

University of the East - Caloocan

**“Bagong Barrio Elementary School
- School Management Portal”**

Lat, Charles Jacob

Mendoza, Renzo Isaac

Quilop, Mariel

Quintero, Chelsea Mae

Tendilla, Licelle

Zalzos, Sebastian

CHAPTER I

Introduction

Before the worldwide lockdown caused by the pandemic began in March of 2020. School Portals and/or websites are rarely or seldom used. This applies to both sides of the school environment, the teachers and the students. Whenever a new assignment is tasked, it's always done and compiled face to face, usually being collected by the teachers themselves. And for the students, as much as they can make digital notes and copies of the teacher's lecture, this is seldomly done as the more common study strategy would be to simply write it down the traditional way, on pen and paper. At least, that was the case for most schools in the Philippines.

Things haven't stayed the same during the past few years. After the pandemic, most schools have implemented the use of school portals that are used for almost everything. Files, modules, assignments, and even communication are done through the use of a portal. Even with the application of blended learning (mixed face-to-face and online), a portal is still being used to this day for submitting activities and publishing lecture materials. It's almost as if a new school culture has begun, and it is here to stay.

1.2 Background of the Study

In today's digital age, educational institutions are increasingly turning to technology to streamline administrative processes and improve student outcomes. Bagong Barrio Elementary School, like many schools, faces several challenges in managing its day-to-day operations,

student records, and communication with administrators. These challenges often result in inefficiencies, redundant tasks, and a need for centralized information management.

Tansiri and Bong's (2018) study on School-Based Management (SBM) implementation in State Junior High Schools provides valuable insights into addressing such challenges. Their research highlights the positive impact of SBM on participatory decision-making, budget transparency, and community engagement, emphasizing the importance of time management expertise and support from governmental, educational, and foreign aid entities for effective SBM implementation. Furthermore, the study delineates key aspects of SBM implementation, including school administration and the school's relationship with society, showcasing efforts such as teacher development and fostering transparency in school management.

Building upon this background, Bagong Barrio Elementary School aims to address similar challenges through the development and implementation of the School-Based Management Portal. This portal serves as a centralized platform for teachers to manage files, student information, curriculum plans, and daily tasks, with the ultimate goal of reducing paperwork, minimizing errors, and providing real-time access to critical information. By leveraging modern technology solutions, Bagong Barrio Elementary School endeavors to enhance the learning experience, foster greater parent engagement, and improve academic outcomes for its students.

This study seeks to provide a comprehensive analysis of the development and implementation process of the School-Based Management Portal, offering insights into the

effectiveness of technology-driven solutions in the educational sector and identifying best practices for future endeavors in school management systems.

1.3 Statement of the Problem

Bagong Barrio Elementary School used to have a portal. However, due to certain circumstances, it has already expired. Upon learning this information, the team collectively decided to use this as an opportunity to create a project of their own. A new portal from scratch that would benefit approximately 100 faculty members. This would serve as the medium where they would upload their files, activities, and such. Although, due to the limited resources, knowledge, and time that the team has, the planned portal would only cater to the teachers.

There are some things that need to be taken into consideration when executing the coding system of the portal such as that the program should be reliably working as intended. The overall design of the website should give comfort to the user. No flashing lights, nor any bold colors that may cause confusion or irritation. The database should be reliably coded to make sure that it properly checks whenever someone puts in the correct information when they log in. Make sure that the plan lines up realistically with what the members of the team can do, given that they have very limited time and resources.

Here are some problems that we should look into and come up with solutions for:

1. Will the website provide experience that could be considered satisfactory?

2. Will it prove to be useful in helping teachers manage their files more easily?
3. Will it provide an easier time for the teachers to share resources with other teachers?

1.4. Objectives of the Study

This project intends to change Bagong Barrio Elementary School's administrative operations by delivering a modern and efficient deal to the institution's educational goals. The fundamental goal of this project is to increase administrative efficiency and accelerate data administration at Bagong Barrio Elementary School. Our goal is to speed up workflow processes and develop a centralized platform for simple access and management of a wide range of school records and data. We are leading this initiative to greater efficiency and a better organized educational environment in the long run.

The objectives of the study specifically include:

- **Improving Accessibility:** Ensure that information and resources are easily accessible to all users anytime, anywhere, promoting inclusivity and accommodating different learning styles and needs.
- **Enhancing Accountability:** Establish clear accountability mechanisms by tracking tasks, deadlines, and responsibilities within the portal. This promotes transparency and ensures that everyone is aware of their roles and expectations.

- **Promoting Security and Privacy:** Implement robust security measures to safeguard sensitive information and ensure compliance with data protection regulations. Protect user privacy by allowing them to control access to their personal data and communication channels.
- **Empowering Teachers:** Provide teachers with tools for lesson planning, grading, and student performance analysis to enhance teaching effectiveness.

1.5. Scope and Delimitation of the Study

This study focuses on the development and implementation of the Bagong Barrio Elementary School (School Based Management Portal) website that will serve as the school based management portal designed to facilitate effective communication among faculty members. The study limits its coverage to creating only the website accessible mainly for faculty members. The website will only cover the main functions of the school-based management portal solely for teachers. These functions include uploading modules for lesson planning. This study will be conducted at University of the East - Caloocan for one semester only, school year 2023-2024.

1.6. Significance of the Study

The result of the study will benefit the following:

Teachers: This will benefit teachers by providing a centralized platform for handling files as well as the student's information and their daily tasks.

School: This system will benefit the school by improving its management system and efficiency in administrative tasks. It provides a centralized platform for handling files, student information, and daily tasks, leading to better organization and decision-making.

Future Researchers: The study provides insights into technology's role in education, enhancing school management systems. Additionally, the result of this study may be a guide to future researchers to conduct future researches connected or similar to this study.

CHAPTER II: REVIEW OF RELATED LITERATURE

Introduction

Chapter 2 of the study delves into various aspects related to the utilization of web portals in educational institutions, particularly focusing on enhancing communication and collaboration among stakeholders. The section begins by reviewing related studies, both local and foreign, highlighting the significance of web portals in facilitating interactions between faculty and students. Through the integration of web-based systems, such as Learning Management Systems (LMS) and parent portals, schools aim to streamline communication and improve parental engagement, consequently impacting student success.

2.1. Related Studies (4 Local and 4 Foreign)

Integration of Technology in Education

Task assignments, lecture sharings, and general communication between the faculty and their students are some of the most crucial aspects when it comes to school. But the reality is that it is hard to keep track of everyone and keep the information up-to-date. There is a need for an effective solution in an attempt to aid this problem, and that's where web portals come in. (Bista et al., 2021) Throughout decades and years of education, web portal systems have gained immense popularity in school systems. They're favored not only because of their convenience but also because of the benefits that both the professors and the students gain from them. Although there are different definitions given by other authors on what a web portal does, there is one thing that they all said in common; it is a single, personalized interface that allows users to access almost all information resources in a secure, consistent, and customizable way. Think of it as your own tailored collection of information, content, and services that you can use.(Uchechi et al., 2018)

Stakeholder Engagement and Participation in Developing School Management Portal websites

The development of a school-based management portal is one of the school services that schools need while striving for excellence to deliver high-quality education (Balcita and Palaoag, 2020). The development of a web portal will help the teachers increase their educational productivity and organization. This means that one of the most important aspects of developing and implementing efficient information systems for schools is to start with the genuine needs of the school, which include classroom needs and building educators (Reddy and Rathna, 2020), this involves the stakeholder cooperation in designing especially in the requirements for functionalities. A study conducted revisiting the level of school-based management by Jonathan L. Roque (2023) saw the importance of the level of engagement of stakeholders' cooperation in school programs and curricula.

In his study, the findings suggested that the stakeholder's engagement was at a level where they were involved in a productive working relationship. This shows that the developers should consistently communicate with the faculty of the selected school knowing the needs and requirements for their website to effectively support the faculty's needs and enhance academic productivity.

Challenges and Benefits of School Management Portal websites

The complexity of integrating Learning Management Systems (LMS) into education underscores the challenges of blended learning environments. It requires a level of understanding of how various methods of teaching could coexist for the benefit of the students, and not just sticking to the traditional ways. Thus, the main obstacle isn't within the versatility of our technology, but in applying our courses and reinforcing adaptability in this blended learning style. (Adriano & Cruz, 2019) Not a lot of parents are aware that parent portals exist, and the ones that are not using it have kids that are more likely to fail in their studies. This might be because they don't have internet or computers at home, or they just don't know much about the portal. It has revealed that parents only became aware of an online portal after attending meetings where they received guidance on its usage. However, once they became aware of it, they showed great interest in utilizing the portal to monitor their child's progress. The increase in portal logins near the semester's end suggested that the families received school messages about exam results and grades. Which caused even more promotion of the usage of the said portal. While this shouldn't immediately be assumed to have a direct effect, it is important to take note that there was evidence in the decrease of students failing upon the portal's rise. (Iver et al., 2021)

Development and Implementation of Web-Based Information Systems

A web based information System Portal with SMS Support has been developed in Aklan State University-Kalibo Campus. According to the creators, “The system demands greater levels of communication between college students and faculty members to have optimum use of the resources. Along with the growth in mobile and networking technologies, access to web data services from mobile devices has gained an ever-increasing popularity.” The one unique aspect that stands out with this portal system is that it uses SMS, instead of websites like other universities. They utilized a spiral model in developing the system. Upon the initial testing, they found some errors which were later on corrected in the final testing; the respondents consisted of 305 students, and 20 faculty members. After the final testing has been conducted, they decided to give out surveys as to how effective the testers thought the system would be in a real life situation, to which the results were “very effective”, “the keywords for SMS are clear and easy to remember”, “ the Information provided is accurate”, “the system can validate and invalid keywords”, ”the system is stable”, “the system is reliable”. The SMS based grading system, and accounts inquiry, operated with little to no error. Confirming its reliability and integrity of the data. (Caseres et al., 2020)

2.2 Synthesis

School-Based Management (SBM) is a holistic approach that empowers educational institutions to achieve excellence by aligning their vision and mission with daily operations. By integrating various principles into their management strategies, schools can enhance collaboration, transparency, resource utilization, and student outcomes. This study explores the key principles of SBM and their significance in promoting educational success.

Vision and Mission Alignment serves as the cornerstone of SBM, ensuring that all decisions and actions are guided by overarching educational goals. By clearly articulating the school's vision and

mission, administrators, teachers, parents, and students can work collaboratively towards a common purpose, driving continuous improvement and innovation.

Shared Leadership promotes a collaborative approach to decision-making, where administrators can actively participate in shaping the school's direction. By encouraging a sense of responsibility among all members of the school community, shared leadership enhances engagement, accountability, and ultimately, student achievement.

Transparent Communication is essential for building trust and fostering a supportive environment within the school community. By establishing clear channels of communication, schools can facilitate the exchange of information, feedback, and ideas among teachers and administrators, enabling informed decision-making and promoting inclusivity.

Data-informed decision-making relies on the analysis of student performance data, attendance records, and stakeholder feedback to drive continuous improvement. By using data to identify strengths, weaknesses, and areas for growth, teachers can tailor their interventions and instructional practices to meet the diverse needs of students.

Continuous Improvement is at the heart of SBM, encouraging schools to regularly assess and evaluate their processes and outcomes. By fostering a culture of experimentation, innovation, and reflective practice, schools can identify and replicate best practices while addressing areas for improvement.

In addition to aligning vision and mission with daily operations, School-Based Management (SBM) fosters an environment where stakeholders are actively engaged in decision-making processes, enabling a sense of ownership and commitment to the school's goals. This participatory approach not only empowers administrators and teachers but also encourages parents and students to contribute their insights and perspectives, leading to more inclusive and effective educational practices. By involving the entire

school community in decision-making, SBM creates a sense of shared responsibility and accountability, ultimately enhancing the overall learning experience for students.

In conclusion, School-Based Management offers a comprehensive approach to educational excellence by integrating key principles such as vision and mission alignment, shared leadership, transparent communication, resource management, data-informed decision-making, continuous improvement, and professional development. By embracing these principles, schools can empower their Teachers, enhance collaboration, and ultimately, improve student outcomes.

2.3 Conceptual Framework

The purpose of conceptual frameworks is to serve as a roadmap, providing an outline that connects different ideas, concepts, and theories within the field of study (Singh, 2023). In this framework, you will be able to understand how the system will work and perform.

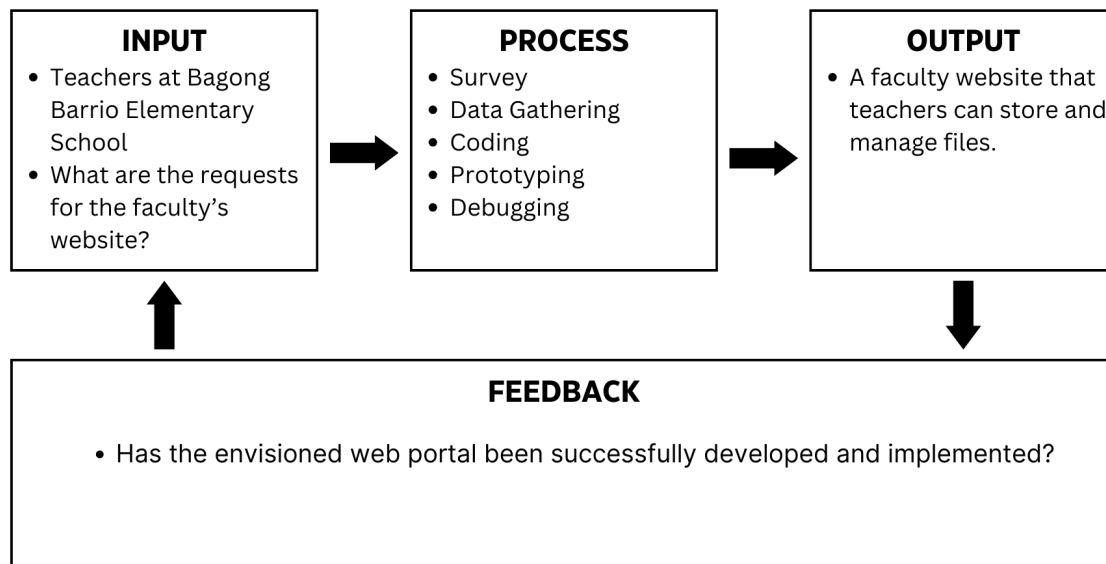


Figure 1. *Conceptual Framework of the Developmental Process of the Faculty's Web Portal*

The input phase identifies the audience for this research, the instructors at Bagong Barrio Elementary School. To delineate the requirements needed for the project, the developers went through a series of surveys to determine the needed information to be satisfied. The gathered information is categorized into various difficulties to determine the distribution and developmental sequence of each requirement, which help improve the developer's efficiency in progress. When a requirement is finished, the developers present the work to their contact at Bagong Barrio to identify if they are satisfied with the work and determine the parts on which to improve.

The goal of this project is to develop a better communication platform for the instructors at Bagong Barrio Elementary School and build a centralized file management and storage website that is user-friendly and satisfies the requirements listed. Understanding the stakeholder's needs enables the researchers to create a personal website that effectively meets those requirements. This iterative process, strengthened by the feedback from evaluations ensures the website meets the specific needs of the teachers at Bagong Barrio Elementary School.

CHAPTER III: METHODOLOGY

Introduction

This comprehensive study delves into the methodology and development process of a School-Based Management Portal, aimed at enhancing educational administration. Through a descriptive research design, we seek to understand user needs and preferences, facilitating the creation of a user-friendly platform. Adopting the V-Model methodology for project development ensures a systematic progression, from defining requirements to deployment and continuous improvement. Conducted at the University of the East - Caloocan, with Bagong Barrio Elementary School as the main beneficiary, the study involves participants ranging from teachers to administrators. Data gathering relies on primary sources, employing survey questionnaires distributed to teachers directly involved in portal usage.

3.1. Research Design

The design that the researchers will use in this study is descriptive research design. According to Singh (2023), Descriptive research provides a detailed understanding of the features and actions of a particular group or situation, which helps direct and structure the research endeavor. This design will help the researchers understand user needs and preferences, prioritize features, design a user-friendly interface, develop relevant content, and test the portal before launch. This data-driven approach ensures that the portal meets the practical needs of teachers and provides a positive user experience.

3.2. Project Development

The School-Based Management Portal project adopts the V-Model methodology to guide its development process. This approach emphasizes a structured and systematic progression, aligning closely with our objective of creating an effective online platform for managing school administrative tasks.

Initially, we define specific requirements and functionalities needed for the portal. Then, we proceed to develop a detailed design based on these requirements, ensuring clarity and precision in our approach. With the design established, we systematically built the portal, focusing on implementing each component in a logical sequence.

Once testing is complete, we move forward with deployment, rolling out the portal for use by Administrators and teachers. Continuous monitoring and user feedback will guide us in refining and enhancing the portal, ensuring that it remains user-friendly and effective in simplifying school management tasks.

By embracing the V-Model methodology, we aim to deliver a robust and streamlined school management portal that meets the needs of our educational institution while adhering to a structured development process.

3.2. Research Locale

This study will be conducted at Bagong Barrio Elementary School located at Malolos Avenue, Caloocan City, Metro Manila, Philippines. This location was selected to bring convenience to the researchers in the data gathering procedure, considering that the researchers are from the nearby university which is the University of the East Caloocan Campus located at 105 Samson Road, Caloocan City, Metro Manila, Philippines. The chosen educational institution helped the researchers in their search for an establishment in need of a website; Bagong Barrio Elementary School can provide reliable data for the research since the institution needs the development of a new school management portal website for its faculty members.

3.3. Participants or Respondents of the Study (population, sample, sampling techniques)

The participants or respondents of the study consist of teachers, administrators, and heads within the educational institution.

3.4. Research Instrument/s

Survey Questionnaire form. The researchers will be using survey- questionnaire form for it is designed to elicit responses that can be analyzed to understand the target population better.

3.5. Data Gathering Procedure

The data would mostly be considered primary as we used surveys for our research, we received the information first hand from the teachers. After the questionnaire was finalized, the researchers made multiple copies that were later on distributed to our respondents (teachers of Bagong Barrio Elementary School).

The researchers made sure that only the teachers who utilized the portal system would be the ones to answer the survey as a way to keep the results authentic as possible. The questionnaires were then personally delivered and retrieved on the same day by the researchers. As for the results, they were tabulated. Then, the collected data were thoroughly analyzed and interpreted using appropriate statistical procedures.

3.6. Data Analysis Procedure

Statistics are essential for assessing the quality of the analytical results, statistics helps an individual to calculate the precision of a variable. Accuracy and precision are synonymous but are different from each other; being accurate measures how close are the results to a determined value and precision determines how close are the results to one another. (Alfassi, Z. B., Boger, Z., & Ronen, Y. (2005). *Statistical treatment of analytical data*. CRC Press.)

Frequency Distribution is used to organize the data gathered, the results in this distribution display the frequency of repeated items. The process of frequency distribution involves identifying the total number of observations and the total number of observations within each data point.

Formula:

$$P = (f/N) \times 100$$

P = percentage

f = frequency

N = number of respondents

Weighted Mean is a type of average that is calculated through multiplication of weight or probability that is associated with an event; instead of each data point having equal contribution to the final mean, some data points contribute more than other data points.

Formula:

$$\bar{x} = \sum[(f)(w)] / n$$

\bar{x} = weighted mean

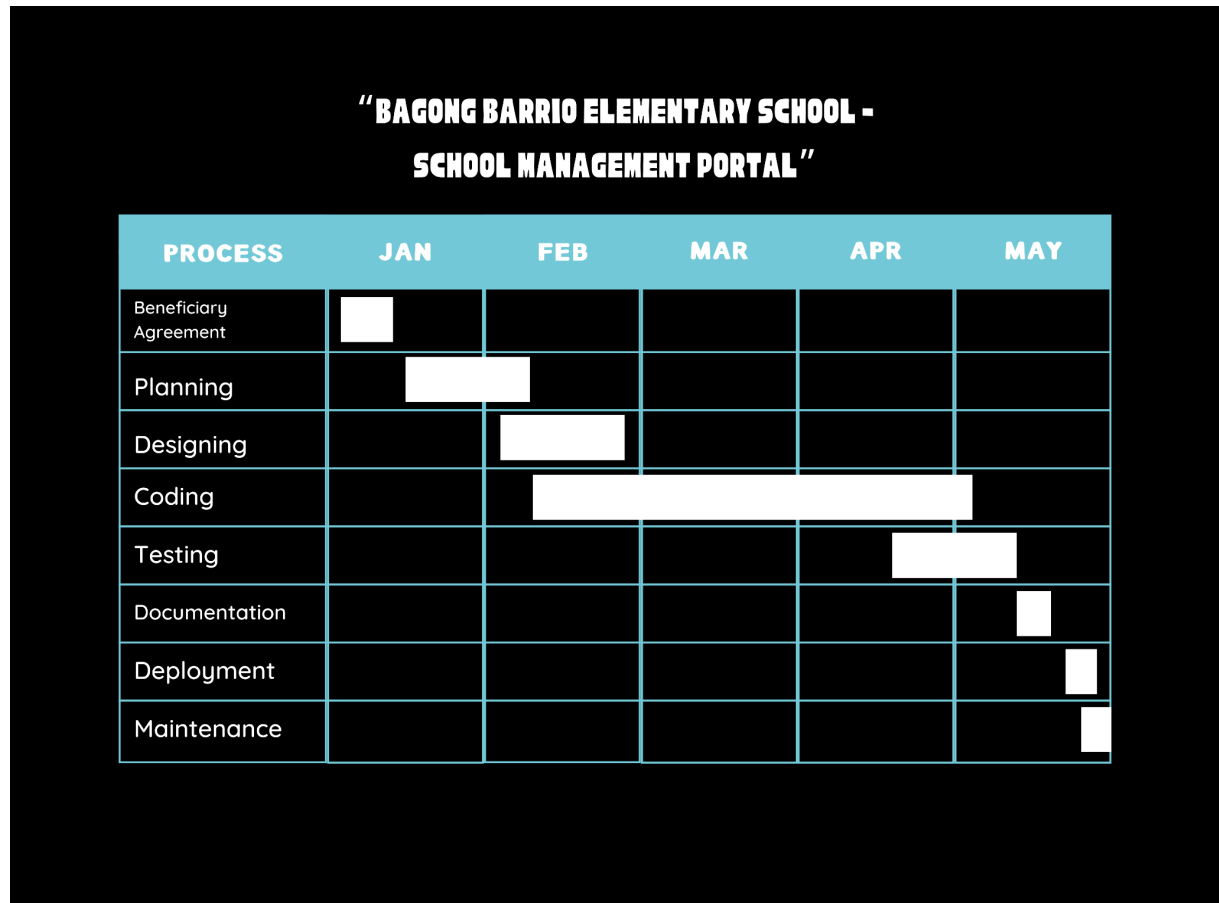
F= frequency

W = weights

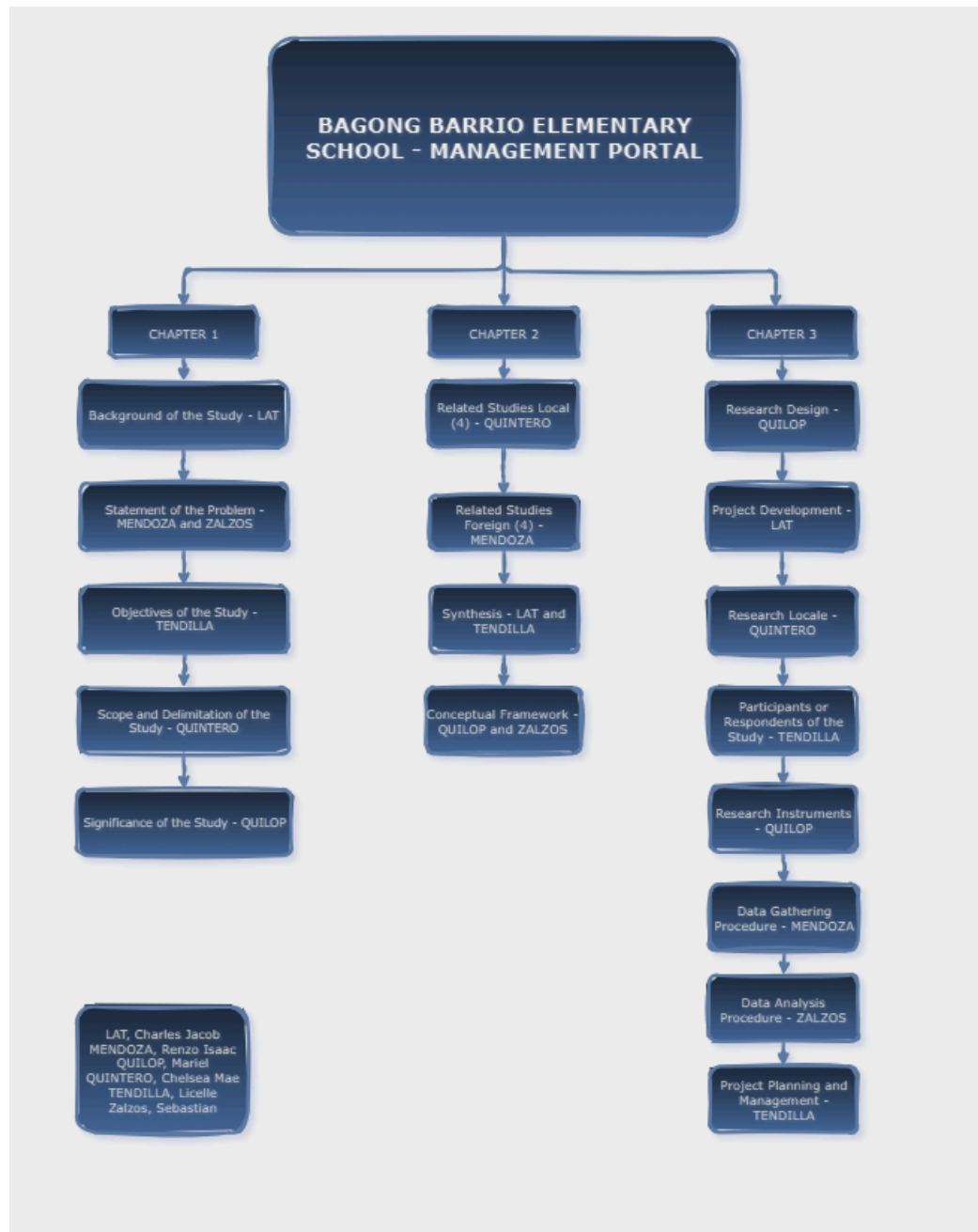
n = total number of respondents

3.7. Project Planning and Management

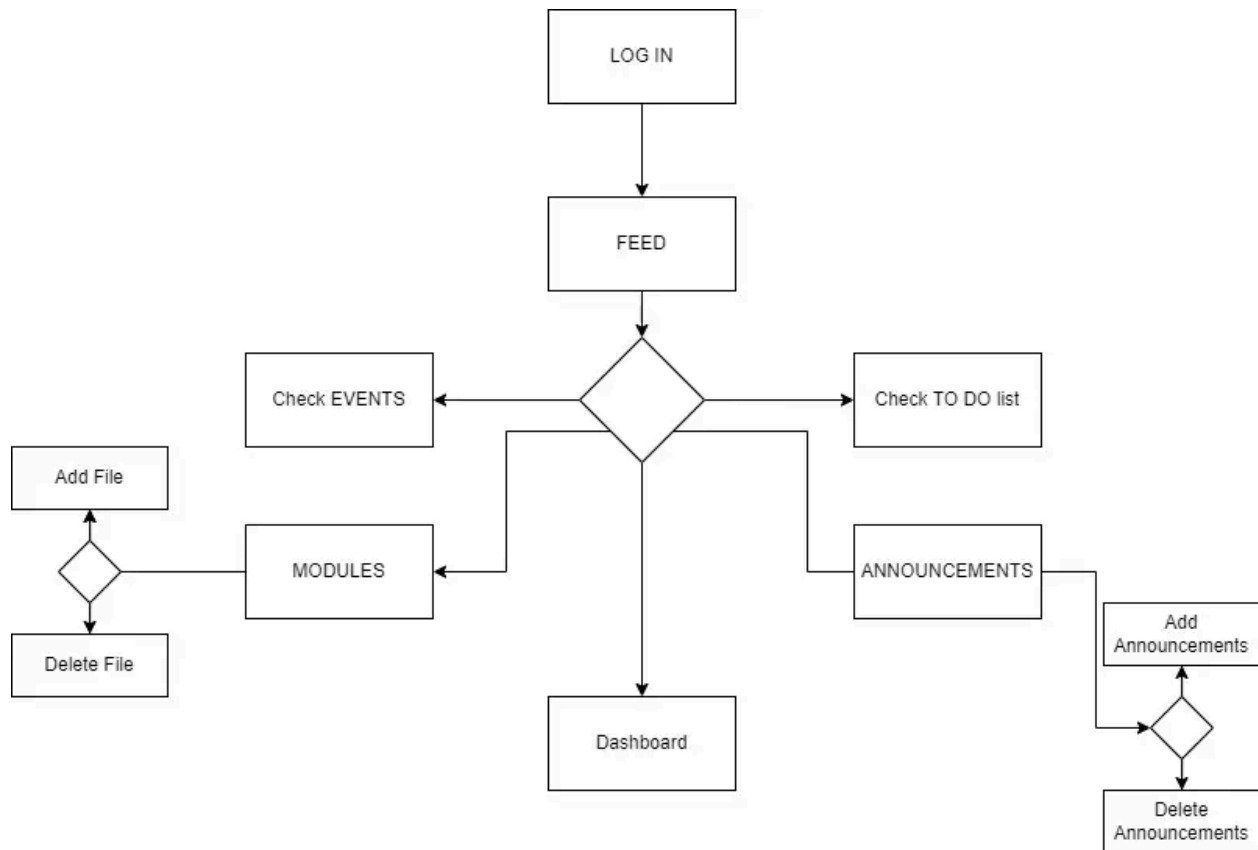
Gantt Chart – Project Schedule from Planning up to Deployment



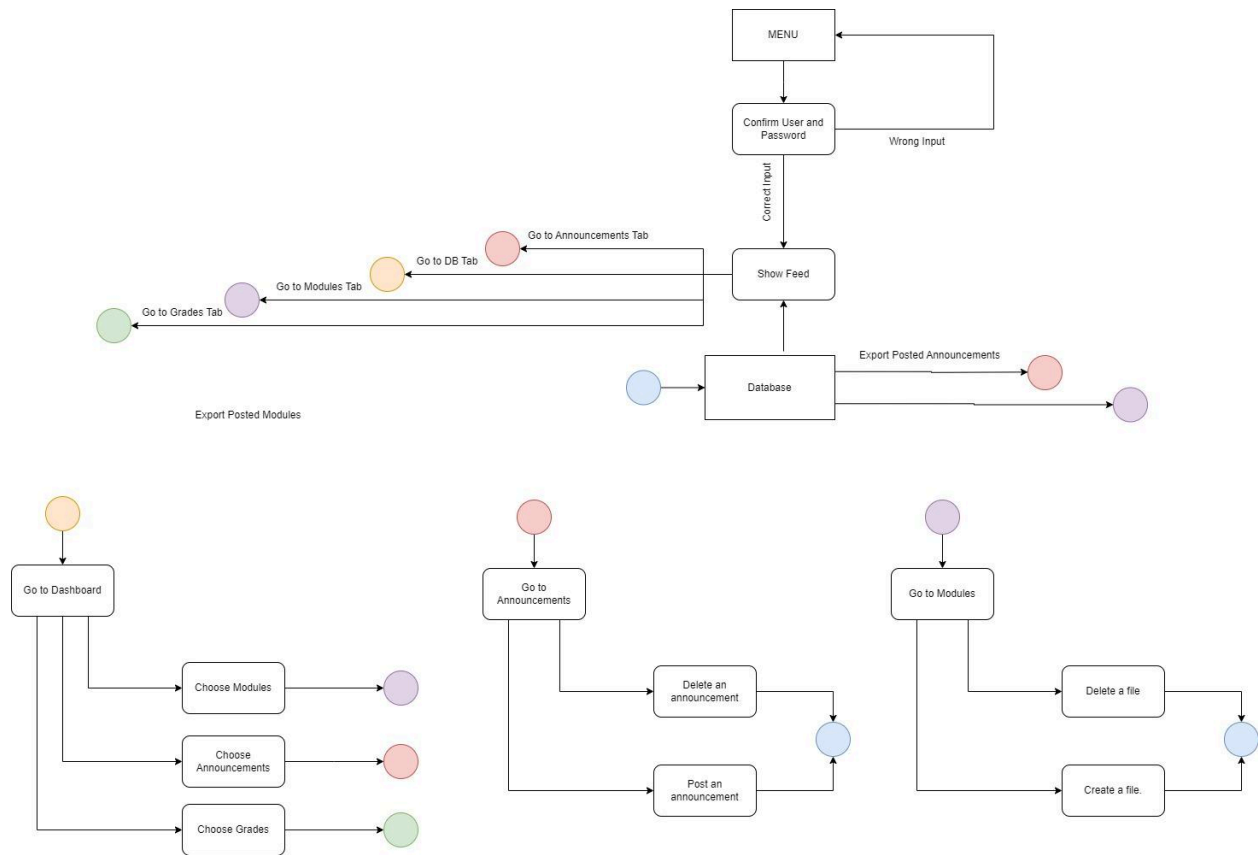
WBS Work Breakdown Structure



Activity Diagram



DFD Diagram



CHAPTER IV: RESULTS AND DISCUSSIONS

CHAPTER V: SUMMARY, CONCLUSION, AND RECOMMENDATIONS

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