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## Research Article

### Graduate Students' Perceptions of Online Learning: Implications for Distance Education Programs

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## ABSTRACT

Online learning greatly supports the offering of distance education by providing innovative platforms. This study examined graduate students' perceptions of online learning as a basis for offering distance education. It utilized the concurrent mixed method. The respondents of the study are the graduate school students at La Consolacion University, Philippines, enrolled during the 2nd trimester of the school year 2022–2023. The quantitative results of the study have a weighted mean of 3.71, which showed strong agreement on online learning activities, strategies, media, and support instruments. Qualitative analysis revealed three perceived advantages: innovative engagement, convenience, and flexible scheduling. It was then concluded that the study highlighted that online learning could be an effective and innovative practice for graduate school students. Constant efforts must be made to improve the online learning environment in response to student feedback and to alter educational paradigms to preserve the high standard of online education. The findings imply that distance education programs should continue enhancing online learning activities, strategies, and tools to sustain positive student perceptions. With convenience, flexibility, and innovative engagement as key advantages, institutions must invest in digital resources, faculty training, and support systems while ensuring continuous feedback to maintain quality and relevance in graduate education.

**Keywords:** *Online learning, Distance education, Innovation, Graduate school, Technology acceptance model*

## Background

Rapid technological change and its disruptive impact on the educational field have

caused significant transformations in teaching and learning methods, the emergence of new educational formats, and the creation of

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entirely new degree programs. By integrating digital technology and the internet into curricula, higher education institutions (HEIs) now utilize various online resources and cutting-edge collaborative tools (Wieser & Seeler, 2018).

The adaptability of online learning enables adult learners to benefit from lifelong learning opportunities. According to Torun (2020), the goal of distance learning in higher education is to provide university students access to e-learning techniques, which remains a crucial and continually developing concept. Distance learning encompasses several distinct applications at higher education levels.

Distance education refers to organized teaching and learning activities offered through the communication channels of formal institutions. The growth of online distance learning has increased the flexibility of educational opportunities due to the internet and the widespread use of digital tools as communication media. Adults make up the majority of students enrolled in online distance education programs because of its convenience and accessibility (Kara et al., 2019). Moreover, distance learning in higher education continues to evolve to meet the dynamic needs of learners and institutions alike (Santosh & Panda, 2016).

Online undergraduate and graduate degree programs have grown significantly during the past decade (Seaman et al., 2018). Online learning has become a common delivery method for both undergraduate and graduate education. Although it evolved from traditional distance learning, online education necessitates new modes of interaction and presentation (Wallace, 2003). The structure and layout of online courses are crucial factors in determining students' satisfaction (Roach & Lemasters, 2006). The effectiveness of online graduate programs depends on both the instructional content and the social context in which the instruction is delivered.

One of the major advantages of online learning is its potential to reduce the cost of knowledge dissemination (Kraiger et al., 2022). Additionally, international students who may not be able to secure student visas or who prefer not to relocate temporarily for their

studies—especially for master's programs—can benefit from online learning opportunities. The expansion of online programs provides students with more options for earning a degree in fields with competitive admissions for traditional in-person programs (DuVernet et al., 2017) and promising job prospects. The integration of e-learning technologies in higher education has been shown to be beneficial in various contexts (Raspopovic et al., 2017).

According to Huang and Chiu (2015), e-learning should focus on addressing the specific needs of individual learners. In the digital era, it is more effective to impart knowledge based on learners' needs rather than the institutional or instructor's perspective. This study is anchored on the Technology Acceptance Model (TAM), which serves as a theoretical foundation for understanding how individuals adopt and use technological innovations in learning. Technology-based education provides professional learners with innovative ways to explore and adapt to more effective learning experiences (Shin & Kang, 2020).

According to the TAM, technology is perceived as useful and easy to apply when it enhances an individual's performance without requiring excessive effort. This perceived usefulness encourages individuals to adopt and continuously use new technological tools. The TAM remains one of the most widely used frameworks in predicting users' acceptance of information systems and their intention to engage in technology-driven activities (Zin et al., 2023).

Offering online distance learning at the graduate level thus presents an excellent opportunity for students to pursue professional advancement at their convenience without compromising the quality of education. The primary goal of this study is to determine graduate students' perceptions of online learning as a basis for developing distance education programs. Specifically, it aims to address the following research questions:

1. How may online learning be described in terms of activities, strategies, media instruments, and support tools?
2. What are the perceived advantages of offering distance education among graduate students?

## **Literature Review**

### **Distance Education**

Since the early 1980s, distance education has grown significantly both nationally and worldwide. It has developed into a global movement utilizing various technologies that evolved from early correspondence education, which relied on print-based resources. As an alternative to traditional education, distance learning aims to provide degree-granting programs, combat illiteracy in developing nations, offer training opportunities for economic growth, and expand curricula in non-traditional learning environments. This form of remote education has been made possible through various technological delivery methods (Smith, 2020).

Moreover, the advancement of new media and computing technologies, the development of diverse group learning and information-sharing methods, and the establishment of telecommunications regulations have collectively promoted the use of computer-based media in education across different countries. The sector of distance education that integrates computer-based instruction continues to grow at the fastest rate (Johnson, 2021).

Several related terms—such as open education, online education, virtual education, e-learning, and m-learning—are often used interchangeably, even though they hold distinct meanings. All can be viewed as different modalities within distance learning that vary based on their frameworks and instructional approaches. For example, m-learning involves learning through mobile devices such as smartphones or tablets with wireless connectivity, whereas e-learning utilizes similar technologies but focuses more on accessibility to digital materials and interactive engagement (Anderson, 2019).

Advancements in instructional technology continue to shape how educators design and implement educational systems, leading to a renewed focus on transforming traditional teaching methods (Brown & Davis, 2022). According to Miller (2018), understanding students' expectations—and how these expectations affect academic performance and retention—is essential when developing online programs that foster realistic learning goals.

As noted by White (2017), distance learning refers to education provided to students in locations remote from the instructor, encompassing diverse learning environments that differ from conventional brick-and-mortar classrooms. It contrasts with telecommunication or correspondence courses, in which materials are transmitted via videotape, email, or mail. With advancements in digital technology, online courses have become the primary form of distance learning in postsecondary education.

Research indicates that the most significant feature of distance education is the autonomy it provides students in managing their academic progress. Learners are empowered to decide how much time and effort they dedicate to their studies, based on the instructor's course design and expectations (Taylor, 2020).

### **Online Learning**

Online learning is considered an alternative instructional mode that relies entirely on internet technologies, eliminating the need for physical classroom interaction between students and instructors (Hernandez, 2019). According to Patel (2020), many higher education institutions—particularly in developed countries—have rapidly transitioned to online learning to maintain student engagement and ensure continuity of instruction.

Online learning encompasses various computer-based platforms, multimedia content, educational programming, simulations, and interactive learning games accessible via both desktop and mobile devices (Kumar & Lee, 2021). It transcends traditional classroom boundaries by emphasizing independent learning, student autonomy, and the importance of spontaneous engagement to enhance academic performance (Nguyen, 2018).

Due to its flexibility and cost-effectiveness, online education has become a reliable and sustainable learning model (Garcia, 2020). A well-structured online learning environment should be established at the beginning of the course and maintained until completion to ensure consistent student motivation and participation. Weekly engagement tasks and discussions are effective in promoting active learning and maintaining student interest (Lopez, 2021).

As the number of students enrolling in online programs increases, educational institutions continue to develop innovative strategies for delivering course materials effectively to distant learners. Active learning techniques—those that engage students in higher-order thinking processes such as analysis, synthesis, and evaluation—are highly effective in online education (Martin & Roberts, 2020). These strategies transform students from passive recipients into active participants, shifting the instructor's role from a lecturer to a facilitator or mentor.

To support these instructional innovations, many institutions use Learning Management Systems (LMS) as centralized platforms for course management, communication, and assessment (Olsen, 2019). According to Rivera and Thompson (2020), instructor availability and responsiveness significantly affect student success and teaching effectiveness. Academic outcomes improve when instructors provide timely feedback, maintain open communication, and create engaging, relevant assignments. Such practices cultivate trust and foster stronger connections between students and teachers.

Given this literature, it can be concluded that graduate students benefit from the flexibility and accessibility of online learning, allowing them to balance their academic responsibilities with professional and personal obligations more effectively.

## **Methodology**

### **Research Methodology**

#### **Research Design**

The study utilized a concurrent mixed-method design, which integrates the strengths of both qualitative and quantitative approaches while addressing their individual limitations to gain a comprehensive understanding of the research problem. In this design, qualitative and quantitative data are collected simultaneously within a single study to triangulate findings and enhance the validity of the results (Creswell & Plano Clark, 2018). According to Johnson and Onwuegbuzie (2019), concurrent mixed-method research aims to corroborate findings from one method with evidence obtained from

the other, thereby ensuring a more holistic interpretation of the data.

#### **Quantitative and Qualitative Components**

As noted by Saunders et al. (2019), the quantitative method focuses on gathering and analyzing numerical data from a large population to address specific research questions. However, this approach often overlooks individual emotions, perceptions, and contextual factors. In contrast, the qualitative approach allows the researcher to explore participants' experiences and insights in depth, providing richer contextual understanding.

For this study, qualitative data were analyzed thematically. The process began with initial coding by carefully reading interview transcripts, identifying significant terms and expressions, and categorizing them into preliminary codes. These codes were then refined and organized into broader themes that represented key patterns emerging from the data (Braun & Clarke, 2021).

#### **Participants and Sampling Procedure**

The study's respondents consisted of 155 graduate school students enrolled at La Consolacion University Philippines during the second trimester of the Academic Year 2022–2023. A convenience sampling method was employed to select participants. According to Etikan, Musa, and Alkassim (2016), convenience sampling involves choosing participants who are easily accessible to the researcher and who possess relevant information related to the research topic.

This sampling method was deemed appropriate due to the limited number of graduate students available for participation, making probability-based sampling impractical. Only individuals who were readily available and voluntarily agreed to participate were included in the study. All participants provided their informed consent prior to participation, and ethical protocols were strictly followed. The study adhered to the provisions of the Data Privacy Act of 2012 (Republic Act No. 10173) to ensure the confidentiality, integrity, and ethical handling of participants' personal information.

### Research Instrument

The study utilized a validated questionnaire adapted from a previous study (Garcia, 2020). The questionnaire assessed graduate students' experiences and perceptions of online learning programs. It was distributed electronically via Facebook Messenger to ensure accessibility and convenience for participants. Each respondent received a formal request for voluntary participation along with the survey link.

### Data Gathering and Analysis

The completed survey responses were collected, tabulated, and processed using Microsoft Excel. Descriptive statistical tools such

as frequency, percentage, and mean were used to analyze the quantitative data. These statistical measures summarized participants' responses and identified trends regarding their perceptions of online learning.

For the qualitative data, thematic analysis was employed to identify recurring themes and insights. This involved familiarization with the data, generation of initial codes, theme identification, and final synthesis, following the six-step process outlined by Braun and Clarke (2021). The integration of both data strands during analysis allowed for a more comprehensive interpretation of graduate students' experiences with online learning.

## Result and Discussion

### Perception of Graduate School Students on Online Learning

Table 1: Descriptive Measures of the Students' Evaluation of the Online Learning in Terms of the Online Learning Activities

Indicator	1	2	3	4	M	VI
There are available instructions on how to study the material.	0	3	51	101	3.63	Strongly Agree
The presentation can arouse the desire of students to learn through illustrations in the form of multimedia.	0	0	36	119	3.77	Strongly Agree
It can facilitate the diversity of learning interactions (students with the material, students with students, students with lecturers/tutors) synchronously and asynchronously.	0	2	41	112	3.71	Strongly Agree
The presentation allows students to learn iteratively and independently.	0	2	38	115	3.73	Strongly Agree
The presentations of Feedback allow students to know their learning achievements.	0	0	57	98	3.64	Strongly Agree
<b>Weighted Mean</b>					<b>3.69</b>	<b>Strongly Agree</b>

Strongly Agree 3.51-4.00, Agree 2.51-3.50, Disagree 1.51-2.50, Strongly Disagree 1.00-1.50

As can be gleaned from the table, the graduate school students evaluated their online learning activities, with a weighted mean rating of 3.69, and interpreted it as strongly agree. The highest indicator states that the presentation can arouse the desire of students to learn through illustration in the form of multimedia, which means the use of multimedia illustrations likely enhances the overall effectiveness of the presentation, making the content more engaging, accessible, and appealing to students,

thereby increasing their motivation to learn. On the other hand, the lowest indicator states that there are available instructions for studying the material. It is possible that the pupils had trouble figuring out how to approach the content or implementing the procedures outlined by the instructor. Students who cannot successfully plan their study attempts or utilize effective learning tactics may have less motivation, more confusion, and worse learning outcomes.

Similarly, Paolini (2015) stated that instructors' availability profoundly affects the success of students and teachers' efficiency. The likelihood of academic success increases when students see that their teachers understand them and are accessible to them. Student outcomes improve when teachers are trans-

parent, respond to emails promptly, set reasonable goals, and offer substantive, constructive feedback. Trust between students and teachers can be cultivated through the use of assignments that are interesting to the students, timely, relevant, and relatable, inspiring personal engagement.

*Table 2: Descriptive Measures of the Students' Evaluation of the Online Learning in Terms of the Online Learning Strategy*

<b>Indicator</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>M</b>	<b>VI</b>
It facilitates various learning strategies (independent learning, group discussions, guided learning).	0	3	42	110	3.69	Strongly Agree
It encourages the growth of new ideas through critical questions, illustrations, issues, and problems requiring continued thinking / creative solutions.	0	0	35	120	3.77	Strongly Agree
The presentations of the learning objectives systematically use specific pedagogical approaches.	0	3	48	104	3.65	Strongly Agree
The strategies used allow the students to practice and master the necessary skills.	0	3	39	113	3.71	Strongly Agree
<b>Weighted Mean</b>					<b>3.71</b>	<b>Strongly Agree</b>

*Strongly Agree 3.51-4.00, Agree 2.51-3.50, Disagree 1.51-2.50, Strongly Disagree 1.00-1.50*

Regarding the online learning strategy, graduate school students rated their online learning at 3.71 and strongly agreed with the given indicators. The highest one obtained a mean of 3.77, which states that their online learning encourages the growth of new ideas through critical questions, illustrations, issues, and problems requiring continued thinking / creative solutions. Students are pushed toward using more complex cognitive processes, including analysis, assessment, synthesis, and originality. This can encourage inquisitive learning, facilitate intellectual growth, and spark the emergence of novel viewpoints and interpretations of the studied topic. In addition, this method of online education has the potential to assist students in acquiring transferable

abilities such as problem-solving, innovation, and flexibility.

Similarly, Phillips (2005) stated that learning is best assimilated, applied, and retained when the student actively learns through tools that encourage higher-order thinking (such as analysis, synthesis, and evaluation). Active learning strategies are more flexible and can be adapted to suit various learning preferences. Moreover, a not-so-minor indicator has a mean of 3.65, which says the presentations of the learning objectives systematically use specific pedagogical approaches. This implies a concerted effort to plan and execute the presentations uniformly, following standard pedagogical practices.

*Table 3: Descriptive Measures of the Students' Evaluation Regarding the Online Learning Media Instrument*

<b>Indicator</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>M</b>	<b>VI</b>
Various learning media allow students to understand the learning material.	0	0	34	121	3.78	Strongly Agree

Indicator	1	2	3	4	M	VI
The use of visuals and other media related to the material presented.	0	0	39	116	3.75	Strongly Agree
The selection of learning media in a format is easily accessible.	0	0	53	102	3.66	Strongly Agree
<b>Weighted Mean</b>				<b>3.73</b>	<b>Strongly Agree</b>	

*Strongly Agree 3.51-4.00, Agree 2.51-3.50, Disagree 1.51-2.50, Strongly Disagree 1.00-1.50*

The online learning media instrument was evaluated with a weighted mean of 3.73, and the graduate school students strongly agreed with the given indicators. The highest rating is that various learning media allow students to understand the learning material. It yielded a mean of 3.78 and was interpreted as strongly agree. The highest rating or measure of success for these learning media is when they can enhance students' understanding of the subject matter, making it accessible and understandable for them. On the other hand, the lowest indicator was rated 3.66 and also interpreted as strongly agree. The selection of learning media in a format is easily accessible. It's worth emphasizing that accessibility is a significant factor in education because it allows students of

different skills and backgrounds to gain knowledge from the same resources. Accessibility of learning materials in a given format may, nevertheless, be rated lower than other criteria in the rating or evaluation process to which this statement refers.

This is aligned with the statement of Liu, Lomovtseva, and Korobeynikova (2020) that, along with a wide range of computer-based learning platforms and delivery techniques, multimedia, educational programming, simulations, games, and the use of new media on fixed and mobile platforms are all included in online learning, which is focused not only on online contexts but also encompasses all subject areas.

*Table 4: Descriptive Measures of the Students' Evaluation Regarding the Online Learning Aid Instrument*

Indicators	1	2	3	4	M	VI
Availability of Academic and Administrative Information Services	0	2	37	116	3.74	Strongly Agree
Availability of Distance Learning Tutoring Independent	0	0	31	124	3.80	Strongly Agree
Availability of access to digital learning resources in the library	0	2	48	105	3.66	Strongly Agree
The selection of learning media in a format is easily accessible.	0	3	32	120	3.75	Strongly Agree
Availability of Technical Assistance and Complaints				<b>3.74</b>	<b>Strongly Agree</b>	
<b>Weighted Mean</b>				<b>3.74</b>	<b>Strongly Agree</b>	

*Strongly Agree 3.51-4.00, Agree 2.51-3.50, Disagree 1.51-2.50, Strongly Disagree 1.00-1.50*

The online learning aid instrument obtained a weighted mean of 3.74 with a verbal interpretation of strongly agree. The highest indicator is the statement, availability of distance learning and tutoring independent, where most respondents strongly agreed they got a mean of 3.80. On the other hand, the lowest indicator

got a mean of 3.66, the availability of access to digital learning resources in the library; most of the respondents strongly agreed with it.

As a result, an increasing number of students are choosing to complete their degrees online, and many universities are looking into efficient ways to send course materials to

students who live far away. Similarly, Austin & Mescia (2004) noted that learning is most likely to be internalized, applied, and recalled when students actively participate in their education using resources that promote higher-order thinking, such as analysis, synthesis, and assessment. Active learning techniques are more adaptable and may be tailored to different learning styles.

Similarly, Ally (2006) stated that using network technology and information technology to make a learning system—such as remote learning, online learning, or e-learning—is one of the most appropriate strategies for this case.

### ***Perception of Graduate School Students on the Offering of Distance Education. Innovative Learning Engagement***

According to Tamrat and Teferra (2020), many people have said that now is the moment to not only change things up a bit but also to think about other possibilities—futures for higher education that are more hopeful, fair, and just.

In meeting the requirements of various students and staying competitive in the global education market, many universities and professors use new technology-based teaching methods both inside and outside the classroom (Keengwe & Kidd, 2010). Innovative learning engagement is a continuous process that requires institutions and educators to adjust to shifting technological and pedagogical trends. Educators may design more efficient and exciting learning experiences that better prepare students for the difficulties of the modern world by adopting these tactics and ideas. Likewise, graduate students stated that the availability of online learning provided them with an innovative learning engagement since it uses technology in education, which is one of the most essential components of such engagement. Online learning materials can also be quickly updated to include the latest information, ensuring that students learn the most recent material—an especially vital factor in developing fields.

As mentioned by Crompton and Burke (2018), higher education teachers are urged to explore the potential for extending their educational opportunities outside the traditional

classroom setting through mobile learning. Similarly, Wieser and Seeler (2018) stated that digitally enabled learning environments, with the spatial affordances of innovative learning environments, can allow the educational environment to serve as a link to knowledge and understanding inside the global community. Moreover, their findings showed that the respondents had a generally positive opinion of using innovative learning environments significantly as their exposure to them expanded. The study discovered that cloud-based information communication technology facilitated a shared online communication approach, notably teachers' collaborative planning and report writing. Most respondents felt that the instructor's efficiency, interactions with pupils, and pedagogical techniques remained crucial despite the advancement of digital tools.

### ***Convenience***

An essential benefit of online learning for distance education is its convenience, which increases accessibility, flexibility, and adaptability to the needs of modern learners. Removing restrictions on access to time, space, and resources broadens participation in education and gives people the freedom to pursue their educational objectives at their own pace. According to students, online learning is more economical. They can save money by not having to pay for transportation, accommodation on campus, or textbooks. Additionally, some online courses have reduced tuition costs compared to conventional programs.

Moreover, many educators and researchers are interested in online learning courses to increase and improve student learning outcomes in combating the lack of resources, facilities, and equipment, particularly in higher education institutions. Online learning has grown in popularity due to its potential to offer more convenient access to information and instruction anytime and anywhere. The researchers must therefore consider and investigate how effective online learning is in educating students (Torun, 2020).

### ***Flexible Scheduling Opportunities***

According to students, online learning offers flexible scheduling options, which are a

significant advantage in meeting the demands and lifestyles of a wide range of students. These possibilities enhance the allure and efficiency of online learning. Students can interact with course materials on their smartphones or tablets thanks to the availability of mobile apps, making learning more straightforward during breaks or commutes.

According to Kara, Erdogan, Kokoç, and Cagiltay (2019), the characteristics of adult learners whom the advantages of online learning will best serve are (a) working adults, (b) adults who cannot afford long leaves of absence, (c) single parents or economically disadvantaged adults, and (d) individuals who require an alternative method of studying for degree programs for financial, social, personal, or practical reasons. In meeting these particular learning requirements of adult learners, online learning has been seen as a potential solution. Thus, graduate school students at La Consolacion University-Philippines wish to offer online learning as an innovative practice in distance education.

## Conclusion

Students are generally in favor of online learning because they consider it to be a modern and effective means of delivering education. They were responsive and appreciative of the benefits of online learning. It was then concluded that the study highlighted that online learning could be an effective and innovative practice for graduate school students. Likewise, TAM offers a pertinent and thorough framework for comprehending graduate students' adoption and acceptance of online learning. Furthermore, it can be stated that the increased accessibility and flexibility provided by online learning improve graduate students' ability to manage their time. Because of their flexibility, they can handle their extracurricular activities in addition to their academic obligations, which could enhance their overall educational experience and accommodate the varied demands and schedules of graduate students.

In maintaining the high caliber of online education, ongoing efforts must be made to modify instructional paradigms and enhance the online learning environment in response to student input. Thus, the findings imply that

distance education programs should continue enhancing online learning activities, strategies, and tools to sustain positive student perceptions. With convenience, flexibility, and innovative engagement as key advantages, institutions must invest in digital resources, faculty training, and support systems while ensuring continuous feedback to maintain quality and relevance in graduate education.

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