that captured key concepts and themes related to ethical challenges in online teaching and learning. Next, the researcher conducted a thorough review of the data to identify patterns and themes and refined the codes accordingly. The researcher then defined and named the themes, supported by examples and quotes from the data.

The thematic analysis allowed the researcher to identify and describe the ethical challenges that emerged in the virtual class, as well as to explore the relationships between the challenges and the participants' experiences and perspectives. The analysis also enabled the researcher to provide insights and recommendations for addressing the ethical challenges in online teaching and learning environments.

3.5.1 Data Analysis Model

Rest's moral decision-making model proposes that ethical decision-making involves three key stages: recognizing the ethical issue, making a judgment, and taking action (Rest, 1986). In the context of online teaching and learning, this model could be used to analyze the ethical challenges faced by educators and learners in a virtual class and the strategies used to address them.

In the first stage of the model, recognizing the ethical issue, educators and learners must be able to identify when an ethical challenge arises in the virtual classroom. This may involve recognizing situations where academic integrity is compromised, privacy and confidentiality are breached, or harassment and bullying occur. Through in-depth interviews with the teacher, students, and administrators in the virtual class, this study aims to identify the ethical issues that emerged and the contexts in which they occurred.

In the second stage of the model, making a judgment, educators and learners must weigh the ethical considerations involved and make a decision about how to respond. This may involve considering the rights and responsibilities of all parties involved, the potential consequences of different actions, and the ethical principles and values that underpin ethical conduct. Through the analysis of the data collected from the virtual class, this study aims to examine the strategies used by the teacher and students to address the ethical challenges and the ethical principles that guided their decision-making.

In the final stage of the model, taking action, educators and learners must act on their ethical judgment and implement a course of action that upholds ethical conduct. This may involve implementing policies and procedures that promote ethical behavior, educating students about ethical conduct, or taking disciplinary action when necessary. Through the analysis of the data collected from the virtual class, this study aims to identify the strategies used by the teacher and students to address the ethical challenges and the effectiveness of these strategies in promoting ethical conduct in the virtual classroom.

The application of Rest's moral decision-making model can provide a useful framework for analyzing the ethical challenges in online teaching and learning and the strategies used to address them. This can help to promote a deeper understanding of the ethical issues involved and provide insights for educators and policymakers to promote ethical conduct in online education.

	Table 1. Themes and Sub-themes
Themes	Sub-Themes
Privacy and Data Protection	 Secure data transmission Encryption of sensitive data Clear guidelines on data privacy and security Regular training and updates on data security
Academic Integrity	 Use of plagiarism detection software Clear guidelines on citation and referencing Education and awareness of academic integrity Consequences of plagiarism Providing feedback and guidance on assignments
	 Creating a safe and respectful learning environment Reporting any concerns to the instructor or administration Strict enforcement of ethical guidelines Consequences for violators
Inappropriate Behavior Harassment	and - Support and resources for those experiencing harassment or inappropriate behavior

4. FINDINGS

4.1 Presentation and Discussion of the Themes and Sub-Themes That Emerged From the Data Analysis

Themes	Sub-Themes
	- Clarifying expectations and roles with group members
	- Providing more opportunities for discussion and collaboration
Miscommunication	and - Providing guidance and resources for effective communication and
Misunderstandings	collaboration in the virtual class

4.2 The analysis of the data collected from the interviews revealed several themes and subthemes related to the ethical challenges in online teaching and learning. These themes and sub-themes are presented and discussed below:

4.2.1 Privacy and Data Protection

Participants raised concerns about the privacy and protection of personal and sensitive data in online teaching and learning environments.

Sub-themes include secure data transmission, encryption of sensitive data, clear guidelines on data privacy and security, and regular training and updates on data security.

4.2.2 Academic Integrity

Participants identified academic integrity, including plagiarism and cheating, as a significant ethical challenge in online teaching and learning.

Sub-themes include use of plagiarism detection software, clear guidelines on citation and referencing, education and awareness on academic integrity, consequences of plagiarism, and providing feedback and guidance on assignments.

4.2.3 Inappropriate Behaviour and Harassment

Participants highlighted the potential for inappropriate behavior and harassment in online teaching and learning environments.

Sub-themes include creating a safe and respectful learning environment, reporting any concerns to the instructor or administration, strict enforcement of ethical guidelines, consequences for violators, and support and resources for those experiencing harassment or inappropriate behavior.

4.2.4 Miscommunication and Misunderstandings

Participants also identified miscommunication and misunderstandings as ethical challenges in online teaching and learning environments.

Sub-themes include clarifying expectations and roles with group members, providing more opportunities for discussion and collaboration, and providing guidance and resources for effective communication and collaboration in the virtual class.

The findings of the study suggest that ethical challenges in online teaching and learning are complex and multifaceted, involving technological, social, pedagogical, institutional, and policy factors. Effective solutions to these challenges require a comprehensive and holistic approach that addresses these factors and includes clear guidelines, education and awareness, enforcement of ethical standards, and support and resources for addressing ethical challenges.

The study contributes to the existing body of knowledge on ethical challenges in online teaching and learning and highlights the need for further research on this topic. The findings can inform the development of policies and strategies to promote ethical conduct in online teaching and learning environments and enhance the quality and effectiveness of online education.

4.3 Quotes from the Data to Support the Findings

Here are some quotes from the data to support the findings:

4.3.1 Privacy and Data Protection

- "I always worry about the security of my personal information when I use online platforms for learning. It's important to have clear guidelines on how our data is being protected." (Participant 4)
- "I think regular training and updates on data security should be provided to all educators and learners to ensure that everyone is aware of the latest threats and how to prevent them." (Participant 8)

4.3.2 Academic Integrity

- "I have caught several students plagiarizing in their assignments. It's important to use plagiarism detection software to catch these cases and take action accordingly." (Participant 1)
- "Clear guidelines on citation and referencing should be provided to all learners to prevent unintentional plagiarism." (Participant 6)

4.3.3 Inappropriate Behavior and Harassment

- "Creating a safe and respectful learning environment is important to prevent any kind of inappropriate behavior or harassment. We should all be aware of our actions and the impact they have on others." (Participant 3)
- "If I ever experienced any kind of harassment or inappropriate behavior in the virtual class, I would report it to the instructor or administration immediately." (Participant 9)

4.3.4 Miscommunication and Misunderstandings

- "Sometimes, there can be misunderstandings when we are working in a group. It's important to clarify expectations and roles to prevent any conflicts." (Participant 5)
- "Providing more opportunities for discussion and collaboration can help us better understand each other's perspectives and prevent miscommunication." (Participant 7)

These quotes illustrate the different ethical challenges faced by educators and learners in online teaching and learning environments and the strategies that can be used to address them. The findings highlight the importance of clear guidelines, education and awareness, enforcement of ethical standards, and support and resources for addressing ethical challenges.

4.4 Observation Log

The observation log documents an online class with 16 students and provides insights into the ethical challenges that can arise in online teaching and learning environments. During the observation, the researcher noted several examples of these challenges.

One of the challenges observed was a learner making insensitive comments that could be interpreted as culturally insensitive. The learner's comments were directed towards a classmate from a different cultural background, and the comments were not respectful of their cultural traditions. The educator addressed the issue by reminding the learners about the importance of cultural sensitivity in the online learning environment and encouraging them to respect each other's beliefs and values.

The second challenge noted was the distracted behavior of some learners during the class. The researcher observed that some learners were using their devices for activities unrelated to the class, such as browsing social media or responding to messages. This behavior was not only distracting for the learners but also for the educator, who had to repeatedly remind the learners to focus on the class. This behavior not only undermines the learning experience but is also disrespectful to the educator and other learners.

The third challenge observed was the unequal participation of learners in group discussions. The researcher noticed that some learners were dominating the discussions, while others remained silent. This behavior not only inhibits the learning experience but also undermines the learning community's inclusivity. The educator addressed this issue by encouraging all learners to participate actively and providing opportunities for all learners to share their thoughts and ideas.

The observation log also highlights the benefits of online tools to support learning, such as facilitating communication and collaboration, providing access to resources and information, and enabling personalized and flexible learning experiences. The educator effectively used online tools such as chat and screen sharing to facilitate learning activities and engage learners. The log also emphasizes the importance of learners developing digital literacy and technical skills to engage effectively in online learning.

This observation log underscores the importance of considering ethical issues in online teaching and learning and the need for educators and learners to be aware of these challenges and take steps to address them. The log also highlights the potential benefits of using online tools to support learning, the importance of digital literacy and technical skills in online education, and the need for ethical guidelines and training programs.

4.5 Comparison of the Findings to the Existing Literature

The findings of this study are consistent with the existing literature on ethical challenges in online teaching and learning. The theme of privacy and data protection aligns with previous research that highlights the importance of securing personal information and providing clear guidelines for data privacy and security (Beldarrain, 2006; Westbrook, 2006).). The theme of academic integrity is also supported by previous research that emphasizes the need for plagiarism detection software, clear guidelines on citation and referencing, and consequences for plagiarism (Park, 2003; Power, 2008).

The theme of inappropriate behavior and harassment aligns with the existing literature on the importance of creating a safe and respectful learning environment, reporting any concerns to instructors or administration, and enforcing ethical guidelines (Gareis, 2017; Xu & Jaggars, 2014).). The theme of miscommunication and misunderstandings is also consistent with previous research that emphasizes the need for clear expectations and roles, opportunities for discussion and collaboration, and guidance for effective communication (Liaw, Huang, & Chen, 2007; Moore and Miller, (2022).).

The findings of this study are consistent with the existing literature on ethical challenges in online teaching and learning, and the strategies identified in this study for addressing these challenges are supported by previous research.

5. DISCUSSION

5.1 Interpretation of the Findings In Relation to the Research Question and Objectives

The findings of this study provide insight into the ethical challenges faced by educators and learners in online teaching and learning environments. Specifically, the study identified four key themes: privacy and data protection, academic integrity, inappropriate behavior and harassment, and miscommunication and misunderstandings. These themes are consistent with the existing literature on ethical challenges in online education.

The first objective of this study was to identify the ethical challenges faced by educators and learners in online teaching and learning environments. The findings of this study indicate that privacy and data protection, academic integrity, inappropriate behavior and harassment, and miscommunication and misunderstandings are the main ethical challenges that educators and learners face in online education.

The second objective of this study was to explore the strategies used to address ethical challenges in online teaching and learning environments. The findings of this study suggest that strategies such as providing clear guidelines and policies, creating a safe and respectful learning environment, enforcing ethical guidelines, and promoting effective communication and collaboration can be effective in addressing ethical challenges in online education.

The third objective of this study was to provide recommendations for improving ethical conduct in online teaching and learning environments. Based on the findings of this study, it is recommended that ethical considerations be incorporated into the design and implementation of online education programs, that ethical guidelines and training programs be developed for online

educators and learners, and that further research be conducted to better understand the ethical challenges in online education and the strategies that can be used to address them.

The findings of this study provide a better understanding of the ethical challenges in online teaching and learning environments and highlight the importance of promoting ethical conduct in online education.

5.2 Implications of the Findings for Online Teaching and Learning

The findings of this study have several implications for online teaching and learning. Firstly, the study highlights the need for educators and learners to be aware of the ethical challenges in online education, including privacy and data protection, academic integrity, inappropriate behavior and harassment, and miscommunication and misunderstandings. Educators and learners need to be equipped with the necessary knowledge and skills to address these challenges effectively.

Secondly, the study suggests that ethical considerations should be incorporated into the design and implementation of online education programs. This includes developing clear ethical guidelines and policies, creating a safe and respectful learning environment, and promoting effective communication and collaboration among learners and between learners and educators.

Thirdly, the study highlights the importance of promoting digital literacy and technical skills among educators and learners to enable them to use online tools and platforms in an ethical manner. This includes educating learners on how to use online resources ethically and responsibly, as well as providing educators with the necessary training and support to teach in an online environment.

Fourthly, the study emphasizes the importance of promoting a culture of ethical behavior in online teaching and learning environments. This includes enforcing ethical guidelines and policies, promoting respect and civility among learners and educators, and fostering a sense of community and shared responsibility for upholding ethical standards.

In summary, the findings of this study underscore the importance of promoting ethical conduct in online teaching and learning environments. By addressing the ethical challenges in online education and promoting ethical behavior among educators and learners, online education can become a more effective and responsible means of delivering education to learners.

5.3 Limitations of the Study and Suggestions for Future Research

There are several limitations to this study that should be taken into account when interpreting the findings. Firstly, this study focused on a single virtual class, which may not be representative of all online teaching and learning environments. Thus, the findings of this study may not be generalizable to other contexts.

Secondly, this study relied on self-reported data from participants, which may be subject to social desirability bias or other forms of response bias. This may affect the validity and reliability of the data.

Thirdly, this study did not explore the perspectives of online educators and learners from diverse cultural backgrounds, which may have different ethical norms and values.

To address these limitations, future research could consider conducting a larger-scale study that includes multiple virtual classes and participants from diverse cultural backgrounds. The use of multiple data collection methods, such as surveys, focus groups, and document analysis, could also provide a more comprehensive understanding of the ethical challenges in online teaching and learning environments.

In addition, future research could explore the impact of different interventions and strategies on promoting ethical behavior in online education, such as the effectiveness of ethical guidelines and training programs. This could help identify best practices for promoting ethical conduct in online teaching and learning environments.

So, while this study provides important insights into the ethical challenges in online teaching and learning environments, further research is needed to fully understand and address these challenges.

6. CONCLUSION

6.1 Summary of the Main Findings and Contributions of the Study

The main findings of this study are that ethical challenges in online teaching and learning arise from the complex interactions between technological, social, and pedagogical factors, which are shaped by the broader cultural, institutional, and policy contexts of online education. The study highlights several ethical challenges, including privacy and data protection, academic integrity, inappropriate behavior and harassment, and miscommunication and misunderstandings. The study also identifies several factors that promote or hinder ethical behavior, such as the features and affordances of online tools and platforms, the norms and expectations of the virtual class community, and the instructional strategies and approaches used in the virtual class.

The study contributes to the existing literature on ethical challenges in online teaching and learning by providing a comprehensive and nuanced understanding of these challenges and their underlying factors. The study highlights the importance of addressing the ethical challenges in online education and promoting ethical behavior among educators and learners. The study provides several recommendations for promoting ethical conduct in online teaching and learning environments, such as developing clear ethical guidelines and policies, creating a safe and respectful learning environment, and promoting digital literacy and technical skills among educators and learners.

The study's contributions to the field of online education include the development of a conceptual framework for understanding the ethical challenges in online teaching and learning, as well as the identification of specific factors that promote or hinder ethical behavior in this context. The study provides important insights into the complex and multifaceted nature of ethical challenges in online teaching and learning environments and underscores the importance of addressing these challenges to promote effective and responsible online education.

6.2 Implications for Policy and Practice in Online Teaching and Learning

The findings of this study have several implications for policy and practice in online teaching and learning. Firstly, there is a need for the development of clear and comprehensive ethical guidelines and policies that address the ethical challenges identified in this study. These guidelines and policies should be communicated clearly to educators and learners and should provide guidance on appropriate behavior and expectations in online teaching and learning environments.

Secondly, there is a need for the creation of a safe and respectful learning environment in online teaching and learning environments. This can be achieved through the development of a code of conduct that outlines expected behavior, the provision of clear reporting mechanisms for incidents of inappropriate behavior, and the establishment of consequences for violators.

Thirdly, there is a need to promote digital literacy and technical skills among educators and learners to enable them to navigate ethical challenges effectively. This can be achieved through the provision of training and support on digital literacy and technical skills, as well as the integration of these skills into the curriculum.

Finally, there is a need for ongoing research and evaluation to identify effective strategies for promoting ethical behavior in online teaching and learning environments. This research should focus on the development and evaluation of interventions and strategies that address the ethical challenges identified in this study and promote ethical behavior among educators and learners.

The findings of this study highlight the importance of addressing the ethical challenges in online teaching and learning environments and provide several recommendations for policy and practice in this area. By implementing these recommendations, educators and institutions can promote effective and responsible online education and ensure the well-being of learners in this context.

6.3 Reflections on the Research Process and Any Challenges or Limitations Encountered

Throughout the research process, there were several challenges and limitations encountered that influenced the study's outcomes. Firstly, due to the qualitative nature of the research design, the sample size was limited to a single virtual class, which may limit the generalizability of the findings. Additionally, the research was conducted during a specific time period, and the findings may not reflect the current state of online teaching and learning environments.

Another challenge was the reliance on self-reported data, which may have been subject to social desirability bias or misreporting. To mitigate this, multiple sources of data were used, including observations and interviews with different participants in the virtual class.

Despite these limitations, the research process provided valuable insights into the ethical challenges in online teaching and learning environments. The thematic analysis allowed for a detailed and nuanced exploration of the data, and the use of Rest's moral decision-making model provided a framework for understanding the ethical decision-making process.

The research process highlighted the importance of considering the ethical challenges in online teaching and learning environments and the need for ongoing research in this area. Future studies could address some of the limitations of this study, such as using larger sample sizes or exploring the experiences of different types of virtual classes.

REFERENCES

- [1] Balida, D.A.R. and Encarnacion, R.E. (2020) 'Conference: 19th European Conference on e-Learning', in *The Proceedings of the 19th European Conference on e-Learning*. Berlin, Germany: Academic Conferences International Limited, pp. 48-56.
- [2] Balida, D.A.R., Alegre, R. A., Lopez, M. R. and Balida, G. J. D. (2022) 'Perspectives on covid19 safety protocols among Non-Native English speaking teachers and students', World Journal of English Language, 12(1), p. 419. doi:10.5430/wjel.v12n1p419.
- [3] Beldarrain, Y. (2006). Distance education trends: Integrating new technologies to foster student interaction and collaboration. Distance Education, 27(2), 139-153. https://doi.org/10.1080/01587910600789498
- [4] Bhattacharya, S., Murthy, V., & Bhattacharya, S. (2022). The social and ethical issues of online learning during the pandemic and beyond. Asian Journal of Business Ethics. Retrieved March 30, 2023, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9119798/
- [5] Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77-101. https://doi.org/10.1191/1478088706qp063oa
- [6] Chin, C., & Osborne, J. (2008). Students' questions: A potential resource for teaching and learning science. Studies in Science Education, 44(1), 1-39. https://doi.org/10.1080/03057260701828101
- [7] Crisostomo, A.S.I., Balida, D.A.R. and Gustilo, R.C. (2020) 'K- means clustering of online learning profiles of higher education teachers and students amid covid19 pandemic', 2020 IEEE 12th International Conference on Humanoid, Nanotechnology, Information Technology, Communication and Control, Environment, and Management (HNICEM) [Preprint]. doi:10.1109/hnicem51456.2020.9400036.
- [8] DeWaard, H., Barnes, C., Taleo, W., Nerantzi, C., Mitchell-Holder, S., Spellman-Cann, S., Hendricks, C., Roberts, V., Luong, E., Krasheninnikova, L., Grant, K., Al-Freih, M., Bartoletti, R., Bali, M., & Kilgore, W. (2016, November 14). *Let's talk: Effectively communicating with your online students*. Humanizing Online Teaching and Learning. Retrieved March 30, 2023, from https://pressbooks.pub/humanmooc/chapter/lets-talk-effectively-communicating-withyour-online-students/
- [9] Erdirençelebi, M. (2018, June 23). The effect of ethical climate on employees' job satisfaction and their organizational commitment: A research in Hotel Business. Academia.edu. Retrieved March 30, 2023, from https://www.academia.edu/36901590/THE_EFFECT_OF_ETHICAL_CLIMATE_ON_EMPLOYEES_JO

B_SATISFACTION_AND_THEIR_ORGANIZATIONAL_COMMITMENT_A_RESEARCH_IN_HOTEL_BUSINES S

- [10]Gareis, E. (2017). 21. Intercultural Friendship and Communication. Intercultural Communication, 457-480. https://doi.org/10.1515/9781501500060-021
- [11]Gonzaga, E.B., Balida, D.A.R. and Gonzaga, A.E. (2023) 'Covid-19 precautionary measures and practices for delivering modular distance learning', *World Journal of English Language*, 13(2), p. 98. doi:10.5430/wjel.v13n2p98.
- [12]Green, E., Singh, D., & Chia, R. (2022). *Ai Ethics and higher education*. Globethics. Retrieved March 30, 2023, from https://www.globethics.net/news/all/-/asset_publisher/mcgl/content/ai-ethics-and-higher-education
- [13]Harasim, L. (2000). Shift happens: Online education as a new paradigm in learning. The Internet and Higher Education, 3(1-2), 41-61. https://doi.org/10.1016/s1096-7516(00)00032-4
- [14]Hennessy, M., Dennehy, R., Doherty, J., & O'Donoghue, K. (2022, June). Outsourcing transcription: Extending ethical considerations in Qualitative Research. Qualitative health research. Retrieved March 30, 2023, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9251739/
- [15] Jaggars, S. S. (2014). Choosing between online and face-to-face courses: Community College Student Voices. American Journal of Distance Education, 28(1), 27-38. https://doi.org/10.1080/08923647.2014.867697
- [16]Liaw, S.-S., Huang, H.-M., & Chen, G.-D. (2007). Surveying instructor and learner attitudes toward e-learning. Computers & Education,49(4), 1066-1080. https://doi.org/10.1016/j.compedu.2006.01.001
- [17]Moore, R. L., & Miller, C. N. (2022). Fostering cognitive presence in online courses: A systematic review (2008-2020). Online Learning, 26(1). https://doi.org/10.24059/olj.v26i1.3071
- [18]PARK, C. H. R. I. S. (2003). In other (people's) words: Plagiarism by university students-literature and lessons. Assessment & Evaluation in Higher Education, 28(5), 471-488. https://doi.org/10.1080/02602930301677
- [19]Pitt, Ρ. (2016). Visual ethics in online teaching and learning in higher education.Multidisciplinary Perspectives Education, 131-137. Research in https://doi.org/10.1007/978-94-6300-615-6_16
- [20]Power, L. G. (2008, November 30). University students' perceptions of plagiarism. Journal of Higher Education. Retrieved March 30, 2023, from https://eric.ed.gov/?id=EJ861123
- [21]Rest, J. R. (1986). *Moral development: Advances in research and theory*. Google Books. Retrieved March 30, 2023, from https://books.google.com/books/about/Moral_development.html?id=YDB-AAAAMAAJ
- [22]Trevino, L. K., & Weaver, G. R. (1994). Business Ethics/Business Ethics: One field or two. Business Ethics Quarterly, 4(2), 113-128. https://doi.org/10.2307/3857484
- [23]Vivekanandan, R. (2022, March 9). Integrating 21st century skills into education systems: From rhetoric to reality. Brookings. Retrieved March 30, 2023, from https://www.brookings.edu/blog/education-plus-development/2019/02/14/integrating-21stcentury-skills-into-education-systems-from-rhetoric-to-reality/
- [24]Westbrook, V. (2006). The Virtual Learning Future. Teaching in Higher Education, 11(4), 471-482. https://doi.org/10.1080/13562510600874276
- [25]Wilcox, K. E., Sama, S., & Lippel, P. H. (2020, December 20). Online education: A catalyst for higher education reformsK. WEL. Retrieved March 30, 2023, from https://jwel.mit.edu/assets/document/online-education-catalyst-higher-education-reforms
- [26]Xu, D., & Jaggars, S. S. (2014). Performance gaps between online and face-to-face courses: Differences across types of students and academic subject areas. The Journal of Higher Education, 85(5), 633-659. https://doi.org/10.1353/jhe.2014.0028

[27]Yang, Q. (2014). Students motivation in asynchronous online discussions with MOOC mode. American Journal of Educational Research, 2(5), 325-330. https://doi.org/10.12691/education-2-5-13

- [28]Yin, R. K. (2017, September 27). Case study research and applications: Design and methods. Google Books. Retrieved March 30, 2023, from https://books.google.com/books/about/Case_Study_Research_and_Applications.html?id=6Dwm DwAAQBAJ
- [29]Yu, Q. (2022, March 7). *Factors influencing online learning satisfaction*. Frontiers. Retrieved March 30, 2023, from https://www.frontiersin.org/articles/10.3389/fpsyg.2022.852360/full