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STUDENTS' AUTONOMY ON DISTANCE LEARNING THROUGH THE LENSE OF TRANSACTIONAL DISTANCE LEARNING THEORY: A BASIS FOR AN INTERVENTION PLAN

Jeane S. Dagatan[1, 2], Vivien Grace A. Jubahib[2]

[1]Jose Maria College Foundation, Inc.
[2]University of Southeastern Philippines

Corresponding e-mail: jeane.dagatan@jmc.edu.ph

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ABSTRACT

This qualitative research study explored students' autonomy in distance learning through the lens of transactional distance learning theory, focusing on challenges and coping mechanisms across learner-learner, learner-teacher, and learner-content interactions. In learner-learner interactions, the themes derived were collaborative work avoidance and group dynamics issues, mitigated by proactive coordination and empowered communication. On the other hand, in the learner-teacher exchanges, the themes identified were communication barriers, unclear instructions, and lack of engagement, countered by diverse communication channels, self-directed learning strategies, and a balance of interpersonal support and professional guidance. For learner-content interactions, themes of complexities of reading materials and limited collaborative activities were addressed through effective time management and diverse study techniques. By thoroughly analyzing the challenges and coping mechanisms with supported theories, the proposed intervention plan emphasized collaborative projects, peer review, role rotation, and individual reflections for learner-learner; clear communication, guidance, and interactive engagement strategies for learner-teacher; and virtual discussions and scaffolded learning materials for learner-content. By addressing these challenges and reinforcing coping mechanisms, the study advocated for a learning environment that nurtured autonomy and cultivated students' ability to thrive independently.

Keywords: *student's autonomy, distance learning, transactional distance learning theory, challenges, coping mechanism, intervention plan*

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INTRODUCTION

Students' autonomy in distance learning is essential, significantly impacting their motivation, engagement, and academic success. By taking control of their learning processes, students develop self-discipline, time management, and critical thinking skills. Without the traditional classroom setting, where immediate teacher guidance and peer interaction are limited, students must independently navigate course materials, set goals, and monitor their progress. This self-directed approach enhances their learning efficiency and effectiveness while preparing them for lifelong learning.

In a global context, Bradley, Browne and Kelley (2017) emphasized the importance of prioritizing student autonomy to enhance the efficacy of distance learning. Their study highlighted that promoting self-regulation, motivation, and personalized learning experiences leads to deeper engagement and improved academic outcomes. The researchers investigated the impact of self-efficacy and self-regulatory skills on academic performance in online learning, using the Online Academic Success Indicators Scale (OASIS). Their findings, compared with previous assessments, revealed that high self-efficacy and proficient self-regulatory behaviors are strong predictors of academic success in online courses.

In the Philippine context, various solutions have been implemented to address the challenges of distance learning. A study by Moreno, Rodrigo, Torres, Gaspar and Agapito (2021) found that a well-balanced course structure combined with effective discourse can reduce transactional distance and promote healthy student autonomy. The study noted that the shift to distance learning necessitates greater student autonomy, which, in turn, increases transactional distance. Therefore, faculty initiatives to enhance student-teacher communication were essential in preventing this existing phenomenon.

Recognizing the transition to distance learning, Lim (2021) from Davao City National High School conducted a study highlighting the necessity of maintaining the highest standards of academic integrity, irrespective of the instructional methods employed. Lim also observed that supporting social media for academic purposes in distance education can be an effective learning strategy, provided that appropriate pedagogical interventions are consistently implemented.

Existing studies emphasized the importance of self-regulation, motivation, and effective course structuring, but they lack in addressing students' challenges and coping mechanisms based on transactional distance theory to develop specific intervention plan that enhance students' autonomy. Addressing this gap holds significant value, offering actionable insights for educators and policymakers to design more effective distance learning environments that foster engagement, motivation, and academic success.

Purpose of the Study

The purpose of this study was to investigate the challenges and coping mechanisms that college students encountered in exercising autonomy in a

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distance learning environment, using the framework of Transactional Distance Learning Theory. This theory emphasized the interplay of dialogue, structure, and learner autonomy in determining the effectiveness of distance education. The study examined the specific difficulties students faced in managing their own learning processes, such as self-regulation, time management, and engagement, as well as the strategies they employ to address these challenges. By understanding these aspects, the research aimed to provide a comprehensive analysis of how transactional distance affected students' autonomy and overall learning experiences. The insights gained from this study served as a foundation for designing and proposing a structured intervention plan to address identified gaps, support students' needs, and enhance their capacity to thrive in distance learning environments.

Statement of the Problem

This study explored the college students' autonomy focusing on their challenges and coping mechanisms as basis of intervention plan to better navigate distance learning. Specifically, this study sought to answer the following questions:

1. What are the challenges of students in the context of autonomy on distance learning through the lense of transactional distance learning theory?
2. What are the coping mechanisms of students in the context of autonomy on distance learning through the lense of transactional distance learning theory?
3. Based on the findings of the study, what intervention plan can be proposed?

Theory Base

The theoretical foundation of this study was underpinned by three essential theories: Transactional Distance Learning Theory, Self-determination Theory of Motivation, and Social Cognitive Theory. These frameworks collectively provided a multifaceted lens for examining students' autonomy in distance learning.

This study was primarily anchored on George Edward Moore's Transactional Distance Learning Theory (1997), which examined the dynamics of online learning interactions despite significant spatial separation. In this qualitative study, the Transactional Distance Learning Theory was used to examine the dynamic interplay between the learner, instructor, and content material in distance learning by exploring students' challenges and coping mechanisms through interviews, aiming to create an intervention plan to strengthen distance learning education. The theory identified three primary components that were utilized in this study to specify the challenges and coping mechanisms of students: learner-learner, learner-teacher, and learner-content interactions. Learner-learner interactions involved collaboration among students, fostering peer support, knowledge sharing, and social learning experiences. Learner-teacher interactions encompassed the guidance, feedback, and instructional support provided by educators, influencing students' motivation,

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comprehension, and engagement with course material. Learner-content interactions focused on engagement with and understanding educational material, emphasizing the importance of instructional design and content delivery tailored to diverse student needs and preferences.

In support to this study, the Self-determination Theory of Motivation of Ryan and Deci (1985) was also utilized to empower students' autonomy. This theory suggested that all humans have three basic psychological needs namely autonomy, competence, and relatedness that underlie growth and development. Autonomy referred to feeling one has choice and is willingly endorsing one's behavior and the opposite experience is feeling compelled or controlled in one's behavior. Competence referred to the experience of mastery and being effective in one's activity. Finally, relatedness referred to the need to feel connected and a sense of belongingness with others. By examining autonomy through Transactional Distance Learning Theory, this research identified the gaps in student independence and engagement by understanding their experiences in distance learning through qualitative analysis. This understanding then informed the development of targeted intervention plans to enhance autonomous learning experiences in distance education.

Another theory reinforced this study is the Social Cognitive Theory by Albert Bandura (1986). This was also an essential component for enhancing student autonomy in distance learning. Reciprocal determinism highlighted the dynamic interplay between personal factors, behaviors, and the learning environment. Behavioral capability and observational learning emphasized the importance of acquiring skills and the influence of peers. Reinforcements, expectations, and self-efficacy focused on motivation and confidence. Together, these concepts form the basis for developing targeted interventions that empowered students to manage their distance learning effectively. In this study, this theory was used to identify and enhance the personal, behavioral, and environmental factors that influence student autonomy. By focusing on concepts such as reciprocal determinism, self-efficacy, and observational learning, the study developed targeted interventions to improve students' self-management and motivation in distance learning environments.

METHOD

Research Design

The study employed qualitative research design which was described as a process that involved developing questions and techniques, collecting data typically in the participant's environment, conducting inductive data analysis that progresses from specifics to broad themes, and evaluating the significance of the findings (Creswell and Creswell, 2018). In this study, this method was employed to meticulously examine the challenges and coping mechanisms of college students in distance learning. This was achieved through focus group discussions (FGDs), which were affirmed by college faculty and analyzed

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through the content of the materials used. The students' responses formed the foundational basis for crafting a proposed intervention plan.

Participants

The participants of this study included six (6) college students for the first set of focus group discussions (FGD) and three (3) college faculty members for the second set of FGDs. Using purposive sampling, as outlined by Patton (2002), the study specifically targeted individuals who could provide valuable insights into the challenges and coping mechanisms related to distance learning. The selection focused on participants with direct experience in distance learning, ensuring their perspectives aligned with the purpose of the study of examining students' autonomy in this context. The six (6) students were actively engaged in distance learning, while the three (3) faculty members contributed their observations and understanding of students' experiences. This deliberate approach aimed to capture diverse yet relevant viewpoints, thereby enhancing the validity and reliability of the study in exploring students' autonomy in distance learning through the lens of Transactional Distance Learning Theory as a foundation for developing an intervention plan.

Procedure of the Study

The following actions were taken into consideration by the researcher before, during, and after the conduct of this study:

Seeking Approval of the Research Protocol: The researcher sought guidance and approval of this study from the adviser, technical panel members, and validators before proceeding to the conduct of the study.

Asking for Permission for the Conduct of the Study: The researcher enlisted the help of school representative in locating participants who satisfy the study's criteria. The letter of approval noted by the adviser and college dean was given to the school president attaching the validated researcher's made interview questions and informed consent form.

Giving the Informed Consent to the Participants: An agreement of data privacy was signed by the participants to assure the confidentiality of their answers and identity. This process entails the benefits of the school community which includes them.

Conducting the Study: When the researcher was granted approval for conduct, the research emailed an invitation letter to the selected college students who were continuously exposed to distance learning. The email explained the purpose of the study for aligning to the invitation for focus group discussion, confidentiality of the possible gathered data, allotted time for interview, preferred interview setting (online or face-to-face), and informed consent form (ICF) with the approved letter for conduct. Notably, participants agreed to have the focus group discussion (FGD) in a face-to-face setting, which allowed the researcher to find a safer and most conducive area in the school to conduct the interview for an hour. The information gathered from the focus group discussion (FGD) of the college students was affirmed by college faculty through online focused group

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discussion (FGD) as preferred by the participants. Furthermore, the gathered responses from the college students were also examined to the content of the material used in distance learning. These responses were the basis of a proposed intervention plan in distance learning.

Interpreting the Gathered Data: The researcher sought help for a data analyst who can reliably interpret the results of the focus group discussion (FGD). The concluded themes of the college students' challenges and coping mechanisms were the basis of crafting the intervention plan, which was also embedded with theories to further the effectiveness of the desired action plans.

Finalization of the Research Study: The researcher concluded the research questions from the gathered data verified by an expert and can further the results and recommendations, afterward.

Data Gathering Instruments

The study utilized two sets of researcher's made interview questions for college students and for college faculty, designed with reference to the students' autonomy, to collect data on participants' challenges and coping mechanisms during distance learning. These questions were aligned with the components of the Transactional Distance Learning Theory (1997), focusing on learner-learner, learner-teacher, and learner-content. These interview questions were validated by experts in the field of English language. Also, this study used a sample course content material in distance learning to further the data collected from the focus group discussions (FGDs) of college students and faculty.

Data Collection

In this study, data was collected through focus group discussions (FGD) with college students, whose responses provided initial insights into their experiences with distance learning. To ensure the accuracy and depth of these insights, the researchers sought confirmation from college faculty by conducting focus group discussions (FGD), allowing them to cross-verify the students' perspectives with those of the instructors. Furthermore, the researchers analyzed relevant distance learning course content materials to ensure that the information obtained from both students and faculty was consistent with the actual teaching practices and resources used. This comprehensive approach of integrating feedback from multiple perspectives and examining the instructional materials allowed for a thorough validation and increased the reliability of the findings of the study. The saturation point in this study reached when researchers had thoroughly collected and analyzed data from focus group discussions (FGDs) with college students and faculty, as well as examined relevant distance learning course materials. Through this integration of feedback from multiple perspectives and validating findings against instructional materials used, the researchers ensured the reliability and depth of their insights into the experiences with distance learning. Further data collection beyond this comprehensive approach was unlikely to significantly enhance the understanding of this study.

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Data Analysis

The gathered responses of the participants were analyzed using the following data analysis tools:

Thematic Analysis. This was applied in the analysis of data, which included multiple perspectives and data sources, such as the affirmations of college faculty and content of materials used, to comprehensively understand students' challenges and coping mechanisms in distance learning. This method involved identifying and analyzing patterns or themes within the collected data.

Theory-based Content Analysis. This was instrumental in crafting the proposed intervention plan for distance learning by systematically analyzing the challenges and coping mechanisms identified among college students through the lens of relevant theoretical frameworks. This approach allowed for a structured examination of the data, facilitating the identification of key areas for intervention. By aligning the proposed strategies with established theories, the intervention plan was designed to address the root causes of student difficulties in distance learning effectively, thereby enhancing its potential effectiveness and relevance.

RESULTS AND DISCUSSIONS

Challenges of students in the context of students' autonomy on distance learning through the lense of transactional distance learning theory

Qualitative data analysis was employed to examine the challenges encountered by students in adapting to distance education, particularly focusing on autonomy. These challenges were thematically categorized based on Moore's (1997) Transactional Distance Learning Theory dimensions: learner-learner, learner-teacher, and learner-content aligning to the affirmation of college faculty and to the documented material used (See Appendix M).

Components of Transactional Distance Learning Theory	Challenges
Learner-Learner	Avoidance of Collaborative Work and Social Withdrawal
	Struggles with Group Dynamics and Task Management
Learner-Teacher	Barriers of Having Effective Communication
	Unclear and Inconsistent Instructions
	Lack of Interpersonal Connection and Engagement
Learner-Content	Complexities of the Reading Materials
	Limited Collaborative Activities in the Content Materials

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Learner-Learner

Avoidance of Collaborative Work and Social Withdrawal. The given responses and documentation highlighted a significant theme of avoidance of collaborative work and social withdrawal among students. PStuAu1 expressed difficulty and reluctance in engaging in online collaborative tasks unless absolutely necessary, preferring to work independently. Instructors (PFac1, PFac2, and PFac3) had noticed this trend, observing some students' lack of participation in group activities despite their contributions to the final output. The teaching materials used follow a traditional format with set objectives, discussions, and quizzes, which may not promote the collaborative and interactive skills needed in modern education. Additionally, PStuPh2's struggled to balance personal ideas with group input, along with PFac2's observations of conflicts during group work, emphasized the need for improved communication and collaboration strategies in educational materials.

PStuAu1: *I find collaborative work online to be extremely challenging since mostly use most of my time for my own and I honestly do not want to connect, not unless it is very urgent task like group tasks.*
This specific struggle of student was seen by the ***instructors*** *(****PFac1, PFAc2,*** *and* ***PFac3****), due to high volume of students, they tend to notice some of the students who were declining to participate during group activities, but they might have contributed to the works being presented.*
For the ***documented material****, it was evident that the presentation of information followed a very traditional format. This included setting objectives, conducting thorough discussions, and administering quizzes the following day. While this method was effective in some respects, it was recognized that it might not fully support the collaborative and interactive aspects of learning, which were increasingly important in today's educational landscape.*

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The data revealed a complex relationship between students' autonomy and their engagement in collaborative work. On one hand, students like PStuAu1 and PStuPh2 exhibited a strong preference for autonomy, focusing on individual work and expressing discomfort with collaborative tasks and group dynamics. This desire for independence could lead to social withdrawal and reluctance to participate in group activities unless absolutely necessary. On the other hand, the traditional teaching methods observed, which emphasized individual assessments over collaborative learning, may inadvertently support this trend by not providing sufficient opportunities or support for developing teamwork and communication skills. Consequently, while students exercised autonomy in their learning, the lack of emphasis on collaboration could hinder their ability to engage effectively in group settings, suggesting a need for a balanced approach that integrates autonomous learning with collaborative experiences.

The study of Barrot et al. (2021) and the findings of this study both identified a significant issue of student disengagement in online classes, although from slightly different angles. Barrot et al. pointed out that students often feel uncomfortable being the center of attention, leading to a lack of engagement. This aligned with the documented results, where students exhibited a tendency to avoid collaborative work and preferred to work independently, as noted by both students and instructors. The traditional format of teaching materials, which do not encourage collaboration or interactive skills, further heightened this issue, highlighting a need for educational strategies that promote better communication and group dynamics. Thus, both studies highlighted the importance of addressing psychological comfort and enhancing collaborative frameworks to improve student engagement in online learning environments.

Struggles with Group Dynamics and Task Management. The data revealed significant struggles with group dynamics and task management among students in an online learning environment. Students like PStuTi3 and PStuSh5 expressed difficulty in engaging with classmates and managing group projects, often feeling overwhelmed by leadership responsibilities and task assignments. Instructors (PFac1, PFac2, PFac3) acknowledged these challenges, noting that many students find it hard to participate and keep everyone aligned in virtual settings. PStuBl6 highlighted issues with real-time collaboration and communication, which worsen by connectivity problems, while PStuOr7 pointed out the difficulties in coordinating schedules due to conflicting commitments. These struggles were compounded by the current rubric's focus on rapport over individual contributions and task management, indicating a need for more robust evaluation criteria to strengthen active participation and clear role definitions in group projects.

PStuTi3: *I find it quite difficult to engage with classmates. I tend to rely on others to take the lead, and I often feel overwhelmed by the responsibility of managing group projects online.*
Instructor ***PFac3*** *had acknowledged those concerns about engaging with classmates and managing group projects online and it wass completely*

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understandable to feel overwhelmed by these responsibilities. Many students find it challenging to take the lead in virtual group settings.
***PStuSh4:** Yes, I struggle with it at times. Kay for me, I am not good in participating to group work online, especially when it comes to assigning tasks and ensuring everyone stays on the same page.*
***All instructors (PFac1, PFac2, and PFac3)** appreciated this honesty about their struggles with participating in online group work, particularly with task assignments and keeping everyone aligned. This was a common challenge, and it is important to acknowledge it.*
***PStuBl5**: It's hard to do collaboration because it's hard to talk to others and it's easy for them to say that they've lost their connection.*
***PFac1 and PFac3 instructors** had encountered this type of scenario especially during real time group collaboration through breakout rooms.*
***PStuOr6:** Sometimes, there are some challenges, especially when it comes to coordinating schedules because we have different schedules.*
***PFac2 and PFac1 instructors** understood the frustration of coordinating schedules for group work, especially when everyone had different commitments and stated that this was a significant challenge in online collaboration.*
*The **documented, provided content material** and student responses highlighted significant struggles with group dynamics, communication, task management, and schedule coordination in an online learning environment. The current rubric's focused on rapport rather than individual contributions and task management heightened these problems, suggesting a need for more comprehensive evaluation criteria that promoted active participation and clear role definition within group projects.*

The findings stressed out a lack of autonomy among students in navigating group dynamics and task management within an online learning context. Students expressed struggles with relying on others for leadership, feeling overwhelmed by responsibilities, and facing challenges in communication and schedule coordination. The instructors' acknowledgment of these difficulties suggested a systemic issue, potentially hindering students' autonomy to independently engage in collaborative tasks. Moreover, the emphasis on rapport in evaluation criteria further diminished students' autonomy by prioritizing collective harmony over individual contributions and effective task management.

The research findings by Chang and Kang (2016) about learners facing obstacles in leadership roles, such as managing uncooperative group members and struggling with initiative-taking, aligned with the results of the study indicated significant struggles with group dynamics and task management in an online learning environment. Students like PStuTi3 and PStuSh5 reported difficulties in engaging and managing group projects, often feeling overwhelmed by leadership tasks. Instructors (PFac1, PFac2, PFac3) also noted these challenges, recognizing students' difficulties in participation and alignment. Additionally, issues such as connectivity problems (PStuBl6) and conflicting schedules (PStuOr7) heightened these challenges, highlighting the need for improved

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evaluation criteria to enhance active participation and clearly define roles in group projects. Both studies emphasized the critical importance of adept interpersonal management for successful collaboration.

Learner-Teacher

Barriers of Having Effective Communication. The presented data highlighted significant challenges students faced in interacting and communicating with their instructors. Some students expressed difficulty due to personal traits like shyness or a preference for minimal verbal communication, while others noted frustrations with instructors' responsiveness, particularly in asynchronous settings. Instructors, in turn, acknowledged the difficulties, attributing them to the high volume of students and workload. Despite attempts to address concerns through group collaboration activities and content materials, issues persisted, such as unclear communication expectations and a lack of prompting for questions. The data emphasized the complexity of online interaction dynamics, where both students and instructors struggled with barriers to effective communication and engagement.

PStuAu1: *I find it difficult to interact to some of the teachers since I don't really like to talk much. Sometimes, I have a hard time approaching because I have a mind system that I can't reach out unless it's really important… PStuSh4: I find it hard to interact with teachers because I am a bit shy.*
All instructors *acknowledged this type of behavior, and stated that it was also a challenge for them to navigate such difficulties due to high volume of students.*
In connection to the ***documented content material****, it was stated in the group collaboration activity that students could send personal message if they had any concerns with the activity.*

PStuPh2: *We cannot deny that there are teachers who are so busy as if they own CHED that they do not reply during asynchronous or other times, you only get a reply from them during synchronous discussion.*
All instructors *acknowledged this type of circumstance, and stated that it was also a challenge for them to navigate such circumstance due to high volume of required workload.*
PStuOr6: *It is difficult to raise questions since I can't see them.*
PFac1 *and* ***PFac2 instructors*** *acknowledged this one and admitted that this was one of the challenges in having online interaction, the depth of communication was not that established.*

In the content material*, it was evident that there was comprehension check part of the discussion in the first lesson, but questions were not stated or prompted which could also be a factor of fear of raising questions within the discussion proper.*

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The data singled out the impact of communication challenges on student autonomy within the educational setting. Students' struggles to interact and communicate effectively with instructors revealed limitations on their autonomy to engage fully in their learning process. Factors like shyness or difficulties in accessing instructors hindered students' ability to assert their needs and preferences, potentially impeding their academic progress. Furthermore, the acknowledgment of instructors regarding workload constraints highlighted a systemic barrier to student autonomy, as the volume of students and workload may limit instructors' availability and responsiveness. The lack of clear communication expectations and prompting for questions further diminished student autonomy by reducing opportunities for independent inquiry and clarification.

The findings of this study aligned closely with the research by Bestiantono et al. (2020) and Chiner et al. (2021) on challenges in distance learning environments, highlighting insufficient engagement and communication issues. Similar to the study of Bestiantono et al. (2020) that entailed observation of fluctuating interaction levels and limited face-to-face contact, this study found that students struggled with instructors' responsiveness, particularly in asynchronous settings, and experienced unclear communication expectations. Echoing to the findings of Chiner et al. (2021) on inadequate lesson explanations and feelings of abandonment, this study revealed students' frustrations with remote content comprehension and a lack of prompt feedback, further emphasizing the complex dynamics of online interactions where both students and instructors faced significant barriers to effective communication and engagement.

Unclear and Inconsistent Instructions. The data revealed a recurring theme of unclear and inconsistent instructions within the educational setting of distance learning. Students expressed frustration over ambiguous communication during discussions and asynchronous classes, leading to misunderstandings and inadequate feedback on assignments. Faculty acknowledged these concerns, attributing some issues to time constraints and heavy workloads. However, there was an acknowledgment that clarity in instructions and consistent communication were essential for effective learning. Instances of sudden quizzes and changes in assignment instructions highlighted the need for improved communication and documentation to mitigate confusion among students and faculty alike.

PStuAu1: *Unclear communications with our concerns means lacking of clarification with the discussed contents. It is okay during discussion but hopefully, they would understand that we have different pacing. There are also times that instructions in the asynchronous class are not that clear, then, feedback is not stated in giving grades. Also, I agree with them, especially in reporting, it would be better for the teachers to provide wrap up discussions by answering all clarifications.*

Instructor PFac2 *stated that faculty usually entertained clarifications but sometimes, time hindered the process discussion. When it comes to feedbacking,*

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due to workloads, they sometimes forget to state feedback aside from inputting grades.
When it comes to the ***documented materials,*** *this does not have any room/instructions for raising clarifications with the students.*

PStuSh4: *…with regards to the misunderstanding with teachers, he/she would suddenly give a quiz even though it is schedule for next week.*
When it comes to the documented materials, *this does not have any reminders for the upcoming quiz.*

Instructor PFac3 *appreciated the honesty of the students but it was also stated in the orientation that it was their responsibility to review their lessons for discussions would mean quiz on the next day, but maybe this might not be suitable to everyone, so constant reminder of rules would be applied in the future.*
When it comes to ***the documented materials,*** *this does not have any reminders for the upcoming quiz.*

PStuBI5: *… When they assign us an assignment then next day they change the instructions of the assignment.*
Instructor PFac3 *stated that this happened when they reviewed their posted materials with instructions, but this was be clearly noted.*
When it comes to the ***documented materials****, the content does not notify the students whenever there are any changes of the instructions.*

The findings pointed out the critical link between clear communication and student autonomy within the educational environment. Ambiguous instructions and inconsistent feedback threatened students' ability to independently navigate their learning process. Without clear guidance, students might struggle to effectively manage their time, prepare for assessments, and engage with course materials autonomously. Conversely, when instructions were transparent and feedback was consistent, students were better equipped to take ownership of their learning journey, made informed decisions, and actively participated in their education. Thus, improving communication practices could empower students to exercise greater autonomy in their academic pursuits, strengthening a more conducive learning environment.

The results of the study validated the research findings that clarity of instruction was vital for effective distance learning, as both highlighted how unclear and inconsistent instructions hindered student understanding and progress. Like the challenges identified by Niwaz et al. (2019) and Yeungm and Yau (2022), this study found that ambiguous communication during asynchronous activities led to frustration and misunderstandings, and Musingafi et al. (2015) negatively affecting engagement and learning outcomes. Faculty acknowledged these issues, noting that time constraints and workloads contributed to the problem. Both the research findings and the study emphasized

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the importance of clear and consistent communication to mitigate confusion and improved the overall distance learning experience.

Lack of Interpersonal Connection and Engagement. The data highlighted a prevalent theme regarding the challenges faced in engaging with instructors in online learning environments. Students expressed frustration with the lack of visual cues and depth in communication, as well as boredom during discussions due to the absence of face-to-face interaction. In response, instructors acknowledged these difficulties and emphasized the mutual struggle, striving to enhance interactivity during discussions. Moreover, the documented content primarily comprised passive resources, such as text-based lectures and static presentations, which hindered active participation and diminished engagement.

PStuTi3: *Lisod mag-communicate sa teachers kay dili man nimo makita ilahang reaction kung unsa man imohang iingon sa ilaha mao sa end sad sa students dili siya lalim.*
(It is so hard to communicate with teachers since you can't see their reactions, the communication is not depth.)
Instructor PFac2 *admitted that this is one of the challenges of online learning that they can barely perceive.*
The ***documented content material*** *lacked interactivity features, such as real-time chat or video conferencing tools set as a guideline for discussion.*

PStuBI5: *… Sometimes, I encountered difficulty especially in discussion since you can't see each other, I tend to feel bored in absorbing the information.*
Instructor PFac1 *responded that this struggle did not only revolve with students, this was also a struggle of teachers, that is why they were trying out their best to be more interactive during discussion.*
The documented content material *primarily consisted of passive resources, such as text-based lectures or static presentations, which failed to facilitate active participation and discussion, contributing to decreased engagement.*

The findings suggested that the challenges in engaging with instructors online can significantly impact students' autonomy in their learning journey. The absence of visual cues and depth in communication might hinder students' ability to independently navigate and comprehend course material, leading to a sense of disconnection and boredom. Additionally, the reliance on passive resources hindered students' autonomy in actively participating and shaping their learning experiences. By highlighting these challenges, the importance of incorporating interactive elements and promoting a supportive environment where students could autonomously engage with course content and discussions, ultimately empowering them to take ownership of their learning process in online settings.

The research findings by Musingafi et al. (2015), Yeung and Yau (2022), and Alawamleh (2020) covered critical barriers in online education. Musingafi et al. (2015) and Yeung and Yau (2020) highlighted the substantial obstacles posed by deficient feedback mechanisms and communication channels, which hindered

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effective student-teacher interactions and academic progress, emphasizing the necessity for standardized instructional approaches and transparent course logistics to mitigate confusion, frustration, pacing disparities, and vague instructions. Alawamleh's (2020) examination of the decreasing interpersonal communication in online platforms and the absence of emotional cues further impeded comprehension and rapport between educators and learners, illustrating significant challenges in building understanding and relationships. Yeung and Yau's (2020) recommendations were echoed by these findings, stressing the importance of consistent and dependable communication to enrich student engagement and achievement in remote learning environments, as instances of overlooked quiz schedules and other logistical issues demonstrated the pivotal role of clear communication in fostering effective learning experiences.

Learner-Content

Complexities of Reading Materials. The findings highlighted the multifaceted challenges students faced with reading materials, emphasizing both comprehension difficulties and motivational factors. Students expressed struggles with understanding complex content, feeling overwhelmed by volume, and finding materials boring or unengaging. This sentiment was echoed by faculty who acknowledged the necessity of extensive reading materials, particularly in literature subjects, yet recognized the strain it imposed on students, contributing to feelings of overwhelm. Despite efforts to ensure materials were understandable and accessible, there remained a significant disconnect between student needs and the demands of academic reading, emphasizing the ongoing complexities inherent in this aspect of education.

PStuSh4: *For me, the challenges po is the material itself, some parts kay dili siya understandable and quite complicated to understand.*
(For me, the challenges is the material itself, some parts are not understandable and quite complicated to understand…)
Instructor PFac3 *stated that for English subjects, there might be some technical terms and situation analysis that might confuse the students' but they could always refer to the materials in the discussion.*
For the ***presented material****, literature like The Illiad and The Odyssey of Homer contained old English language structure that may hinder the interest of reading the story.*

PStuAu1: *As someone who doesn't like reading academic materials, I find them too boring because even just by looking at the materials, let us just say, 11 pages, I will start reading it because of having this though that I will not be able to retain the information given in the materials. PStuTi3: For me, it is a bit hard to involve with the given materials, I easily get bored, then, the materials is very overwhelming, content-wise…* ***PStuBI5:*** *For me, I still find those not so engaging due to its complexity.* ***PStuOr6:*** *Keeping up with readings and homework is a*

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struggle for me. Sometimes, the sheer volume of reading materials feels overwhelming.
***PFac2** and **PFac1 instructors** both stated that there really was a need for reading materials, especially on the literature subjects. Instructors agreed that it could very overwhelming for the students knowing that they had a lot of subjects per semester.*
*For the **presented material**, the required reading made this overwhelming.*

The findings singled out the intricate relationship between student autonomy and academic engagement within the context of reading materials. Students' expressions of boredom, overwhelm, and difficulty engaging with complex content suggested a potential erosion of autonomy, as they feel constrained by the demands of prescribed reading materials. The discrepancy between students' perceived autonomy in choosing their learning paths and the reality of being overwhelm with mandatory readings covered a tension between academic requirements and individual agency. Faculty recognition of these challenges further highlighted the importance of strengthening a balance between providing necessary academic materials and empowering students to engage autonomously with their learning. Thus, addressing students' autonomy in selecting and navigating reading materials could be crucial in enhancing their motivation and overall academic experience.

The findings of the study resonated with previous research, echoing concerns about the challenges students encounter when confronted with complex academic materials. Just as Willging and Johnson (2009) referenced by Xia et al. (2022), the participants in this study struggled with comprehension due to the overwhelming volume and intricacy of content, compounded by a lack of prior knowledge. Moreover, similar to the literature, students found it difficult to connect new concepts with existing frameworks, leading to diminish motivation and hindered learning. The study emphasized the multifaceted nature of these challenges, emphasizing both cognitive overload and motivational factors as significant barriers to effective engagement with academic reading materials. Despite efforts to address accessibility and comprehensibility, the gap between student needs and academic demands persisted, highlighting the ongoing complexity of supporting students in navigating challenging content.

Limited Collaborative Activities in the Content Materials. The presented data highlighted the complexities associated with reading materials in online learning environments. Students PStuAu1, PStuSh4, and PStuOr6 expressed that online learning materials often lack interactivity and engagement, being predominantly text-heavy and offering limited collaborative opportunities, leading to a sense of isolation and a need for self-study to retain information. Faculty PFac1 and PFac2) acknowledged these concerns, recognizing that while online resources may be isolating and cannot fully replicate the immediacy of face-to-face interactions, they still hold value for discovery learning through reading. Faculty also emphasized the importance of enhancing virtual discussions and

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improving the interactive quality of online classes, despite the heavy reliance on individual reading of literature for subsequent discussions.

PStuAu1: *I would say that learning materials online are not that interactive and engaging because most of the learning materials online are purely next with numerous pages… Another one is, there is only a subtle interaction or collaborative learning when it comes to online learning materials because not all the time you can communicate with your classmates and not everything can be a collaborative work so you have to study alone so that you can retain the information in the reading materials.*
Instructor PFac1 *understood the concerns about the interactivity and engagement of online learning materials and it was true that many online resources were text-heavy and could feel isolating, but they needed to embrace the fact that through reading, students could navigate discovery learning.*
The content material *contained heavy reading of literature.*

PStuSh4: *I can say that it is mediocre. There is still interaction, but it is quite apart from those of face-to-face classes/discussions… PStuOr6: The interactivity content of the materials is not the same in face-to-face classes.*
Instructor PFac2 *appreciated the feedback on the interaction level in our online classes. While online learning cannot fully replicated the immediacy of face-to-face interactions, they teachers, can take steps to improve the quality of our virtual discussions in the phase of content material.*
The content material *contained individual reading of literature for discussion on the next meeting.*

The given data suggested that while online learning materials often lack interactivity and collaborative opportunities, they inherently promoted student autonomy. The text-heavy, self-directed nature of these resources required students to engage in independent study and took greater responsibility for their own learning. This independence could enhance self-regulation and critical thinking skills as students navigate and interpret information on their own. Faculty recognized this shift, acknowledging that although it could feel isolating, it also encouraged students to embrace discovery learning and develop autonomy in managing their educational journey. Therefore, the complexities of reading materials in online learning environments, while challenging, ultimately promoted a higher degree of student autonomy.

The findings of the study of Samuel (2021) resonated with the findings of this study that entailed more on challenges in online education, particularly regarding engagement issues. Samuel highlighted the difficulties students face in accessing personalized attention and interactive learning experiences, which aligned with the concerns raised by students PStuAu1, PStuSh4, and PStuOr6 in the current study. These students expressed frustration with the predominantly text-heavy and non-interactive nature of online learning materials, leading to feelings of isolation and a need for self-study. Similarly, faculty PFac1 and PFac2

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acknowledged these challenges and emphasized the importance of enhancing virtual discussions and improving the interactive quality of online classes to address them, echoing Samuel's emphasis on the necessity of interactive experiences for effective learning.

Coping mechanisms of students in the context of students of autonomy on distance learning through the lense of transactional distance learning theory

Qualitative data analysis was conducted to further examine the coping mechanisms employed by students in adapting to distance education, particularly focusing on autonomy. These coping mechanisms were thematically categorized in response to the challenges of the students based on Moore's (1997) Transactional Distance Learning Theory dimensions: learner-learner, learner-teacher, and learner-content aligning to the affirmation of college faculty and to the documented material used (See Appendix M).

Components of Transactional Distance Learning Theory	Coping Mechanisms
Learner-Learner	Active Tasks Coordination
	Empowered Communication and Engagement
Learner-Teacher	Using Diverse Communication Channels
	Self-Directed Learning through Research
	Balancing Interpersonal Support and Professional Guidance
Learner-Content	Effective Time Management through Study Techniques
	Exploring Various Reading Materials

Learner-Learner

Active Tasks Coordination. The data highlighted the coordination of active tasks among students, particularly in group settings. Instructors noted the effectiveness of giving ultimatums for urgent tasks and the importance of assigning group discussions with graded rubrics. Group leaders were recognized for their efforts in facilitating communication within their groups, often using platforms like Google Docs for asynchronous participation. Additionally, students sought support from classmates to clarify expectations and addressed challenges. While there was structured collaboration within assigned topics and reporting, students were encouraged to autonomously process their reports, showcasing a balance between guided tasks and individual initiative.

PStuOr6: *We just provided alternative ways for group members to participate or contribute if they cannot attend synchronous meetings, like adding content to google docs.*

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All instructors *had seen all the hard work of group leaders in reaching out with their members. They just let them called out names in the GC without any reactions for them to develop accountability.*
PStuAu1: *I just connect if it is very urgent task like group tasks.*
Instructors *always notice that members of the group worked hand-in-hand once you gave ultimatum to the group activities.* ***Instructor PFac1*** *stated the really first thing that she did in her class was to group them because she assigned them into some certain discussions and graded according to rubrics. But after the reporting, there was also an activity wherein she can assess them individually. To ensure that the discussion was not just be limited on their end, there was time for questions and clarifications from their classmates, and there were situations that was given to them since her subject was about language culture and society.*
PStuTi3: *I just seek support from my classmates when I needed to clarify expectations or address challenges.*
All instructors *stated that they were all aware of special group meetings and discussions of the students for them to have mastery of the subject matter and they commended them for that.*
In the presented material*, there were assigned groupings of the reporters wherein they can collaborate and share their ideas with their given topics. Beyond the given assigned topics and reporting, it was believed that students had the autonomy to process their report.*

The data indicated a structured yet flexible approach to task coordination that promotes student autonomy. Instructors set clear group activities and grading rubrics, creating a framework within which students operate. However, students retained significant autonomy, as they were responsible for managing their group's internal communication, often supporting digital tools to ensure inclusive participation. This autonomy extended to seeking peer support independently when clarifications or challenges arise, indicating a reliance on peer networks alongside instructor guidance. The balance between assigned tasks and individual initiative suggested that while students were provided with a clear structure, they were empowered to take control of their learning process, thereby enhancing their sense of responsibility and self-direction.

The research findings of Eden et al. (2024) emphasized the critical role of community engagement in online learning, emphasizing the creation of virtual communities and collaborative activities to enhance student involvement and learning outcomes. This was reflected on the results of the study, which highlighted the effective coordination of group tasks and the significant role of group leaders in facilitating communication. The use of platforms like Google Docs for asynchronous collaboration and the active seeking of peer support for clarifying expectations illustrated the practical application of Eden et al.'s recommendations. Furthermore, the structured yet autonomous nature of the collaborative efforts, including instructor-provided ultimatums and graded rubrics, aligned with the emphasis on instructor involvement in promoting a supportive and inclusive online learning environment.

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Empowered Communication and Engagement. The presented data highlighted the major theme of empowering communication and engagement, showcasing various strategies used by both students and instructors to enhance interaction and collaboration. PStuPh2 mentioned actively listening and expressing thoughts constructively, supported by instructor PFac2 by using breakout rooms for balanced discussions and employing tools like Google Slides and Docs for real-time collaboration. PStuSh4 appreciated classmates who encouraged open communication to promptly address issues. Instructors observed the reliance on peer support and utilized group chats (GCs) for queries, strengthening social interaction even online, as emphasized by PFac3. PStuBl5 noted the importance of reminders in GCs, which supported by instructor PFac1 for promoting collaboration. The documented content material initiatives included group reporting, vlogs, and paired digital portfolios, demonstrating the instructors' support in enhancing students' interpersonal relationships through collaborative tasks.

PStuPh2: *I guess I managed it by just trying to control myself and be more like an active listener, through it its quite difficult to do it. I just like to share my ideas, not really imposing, but I'd like to state it as expressing my thoughts.*
Instructor PFac2 *stated that there were some students who were very expressive and had tons of ideas not just in the discussion but also in group works. She stated that she made use of the breakout rooms to balance the ideas of the students. For instance, if it was a brainstorming activity, she flashed the questions on the screen and had the students wrote all of the questions or took a photo of them. After that, she grouped the students randomly using breakout rooms. She gave them 10-15 minutes to discuss the answers. Once time was over, they were redirected again to the main room, then she asked each of them to report what they had discussed. She also used Google Slides, Google Docs, and other online platforms that allowed students to collaborate in real-time.*
PStuSh4: *I am just thankful that some of my classmates encourage open communication among group members to address any issues promptly.*
All instructors *observed that students had their classmates or friends to rely on whenever they have confusions with the discussions. PFac3 took advantage of that and stated that since they have GCs, if there were some questions with regards to the activity or discussion, she told them to just a message in the GC and ask their classmates first before they can ask to her. In that way, they can develop social interaction even if it is online. If not solved, that's the time that can ask me for it.*
PStuBl5: *We just keep on reminding them about the task, like we mentioned them in the GC where our instructor is there for the to reply immediately.*
Instructor PFac1 *highly acknowledged and commended the action of mentioning names of their group members as a reminder of how important collaboration was.*

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***In the documented material**, these initiatives of the students were clearly supported by the instructors by providing various tasks that would enhance their interpersonal relationship with their classmates such as group reporting, group vlogs, and by pair output of digital learning portfolio.*

The findings illustrated how empowered communication and engagement strategies promoted student autonomy by encouraging self-regulation, peer support, and collaborative problem-solving. Students like PStuPh2 practiced active listening and thoughtful expression, indicating self-management skills. The use of breakout rooms and online collaborative tools by instructors, as described by PFac2, provided structured yet flexible environments where students could independently brainstorm and share ideas. Encouraging open communication within groups, as mentioned by PStuSh4 and PStuBl5, highlighted the students' ability to address issues collectively, promoting autonomy in managing their learning processes. Additionally, instructors' reliance on group chats (GCs) for initial problem-solving before seeking their help, as noted by PFac3, further empowered students to take charge of their learning and seek peer assistance first. These practices collectively demonstrated a learning environment that supports and enhances students' autonomy through guided yet self-directed collaborative activities.

The research findings aligned with the study by Kahu and Nelson (2018) by emphasizing the significance of supportive instructional practices and peer interactions in promoting student engagement and academic success. Both highlighted strategies such as using breakout rooms, collaborative tools like Google Slides and Docs, and group chats, which enhanced communication and social interaction. The active involvement of instructors in facilitating group activities and encouraging open communication resonated with Kahu and Nelson's emphasis on real-time collaboration and peer support as pivotal elements in promoting a deeper connection among students and their active participation in academic endeavors.

Learner-Teacher

Using Diverse Communication Channels to Instructors. This highlighted various responses that emphasized different methods and preferences for interaction between students and teachers. One student preferred written communication and used private messages for urgent queries, ensuring prompt responses. An instructor emphasized the importance of establishing clear communication channels from the outset and being accessible through multiple platforms, though recognizing that immediate responses were not always possible. The same instructor also delegated communication roles within the class to ensure continuous engagement. Another student enhanced written communication by adding emojis to convey tone and emotions, a practice mirrored by an instructor who used emoji reactions to build rapport and facilitated student interaction. Additionally, the use of reflective questions and dramatic monologues in studying literature, such as "Rashomon," promoted deeper

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emotional and intellectual engagement, encouraging students to articulate their personal interpretations and develop critical thinking and emotional intelligence.

PStuAu1: *I prefer written communication over verbal interaction with teachers. So, if urgent or need jud nako kaayo ug answer, mag-private message ra ko.*
(I prefer written communication over verbal interaction with teachers. So, if it's urgent or I really need an answer, I'll just send a private message.)
PStuTi3: *What I did is I tried to focus on the content of your message rather than the immediate reaction and sometimes, ginabutangan nako emojis akoang message po. (…I just put emojis to my message.)*
PFac3 instructor *exercised building rapport to the students for she was using emoji reactions as their way of interacting or communicating their answers to my questions (or agreeing and disagreeing with my statement).*
In the content material*, there was reflective questions exercise. For example, the one after discussion of Rashomon, promoting deeper connection to the characters.*

The findings illustrated how empowered communication and engagement strategies enhanced student autonomy by providing various avenues for self-directed interaction and expression. Students' preference for written communication and the use of private messaging for urgent queries exemplified their ability to choose the most comfortable and effective means of communication. Instructors supported this autonomy by being accessible through multiple platforms and encouraging students to take on leadership roles within the classroom, ensuring continuous engagement even in the teacher's absence. The use of emojis by both students and instructors further personalized and humanized interactions, promoting a more approachable and responsive learning environment. Additionally, engaging students with reflective questions and dramatic monologues in literature studies empowered them to explore and articulate their personal responses, thereby enhancing their critical thinking and emotional intelligence.

The results of the study stressed out the significance of effective communication and engagement within the academic environment. Notably, the study resonated with the study of Kwaah and Essilfie (2017) which emphasized the professors' crucial role in providing support to students, mirroring the observed preference of students for written exchanges, especially in urgent scenarios, which punctuated the importance of clear communication channels. Furthermore, the study of Al-Zou'bi and Shamma (2021) encouraged the use of emojis by instructors as reflected in the incorporation of emojis by students, highlighting their role in enriching communication within virtual classrooms. Additionally, the study of Yilmaz and Keser (2016) had recommendations on using reflective thinking activities in e-learning environments and podcast technology were echoed in the strategies employed by both students and instructors, such as active listening, constructive expression of thoughts, breakout room discussions, and the utilization of collaborative tools like Google

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Slides and Docs. The documented initiatives like group reporting, vlogs, and paired digital portfolios further showcased the instructors' efforts in promoting interpersonal relationships through collaborative tasks, affirming the pivotal role of communication and engagement in educational settings.

Self-Directed Learning through Research. The data revealed a shift towards self-directed learning through research within the educational framework. Students expressed reliance on asynchronous communication for inquiries, resorting to independent research when direct answers are lacking. This approach was commended by instructors for promoting discovery learning, where students deepen their understanding by actively exploring subjects beyond the provided curriculum. Emphasizing the importance of cultivating curiosity and initiative, this method not only strengthened critical thinking and problem-solving skills but also promoted lifelong learning. While not explicitly stated in the content materials, the acknowledgment of this trend suggested a potential enhancement in future distance learning processes, highlighting the evolving dynamics of education towards greater autonomy and exploration.

PStuBI5: *Sa synchronous nalang jud mi maka-raise sako amoang PM. In terms sa lessons na gi-discuss sad, ug mangutana mi, gina-ing-nan lang mi ug gi-post na sa google classroom, dili jud direct ang answer, mao mag-scan nalang mi ug mag-search. Also, I just do research po since I did not get any answers.*
(We can only raise our concerns synchronously. In terms of the lessons that have been discussed, and we ask questions, we are just told and posted on google classroom, the answer is not direct, so we just scan and search.)
PStuSh4: *I prepared my questions in advance, which calms me and make research after.*
All instructors *commended the students of having the initiative to do research on their lessons, in that way, the can process discovery learning and can further what they had already learned. By taking the initiative to delve deeper into their subjects, students not only engaged in active discovery but also solidified their understanding through practical application. This approach fostered critical thinking, problem-solving skills, and a deeper grasp of the material, ultimately empowering students to extend their learning beyond the classroom. Such commendation highlighted the importance of fostering a culture of curiosity and initiative in education, laying the foundation for lifelong learning and intellectual growth.*
In connection to ***the content materials,*** *promoting research activity was not stated but this finding is duly noted in making enhancement with the future processes of distance learning.*

The findings stipulated a significant transition towards student autonomy in learning, where individuals were encouraged to take charge of their educational journey through independent research. Students' reliance on asynchronous communication and proactive preparation of questions emphasized their initiative in seeking knowledge beyond traditional classroom structures. Instructors'

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commendation of this approach signified a recognition of the importance of autonomy in promoting deeper understanding and lifelong learning skills. This shift towards self-directed learning reflected a broader trend in education, emphasizing the empowerment of students to drive their own educational experiences, thus promoting greater autonomy and self-reliance in the learning process.

The findings of the study of Janakiraman et. al. (2018) aligned with the results of this study by demonstrating how instructional design could indeed facilitate self-directed learning. Through the observed shift towards self-directed learning within the educational framework, students displayed a reliance on asynchronous communication and independent research, echoing the study's emphasis on activities that promote task motivation, self-monitoring, and time management. This alignment emphasized the effectiveness of incorporating such strategies into instructional design, as it not only encouraged autonomy but also strengthened critical thinking and problem-solving skills, ultimately nurturing a disposition towards lifelong learning. The results of the study suggested a promising direction for enhancing distance learning processes, reflecting the evolving dynamics of education towards greater self-direction and exploration.

Balancing Interpersonal Support and Professional Guidance. The data showed the delicate balance between seeking support from peers and relying on professional guidance in academic settings. Students expressed a preference for turning to classmates for clarification first, but emphasized the necessity of seeking help from teachers if peers were unavailable. However, there were constraints on when students could access support, particularly outside of synchronous class sessions. Instructors acknowledged these limitations and offered alternative avenues for assistance, such as video call consultations for more complex issues. Despite the availability of support channels like Google Chat, the timing of when students could expect responses remains a critical consideration.

PStuOr1: *Mas naga-reply ko sako mga classmates if naa ko clarifications, pero if dili nila matubag, that's the time na mu-reach out na jud kos akoang teachers.*
(I relied to my classmates more if I have clarifications, but if they don't answer, that's the time to reach out to the teachers.)
PFac1 and PFac3 instructors *firmly stated the interpersonal engagement of students with their classmates, with or without class.*
PStuPh2: *Makakuha lang kag reply sa ilaha during synchronous discussion. It is possible during, but not before and after.*
(You could only get a reply from them during synchronous discussion. It was possible during, but not before and after.)
PStuOr6: *I just ask for clarification during synchronous classes, since those are the only times that they are reachable.*
All instructors *did not deny that there were multiple times that they cannot entertained queries before and after classes. In addition, PFac2 stated that if*

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they had numerous concerns with their grades, she would do video call consultation with the students.
***In the presented materials**, all discussions and activities had prompt message, "if you do have any questions, please do not hesitate to contact me via google chat or you can tag me on the comment section."*

The paragraph recommended a nuanced interaction between students' autonomy and their reliance on both peer and teacher support. While students demonstrated agency by initially seeking clarification from classmates, they ultimately depended on teachers when peers were inaccessible. This dynamic reflected students' ability to navigate their learning independently while recognizing the boundaries of their autonomy, particularly in relation to the timing and availability of support. Instructors' acknowledgment of these constraints and provision of alternative support options further empowered students to exercise autonomy in seeking assistance tailored to their individual needs and circumstances.

The findings of Yamagata-Lynch (2019) resonated with the results of this study, emphasizing the importance of structured interactions and synchronous sessions in promoting student connection and engagement in online learning environments. Just as Yamagata-Lynch highlighted the need for deliberate structures to maximize the benefits of flexibility, the study illustrated how students navigated the balance between seeking peer support and relying on teacher guidance. While students preferred turning to peers initially, they recognized the importance of teacher assistance, especially when peers were unavailable. Instructors, understanding these dynamics, provided alternative avenues for support, acknowledging the constraints of asynchronous communication. This emphasized the ongoing challenge of aligning flexible online spaces with structured learning experiences to optimize student engagement and learning outcomes.

Learner-Content

Effective Time Management through Varied Study Techniques. The results highlighted various effective time management strategies employed by students and instructors to navigate heavy workloads and challenging course materials in an asynchronous learning environment. Students emphasized the importance of prioritizing tasks, breaking down assignments, setting realistic goals, and seeking clarification from instructors when needed. Additionally, instructors advocated for personalized timelines, visual aids, and regular communication to support students' learning processes. Collaborative efforts, such as study groups and utilizing tools like Canva for alternative perspectives, demonstrated a proactive approach to mastering difficult concepts. Despite the limitations of online platforms, students remained committed to active learning through setting specific goals for engagement during reading sessions.

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PStuOr6*: Managing a heavy workload can be overwhelming, but implementing effective time management strategies such as prioritizing tasks, breaking down assignments into smaller steps, and setting realistic goals could help reduce stress. Communicating with my professors about workload concerns may also lead to adjustments or accommodations… I tried to increase engagement by setting specific goals for yourself while reading, such as summarizing key points or identifying questions to discuss with classmates.*
PStuTi3*: I rely on the based materials. I study the keywords so it makes the study process easier.*
Instructor PFac2 *suggested to strengthen students' personalized timelines and visual aids to fit their learning styles and schedules. This involved providing templates for time management, breaking tasks into milestones, and setting realistic goals. Regular communication allowed her to guide students, make timeline adjustments, and offer timely feedback for progress tracking. Open communication channels ensured students feel supported, accountable, and equipped for successful asynchronous learning.*
PStuSh4: *When facing challenging course material, I usually reach out to my instructors for clarifications. Sometimes, I have study groups with classmates so I can grasp alternative perspectives on difficult concepts by utilizing dashboards like Canva. I also tried to find ways to interact more with the material, such as taking notes, highlighting important points, or discussing the material with peers through google meet or group chat.*
All instructors *appreciated the initiative in seeking clarification and utilizing study groups. Their approach to handling challenging material was commendable. All instructors applauded the way of seeking clarification from instructors and collaborating with classmates through study groups shows a proactive attitude towards learning, incorporating tools like Canva to gain alternative perspectives is an innovative strategy as well.*

The findings highlighted how students and instructors were actively engaging in strategies to manage their time effectively and navigate challenging course materials within an asynchronous learning context. The emphasis on students setting specific goals, seeking clarification, and utilizing study groups demonstrated a level of autonomy in their learning process. By taking initiative in their studies, students were exercising control over their learning experiences, demonstrating independence in managing their workload, seeking support when needed, and employing innovative tools to enhance their understanding. This autonomy empowered students to take ownership of their education, fostering a sense of responsibility and self-efficacy in their academic journey.

The study results pointed out the crucial role of task management and proactive engagement in asynchronous learning environments, aligning closely with findings from Cleofe et al. (2021). Students and instructors demonstrated a commitment to effective time management through prioritizing tasks, breaking down assignments, and fostering regular communication channels, echoing the necessity of personalized study schedules and organized information retrieval

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strategies highlighted in previous research. Collaborative efforts and proactive learning strategies, such as utilizing alternative perspectives and setting specific engagement goals, mirrored the resilience and problem-solving approaches emphasized in the literature. Despite the challenges posed by online platforms, the study's participants exhibited a dedication to active learning, emphasizing the importance of efficient note-taking strategies and maintaining engagement despite the lack of in-person interaction, thus reinforcing the overarching themes found in the broader body of research, including insights from Apgar and Cadmus (2021) on organized information retrieval and comprehension.

Exploring Various Reading Materials. The data revealed a variety of approaches students used to engage with their reading materials, highlighting a major theme of exploring diverse resources. PStuPh2 emphasized a deep interest in narratives and character analysis, suggesting that mythology stories sparked further exploration. PStuBl5 relied on information from Google and other trusted sites to broaden their understanding, while PStuOr6 preferred alternative resources like YouTube and interactive tutorials due to a dislike for traditional reading. Instructors appreciated these methods, noting that deep dives into narratives enhanced comprehension and that evaluating the credibility of online information was crucial. They also suggested utilizing video presentations and eBooks, encouraging students to share useful materials with the class. This variety in resource usage was seen as beneficial for enriching students' critical thinking and engagement with the course content.

PStuPh2: *…naga-search ko'g mga further analysis and narratives sa mga characters and plots. Mostly, sa akoang part, mas interested jud ko sa mga stories.*
(...in the mythology class, there are stories that I can hang, I can search for further analysis and narratives in the characters and plots.)
PStuBl5: *By gathering information na makita sa google or other trusted sites.*
(By gathering information in google or other trusted sites.)
PStuOr6: *Since dili man ko ganahan mubasa, gina-consider nako and pag-explore ug alternative resources such as youtube or interactive online tutorials to engage with course materials.*
(Since I do not like to read, I am considering exploring alternative resources such as youtube or interactive online tutorials to engage with course materials.)

Instructor PFac3 *appreciated the extended way of understanding the lesson. Delving deeper into the stories and exploring further analysis of characters and plots can really enrich your understanding of stories.* ***Instructor PFac1*** *added that using Google and other trusted sites to gather information was a very useful strategy. It can provide you with a broader perspective on the topics they covere in class but they also needed to make sure to evaluate the credibility of the sources. Also, you can have materials from the youtube and get materials from the ebooks and you can just do some screenshot and send it to the class.*

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***In the material provided**, video presentations were evident in the learning process but extended reading of the given stories were not stated but this would be duly noted practice for enriching student's critical thinking.*

The findings illustrated a strong sense of student autonomy in learning, as students independently chose various resources to enhance their understanding of course materials. PStuPh2 focused on further analysis of stories and characters, PStuBl5 used of online information, and PStuOr6 preferred YouTube and interactive tutorials reflected personalized learning strategies tailored to their individual preferences and needs. This autonomy was encouraged and validated by instructors, who recognized the value in students exploring diverse resources and critically evaluating their credibility. The approach emphasized the importance of allowing students the freedom to navigate and curate their learning experiences, promoting a more engaged and self-directed learning environment.

The study results verified the research findings by emphasizing students' diverse approaches to engaging with reading materials, aligning with previous literature. As Muthuprasad et al. (2020) observed, there was a preference for interactive and accessible online sessions, evident in PStuOr6's use of YouTube and interactive tutorials. This complements to the study of Culajara (2022), which stated findings of students dedicating more time to online videos and reading to cope with their coursework, as seen in the varied resource use among the students. Additionally, the alignment of instructional methods with student preferences, as noted by Mendoza (2023), was reflected in instructors' encouragement of video presentations and eBooks, and the appreciation for resources tailored to individual interests like mythology narratives for deeper comprehension. This diversity in resource usage was acknowledged for its role in enhancing students' critical thinking and engagement, demonstrating a comprehensive approach to modern educational strategies.

Proposed Intervention plan

A proposed intervention plan was crafted to address the challenges and strengthen the coping mechanisms of college students based on their autonomy in distance learning, incorporating theory-based content analysis to ensure a thorough and effective approach. The crafting of the proposed intervention plan was based on the components of Transaction Distance Learning Theory: learner-learner, learner-teacher, and learner-content.

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Components of Transactional Distance Learning Theory	Challenges	Coping Mechanisms	Proposed Intervention Plan
Learner-Learner	Avoidance of Collaborative Work and Social Withdrawal	Active Tasks Coordination	Collaborative Projects and Peer Review
	Struggles with Group Dynamics and Task Management	Empowered Communication and Engagement	Role Rotation and Individual Reflections
Learner-Teacher	Barriers of Having Effective Communication	Using Diverse Communication Channels	Clear Communication Channels
	Unclear and Inconsistent Instructions	Self-Directed Learning through Research	Clear Guidance for Effective Learning
	Lack of Interpersonal Connection and Engagement	Balancing Interpersonal Support and Professional Guidance	Interactive Engagement Strategies
Learner-Content	Complexities of Reading Materials	Effective Time Management through Study Techniques	Virtual Discussions and Interactive Content Materials
	Limited Collaborative Activities in the Content Materials	Exploring Various Reading Materials	Scafolded Learning Materials

Learner-Learner

Collaborative Projects and Peer Review. This set of interventions was suppported by the theory of Social Constructivism Theory by Lev Vygotsky (1896) that knowledge was constructed through social interactions and collaborative efforts. Assigning projects that necessitated group work encouraged students to overcome their avoidance of collaborative tasks and social withdrawal. Utilizing collaborative tools like Google Docs facilitated seamless interaction and task coordination, addressing students' preference for independent work by structuring interdependence within the group. Alongside these projects, regular peer review sessions promoted a collaborative learning environment where

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students engage in giving and receiving feedback. This created a culture of mutual support and accountability, helping to balance personal ideas with group input. Peer reviews developed critical thinking and communication skills, essential for effective collaboration. Together, these methods aligned with the coping mechanism of active task coordination, providing a structured environment for students to organize and evaluate their contributions, ensuring both individual and collective success.

Moreover, these discussion activities significantly enhanced student autonomy by encouraging self-directed learning and active engagement. Debates and question-of-the-week prompts required students to independently research and form arguments, fostering critical thinking and initiative. Peer reviews and reflective journals promoted self-assessment and continuous improvement, while case study analyses and role-playing scenarios enabled students to apply theoretical knowledge to practical situations, developing problem-solving skills. Expert Q&A sessions and resource sharing further empowered students to take charge of their learning by exploring additional resources and seeking insights beyond the standard curriculum. Collectively, these activities created a dynamic and interactive learning environment where students are encouraged to take responsibility for their educational journey, collaborate with peers, and develop a deeper understanding of the subject matter.

The research findings of Kuo et al. (2014) emphasized that interaction through online discussion forums enhanced student engagement and autonomy, echoed the proposed intervention of study supporting Lev Vygotsky's Social Constructivism Theory (1896). In parallel, the study emphasized the effectiveness of group projects and collaborative tools like Google Docs in balancing students' desire for independent work with the necessity of interdependence. Additionally, regular peer review sessions promoted a culture of collaborative learning, nurturing critical thinking and communication skills vital for effective teamwork. These refined methodologies provided a structured framework for students to assess and enhance both individual contributions and collective success within a collaborative environment.

*Role Rotation and Individual Reflections***.** This intervention plan was rooted to the Community of Inquiry (CoI) framework by Garrison, Anderson, and Archer (2001) and Self-Regulated Learning Theory by Zimmerman and Schunk (2001), role rotation within group projects and individual reflection assignments collectively addressed challenges related to group dynamics, task management, and balancing personal input with collaborative efforts. By rotating responsibilities, students gained diverse experiences and developed a deeper understanding of teamwork dynamics, strengthening a balanced distribution of tasks and promoting effective communication and engagement. Simultaneously, individual reflection assignments encouraged students to self-assess their contributions and group interactions, promoting introspection and self-awareness. These interventions collectively empowered students to manage their tasks efficiently,

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navigate group dynamics effectively, and cultivated a collaborative learning environment where each member's contributions were valued and understood.

Implementing role rotation within groups and incorporating individual reflection assignments were both effective strategies for promoting student autonomy in distance learning. Role rotation ensured that students take on different responsibilities within their groups, allowing them to develop a range of skills including leadership and collaboration. This approach empowered students to take ownership of their learning by actively participating in various roles and tasks. Meanwhile, individual reflection assignments encouraged students to critically assess their own contributions and group dynamics, strengthening a deeper understanding of their learning processes and interpersonal interactions. By engaging in self-reflection, students became more aware of their strengths and areas for improvement, thus empowering them to take charge of their own learning journey in a distance learning setting.

The role rotation and individual reflections reflected the findings of Bates et al. (2023) on balancing autonomy and collaboration in large team qualitative research. By incorporating role rotation and individual reflection assignments, the study addressed challenges related to group dynamics and task management, much like the recommendations for high-quality research and team cohesion proposed by Bates et. al. (2023). These interventions promoted a balanced distribution of tasks, effective communication, and engagement, while also fostering introspection and self-awareness among students. Just as Bates et al. (2023) emphasized the importance of acknowledging differences and reflecting on them to navigate decision-making and collaborative processes effectively, the study's interventions empowered students to manage tasks efficiently and cultivated a collaborative learning environment where each member's contributions were valued and understood.

Learner-Teacher

Clear Communication Channels. This intervention was aligned to aligned with Social Presence Theory of Short, Williams, and Christie (1976) that reinforced various platforms like email, messaging apps, and discussion boards to facilitate diverse interactions between learners and instructors. This set forth a sense of connection and community in the online learning environment and that learners' engagement and satisfaction were positively influenced by a perceived connection with instructors and peers. Utilizing diverse communication channels overcame barriers to effective communication, with emojis adding emotional cues to enhance social presence. Delegating communication roles within the class promoted peer-to-peer interaction, further strengthening social presence.

The intervention highlighted how providing clear communication guidelines and diverse channels in online learning environments could empower students with a greater sense of autonomy. By offering multiple platforms for interaction, such as email, messaging apps, and discussion boards, learners could choose the methods that best suit their preferences and needs, thus exercising autonomy in their learning process. Additionally, the delegation of communication

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roles within the class promoted peer-to-peer interaction, enabling students to collaborate autonomously and contribute meaningfully to the learning community. Overall, this illustrated how effective communication strategies in online education could empower students to navigate their learning experiences independently, aligning with the concept of student autonomy.

The research findings of Espasa et al. (2022) aligned with the intervention of the study, which delved into enhancing feedback mechanisms within online learning environments. They highlighted the importance of utilizing technology to promote engagement, with students favoring video feedback for its perceived ability to facilitate greater interaction and dialogue. This echoed the Social Presence Theory, as it covered the significance of diverse communication channels in cultivating a sense of connection and community among learners and instructors in online settings. By supporting various platforms and communication tools, such as messaging apps and video feedback, instructors could enhance students' engagement and satisfaction by strengthening meaningful interactions and a sense of closeness within the online learning environment.

Clear Guidance for Effective Learning. This intervention plan was designed to optimize the distance learning experience by providing learners with clear and consistent guidance. This was rooted in Cognitive Load Theory by John Sweller (1988) and this aimed to reduce extraneous cognitive load associated with unclear instructions by offering detailed assignment guidelines, clarifying expectations through examples and frequently ask questions (FAQs), and encouraging self-directed learning through research. By empowering learners to manage their cognitive resources more effectively, this intervention fostered an optimal learning environment where students could engage meaningfully with course content and achieve better learning outcomes.

The intervention plan aimed at enhancing distance learning by prioritizing student autonomy through clear and consistent guidance. Drawing on Cognitive Load Theory (1988), the plan sought to alleviate the extraneous cognitive load stemming from unclear instructions by providing detailed assignment guidelines, examples, FAQs, and promoting self-directed learning through research. By empowering students to effectively manage their cognitive resources, the intervention created an optimal learning environment conducive to meaningful engagement with course material, ultimately leading to improved learning outcomes.

The intervention plan in the study aligned with the findings of Miao et. al. (2022) and incorporated to the study of Pogorskiy and Beckmann (2023) proposition. Miao et al. (2022) emphasized the importance of self-regulation and social presence in enhancing learning engagement in online settings, aiming to address deficiencies in self-regulatory skills through clear guidelines and self-directed learning promotion. Additionally, the study of Pogorskiy and Beckmann (2023) stated that by utilizing virtual learning assistants to aid learners, the intervention plan integrated technology to support cognitive resource management. This holistic approach resonated with both studies, emphasizing

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strategies that enhance self-regulation, social interaction, and ultimately learning engagement in online learning environments.

Interactive Engagement Strategies. This intervention focused on minimizing the psychological and communication space between learners and instructors in distance learning environments, rooted in Transactional Distance Theory by Moore (1997). By incorporating interactive elements like polls, breakout groups, and synchronous sessions, along with facilitating peer collaboration and teacher consultation, the intervention aimed to enhance interactivity and engagement. This intervention was rooted in Transactional Distance Theory (1997) that sought to strengthen a sense of closeness and community, empowering learners to actively engage with course content and peers. Through these targeted strategies, learners could bridge the transactional distance gap, leading to improved learning outcomes and satisfaction in the online learning environment.

The intervention emphasized the significance of student autonomy within distance learning environments. By incorporating interactive elements and facilitating peer collaboration, learners were provided with opportunities to take ownership of their learning experiences. The encouragement of active engagement with course content and peers empowered students to make independent decisions regarding their learning process. Additionally, the emphasis on bridging the transactional distance gap highlighted the importance of strengthening a supportive and inclusive learning community, where students felt empowered to express themselves and took initiative in their learning journey. Ultimately, by promoting autonomy through interactive interventions, the intervention suggested that students can develop essential skills such as self-direction and critical thinking, contributing to their overall academic success and personal growth within the online learning environment.

The intervention aligned closely with the study of Maru et al. (2022) with findings on the pivotal role of online platforms in modern education. He highlighted the significance of digital tools in facilitating remote teaching and learning, emphasizing their ability to transcend traditional classroom limitations. Similarly, the study intervention aimed to diminish psychological and communication gaps in distance learning, drawing from Transactional Distance Theory (1997). By implementing interactive features and promoting peer collaboration, the intervention sought to enhance engagement and community in online learning environments. Both the related study and this study emphasized the importance of leveraging digital tools and interactive methods to optimize the remote learning experience, ultimately aiming to bridge the gap between learners and instructors for improved outcomes.

Learner-Content

Virtual Discussions and Interactive Content Materials. The intervention of enhancing virtual discussions and interactive quality aligned with the Community of Inquiry (CoI) Framework by Garrison, Anderson, and Archer (2001). According to this framework, effective online learning environments were characterized by

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three interdependent presences: social presence, cognitive presence, and teaching presence. By facilitating virtual group discussions with assigned roles, social presence was enhanced as students actively interact with their peers and contribute to meaningful discourse. Integrating interactive elements within reading materials promoted cognitive presence by encouraging critical thinking and reflection on the content. Furthermore, encouraging students to share diverse resources and insights from their exploration strengthened teaching presence by creating opportunities for instructors to guide and facilitate learning experiences. Lastly, providing guidelines for evaluating online information credibility supported both cognitive presence, by promoting critical evaluation skills, and social presence, by promoting collaborative sense-making within the online community.

The intervention of enhancing virtual discussions and interactive quality also aligned with promoting student autonomy. By facilitating virtual group discussions and encouraging students to share diverse resources, students were given opportunities to take ownership of their learning by actively participating in discussions, sharing their insights, and contributing to the collective learning experience. Assigning roles within group discussions further empowered students to take on leadership roles and collaborated with their peers in a structured manner, promoting autonomy on how they engaged with and contributed to the learning community. Moreover, providing guidelines for evaluating online information credibility empowered students to critically assess and validate the information they encounter, equipping them with the autonomy to make informed decisions about the resources they chose to utilize in their learning process.

This intervention aligned closely with the findings of Kui et. al. (2022) regarding the significance of visual analytics techniques in enhancing online education. While they focused on the broader scope of data analysis, this study's intervention directly reflected the application of these techniques within the context of the Community of Inquiry (CoI) Framework by Garrison, Anderson, and Archer (2001). By facilitating virtual discussions and integrating interactive elements, the intervention enhanced social presence through active peer interaction, cognitive presence through critical thinking and reflection, and teaching presence through guidance and facilitation by instructors. Additionally, the emphasis on evaluating online information credibility supported both cognitive and social presence by strengthening critical evaluation skills and collaborative sense-making within the online community. Thus, the results of the study reinforced the efficacy of visual analytics techniques in improving various aspects of online education, as outlined by Kui et al.'s research findings. In addition, the study of Miao et al. (2022) stated that there was a significant correlation between online interaction and social presence, with the latter indirectly impacting learning engagement.

Scaffolded Learning Materials. The intervention of implementing scaffolded learning approaches aligned with the Constructivist Theory of Jean Piaget (1973) in distance learning. This theory supported that learners construct

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knowledge through active engagement with the learning materials and their peers. By providing pre-reading activities to activate prior knowledge and setting clear goals for reading, students were actively involved in constructing meaning from the content. Breaking down reading materials into manageable chunks with clear objectives followed the principles of scaffolding, where students were supported in their learning journey through structured guidance. Additionally, incorporating multimedia resources served to enrich the learning experience by catering to diverse learning styles and enhancing engagement, aligning with the idea of multiple representations in constructivist learning environments. Finally, promoting peer discussions and collaborative annotations using online platforms promoted social interaction and knowledge construction among students, which was central to the constructivist approach.

The intervention of implementing scaffolded learning approaches acknowledged and respected students' autonomy by providing them with structured support while still allowing room for independent learning. By offering pre-reading activities and clear objectives, students were empowered to take control of their learning process by setting their own goals and determining their approach to understanding the material. The breakdown of reading materials into manageable chunks also enabled students to work at their own pace, giving them the autonomy to prioritize and organize their learning according to their individual needs and preferences. Additionally, the incorporation of multimedia resources catered to students with varying learning styles, allowing them to choose the format that best suits their preferences, thus promoting autonomy in how they engage with the content.

The intervention of this study was aligned closely to the study of Chen (2021) that focused on minimizing the psychological and communication space between learners and instructors in distance learning environments, rooted in Transactional Distance Theory by Moore (1997). By incorporating interactive elements like polls, breakout groups, and synchronous sessions, along with facilitating peer collaboration and teacher consultation, the intervention aimed to enhance interactivity and engagement. This intervention was rooted in Transactional Distance Theory (1997) that sought to promote a sense of closeness and community, empowering learners to actively engage with course content and peers. Through these targeted strategies, learners could bridge the transactional distance gap, leading to improved learning outcomes and satisfaction in the online learning environment.

Implications

Based on the results, the study concluded with the following implications:

1. Addressing challenges in learner-learner interactions required proactive measures such as promoting collaboration through structured tasks and promoting effective communication channels. Strategies like peer review and role rotation could encourage active participation and mitigate social

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withdrawal tendencies among learners, while individual reflections may enhance self-awareness and mutual understanding within the group dynamic. Thus, educators must prioritize creating an environment conducive to cooperative learning and empowering learners to engage meaningfully with their peers.

2. In learner-teacher challenges, it became evident that establishing clear communication channels and fostering a sense of connection were essential for effective instruction. Educators should strive to provide explicit instructions and cultivate interpersonal relationships with students to foster engagement and comprehension. By supporting various communication platforms and adopting interactive teaching methods, instructors could bridge the gap between themselves and learners, thereby facilitating a more enriching educational experience.
3. Furthermore, enhancing learner-content interactions necessitated the implementation of innovative approaches such as virtual discussions and interactive learning materials. By offering scaffolded resources and diversifying reading materials, educators could cater to different learning styles and levels of comprehension. Encouraging active exploration and critical thinking skills could help learners navigate complex content more effectively, ultimately promoting deeper understanding and engagement with the educational material. Incorporating interactive elements into the curriculum significantly enhances student engagement and comprehension by providing hands-on, practical experiences that reinforce theoretical concepts. These interactive elements facilitate active learning, making the content more memorable and accessible, thus optimizing the overall effectiveness of the educational experience.

Direction for Future Researches

Future research can focus on exploring the effectiveness of various intervention strategies, such as collaborative projects, role rotation, and peer reviews, in enhancing learner-learner interactions across different contexts and disciplines. Additionally, integrating innovative educational tools and technologies could improve communication channels, promote interactive engagement, and make educational content more accessible. The development of adaptive, interactive materials tailored to diverse learner needs and proficiency levels offers a promising avenue for addressing challenges with complex content. Investigating self-directed learning strategies, particularly through research and diverse communication channels, can provide insights into fostering autonomy and resilience among students. Sociocultural factors influencing learner interactions in multilingual and multicultural settings warrant further study to identify barriers and enablers to effective collaboration. Moreover, examining the balance between interpersonal support and professional guidance, alongside the impact of time management techniques on academic success, can yield actionable strategies to enhance learner engagement. Comparative studies

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across educational institutions and longitudinal research on interaction challenges and coping strategies can provide context-specific and evolving insights into effective educational practices.

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