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Research Article

Enhanced Learning Continuity Framework Using Online Teaching as Alternative Delivery Modality

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ABSTRACT

This study explores the integration of technology platforms in online modular learning and proposes an enhanced learning continuity framework using online teaching as an alternative delivery modality. The study captures participants' experiences related to online modular education through surveys by employing a qualitative approach. The findings demonstrate that integrating technological platforms enhances learning continuity. Online teaching offers flexible and accessible learning experiences, fostering effective teaching and learning. The study emphasizes the significance of comprehensive technical infrastructure, blended learning approaches, pedagogical and learner support services, continuous assessment, and a healthy learning environment in crafting the framework. The framework emphasizes robust technological infrastructure, training programs, blended learning approaches, pedagogical support, diverse assessment strategies, and a healthy learning environment by addressing challenges like the digital divide, technical difficulties, and lack of face-to-face interaction, flexibility, adaptability, and continuous evaluation are emphasized to address specific institutional and learner needs. Implementing the framework requires collaboration among educational institutions, policymakers, and communities to create inclusive online learning environments. Efforts should be made to ensure equitable access to reliable internet connections, support disadvantaged learners, and foster creativity through interactive activities. Monitoring and evaluation play a vital role in tracking progress and making informed decisions for improvement. This study provides a foundation for institutions to develop an enhanced learning continuity framework using online teaching. By optimizing the benefits of online modular learning while addressing challenges, the framework promotes effective teaching and learning in the online education landscape.

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Introduction

In recent years, online learning has gained considerable attention as an alternative means of education delivery (Toma et al., 2021). With the emergence of advanced technology platforms, educators and institutions can provide flexible and accessible learning experiences to students through online modular learning (Liu et al., 2020; Ocampo et al., 2023). The research aims to explore the technological platforms used in online modular education, their significance in this form of knowledge, their impact on learning facilitators and participants' challenges, and ultimately to propose an improved learning continuity framework.

Online modular learning relies on various technological platforms to facilitate the delivery of educational content. These platforms encompass multiple tools and applications to enhance teaching and learning experiences. One commonly used platform is Learning Management Systems (LMS), such as Moodle, Canvas, and Blackboard, providing a comprehensive virtual learning environment for instructors and students (Demir et al., 2022). These LMS platforms offer features such as content management, discussion forums, assessment tools, and collaboration spaces, making them highly versatile for online modular learning.

Additionally, video conferencing platforms have become instrumental in online modular learning, enabling real-time interaction between instructors and students. Platforms like Zoom, Microsoft Teams, and Google Meet offer features like video and audio communication, screen sharing, and chat functions, fostering synchronous communication and virtual classroom environments (Graham, 2020; Mobo, 2021). These platforms have proven effective in facilitating live lectures, virtual discussions, and group collaborations, replicating the interactive nature of traditional face-to-face classrooms.

The utilization of technological platforms in online modular modality offers several benefits. Firstly, these platforms provide a centralized space for organizing and accessing course materials, including lecture notes, presentations, readings, and multimedia resources. Learners can conveniently retrieve and review these resources anytime, promoting self-paced learning and independent study (Palaigeorgiou & Papadopoulou, 2019). Furthermore, technological platforms enable asynchronous communication, allowing learners to engage in discussions and seek clarifications beyond scheduled class hours. Discussion forums and messaging features within LMS platforms foster collaborative learning and knowledge sharing among students (Garrison & Kanuka, 2004; Al-Samarraie & Saeed, 2018). Through online interactions, learners can exchange ideas, provide peer feedback, and extend their understanding of course concepts.

Moreover, the use of technological platforms facilitates the incorporation of various multimedia elements into instructional materials. Instructors can integrate videos, interactive simulations, and multimedia presentations to enhance engagement and promote active learning (Mayer, 2017). This multimedia integration caters to diverse learning styles, making the educational content more accessible and engaging for learners.

Technological platforms are crucial in facilitating learners throughout the online modular modality. *Firstly*, these platforms provide learners access to various resources, enabling them to explore topics in-depth and conduct further research beyond the core curriculum. Online libraries, digital repositories, and web-based materials expand the range of learning materials available to students, fostering independent and self-directed learning (Conole, 2013).

Secondly, technological platforms enable personalized learning experiences. With learning analytics and adaptive learning technologies, instructors can track learners' progress, identify areas of difficulty, and provide targeted interventions (Siemens & Long, 2011). Adaptive learning platforms can adapt the content and delivery based on learners' needs and

performance, promoting a more personalized and tailored approach to education.

Additionally, technological platforms facilitate collaborative learning experiences among students. Learners can engage in meaningful collaborations through discussion forums, online group projects, and shared document editing features, fostering critical thinking, problem-solving skills, and social interaction (Dillenbourg, 1999; Cutillas, 2019; Dicdiquin et al., 2023). Collaborative learning enhances knowledge construction through dialogue, encourages diverse perspectives, and prepares students for collaborative work environments.

While online modular learning offers numerous advantages, it also challenges instructors and learners. One of the prominent issues participants face is the lack of face-to-face interaction and physical presence. Traditional classrooms provide non-verbal cues, immediate feedback, and social connections that are difficult to replicate online (Salmon, 2013). This absence of physical presence may result in feelings of isolation and hinder the development of interpersonal skills.

Technical difficulties and limitations also hinder effective teaching and learning in the online modular modality. Participants may encounter problems related to internet connectivity, device compatibility, and familiarity with the technological platforms (Hew & Cheung, 2014). These technical challenges can disrupt instruction flow, hinder access to course materials, and impede communication between instructors and students.

Furthermore, maintaining learner engagement and motivation is a significant concern in online modular learning. Without the accountability of attending physical classes, learners may face distractions and difficulties in self-regulation (Kahu, 2013; Apgar & Cadmus, 2021). The absence of immediate supervision and peer interactions can diminish motivation levels, leading to procrastination and reduced participation in online activities.

Another challenge lies in ensuring the quality and authenticity of online assessments. In the absence of proctored exams, academic integrity becomes a concern, as it may be easier for learners to cheat or plagiarize (McGee, 2013; Chiang et al., 2022). Implementing effective assessment strategies and safeguards to maintain academic honesty in an online modular setting requires careful consideration and using anti-plagiarism tools and alternative assessment methods.

Thus, integrating technology platforms in online modular learning has revolutionized the educational landscape, offering new possibilities for flexible and accessible learning experiences. By understanding the technological platforms used, their significance, the facilitation they provide, and the challenges encountered, institutions can craft an enhanced learning continuity framework that promotes effective teaching and learning in the online modular modality.

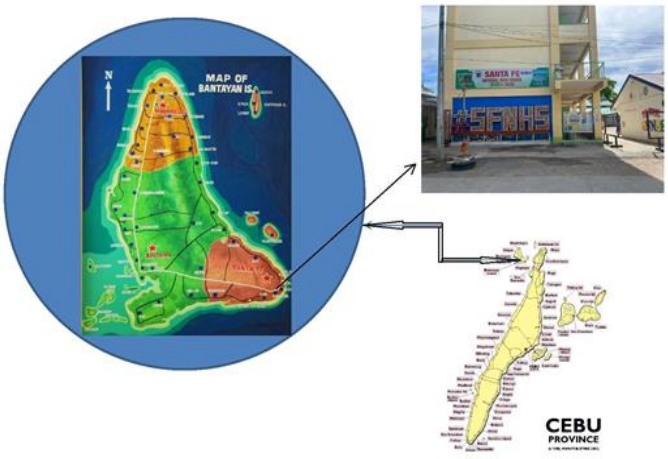

Figure 1. Location of the Study

Methodology

Design

This research used the qualitative approach, specifically the transcendental phenomenological design, which added dimensions to studying human lived experiences. This study used the transcendental phenomenology design since all participants lived on their experiences of online modular modality.In this study, the method to gather data was the survey since it allowed a researcher to collect a large amount of data in a relatively short period. It was less expensive than many other data collection techniques. Surveys were created quickly and administered easily. It is one of the most commonly used research tools because they were utilized to collect data and describe naturally occurring phenomena that exist in the real world (Kendra, 2020).

Environment

The research locale of this study was the Santa Fe National High School. This is located in F. Duarte St. Población, Santa Fe, Cebu. This is a public secondary school that offers Grades 7 to Grade 12. Since this is a public institution, most students are marginalized, meaning most come from a below-average family.

The school comprises 89 teaching personnel, six non-teaching personnel, one school head, six caretakers, and 2737 students, including Senior High School. Santa Fe National High School is considered a medium school. This school is located in the heart of Santa Fe, Bantayan Island, Cebu, Philippines.

Participants

The respondents of this study were the six selected Grade 10 students who were chosen according to their preferred mode of learning and whose parents were able to sign the parent's consent and waiver form for face-to-face classes and selected two teacher-advisers of Santa Fe National High School in the School Year 2021-2022 since they all have this first-hand experience in this new regular education set up. They were ideal respondents for this study since they have the actual knowledge and feelings towards the challenges and problems faced by the learners and the teachers.

Sampling Technique

The type of sampling used in this study was the Purposive Sampling Method. Purposive sampling (also known as judgment, selective or subjective sampling) is a technique in which the researcher relies on judgment when choosing population members to participate in the study. It is where a researcher selects a sample based on their knowledge about the research and population. The participants were chosen based on the purpose of the selection. It also gave profound insights into the target population, the six selected students from Grade 10 aged 15 and above. There were only 8 in total, thus allowing the researcher to collect accurate and complete data from the respondents. This study is the suited sampling method since the target respondents were teachers and learners highly involved in distance learning education.

Instrument

This study primarily utilized the qualitative survey method questionnaire, the Key Informant Interview (KII) interview guide for learners and teachers, and observation notes for validation. The researcher asked various types of questions as a research tool for data collection. An interview protocol was used to request the participants' demographic and interview questions prompted by the research questions. The participants have allowed adding information not noted in the interview protocol to enrich the data and thoroughly understand the phenomenon. Internal and external experts validated this research instrument, and data analysis was anchored on an established qualitative data analysis framework by Moustakas (1994).

Data Gathering Procedure and Analysis

Before the conduct of research, ethical considerations were observed. Each respondent was scheduled for a different date when they were interviewed. The researchers then conducted an actual interview with the participants based on the planned dates given. The interview sessions were done around 10-15 minutes for each participant and were recorded using a smartphone. In the analysis, deductive thematic analysis was used to code and interpret data.

Result and Discussion

Technological Platforms Used

Table 1 lists technological platforms for online modular learning, categorized into synchronous and asynchronous platforms. These platforms have become increasingly prevalent in education, particularly during the COVID-19 pandemic, where remote learning has become the norm for many students and teachers. Technological platforms are digital tools or software systems facilitating online communication, collaboration, and learning experiences.

Table 1. Technological Platforms for Online Modular Learning

Themes	Categories
Synchronous Platforms	• Zoom • Google Meet
Asynchronous Platforms	• Google forms • Google classroom • Group chats

Synchronous Platforms

In the context of online learning, synchronous platforms refer to digital tools or software systems that facilitate real-time interaction and communication between instructors and learners. These platforms aim to create a sense of immediacy and promote interactive engagement among participants.

Zoom: Zoom is a popular video conferencing platform enabling real-time audio and video communication. It offers features like screen sharing, breakout rooms, and chat functionality, making it suitable for interactive online classes. During the online courses, this platform was utilized by both teachers and students. Many educational institutions and organizations adopted Zoom to conduct virtual classrooms, lectures, and meetings (Dwivedi et al., 2021). Its ease of use and accessibility have contributed to its widespread adoption in education.

Google Meet: Google Meet is another synchronous video conferencing platform that gained significant traction during the pandemic. It provides screen sharing, recording sessions, and real-time captions, allowing educators to deliver engaging online classes (Ahmady et al., 2021). Both teachers and students also used Google Meet in the teaching-learning process.

Asynchronous Platforms

Asynchronous platforms, in the context of online learning, refer to digital tools or software systems that enable learners to access educational content and engage in learning activities at their own pace and convenience. Unlike synchronous platforms, asynchronous platforms do not require participants to be present in real time. Learners can access and interact with the content and resources at different times and locations. In the conduct of online classes, the following were used:

Google Forms: Google Forms is an asynchronous platform that enables the creation of online surveys, quizzes, and assessments. Educators can design and share customized forms with students, collect responses, and analyze the data. It provides flexibility for students to complete assignments at their own pace and allows teachers to provide timely feedback (Wong, 2021).

Google Classroom: Google Classroom is a learning management system that facilitates the organization and distribution of digital coursework. It allows teachers to create virtual classrooms, share resources, assign and grade assignments, and communicate with students. Google Classroom streamlines the workflow, enabling teachers to provide instructional materials and monitor students' progress in a centralized platform (Romero-Rodríguez et al., 2020; Ocampo et al., 2023).

Group Chats: Group chats, typically facilitated through messaging apps or collaboration tools, offer an asynchronous platform for communication and collaboration among students and educators. Platforms like WhatsApp, Slack,

or Microsoft Teams enable participants to exchange text messages, files, and multimedia content in real time or asynchronously. Group chats can be used for discussions, project collaborations, and clarifying doubts outside of scheduled class time (Dwivedi et al., 2021).

As attested by the respondents:

> *"We are using google meet and Zoom for our classes. These are good technology so we can learn continuously despite the pandemic".* **John**

> *"During my classes, I used group chats in the messenger and Google apps such as google drive, google Forms, and google classroom because these are accessible to my students."* **Mrs. A**

The technological platforms for online modular learning listed in Table 1 offer a range of synchronous and asynchronous options for educators and students. These platforms have enabled remote education during the COVID-19 pandemic and beyond. They have provided opportunities for flexible and personalized learning experiences, expanded access to education, and facilitated communication and collaboration among students and teachers. However, it is essential to address the limitations and challenges associated with these platforms, such as the digital divide and the need for additional strategies to foster meaningful interaction and engagement in online settings. As technology continues to evolve, it is essential for educators and institutions to critically evaluate and adapt these platforms to optimize their effectiveness in supporting online modular learning.

Technological Accessibility and Adaptability

Table 2 presents the reasons for utilizing technological platforms in online modular learning, explicitly highlighting the themes of accessibility and adaptability. Technological accessibility refers to how individuals can easily access and use specialized learning tools. On the other hand, technological accessibility ensures that learners, regardless of their backgrounds or circumstances, have equal opportunities to participate in online education and benefit from using technology.

Table 2. Reasons for Technological Platforms Utilization

Themes	Categories
Accessibility	• Easy to Use • Accessible Anywhere
Adaptability	• Utilize offline features • Adaptable to learners even to online lessons

Accessibility

Easy to Use: One of the critical reasons for utilizing technological platforms in online modular learning is their ease of use. Intuitive and user-friendly platforms, such as Google Classroom or Zoom, enable educators and students to quickly familiarize themselves with the tools and navigate through the interface (Kumar et al., 2020). The simplicity of these platforms reduces barriers to adoption and ensures a smoother transition to online learning.

Accessible Anywhere: Another significant advantage of technological platforms is their ability to be accessed from anywhere. Students with an internet connection and a compatible device can engage in online learning regardless of their physical location (Pimmer et al., 2020). This accessibility enables students to participate in educational activities even if they cannot attend physical classrooms, such as in cases of illness, travel, or remote living situations.

Adaptability

Utilize Offline Features: Technological platforms designed for online modular learning often offer offline features, allowing learners to access and engage with content without an internet connection (Wallace, 2003). This adaptability is particularly valuable in areas with limited or unreliable internet access. Offline

features, such as downloading resources or completing assignments offline, ensure that learning can continue even in challenging connectivity situations.

Adaptable to Learners, Even to Online Lessons: Technological platforms can be adapted to cater to different learning styles and preferences. They provide various tools and features that can be customized to suit the needs of individual learners (Dwivedi et al., 2020). Educators can design online lessons incorporating multimedia content, interactive activities, and differentiated instruction to engage learners and accommodate diverse learning needs (Kumar et al., 2020). This adaptability enhances the learning experience and increases the potential for personalized and practical instruction.

As the respondents claimed:

"We used these technological platforms to communicate with the student and teacher, and it is easier to learn in this time of pandemic through modules and lessons sent online." **Joseph**

"Video call through Google Meet, giving some announcement through Facebook messenger, and giving some activities through Google form is easy for us. We can easily adapt this platform so our students may learn despite the presence of covid-19." **Mrs. B**

The reasons for utilizing technological platforms in online modular learning are significant. Firstly, the easy-to-use nature of these platforms facilitates seamless adoption and reduces the learning curve for educators and students, enabling quicker and smoother transitions to online learning environments. Secondly, the accessibility provided by these platforms breaks down barriers to education, ensuring that learning opportunities are available to individuals regardless of their geographical location or physical constraints.

However, it is crucial to consider potential challenges and limitations. While technological platforms offer accessibility and adaptability, addressing the digital divide is vital and ensuring that all students have equitable access to the necessary devices and internet connectivity (Pimmer et al., 2020). Hence, addressing digital inequalities and providing training for educators are critical considerations to ensure equitable access and effective utilization of these platforms in online education.

Technical Capability and Reliability

Table 3 presents participants' responses regarding the use of technological platforms in online modular learning, focusing on technical capability and reliability themes.

Table 3. Participants' Responses on How Technological Platforms Use

Theme	Categories
Technical Capability	• Learners' capability to access the lessons
Reliability	• Develop learners' sense self-reliance

Technical Capability

Learners' capability to access the lessons: Participants acknowledged the importance of learners having the technical capability to access online classes. This includes having the necessary devices (such as computers or smartphones) and internet connectivity to engage in online learning activities (Dwivedi et al., 2020). The technical capability of learners directly impacts their ability to participate fully in online classes and access educational resources.

As the respondent claimed:

We used these online platforms because it enables learners to communicate with their teachers and other students for online or distance learning." **Joyce**

Reliability

Develop learners' sense of self-reliance: Participants recognized that using technological platforms in online modular learning could contribute to developing learners' self-reliance. These platforms encourage students to take responsibility for their education, manage their time effectively, and seek resources independently (Gonzalez, 2020). The reliability of technological platforms supports learners in becoming self-directed and autonomous in their educational journey.

As one participant said:

> *Some platforms can be accessed offline, and my students' responses are reliable. I can also organize my lessons and even try to be creative. Lastly, accessing more resources would be advantageous during online modular modality."* **Mrs. B**

The technical capability of learners to access online lessons is a critical factor in determining their engagement and success in online modular learning. Educational institutions should prioritize providing necessary resources, such as loaner devices or internet access, to ensure all students have equal participation opportunities (Dwivedi et al., 2020). Additionally, supporting learners in developing digital literacy skills can enhance their technical capability and enable them to navigate online platforms effectively.

The reliability of technological platforms in fostering learners' self-reliance has significant implications for online modular learning. By creating a reliable and user-friendly learning environment, educational institutions can empower students to take ownership of their knowledge, set goals, and manage their time effectively (Barnes, 2005; Cutillas, 2023). Providing clear instructions, accessible resources, and timely feedback can contribute to the reliability of technological platforms and support learners in developing a sense of self-reliance.

However, it is essential to recognize that not all learners may initially possess the same technical capability or self-reliance level. Some students may require additional support or scaffolding to navigate the online learning environment effectively (Dwivedi et al., 2020). Educational institutions should offer training programs, tutorials, or support services to enhance learners' technical skills and build their confidence in using technological platforms for learning.

Challenges to the Use of Technological Platforms for Online Teaching

Table 4 presents learners and teachers' challenges during online classes, focusing on the themes of internet connectivity, knowledge gap, and learning environment challenges.

Table 4. Encountered Challenges Encountered by Learners and Teachers during Online Classes

Themes	Categories
Internet Connectivity	• Unstable data connection • Lack of funds
Learning Environment Challenge	• Noisy background • Power interruption

Internet Connectivity

Unstable data connection: One of the significant challenges learners and teachers face is the instability of data connections during online classes. This can result in frequent disruptions, lagging audio or video, and difficulty accessing online learning materials (Dwivedi et al., 2020). Unreliable internet connectivity can hinder learning, disrupt communication, and create frustration among participants.

Lack of funds: Some learners may face challenges related to affordability and access to stable internet connections due to financial constraints. Limited financial resources can prevent students from subscribing to reliable internet services or affording devices with

adequate connectivity (Dwivedi et al., 2020). This lack of funds can further exacerbate the challenges related to internet connectivity during online classes.
As a respondent said;

> *"Sometimes I can catch up on the lessons because I cannot hear my teacher due to my poor internet."* **Carl**

Learning Environment Challenges

Noisy background: Online classes conducted from home environments can be susceptible to noise disruptions. Learners and teachers may encounter challenges in noisy locations, such as interruptions from family members, environmental sounds, or distractions from neighboring activities (Pimmer et al., 2020). These distractions can affect concentration, comprehension, and overall engagement in the online learning environment.

Power interruption: Power outages or unstable electricity supply can pose significant challenges during online classes. Learners and teachers may experience device disruptions, loss of connection, and inability to participate fully in online learning activities (Dwivedi et al., 2020). Power interruptions can lead to missed instructional content, incomplete assignments, and participant frustration.

As the participants claimed:

> *"Sometimes, I thought my students suddenly left the class, but it was me who lost internet connection, especially when the weather condition is not so good."* **Mrs. B**

> *"They encountered problems like slow internet connection, no loads, brownout, and some of my classmates have a noisy background and some have echoes in their audio."* **Karl**

Addressing internet connectivity challenges requires ensuring equitable access to reliable internet connections for all students. Fostering creativity among learners in online classes requires educators to design engaging and interactive activities that promote critical thinking, problem-solving, and collaborative skills (Ferri et al., 2020). Providing opportunities for peer interaction, project-based learning, and incorporating multimedia resources can stimulate creativity and active participation.

Mitigating learning environment challenges, such as noisy backgrounds and power interruptions, can be achieved by establishing guidelines and recommendations for creating a conducive learning environment during online classes. This may include encouraging learners to find quiet spaces for their online sessions, using noise-canceling headphones, or setting up designated study areas at home (Pimmer et al., 2020). Additionally, providing alternative communication channels or asynchronous learning options can help accommodate learners who face power interruptions or unreliable electricity supply (Dwivedi et al., 2020).

Acknowledging that these challenges may disproportionately affect learners from disadvantaged backgrounds or resource-constrained environments is crucial. Efforts should be made to address equity issues and provide additional support to these students, ensuring they have equal opportunities to access and participate in online learning (Dwivedi et al., 2020; Cutillas, 2022).

Hence, the challenges learners and teachers face during online classes, as outlined in Table 4, underscore the importance of addressing issues related to internet connectivity, knowledge gaps, and learning environment challenges. Ensuring equitable access to reliable internet connections, providing support and resources to parents/guardians, fostering creativity, and establishing conducive learning environments can help mitigate these challenges. Collaboration among educational institutions, policymakers, and communities is crucial to create inclusive and supportive online learning environments that meet the diverse needs of learners.

Proposed Enhanced Learning Continuity Framework for Online Teaching

With the DepEd's vision to continue the teaching and learning process despite the biological hazard, which is pandemic, this learning continuity model for teaching is designed following the said requirements under the Basic Education Learning Continuity Plan (BELCP). DepEd Order 012, series 2020 enacted to the

directive of DepEd secretary which stands on the following principles: (a) Protect the health, safety, and well-being of learners, teachers and personnel, and prevent the further transmission of COVID-19, (b) Ensure learning continuity through K-12 curriculum adjustments, alignment of learning materials, deployment of multiple learning delivery modalities, provision of corresponding training for teachers and school leaders, and proper orientation of parents or guardians of learners, (c) Facilitate the safe return of teaching and non-teaching personnel and learners to workplaces and schools/CLCs, taking into consideration the scenarios projected by the Department of Health (DOH) and the Inter-Agency Task Force for the Management of Emerging Infectious Diseases in the Philippines (IATF), complemented by other credible sources, and balanced with DepEd's own risk assessments, (d) Be sensitive to equity considerations and concerns, and endeavor to address them the best we can; and (e) Link and bridge the BELCP to DepEd's pivot to quality and into the future of education, under the framework of Sulong EduKalidad and Futures Thinking in Education.

Adopting online modular learning through technological platforms has emerged as an alternative delivery modality in education. These platforms have played a crucial role in facilitating the transition to online learning, providing access to resources, promoting collaboration, and personalizing the learning experience. However, participants also encounter challenges related to the lack of face-to-face interaction, technical difficulties, maintaining learner engagement, and ensuring assessment integrity.

To address these challenges, an enhanced learning continuity framework is proposed. This framework highlights the importance of comprehensive technological infrastructure, blended learning approaches, pedagogical support, learner support services, and continuous assessment and feedback. By implementing this framework, institutions can optimize the benefits of online modular learning while addressing the challenges participants face.

It is important to note that the proposed framework should be implemented carefully considering the institution's and learners' specific context and needs. Flexibility and adaptability should be key factors in its implementation, allowing for continuous evaluation and improvement based on feedback from instructors and learners.

Considering the technological platforms used in online modular learning, their significance in facilitating learners, and the problems encountered by participants, an enhanced learning continuity framework can be crafted. This framework aims to address the challenges and optimize the benefits of online modular modality. The proposed framework encompasses the following key elements:

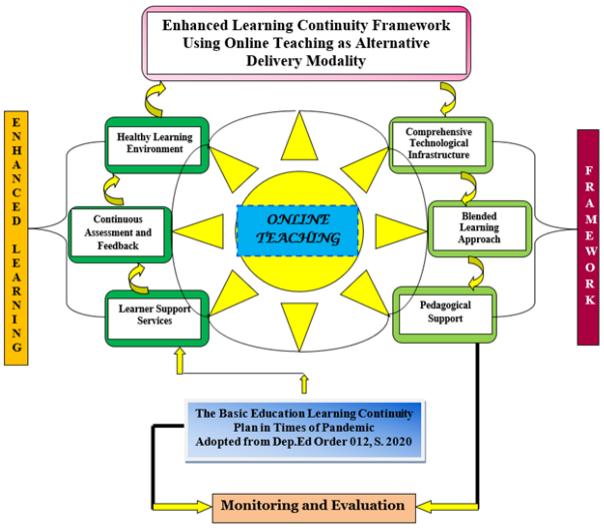

Figure 2.

Enhanced Learning Continuity Framework Using Online Teaching as Alternative Delivery Modality

1. *Comprehensive Technological Infrastructure*: Institutions must invest in robust technological infrastructure, ensuring reliable internet connectivity, sufficient hardware resources, and access to appropriate technological platforms. Instructors and learners should receive adequate technical support and training programs to enhance their proficiency in utilizing these platforms effectively.
2. *Blended Learning Approach:* The framework should encourage a blended learning approach, combining synchronous and asynchronous elements. While synchronous sessions using video conferencing platforms enable real-time interaction, asynchronous components through LMS platforms allow for self-paced learning, flexibility, and in-depth exploration of course materials.
3. *Pedagogical Support:* Instructors should receive pedagogical training and support to design and deliver engaging online modular courses. Training programs should focus on strategies for promoting active learning, fostering learner engagement, and utilizing multimedia resources effectively. Additionally, instructors should be encouraged to incorporate collaborative activities, discussions, and peer feedback to promote community and learner interaction.
4. *Learner Support Services:* Institutions should establish robust learner support services to address participants' challenges. This includes technical support for troubleshooting issues related to hardware, software, and connectivity and providing guidance on time management, self-regulation, and study skills. Counseling services can also address learners' social and emotional well-being online.
5. *Continuous Assessment and Feedback: The* framework should emphasize implementing diverse assessment strategies that ensure academic integrity while effectively assessing learners' understanding and progress. This may include a combination of quizzes, assignments, projects, and online discussions. Timely feedback and clear grading criteria should be provided to learners to facilitate their learning and improvement.
6. *Healthy Learning Environment:* A healthy learning environment refers to an educational setting that fosters students' optimal growth, development, and well-being. It encompasses various elements contributing to an atmosphere where students feel safe, engaged, and supported in their learning journey. Creating and maintaining a healthy learning environment requires the collective effort of teachers, administrators, students, and parents. When these elements are in place, students are more likely to thrive academically, socially, and emotionally, leading to better educational outcomes.

Besides, *Monitoring and Evaluation (M&E)* as a systematic process has to be administered to track and assess the progress, performance, and outcomes of projects, programs, or interventions. It helps identify any deviations from the planned activities, allows for timely corrective actions, and provides feedback on the effectiveness of interventions. Likewise, evaluation provides a comprehensive understanding of the project's effectiveness, identifies areas of success and areas that require improvement, and helps inform decision-making for future interventions.

Overall, monitoring and evaluation are essential tools for project management and accountability. They provide a systematic and evidence-based approach to assess progress, measure impact, and make informed decisions to improve the effectiveness and efficiency of projects, programs, and interventions.

This crafted framework has been designed to enhance the continuity model of DepEd in which the use of technological platforms was more utilized in conducting online classes as discretion for learning continuity. In these times of pandemic and beyond, this framework strengthens the claim of using different applications as it brings ease and safety to the people within and outside the country or community.

Conclusion

Based on the data presented, the study concludes that integrating technological platforms in online modular learning can significantly enhance learning continuity. Online teaching as an alternative delivery modality offers flexible and accessible learning experiences, promoting effective teaching and learning. The study emphasizes the importance of comprehensive technological infrastructure, blended learning approaches, pedagogical support, learner support services, continuous assessment, feedback, and a healthy learning environment in crafting an enhanced learning continuity framework.

The proposed framework addresses the challenges participants face, such as the digital divide, technical difficulties, lack of face-to-face interaction, and maintaining learner engagement. It highlights the need for robust technological infrastructure, training programs for instructors and learners, a blended learning approach combining synchronous and asynchronous elements, pedagogical support for engaging course design, learner support services for technical assistance and counseling, diverse assessment strategies, and a healthy learning environment. The framework emphasizes the importance of flexibility, adaptability, and continuous evaluation to ensure effectiveness and address institutions' and learners' specific contexts and needs.

The study recognizes that implementing the proposed framework requires collaboration among educational institutions, policymakers, and communities to create inclusive and supportive online learning environments. Efforts should be made to ensure equitable access to reliable internet connections, support learners from disadvantaged backgrounds, and foster creativity and engagement through interactive activities. Monitoring and evaluation are crucial for tracking progress, identifying deviations, and making informed decisions for improvement. Thus, the study provides a strong foundation for institutions to develop an enhanced learning continuity framework using online teaching as an alternative delivery modality. This framework can potentially optimize the benefits of online modular learning while addressing the challenges participants face, ultimately promoting effective teaching and learning in the online education landscape.

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