

An Examination of the Remote Learning Management of the University of Rizal System: Optimizing Educational Outcomes

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Abstract

This study examined the remote learning management practices of the University of Rizal System (URS) and developed a proposed Remote Learning Management Program to optimize educational outcomes. Specifically, it explored the institutional strategies, policies, and initiatives implemented during the COVID-19 pandemic, assessed their translation into practice, evaluated their impact on student performance, enrollment, and retention, and identified innovations in teaching methodologies and institutional preparedness. The study employed a convergent parallel mixed-methods research design, integrating qualitative and quantitative approaches. Documentary analysis was conducted on institutional policies, strategic plans, and enrollment reports, while semi-structured interviews were administered to campus directors, deans, and faculty members from selected URS campuses offering Bachelor of Technology (BT) and Bachelor of Science in Information Technology (BSIT) programs. Quantitative institutional data and qualitative narratives were analyzed independently and synthesized to provide a comprehensive understanding of remote learning management. Findings revealed that URS successfully implemented flexible remote learning through customized learning management systems, strategic administrative support, and adaptive teaching methodologies. However, significant challenges persisted, including unstable internet connectivity, limited access to digital resources, varying levels of technological competence, reduced student engagement, and concerns regarding assessment integrity. Despite these constraints, faculty members demonstrated resilience by adopting innovative pedagogical strategies, while institutional leaders strengthened policies and support mechanisms to sustain learning continuity. Enrollment and retention trends indicated that strategic interventions contributed to maintaining educational participation during the pandemic. The study concluded that effective remote learning management requires an integrated approach combining technological infrastructure, faculty capability development, learner support services, responsive institutional policies, and continuous monitoring and evaluation. Based on the findings, a comprehensive Remote Learning Management Program was proposed to strengthen institutional readiness, enhance teaching effectiveness, improve student engagement, and ensure the sustainability of flexible learning modalities in higher education. The study contributes to the growing body of knowledge on educational management and provides a practical framework for higher education institutions seeking to improve remote learning delivery and optimize educational outcomes in the post-pandemic educational landscape.

Keywords: Remote Learning Management, Learning Management System, Educational Outcomes, Higher Education, Mixed-Methods, Institutional Support, University of Rizal System, Flexible Learning, Educational Management, COVID-19.

Introduction

The COVID-19 pandemic transformed higher education worldwide by compelling institutions to transition from conventional face-to-face instruction to remote learning. This unprecedented shift challenged higher education institutions (HEIs) to redesign instructional delivery, strengthen digital infrastructure, and develop innovative strategies to ensure educational continuity while maintaining the quality of learning. Remote learning, supported by learning management systems (LMS), digital communication platforms, and flexible instructional approaches, emerged as an essential modality for sustaining teaching and learning despite restrictions imposed by the global health crisis. Although many universities successfully implemented emergency remote learning, disparities in technological readiness, digital competence, and institutional support significantly influenced the effectiveness of learning outcomes (Hodges et al., 2020; UNESCO, 2021).

Remote learning has evolved beyond a temporary response to the pandemic and is now recognized as an integral component of higher education. According to the Organisation for Economic Co-operation and Development (OECD, 2021), higher education institutions continue to adopt flexible learning models that integrate both online and face-to-face instruction to improve accessibility, resilience, and educational quality. Likewise, Garrison and Vaughan (2008) emphasized that successful remote and blended learning depends on the strategic integration of technology, pedagogy, and institutional leadership. Universities that invest in digital infrastructure, faculty capability development, and student support services are more likely to achieve sustainable educational outcomes and organizational resilience.

Within the Philippine context, the Commission on Higher Education (CHED) implemented flexible learning policies that encouraged higher education institutions to adopt learner-centered approaches supported by digital technologies (Commission on Higher Education [CHED], 2020). These initiatives enabled institutions to continue delivering instruction despite mobility restrictions. However, several studies reported persistent challenges, including unstable internet connectivity, limited access to digital devices, inadequate faculty training, reduced learner engagement, and disparities in students' socioeconomic conditions (Toquero, 2020; Barrot et al., 2021). These issues highlighted the importance of effective remote learning management in ensuring equitable access and quality education.

The University of Rizal System (URS), as one of the leading state universities in the Province of Rizal, responded to these educational disruptions by implementing remote learning through customized learning management systems, synchronous and asynchronous instructional strategies, and institutional support mechanisms. The university invested in faculty training, policy development, and technological innovations to facilitate continuous learning across its campuses. These initiatives reflected the university's commitment to maintaining instructional quality while responding to the changing demands of higher education. Nevertheless, the effectiveness of these interventions in optimizing educational outcomes requires comprehensive evaluation to determine best practices and identify areas requiring improvement.

Several international studies have demonstrated that institutional preparedness significantly influences the success of remote learning. Means et al. (2014) found that institutions with well-developed technological infrastructure, comprehensive faculty support, and effective instructional design achieved higher levels of student engagement and academic performance. Similarly, Bao (2020) emphasized that successful online education depends not only on technology but also on instructional quality, learner interaction, and administrative support. Furthermore, Martin et al. (2020) reported that continuous faculty professional development and responsive institutional leadership are critical determinants of effective online teaching and learning.

Despite the growing body of literature on remote learning, several research gaps remain evident. First, most previous studies primarily focused on students' perceptions, technological challenges, or instructional strategies, while relatively few examined remote learning management from an institutional leadership perspective involving directors, deans, and academic administrators. Second, existing research has largely employed either quantitative or qualitative approaches, limiting a comprehensive understanding of institutional practices. Third, limited studies have integrated documentary analysis, institutional performance indicators, and stakeholder experiences to evaluate the effectiveness of remote learning management in state universities. Finally, there remains a scarcity of localized studies examining how institutional policies, strategic planning, and administrative leadership collectively influence educational outcomes within Philippine higher education institutions, particularly in multi-campus state universities such as the University of Rizal System.

Addressing these gaps, the present study examined the remote learning management practices of the University of Rizal System through a convergent parallel mixed-methods approach. Specifically, it investigated institutional strategies, policies, leadership practices, stakeholder experiences, teaching methodologies, enrollment trends, student performance, and retention rates to develop a comprehensive Remote Learning Management Program aimed at optimizing educational outcomes. The findings are expected to contribute to educational management literature and provide evidence-based recommendations that will strengthen institutional preparedness, improve teaching and learning practices, and enhance the sustainability of flexible learning in higher education

Material and methods

2.1 Research Design

This study employed a convergent parallel mixed-methods research design, integrating qualitative and quantitative approaches to examine the remote learning management practices of the University of Rizal System (URS) and develop a Remote Learning Management Program that would optimize educational outcomes.

2.2 Locale of the Study

The study was conducted at the University of Rizal System (URS), particularly in the Binangonan, Cainta, and Morong Campuses, which offer the Bachelor of Technology (BT) and Bachelor of Science in Information Technology (BSIT) programs where remote learning was implemented during the COVID-19 pandemic.

2.3 Respondents of the Study

The respondents consisted of 72 student-respondents, BT and BSIT faculty members, and six (6) academic administrators (three campus directors and three college deans) from the selected URS campuses. Institutional documents, including strategic plans, remote learning policies, enrollment reports, student performance records, and retention data, also served as primary sources of information.

2.4 Sample and Sampling Procedure

The study employed complete enumeration for the six (6) campus directors and deans, purposive sampling for the BT and BSIT faculty members who were directly involved in remote learning implementation, and total enumeration of the 72 student-respondents included in the institutional data.

2.5 Research Instrument

The study utilized documentary analysis of institutional records and a researcher-developed semi-structured interview guide, validated by experts, to collect qualitative data from the six (6) administrators and selected faculty members regarding their experiences and management practices in remote learning.

2.6 Data Gathering Procedure

After securing approval from the University of Rizal System and obtaining informed consent from the participants, the researcher gathered documentary data, institutional records, and conducted semi-structured interviews with the six (6) administrators and selected faculty members while ensuring confidentiality and adherence to ethical research standards.

2.7 Data Analysis Techniques

Quantitative data obtained from the 72 student records and institutional reports were analyzed using descriptive statistics, while qualitative responses from the six (6) administrators and faculty participants were analyzed through thematic analysis, after which the findings were integrated to provide a comprehensive evaluation of remote learning management.

2.8 Ethical Considerations

The researcher strictly observed ethical principles throughout the conduct of the study. Prior approval was obtained from the appropriate educational authorities before data collection commenced. Participation was voluntary, and informed consent was secured from all respondents after explaining the objectives, procedures, benefits, and confidentiality of the study. The identities of the respondents and the academic records of the pupils were kept anonymous through coding, and all information gathered was treated with strict confidentiality and used solely for academic and research purposes in compliance with the provisions of the Data Privacy Act of 2012 (Republic Act No. 10173) and accepted ethical standards in educational research.

Results and Discussion

3.1 Profile of the Respondents in terms of the Selected Variables

Table 1.1. presents the profile of the student-respondents reveals that most participants were 20–21 years old (30 or 41.7%), followed by those aged 22–23 years old (22 or 30.6%), indicating that the respondents were predominantly young adults in the typical college-age bracket. Only a small proportion belonged to the older age groups, while one respondent did not disclose his or her age. The computed mean age of 21 years old further confirms that the participants were generally in their early twenties. In terms of academic program, the majority of the respondents were enrolled in the Bachelor of Science in Information Technology (BSIT) program, comprising 45 students (62.5%), while 27 students (37.5%) were enrolled in the Bachelor of Technology (BT) program. Regarding sex, male respondents dominated the study with 47 students (65.3%), whereas 25 respondents (34.7%) were female. Overall, the findings indicate that the respondents were primarily young male students enrolled in the BSIT program, suggesting that the perceptions on remote learning management were largely drawn from learners who belong to technology-oriented academic programs and are generally familiar with digital learning environments. This demographic composition provides a relevant context for interpreting the succeeding analyses on remote learning management at the University of Rizal System.

Table 1.1
Profile of the Student-Respondents

Profile Variable	Category	Frequency (f)	Percentage (%)
Age	18–19 years old	14	19.4
	20–21 years old	30	41.7
	22–23 years old	22	30.6
	24–25 years old	4	5.6
	25 years old and above	1	1.4
	No Response	1	1.4
Course Taken	Bachelor of Science in Information Technology (BSIT)	45	62.5
	Bachelor of Technology (BT)	27	37.5
Sex	Male	47	65.3
	Female	25	34.7
Total Respondents		72	100.0

Table 1.2 presents that a cohort of 13 IT faculty members was selected from three campuses within the university. The majority of these faculty members held the rank of Assistant Professor, with a significant representation from the College of Industrial Technology, particularly from the Morong Campus. Amidst the challenges posed by the pandemic, these faculty members encountered a range of experiences in navigating remote learning in general.

Table 1.2
Profile of the Faculty-Respondents

Rank	Frequency	Percentage
Assistant Professor	6	46.2
Associate Professor	3	23.1
Part Time Instructor	4	30.8
Total	13	100.0
College	Frequency	Percentage
College of Computer Studies (CCS)	3	23.1
College of Industrial Technology (CIT)	10	76.9
Total	13	100.0
College	Frequency	Percentage
Binangonan	2	15.4
Cainta	4	30.8
Morong	7	53.8
Total	13	100.0

3.2 Academic Impact of the Specific Subjects that were Harder to Learn Remotely, Technical Issues Frequently Disrupted the Learning During Pandemic, New Skills or Strategies used to Succeed in a Remote Learning Environment and Responses on the Assessment on the Experiences of the Students Relative to Remote Learning Modality

Table 2.1 presents the Academic Impact of the Specific Subjects that were Harder to Learn Remotely. It shows that Capstone Design Projects were identified as the most difficult subjects to learn through remote learning, with 36 respondents (50.0%), followed closely by Hardware-Related Subjects with 35 respondents (48.6%), and Physics and Chemistry Laboratory with 30 respondents (41.7%). Industrial Internships (25, 34.7%) and Network Laboratory (23, 31.9%) were also perceived as challenging, while Manufacturing Processes ranked last with 10 respondents (13.9%). The findings indicate that students experienced greater difficulty in subjects requiring hands-on laboratory activities, practical applications, technical skills, and collaborative project work, which are inherently challenging to replicate in a fully remote learning environment. These results highlight the need for higher education institutions to strengthen virtual laboratory experiences, simulation-based learning, industry collaboration, and technology-enhanced instructional strategies to improve learning outcomes in practice-oriented courses.

Table 2.1
Academic Impact of the Specific Subjects that were Harder to Learn Remotely

Subjects	Frequency	Percentage	Rank
Physics and Chemistry Lab	30	41.7	3
Industrial Internships	25	34.7	4
Manufacturing Processes	10	13.9	6
Hardware-Related Subjects	35	48.6	2
Capstone Design Projects	36	50.0	1
Network Laboratory	23	31.9	5

Table 2.2 presents the Technical Issues Frequently Disrupted the Learning During Pandemic. It reveals that unstable internet connection was the most common technical issue experienced by the respondents during remote learning, affecting 62 students (86.1%), followed by crashes or bugs in video conferencing platforms with 38 respondents (52.8%). Other challenges included difficulty in uploading or downloading assignments (25, 34.7%), frequent power interruptions (24, 33.3%), difficulty in troubleshooting technical problems independently (22, 30.6%), and inability to access digital textbooks, journals, and other learning resources (20, 27.8%). These findings indicate that internet connectivity and technology-related disruptions were major barriers to effective remote learning, limiting students' participation, communication, and access to instructional materials. The results emphasize the importance of improving digital infrastructure, strengthening institutional technical support, and providing reliable online learning resources to ensure a more accessible, efficient, and uninterrupted remote learning experience.

Table 2.2

Technical Issues Frequently Disrupted the Learning During Pandemic

Technical Issues	Frequency	Percentage
Unstable Internet Connection	62	86.1
Crashes or Bugs in Video Conferencing Platforms	38	52.8
Frequency Power Cuts Disrupting Online Sessions	24	33.3
Difficulty in Trouble Shooting problems independently	22	30.6
Struggle in uploading or downloading Assignments	25	34.7
In ability to access digital textbooks, journals or others	20	27.8

Table 2.3 presents the New Skills or Strategies used to Succeed in a Remote Learning Environment. It indicates that adaptability and flexibility emerged as the most commonly developed skill among the respondents, with 42 students (58.3%), followed closely by time management with 41 students (56.9%). Other essential skills acquired during remote learning included digital literacy (35, 48.6%), technical troubleshooting (32, 44.4%), and information management (27, 37.5%). The findings suggest that students developed a range of self-directed learning competencies to cope with the demands of remote education. In particular, the ability to adapt to changing learning conditions and effectively manage time became crucial for academic success, while improvements in digital and technical skills enabled students to navigate online learning platforms more efficiently. These results emphasize that remote learning not only challenged students academically but also fostered valuable lifelong skills necessary for independent learning and future professional environments.

Table 2.3

New Skills or Strategies used to Succeed in a Remote Learning Environment

New Skills or Strategies	Frequency	Percentage
Time Management	41	56.9
Digital Literacy	35	48.6
Technical Trouble Shooting	32	44.4
Information Management	27	37.5
Adaptability and Flexibility	42	58.3

Table 2.4. presents the Responses on the Assessment on the Experiences of the Students Relative to Remote Learning Modality. It presents the students' assessment of their experiences with remote learning, revealing generally positive perceptions in several areas. Most respondents indicated that they received adequate support from their teachers and school (63, 87.5%), while 54 students (75.0%) expressed a preference for a hybrid learning model that combines face-to-face and remote instruction. Likewise, 55 respondents (76.4%) believed that remote learning supported their ability to learn effectively, and 49 students (68.1%) reported having reliable access to the necessary technology. However, only 29 respondents (40.3%) found remote learning beneficial, and 30 students (41.7%) reported that communication with their teachers was easy, suggesting that interaction and overall learning satisfaction remain areas of concern. These findings indicate that while institutional support and technological readiness were generally adequate, improving student engagement, communication, and the overall effectiveness of remote learning remains essential for enhancing future online and hybrid educational delivery.

Table 2.4

Responses on the Assessment on the Experiences of the Students Relative to Remote Learning Modality

Questions	No	%	Yes	%
1. Did you feel you received adequate support from your teachers and school during remote learning?	63	87.5	9	12.5
2. Would you prefer a hybrid model of learning that combines both in-person and remote elements?	54	75	18	25
3. Did it support your ability to learn effectively?	55	76.4	17	23.6
4. Did you have reliable access to the necessary technology (computer, internet) for remote learning?	49	68.1	23	31.9
5. Did you find remote learning beneficial?	43	59.7	29	40.3
6. Did you find it easy to communicate with your teachers during remote learning?	42	58.3	30	41.7

3.3 Formalized strategies, policies, and initiatives articulated in institutional documents that shape the landscape of remote learning management within higher education institutions

The Commission on Higher Education (CHED) plays a pivotal role in guiding Philippine higher education institutions (HEIs) through the issuance of memoranda that articulate strategies, policies, and initiatives for managing

remote learning. These CHED MEMOs are integral in shaping the landscape of remote education in the country. It provides strategic frameworks that HEIs use to develop their remote learning plans. These frameworks ensure alignment with national educational objectives, such as increasing access to quality higher education and leveraging technology for inclusive learning.

HEIs draft vision statements that reflect CHED's emphasis on using technology to bridge educational gaps, particularly in geographically isolated and disadvantaged areas. Specifically, University of Rizal System (URS) as an organized academic entity composed of separate but interrelated units coordinates and integrates system-wide functions and activities. It has the prime mandate of providing instruction, research, extension and production to the public. With its vision: "The leading University in human resource development, knowledge and technology generation and environmental stewardship." And Mission "The University of Rizal System is committed to nurture and produce upright and competent graduates and empowered community through relevant and sustainable higher professional and technical instruction, research, extension and production services." Together with the CORE VALUES: R – Responsiveness, I – Integrity, S – Service, E – Excellence, S – Social Responsibility, Remote Learning during the pandemic is highly visible.

During the COVID-19 pandemic, the University of Rizal System (URS) implemented a comprehensive strategic plan to ensure uninterrupted, high-quality education through remote learning. The plan's vision was to maintain educational resilience and adaptability during the crisis. To achieve this, URS swiftly transitioned from traditional face-to-face classes to remote learning modalities by deploying and optimizing a Learning Management System (LMS) for all courses and converting existing courses to online formats. Rapid training sessions for faculty on online teaching tools and student orientations on navigating the LMS were conducted. To ensure accessibility, URS provided digital devices and internet subsidies to students and faculty in need, established programs for disadvantaged students, and implemented adaptive learning resources. Comprehensive support services were also provided, including enhanced virtual academic advising, expanded mental health and counseling services, and dedicated technical support. Faculty development was a priority, with continuous professional development programs, opportunities for collaboration, and provision of digital teaching resources. To maintain high educational standards, regular assessments and data-driven improvements were implemented, ensuring compliance with CHED guidelines. Effective communication and community-building initiatives were established to foster engagement among students, faculty, and staff. This strategic plan was divided into three phases: Immediate Response (2020), Stabilization and Support (2021), and Long-term Resilience and Improvement (2022), with a Remote Learning Task Force overseeing implementation and continuous improvement through quarterly reviews and stakeholder feedback. By implementing this strategic plan, URS aimed to provide a resilient and effective remote learning environment, ensuring high-quality education despite the challenges posed by the pandemic.

3.4 Faculty Experiences, Challenges, and Problems Encountered During Remote Learning

Table 4 findings reveal that faculty members encountered multifaceted challenges during the implementation of remote learning, with technological limitations, instructional difficulties, assessment concerns, and emotional stress emerging as the dominant themes. Unstable internet connectivity, inadequate student access to gadgets, and the absence of an institutional Learning Management System hindered the effective delivery of instruction, particularly for laboratory, programming, and other practice-oriented courses. Faculty members also experienced increased workload in preparing and evaluating online assessments while expressing concerns about maintaining the quality of education in a virtual environment. Despite these obstacles, many respondents demonstrated resilience by adapting to new teaching approaches, enhancing their digital competencies, and recognizing remote learning as a transformative experience that fostered flexibility and professional growth. Overall, the results suggest that strengthening technological infrastructure, providing continuous faculty capacity-building, improving institutional support systems, and investing in a comprehensive Learning Management System are essential to enhancing the effectiveness and sustainability of remote learning in higher education.

Table 4

Faculty Experiences, Challenges, and Problems Encountered During Remote Learning

Major Category	Faculty Responses	Developed Theme
Technological Challenges	"Good, but the main problem will the internet and gadgets of student." (Faculty 1)	Internet Connectivity and Lack of Student Devices
	"NO OWNED LMS." (Faculty 10)	Limited Institutional Resources (No Learning Management System)
	"Internet connection stability and student access to computing and internet resources." (Faculty 9)	Internet and Technology Access
	"Limited knowledge and know-how in working on the LMS." (Faculty 3)	Limited LMS Proficiency
Instructional Challenges	"It is very hard to deliver some lessons, especially on our side which needed a hands-on activity on our subjects." (Faculty 5)	Difficulty in Conducting Hands-on Activities

	“Remote learning is quite difficult specially on programming subjects that need hands-on activities and examination.” (Faculty 6)	Programming and Practical Course Challenges
	“It is very hard to deliver some lessons, especially on our side which needed a hands-on activity on our subjects.” (Faculty 11)	Difficulty in Delivering Practical Lessons
Assessment Challenges	“Checking of the output of students with no computer at home.” (Faculty 6)	Assessment Challenges for Students with Limited Resources
	“Preparation and checking of the students' answer in the Google Form.” (Faculty 2)	Online Assessment Preparation and Evaluation
Physical and Emotional Experiences	“It was challenging and stressful.” (Faculty 2)	Stress and Emotional Burden
	“It's challenging.” (Faculty 9)	Perceived Difficulty
	“It was very challenging.” (Faculty 3)	Significant Teaching Challenges
	“Need for adjustment.” (Faculty 8)	Need for Adaptation
	“My overall experience with remote learning during the pandemic was challenging but ultimately rewarding.” (Faculty 13)	Challenging but Rewarding Experience
	“It gives me a much more relaxed and flexible learning environment.” (Faculty 7)	Flexible Learning Environment
	“Overall my experience with remote learning during the pandemic was transformative; it forced me to adapt and grow in ways I hadn't anticipated.” (Faculty 12)	Personal Growth and Professional Adaptation
	“Good.” (Faculty 4)	Positive Overall Experience
Student-Related Challenges	“One of the specific challenges I encountered with remote learning was maintaining focus during online classes due to numerous distractions at home.” (Faculty 13)	Home Distractions Affecting Learning
	“I found it challenging to access and participate in extracurricular activities which were limited or altered significantly during remote learning.” (Faculty 12)	Limited Extracurricular Participation
Quality of Education	“The quality of education is not guaranteed.” (Faculty 4)	Concerns on Educational Quality

3.5 Adaptation Made by the Faculty

The findings indicate that faculty members demonstrated remarkable adaptability and resilience in sustaining the teaching and learning process during remote learning. Their responses revealed several adaptive strategies, including modifying learning activities according to students' capabilities, utilizing synchronous and asynchronous online platforms, patiently adjusting to new teaching modalities, creating conducive teaching environments, and enhancing their technological skills through the use of various ICT tools and digital resources. These adaptations enabled faculty members to maintain instructional continuity despite the limitations imposed by the pandemic. The results suggest that flexibility, innovation, continuous learning, and technology integration were key factors that allowed faculty to effectively respond to the changing educational landscape. Overall, the findings emphasize the importance of institutional support, continuous professional development, and access to digital technologies in strengthening faculty preparedness and ensuring the sustainability of quality remote learning in higher education.

Table 5
Adaptation Made by the Faculty

Adaptation made by the Faculty	Theme
“Changing the activities its depends to the student capabilities” (Faculty 1)	Students’ Activities Innovation
“By practicing the materials, the technology software to use for virtual class and readiness for the class.” (Faculty 2)	
“It was very difficult but with due patience, I adapted the remote learning gradually.” (Faculty 3)	Patiently adapting the new Modalities
“study and learn different online modalities for teaching and learning “ (Faculty 9)	
“Through google meet. Synchronous/ asynchronous class.” (Faculty 4)	

<i>"I sought feedback from peers and instructor to continuously improve my remote learning approach and adapt to any challenges" (Faculty 12)</i>	
<i>"It is very adaptable the only difference is the physical aspect between the learner and teacher." (Faculty 5)</i>	Meeting Virtually
<i>"Yes adapt teaching strategies on delivering lessons to my students" (Faculty 6)</i>	
<i>"find productive place to minimized distraction" (Faculty 7)</i>	
<i>"I created a dedicated study space at home to minimize distractions and maintain a routine similar to in-person classes." (Faculty 13)</i>	Conducive Place for Teaching
<i>"Used to it day by day" (Faculty 8)</i>	
<i>"You have to be tech savvy and try to learn different ICT tools" (Faculty 10)</i>	
<i>"By using the internet and other social media platforms I was able to share some videos and illustration related to my subject" (Faculty 11)</i>	Technology Savvy

3.6 Reflections of the Institutional Data to the impact and Effectiveness of Remote Learning Initiatives

Table 6 presents the enrollment trends in the technology programs of the University of Rizal System (URS) from School Year 2019–2020 to 2021–2022. The findings indicate that enrollment across the three campuses experienced only minimal fluctuations during the COVID-19 pandemic. While Binangonan Campus showed varying increases and decreases in BSIS and BSIT enrollments, Morong Campus consistently recorded slight declines in Bachelor of Technology enrollment each second semester, and Cainta Campus likewise posted modest decreases in its newly offered BT and BSIT programs. Overall, the enrollment data suggest that despite the challenges brought about by the pandemic and the transition to remote learning, the university maintained relatively stable student enrollment in its technology programs. These findings imply that remote learning initiatives, coupled with institutional support and the continued demand for technology-related courses, helped sustain student participation and enrollment throughout the pandemic period, although continuous monitoring and enhancement of student retention and support mechanisms remain necessary

Table 6

Reflections of the Institutional Data to the impact and Effectiveness of Remote Learning Initiatives

Campus	Course	SY 2019-2020			SY 2020-2021			SY 2021-2022		
		1 st	2 nd	%	1 st	2 nd	%	1 st	2 nd	%
Binangonan	BSIS	405	418	3.11	515	476	7.57	580	551	5.0
	BSIT	437	393	11.20	489	500	(2.25)	573	560	2.26
Cainta	BT	-	-	-	-	-	-	26	24	7.69
	BSIT	-	-	-	-	-	-	207	202	2.42
Morong	BT	1473	1342	9.76	1482	1295	12.62	1634	1563	4.35

3.7 Extent of the Colleges Strategies that Aligned and Institutionally Prepared to Address the Ongoing Demands of Remote Learning, Considering Technological Advancements, Pedagogical Innovations, And Administrative PoliciesInitiatives

Table 7 highlights the college's strategies that aligned with technological advancements, pedagogical innovations, and administrative policies in sustaining remote learning. Faculty members emphasized that remote learning promoted educational equity by allowing students to learn at their own pace, enhanced accessibility through recorded video lessons and practical demonstrations, and improved communication using online platforms with integrated collaboration tools. Respondents also recognized the flexibility of remote learning, which enabled them to balance academic responsibilities with personal commitments while fostering personalized learning experiences. Overall, the findings indicate that the university's remote learning strategies effectively supported instructional continuity by leveraging digital technologies, flexible teaching approaches, and learner-centered practices. These initiatives demonstrate the institution's preparedness to respond to the evolving demands of remote education while promoting accessibility, inclusivity, and improved teaching and learning experiences.

Table 7

Extent of the Colleges Strategies that Aligned and Institutionally Prepared to Address the Ongoing Demands of Remote Learning, Considering Technological Advancements, Pedagogical Innovations, And Administrative PoliciesInitiatives

Aligned Strategies Relative to Technological Advancements, Pedagogical Innovations, And Administrative Policies	Theme
<i>"Remote learning can equalize the disparity between different learners. Every student learns at their own pace, so the highly-individualized nature of distance learning makes the pace of education much easier to control." (Faculty 5)</i>	Equalizing Educational Disparity Through Remote Learning
<i>"Practical demonstration and uploading video lesson that can be used by student online or offline" (Faculty 6)</i>	Enhancing Accessibility Through Digital Demonstrations
<i>"Platforms for online learning often offer various communication tools such as chat, video conferencing, and discussion forums, making it easier for us to connect with students and instructors." (Faculty 7)</i>	Facilitating Communication and Connections
<i>"The convenience of not leaving your house for work and not having to rush on preparation to teach works well for me" (Faculty 11)</i>	Convenience and Work-Life Balance
<i>"The ability to balance my academic responsibilities with personal life especially during challenging times was greatly enhanced by remote learning" (Faculty 12)</i>	Supporting Personal Well-Being Through Flexibility
<i>"The flexibility to study at my own pace and schedule my learning around other commitments worked well for me." (Faculty 13)</i>	Flexibility and Personalized Learning Experience

3.8 Teaching Methodologies That Evolved In Response To Prolonged Remote Learning, And What Strategies Are In Place To Ensure Sustained Student Engagement, Participation, And Success In Virtual Learning Environments

Table 8 presents the teaching methodologies and strategies utilized by faculty members to sustain students' engagement, participation, and success in the virtual learning environment. The findings reveal that educators adopted various adaptive approaches, including the modification of activities to support hands-on learning, provision of accessible modules and connectivity assistance, utilization of institution-responsive Learning Management Systems (LMS), and integration of digital literacy skills. These strategies demonstrate the faculty's commitment to addressing the challenges of remote learning by promoting flexibility, accessibility, technological competence, and student-centered instruction. Furthermore, the themes emphasize that effective virtual learning requires continuous pedagogical innovation, inclusive practices, and technology-driven solutions that enhance interaction and learning outcomes. The findings suggest that strengthening LMS capabilities, improving digital access, and providing faculty and student support systems are essential in sustaining an engaging, equitable, and effective remote learning environment.

Table 8

Teaching Methodologies That Evolved In Response To Prolonged Remote Learning, And What Strategies Are In Place To Ensure Sustained Student Engagement, Participation, And Success In Virtual Learning Environments

Teaching methodologies and Strategies Utilized to Sustained Students' Engagement, Participation and Success of Virtual Learning Environment	Theme
<i>"Adjustments of activities specially with hands on." (Faculty 1)</i>	Adjusting Activities for Hands-On Learning
<i>"Modules for students' availability for advance review and data load procurement for free to be able to have a better connectivity." (Faculty 2)</i>	Enhancing Connectivity and Access Through Modules
<i>"Beyond an emergency solution, the 'remote classroom' provides increasing benefits for students, schools, and institutions. Online learning offers opportunities to enfranchise diverse and global learners, redesign institutional access and success, and support schools with gaps in administration, among other things. But like all changes in education, for the next era of learning online to be successful, students must come first." (Faculty 5)</i>	Transformative Potential of Remote Learning
<i>"appropriate platform for LMS tailored for the nid of the institution" (Faculty 9)</i>	Tailoring LMS Platforms to Institutional Needs
<i>"Greater emphasis on teaching digital literacy skill to help students negative and leverage online resources effectively" (Faculty 12)</i>	Teaching Digital Literacy Skills

Conclusions & Recommendations

The study concluded that the University of Rizal System demonstrated resilience, adaptability, and institutional commitment in managing remote learning during the COVID-19 pandemic through the implementation of flexible learning strategies, technological initiatives, administrative support, and faculty innovations. The findings revealed that remote learning contributed to sustaining educational continuity, enrollment stability, and student participation despite challenges related to unstable internet connectivity, limited access to digital resources, difficulties in conducting hands-on activities, and concerns regarding student engagement and assessment. Faculty members successfully adapted by integrating digital platforms, modifying instructional strategies, developing technology skills, and employing student-centered approaches to address the demands of virtual learning. However, the effectiveness and sustainability of remote learning require continuous improvement in technological infrastructure, learning management systems, faculty development, learner support mechanisms, and institutional policies to ensure equitable and quality educational outcomes.

Based on the findings, it is recommended that the University of Rizal System strengthen its Remote Learning Management Program by enhancing digital infrastructure, institutionalizing a comprehensive Learning Management System, expanding technical assistance, and providing continuous professional development programs to improve faculty digital competencies and online pedagogical practices. The university should also develop more effective strategies for technology-dependent and practice-oriented courses through virtual laboratories, simulation tools, blended learning approaches, and improved access to learning resources. Furthermore, student support services should be strengthened through reliable connectivity assistance, digital literacy programs, academic advising, and engagement initiatives to address learning barriers and promote participation. Continuous monitoring, evaluation, and stakeholder feedback should be integrated into institutional planning to ensure that remote and flexible learning modalities remain responsive, inclusive, and sustainable in meeting the evolving needs of higher education.

Compliance with ethical standards

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