



## Study Protocol

### Perceptions of UST-CRS Faculty and Students on the Use of Blackboard Learning Management System: A Research Protocol

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## Abstract

**Background:** The global pandemic greatly affected the educational system. Schools and universities were necessitated to adapt from a traditional classroom set-up to an online virtual mode of learning. The University of Santo Tomas – College of Rehabilitation Sciences adapted Blackboard as its primary learning management system, bringing new perceptions and opinions among its primary users- the faculty and students. **Objective:** The study's objective is to determine the perception of students and faculty from the CRS on using Blackboard as a medium for enhanced virtual learning during the pandemic. **Methodology:** Researchers will utilize phenomenological qualitative research for this study as it seeks to study the living experiences of students and faculty members during the pandemic concerning online classes compared to face-to-face courses. Purposive sampling via maximum variation will be used to recruit 3<sup>rd</sup> year and 4<sup>th</sup>-year students and faculty members who experienced both face-to-face and online classes. The researchers will employ guide questions during the focus group discussions (FGD) conducted via Zoom. Transcripts will be analyzed using thematic analysis through Nvivo following Hancock's guidelines. The researchers will use the CORE-Q checklist to appraise the paper and affirm its validity. **Expected Results:** The findings will include the varied perceptions of students and faculty about using Blackboard for online learning during the pandemic. Results are expected to help the education stakeholders better understand the perceptions of faculty and students to evaluate the use of the learning management system, amend necessary changes, and create relevant policies for the betterment of online learning delivery. Transcripts are expected to result in themes and subthemes that will help researchers identify the features of Blackboard that aid in the delivery of faculty lessons and students' learning process.

**Key Words:** Blackboard Learn, perception, Learning Management System

## INTRODUCTION

The Covid-19 pandemic created the most massive disruption in the educational system affecting billions of learners worldwide. The Philippine Government declared Enhanced Community Quarantine (ECQ) in March 2020. Families were confined to their homes and were only allowed to leave for essential needs. Public transportation was closed as well as mass gatherings and events were prohibited. The education sector was also affected as classes were suspended. These institutions were then forced to react quickly to assure all stakeholders

that learning would continue despite orders from governments to cease face-to-face instructions and switch, almost instantly, to online and virtual education.<sup>1</sup> Academic institution in the Philippines, including the University of Santo Tomas (UST), responded to the challenge by deploying an instructional delivery in the first term of the academic year 2020-2021 through an "Enhanced Virtual Mode," the University's hybrid online learning model.<sup>2</sup> Classes were facilitated remotely using online and offline strategies, with the Blackboard Learn

as its primary educational platform. Classes continued and focused on self-paced instruction during quarantine to ensure the continuity of learning.

UST has been embracing technology and digital tools as teaching-learning materials for the Thomasian Community since 2002, and one of these is Blackboard Learn, a learning management system (LMS). An LMS is an interactive web-based platform that facilitates communication between instructors and students and among students themselves.<sup>3</sup> The University explored and invested in using an LMS to meet the educational needs of teachers and students. Blackboard Learn is one of the leaders in providing virtual learning environments with features for instructors such as automated attendance checking, specific course rooms, customization of student permissions, monitor chats, and a comprehensive view of student performances. This educational platform also enhances the 21st-century skills of students, such as communication, collaboration, and creativity.

There are advantages, disadvantages, and limitations associated with adopting and using technology and tools. According to the literature, LMS such as Blackboard Learn allows open and flexible learning without limitations of time and space. It enables instructors to provide varied learning materials with ease in presentation, organize and manage materials digitally with lesser costs, improve communication and enhance collaborative work in teaching and research.<sup>4,5,6</sup> Disadvantages and limitations in LMS use are poor computer and information literacy and management skills, loss of personal and social relationships, difficulty keeping students motivated and engaged in each lesson, and connectivity issues.<sup>4,5</sup>

Previous studies mentioned that faculty members would use the LMS if perceived as valuable, easy to use, and provide support in teaching.<sup>7</sup> Additionally, when a university understands the faculty perception, they can implement an online education environment conducive to student learning and faculty engagement.<sup>8</sup> Results revealed that they were able to shift to LMS usage with the proper training. Students' lack of attention, technical

difficulties with internet connection, and limited computer expertise of faculty and students may hinder learning activities.<sup>9</sup>

As Blackboard is being utilized worldwide, different qualitative studies evaluating its features among faculty members have been conducted. Although local studies center on a broader scope of various online learning management systems, these studies cater to different educational fields. Countries such as Saudi Arabia, Taiwan, and the USA conducted most of the existing studies found by the researchers. It impedes other researchers from generalizing and using their findings due to the differences in curriculum and culture impacting the educational delivery system.<sup>10</sup> Another factor to consider is that most published studies were conducted with blended learning, a combination of online and on-site learning. Also, their research happened before the pandemic, which may have significantly affected their participants' perceptions.

The UST College of Rehabilitation Sciences has been using Blackboard for the last two years based on the internal data generation of the University protected and managed by the Educational Technology Center, the dedicated e-learning unit of the University. Faculty and students alike faced the challenge of quickly adapting to what has now become the "new normal." It has led to the increase in usage of Blackboard for instruction delivery. A study participated by medical technology interns of UST under the EVM learning mentioned a positive impact of the manner of online delivery in attaining the program learning outcomes. However, the online platforms, including Blackboard, had an insignificant impact. This shows that the use of online platforms is still new, and possible benefits and limitations will continue to emerge.<sup>2</sup> In another study, faculty members expressed the difficulties of teaching a skill-based course online, but institutional preparations, such as proper faculty training and provisions for an LMS, improved teaching methods.<sup>11</sup> A study published by researchers in the Faculty of Engineering mentioned that the roles of instructors, and the technology they use, play an important role in the students learning.<sup>12</sup> Hence a reliable and efficient platform is essential for a successful virtual classroom. The

need to quickly adapt to the rise in usage requires evaluating the perspectives of different stakeholders—like the students and faculty members—regarding its features. Thus, this study aims to explore the perception of students and faculty from the CRS on the use of Blackboard as an LMS during the pandemic.

## METHODS

**Technical and Ethical Considerations.** This protocol has undergone the review and approval of the UST-CRS Ethical Review Committee (ERC). The protocol also followed and abided by the ethical guidelines of the Declaration of Helsinki. This study is also registered under Philippine Health Research Registry (PHRR210902-003851).

**Study Design.** This study utilizes a phenomenological qualitative design. Based on the report of Te Yeh & Lahman<sup>13</sup>, a phenomenological study draws from the philosophy of phenomenology in its focus on experience and interpretation. The report also suggested that phenomenological researchers see their participants as interpreters of their study. In addition, the researcher conducting a phenomenological study aims to find and understand the essence or structure of an experience by utilizing data from the participants' direct experience of a phenomenon. A previous study also used the same study design to identify student and staff perceptions of using Blackboard as an online learning management system (LMS).<sup>14</sup> A previous study also used a phenomenological study design to understand the perceptions of pre-service teachers in using an online discussion board on Blackboard, through their experiences.<sup>13</sup> The protocol was created using the Consolidated criteria for Reporting Qualitative research (COREQ) Checklist as a guide.

**Study Participants and Setting.** The study includes faculty members in the UST-CRS with years of face-to-face teaching experience and exposure to different teaching strategies. Faculty participants have worked as colleagues with the faculty authors for one to eight years, and some have been course instructors of student authors in their lecture and laboratory courses. Students

involved will specifically be class officers from 3rd and 4th years from the UST-CRS from the Physical Therapy (PT), Occupational Therapy (OT), Sports Science (SPS), and Speech-Language Pathology (SLP) department from AY 2021-2022. Some student participants have attended lecture and laboratory classes under the faculty authors. The student authors have no relationships established with the student participants prior to the research commencement. The insights of the class officers would provide important information. As elected representatives, they carry the consensus of their class. Faculty members who use Blackboard for the first time will be excluded because they may not give sufficient input with their lack of familiarity with the online LMS. Due to their limited experience in face-to-face classes, 1st and 2nd-year level students of all departments of the CRS will be excluded. The study will have a total of 16 respondents, eight respondents from faculty members and eight from the students, which is sufficient to conduct an FGD.<sup>15</sup> The researchers have provided a participant information sheet and an informed consent form (PIS-ICF) for the participants for their perusal prior to the interview. The PIS-ICF includes the characteristics, goals, and objectives of the researchers involved in the study.

**Sampling Technique.** The researchers will use purposeful sampling with maximum variation to understand a phenomenon, individuals, or events by purposefully selecting individuals, groups, and settings that maximize insight into the topic. Maximum variation will focus on attaining the perspectives of key individuals that represent the population that the research would want to understand.<sup>16</sup> This type of sampling will cater to the perceptions that the study intends to investigate.

**Data Gathering Procedures.** Figure 1 shows the research methodology of the study. The process of data gathering done by the researchers started with the formulation of guide questions and the agreement to use a Focus Group Discussion as the mode of data collection. These guide questions were approved by the research advisers, the CRS Ethics committee, and the Dean of the college. Participants were then

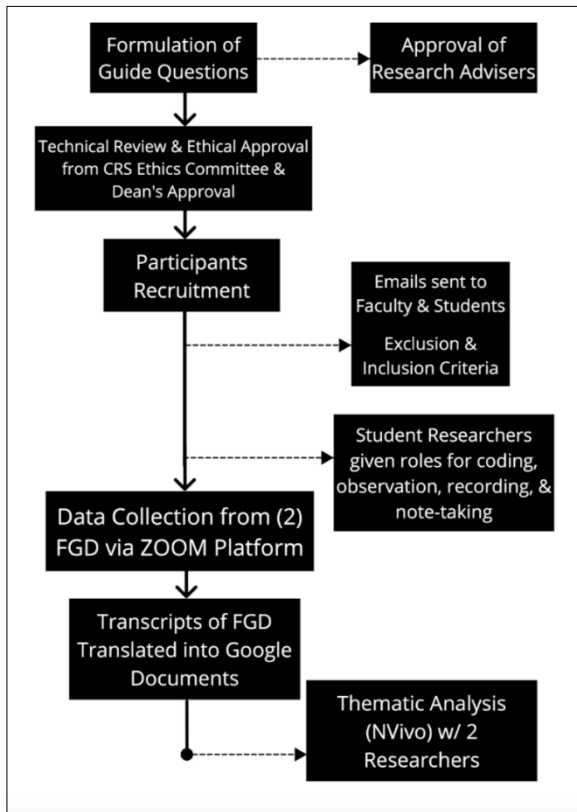


Figure 1. Process Flow of the Methodology of the Study

recruited via email with the exclusion and inclusion criteria in consideration. The student researchers were given roles and responsibilities for coding, observation, recording of the session, and note-taking during the FGD. After the FGD was conducted, transcripts were listed down by the researchers and were then reviewed for analysis through NVivo. The answers given by the participants were then categorized and were filtered during the thematic analysis process.

**Development and Validation of Guide Questions.** The guide questions are open-ended questions that focus on the experiences of teachers and students in using the Blackboard LMS. The guide questions were based on past similar research<sup>10</sup> and will be sent to an expert with previous experience in FGD facilitation for validation. The researchers will revise the questions according to the comments and suggestions of the invited expert. Two different sets of guide questions will be employed, one for faculty and the other for students participating in the study. It will be specific and distinct to the participants' utilization of the platform.

**Participants Recruitment.** Eight faculty and eight students, two individuals from all programs, will be purposefully selected.<sup>15</sup> Additional participants will be recruited if the data saturation is not reached. Target participants will be invited through their UST email addresses. The email will contain the details of the research and our intention to recruit them. The researchers will give each prospect a maximum of 1 week to respond. To confirm, the first two from each program, faculty and students alike, will be prioritized as the participants in the study and represent their respective programs.

If a participant responded later than the first two confirmees, the researchers would send a response email. The email will apologize that the slots have been filled and that their response is greatly appreciated. In the case that a former confirmee will not be able to push through with his participation, the next confirmee in line will then take the available slot.

**Data Collection.** As this is a preliminary study, the researchers opted to use FGD for data collection. In this manner, the participants' responses can be used to develop survey questions that the researchers can deploy on a larger scale to draw definitive conclusions. An FGD can assist in gaining knowledge and insight into the respondents' ideas, perceptions, understandings, and patterns of trends to answer the research question stated before and try to clearly understand the statements related to the aim of the present study.<sup>17</sup> In essence, FGDs are best used to clarify and distill qualitative data points from a population using their emerging themes for other purposes, such as constructing a survey.<sup>18</sup> This can aid researchers and participants in clarifying points of view that may not have come up in a one-on-one interview. It also uncovers individuals' sharp differences.

The researchers plan to utilize two separate FGDs—one for students and one for faculty; this is to separate the data received from two different parties on their perceptions of the usage of Blackboard. The FGD via Zoom will be conducted in a well-lit environment with participants' consent to turn their cameras. The participants will be interviewed when it is most convenient

for all participants. The researchers will conduct the FGD for 2 hours. During the FGD, only the participants, faculty moderators, and research group members (two will take down fieldnotes and one observer) will be present. The researchers will create a list of guide questions to prompt the discussion properly. The team members with previous qualitative research experience and training were identified to facilitate the discussions. As an e-learning management team leader and an educator, the faculty authors want the results to provide information that will help assess the usefulness and effectiveness of the LMS in the teaching and training of students and faculty members. The faculty moderator will guide the meeting, and participants will be asked about their perceptions and experiences in using the Blackboard LMS. The first principal author, a female Physical Therapist with a Master's Degree in Physical Therapy and faculty researcher with 15 years of experience, and the second principal author, a female Physical Therapist and faculty researcher with a Master's Degree in Health Professions Education with nine years of experience will conduct the interview. 5th-year Physical Therapy students who completed training on the principles of health research ethics and good research practice will assist them. Two male students - D.L and A.M will be note-takers during FGD with the faculty, while one male student - E.L and one female student - M.P., will be note-takers during the FGD with students. The two note-takers will focus on critical points of the discussion to produce follow-up questions whenever necessary. Data will be transcribed and mailed to the participants after 2-3 weeks for validation. Once validated, the responses will undergo encoding and thematic analysis to extract emerging themes and points.

Sessions using Zoom will be recorded and stored in the cloud with password access, and the researchers will transcribe the meeting minutes for the research data gathering. Compared to other frequently used VoIP technologies, Zoom may be a highly suitable platform for gathering qualitative interview data.<sup>19</sup> In addition, by using video conferencing software like Zoom, researchers will share their experiences and help future researchers conduct high-quality

interviews and stay relevant in an ever-increasing digital era.<sup>20</sup>

**Data Analysis.** The following measures will ensure the rigor of the qualitative data; (1) Member checking and triangulation: the researchers will clarify data by summarizing and reviewing responses during the FGD and compare taken down notes and transcribed interview data to ensure data trustworthiness; (2) the sampling method used will collect necessary information from teachers and students representing the population to ensure transferability; and (3) Two reviewers will compare categories, and results will be validated by a third reviewer all the while observing transparency among reviewers and data to ensure consistency.<sup>21</sup>

Thematic analysis by an expert in qualitative studies will ensure accuracy, avoid biases, and increase study rigor. The qualitative data analysis software NVivo will be used. The participants' responses will be coded using several methods such as word repetition, compare and contrast, transitions, etc., under the different themes that will emerge during the data analysis. Similarities and differences in the content and ideas will be noted, indexed, and sorted into tables. The researchers will follow suggested steps in the content analysis according to an article by Hancock,<sup>22</sup> which includes taking a copy of the transcript, reading through it and making brief notes in the margin for any relevant information, making a list of different information types found, categorizing each item describing it which can be as many as needed, careful consideration that the categories may be linked somehow and listing them as major or minor, comparing and contrasting the different categories, reviewing the data per category after all relevant data has been classified into minor and major categories, and reviewing the extent of categories checking if there are categories that fit together after sorting them and if all the data is in its correct category.

## EXPECTED RESULTS

The researchers expect that the participants will not drop out during the duration of this study. The result of the study will contribute to the

literature in the local setting in regards to online learning in health science courses as the emergent utilization of this mode of instructional delivery becomes in demand. With the gathered perceptions and experiences of the faculty and students, the researchers expect to categorize the results into themes and subthemes. Views from both stakeholders will allow the researchers to have a broader understanding of the use of Blackboard during the pandemic.

The results of the study will benefit the different stakeholders in the college. It may aid the college faculty members in developing and designing the curriculum to enhance teaching delivery and learning efficiency specific to the needs and characteristics of students. It may also aid the college administrators in drafting appropriate guidelines and policies for better teaching-learning experiences of faculty and students. All of these will be beneficial to ensure that students receive education at a distance without compromising the delivery of instruction and learning processes.

### Individual Author's Contributions

C.V. and C.E led the design and conceptualization of the protocol. All individual authors (C.V., C.E., G.A., M.I., D.L., A.M., G.N., M.P., E.L., J.M., A.M.) contributed in writing, editing, and reviewing the protocol. All individual authors approved the final version of the protocol.

### Disclosure Statement

This is a self-funded paper.

### Conflicts of interest

There are no conflicts of interest declared by the authors of this study.

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