



CAPSTONE PROJECT CONCEPT PAPER

UNICENTRAL: A ONE-STOP PORTAL FOR STATE UNIVERSITIES' APPLICATION INFORMATION IN METRO MANILA FOR GRADE 12 STUDENTS

Naomi Erica Angel M. De Guzman, Alyssa Marie D. Dela Cruz,

Christopher G. Natada, Daniella M. Simara

BSIT 3-1N

Area of Specialization (Please check)	Software / Application Development (Web, Mobile, Desktop) Game Development Mobile Application Development Database Management and Information Systems Networking and Infrastructure Cybersecurity / Information Security Data Analytics / Data Science Artificial Intelligence / Intelligent Systems Internet of Things (IoT) Educational Technology / E-Government / Domain-Specific Systems
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INTRODUCTION / BACKGROUND

Applying to universities requires careful preparation and submission of numerous documents, making the research process time-consuming for Grade 12 students, especially those applying to multiple universities. Students commonly rely on university websites and other information sources, but each website presents information differently, requiring applicants to navigate from one website to another and track requirements, schedules, deadlines, course offerings, and university details. This lack of uniformity increases cognitive load and results in stress, inefficiency, and a higher risk of overlooking important application information, particularly with overlapping application periods among state universities in Metro Manila.

These challenges highlight the need for a centralized system that can consolidate and streamline application information into a single platform.

PROJECT RATIONALE



This study proposes the development of **UniCentral: A One-Stop Portal for State Universities' Application Information in Metro Manila for Grade 12 Students**. The portal consolidates application requirements, schedules, deadlines, course offerings, and university details, providing simplified and uniform access to information in a single platform.

By centralizing these resources, UniCentral aims to enhance the research process, enabling students to efficiently access, understand, and compare application information across multiple universities. The system addresses existing gaps in current practices, particularly the lack of a centralized platform and the fragmented, time-consuming nature of navigating multiple information sources.

STATEMENT OF THE PROBLEM

This study seeks to address the general problem of:

How can UniCentral be developed to improve Grade 12 students' ability to access, understand, and compare application information for state universities in Metro Manila?

Specifically, this study seeks to answer the following questions:

1. Based on the pre-survey, which aspects of application information do Grade 12 students find difficult to access, understand, and compare?
2. How can the development of UniCentral address the students' perceived usefulness (PU) and perceived ease of use (PEOU) in accordance with the Technology Acceptance Model?
3. To what extent does UniCentral improve Grade 12 students' ability to access, understand, and compare application information after using the system?
4. How effective is UniCentral as assessed by:
 - 4.1. Grade 12 students, in accordance with the Information Systems Success Model (ISSM), including Information-Seeking Efficiency (ISE) and User Satisfaction in terms of:
 - 4.1.1 Information Quality (IQ)
 - 4.1.2 System Quality (SQ)
 - 4.1.3 Service Quality (ServQ)
 - 4.1.4 Information-Seeking Efficiency (ISE)
 - 4.1.5 User Satisfaction (US)
 - 4.2. Subject-matter experts, in accordance with the Information Systems Success Model (ISSM) and ISO/IEC 25010, in terms of:
 - 4.2.1 Information Quality (IQ)
 - 4.2.2 System Quality (SQ)
 - 4.2.3 Service Quality (ServQ)
 - 4.2.4 ISO/IEC 25010 quality characteristics



5. How do perceived usefulness (PU) and perceived ease of use (PEOU) influence students' user satisfaction and intention to use UniCentral after using the system?
6. Is there a significant difference between the pre-survey and post-survey results of Grade 12 students regarding their ability to access, understand, and compare application information after using UniCentral?

OBJECTIVES OF THE STUDY

This study aims to develop UniCentral, a one-stop portal for consolidating university application information for Grade 12 students targeting state universities in Metro Manila. Specifically, it seeks to: identify the difficulties students face in accessing, understanding, and comparing application details via a pre-survey; design the system to address Perceived Usefulness and Perceived Ease of Use (TAM); measure its impact on improving students' information-handling abilities; evaluate its effectiveness through student and expert assessments based on the Information Systems Success Model and ISO/IEC 25010 standards; analyze how Perceived Usefulness and Ease of Use influence User Satisfaction and continued intention to use; and determine if there is a significant difference in student capabilities before and after using the system.

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PROPOSED SYSTEM SOLUTION

This section describes the proposed system at a conceptual level. It includes the purpose of the system, its intended users, major features, and the general technology platform to be used. The discussion should focus on how the system will address the identified problems without delving into detailed technical design or implementation.

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SCOPE AND LIMITATIONS

The scope of this project focuses on the development of UniCentral, a one-stop web-based portal designed to consolidate application information for state universities in Metro Manila. The system is designed for Grade 12 senior high school students who plan to apply to these institutions. UniCentral will provide centralized access to essential application details, including admission requirements, application schedules and deadlines, available academic programs, entrance examination information, and general university profiles such as location and areas of specialization. The system aims to improve students' ability to efficiently access, understand, and compare application information through a user-friendly interface. The evaluation of the system will involve selected Grade 12 students and subject-matter experts, with system effectiveness assessed in terms of information quality, system quality, usability, and overall user satisfaction.

The limitations of this project include its focus on the presentation and organization of application information only. UniCentral will not support online application submission, document uploading, admission processing, or integration with official university enrollment systems. The project is confined to state universities located within Metro Manila and does not include private universities



or state universities outside the region. Additionally, the accuracy of the information presented in the system depends on publicly available data from official university sources at the time of development. The study is also constrained by time, resources, and access to respondents, which may limit the number of participating students and subject-matter experts involved in the system evaluation.

METHODOLOGY

This study will employ a descriptive research design integrated with a system development approach to examine the challenges Grade 12 students face in accessing, understanding, and comparing application information for state universities in Metro Manila. The research will be guided by the Design Science Research (DSR) framework, which supports the identification of the problem, the development of the UniCentral system, and the evaluation of its effectiveness as an information technology solution.

The development of UniCentral will follow the Rapid Application Development (RAD) model, which emphasizes iterative prototyping and continuous refinement based on user feedback. This approach enables the researchers to design, test, and improve system features efficiently while ensuring usability and responsiveness to user needs. Data will be collected from both primary and secondary sources, including surveys administered to Grade 12 students and evaluations conducted by subject-matter experts, as well as official application information obtained from state university websites and related documents.

System evaluation will be conducted through pre- and post-survey assessments to measure changes in students' ability to access, understand, and compare application information, alongside usability and quality evaluations of the system. This methodology ensures that UniCentral is developed using verified information and assessed based on actual user experiences, while remaining feasible within the project's time and resource constraints.

EXPECTED OUTPUTS

The expected outputs of this project include the development of a functional web-based portal called UniCentral, which centralizes application information for state universities in Metro Manila. The system will present organized and standardized application details in a clear and user-friendly format to support efficient access, understanding, and comparison of university requirements. In addition, system documentation will be produced to describe the system's features and usage for both users and developers. The project will also generate system evaluation results based on feedback from Grade 12 students and subject-matter experts, which will be used to assess usability, information quality, and overall system effectiveness. Lastly, the study will provide findings and recommendations that may serve as a reference for future system enhancements or similar centralized educational information systems.



SIGNIFICANCE OF THE STUDY

This study will provide significant benefits by developing UniCentral, a centralized portal for university application information. For Grade 12 students, it will simplify the research process by consolidating reliable information into one platform, saving time and supporting better-informed decisions. For parents and guardians, it will enable more active, informed guidance and planning. For State Universities in Metro Manila, it will reduce administrative burdens by decreasing repetitive public inquiries. For the future researchers, the study will contribute by applying and validating the DeLone & McLean Information Systems Success Model with a new focus on Information-Seeking Efficiency, serving as a foundational reference for future developers and researchers in educational technology.

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REVIEW OF RELATED LITERATURE

The literature review strengthens UniCentral's progress through five main points. The research conducted on Centralized Information Systems showed that they enhance the efficiency of the admissions process and the decision-making of students, but they also situate great usability. The Digital Transformation theme validated the concept that the digitization of the administration provided transparency, but also necessitated an increase in the focus on equitable access. The Information Systems Quality theme confirms that user satisfaction is determined by a portal's dependability and simplicity of use. The research on Student Information-Seeking Behavior has shown that students find it difficult to locate scattered information and to evaluate its credibility. Lastly, the topic of Equitable Access underlines that the process of admitting deserving students has to be supported by technology and be transparent. The five key themes thus point out the gap that UniCentral intends to fill: a dedicated user-friendly portal that pools the application information of state universities in the Metro Manila area for the purpose of empowering and fairly distributing student access to university admissions.

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OFFICE OF THE VICE PRESIDENT FOR ACADEMIC AFFAIRS
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