# CHAPTER I

# THE PROBLEMS AND THE BACKGROUND

## Introduction

Rio Chico National High School is a public secondary school located in General Tinio Nueva Ecija. The school was established year 1973 to provide curriculum-based quality and affordable education in the community. Rio Chico National High School does not have a website. The research, propose a system to help the school to make it easy to spread news and events.

The purpose is to provide information and resources to students, parents, staff, of the website. Users can also see here in the website about the history of the school and the announcement of upcoming events. Rio Chico National High School offer a senior high school students with a selection of grade levels and academic strands to choose from. In addition, users can also access the contact details of the school's administration, as well as the physical address of the school.

In conclusion, Rio Chico National High School, situated in Rio Chico, General Tinio, Nueva Ecija, has been a cornerstone of public secondary education since it’s established in 1973. Rooted in its commitment to offer a curriculum-centered, and affordable education to the community, the school has embarked on a pivotal journey toward modernization by envisioning the creation of a website. It proposed a digital platform that aims to bridge the gap between the school and its stakeholders, ushering in an era of seamless communication and enhanced information dissemination.

The primary objective of this initiative is to furnish students, parents, and staff with a virtual hub that brings with valuable resources and timely updates. By offering a repository of school-related details, from its historical evolution to announcements of forthcoming events, the website serves as having many gateways to the school's past, present, and future. A unremarkable significance is the provision of a comprehensive overview of the senior high school offerings, empowering students with diverse academic strands and grade levels to chart their educational paths.

Moreover, the website will empowered users by facilitating access to essential contact information for the school's dedicated educators and staff members, as well as furnishing clear directions to the school's physical location. This leap into the digital realm not only simplifies the sharing of news and events but also demonstrates Rio Chico National High School's unwavering commitment to embracing innovation for the betterment of its educational community. As the digital frontier converges with scholastic pursuits, this endeavor stands poised to be a conduit for enriched engagement and collaborative growth within the Rio Chico learning ecosystem.

## Review of the Related Literature and System

### **Related Literature**

The widespread use of computers and the internet present both new opportunities and difficulties for interactions and communication between homeschoolers. Parental participation that is bolstered by technology has been given the name "parental involvement "(Şad, et.al,(2016). At present day the school website is one of the application that can publicize to the large number of a people. Internet is a one tool that can help website spread widely and getting more knowledge what it is and how it work(Lee, et. al 2013). School must create opportunities for two-way communication and online interaction between home and school on their websites in order to increase transparency and understanding in a visual and non-verbal environment that is crucial for parental involvement and partnership, especially in the decision-making process (Ho et. al 2013). School websites give educational institutions a chance to improve and modify the educational experiences. Nonetheless, there are significant difference between settings on how important school websites are seen to be and how much money is spent on creating and maintaining them. Understanding what makes a successful website that gives a school a channel for providing innovation in teaching and learning and supports how a school functions is important.

The school administrators may use school websites to communicate with the public about their institution's mission, beliefs, accomplishments, and available educational opportunities in a way that accentuates its uniqueness in the best possible way. In both public and private settings, more individuals are using computers and the internet. (Internet Foundation in Sweden, 2016).

In order to give the students, parents, and teachers access to information and resources, school websites are extremely important and usable. The development of technology, school websites have gained significance in connecting with the school community, making key documents accessible, and boosting student accomplishment. In the digital age, a school website acts as a portal for stakeholders to stay informed about the institution and its happenings. A useful and user-friendly school website is crucial for fostering a supportive and active school community. (Pomerantz, 2017). School websites are an essential tool for enhancing communication and collaboration between the school and its students (Nauert, 2018). It can act as a focal point for teacher communication and cooperation, enabling educators to exchange resources, interact with one another, and give students tailored feedback.

For instance, a research published in the Journal of Research on Technology in Education revealed that using online discussion boards and forums on school websites increased student involvement and performance (Becker and Ravitz, 2013). Additionally, a report by the International Society for Technology in Education (ISTE) found that school websites can also be used to support the development of digital citizenship, teaching students how to navigate and use digital resources safely and responsibly (ISTE, 2017). Furthermore, a report by the Consortium for School Networking (CoSN) found that school websites can also be used to support personalized learning, providing students with access to individualized learning materials and resources (CoSN, 2018).

This capstone and research project introduces Rio Chico National High School Website, a website that helps spread the announcements not only in the students but also in parent and some neighborhood. The purpose of this project is operates as a dynamic digital hub, adeptly streamlining communication and facilitating information sharing amongst students, parents, and the broader community. It adeptly delivers vital insights into programs, policies, and upcoming events.

The website is accessible to everyone, including those with disabilities, is an essential but challenging aspect of website development. The website must comply with web accessibility guidelines such as the Web Content Accessibility Guidelines (WCAG). (Singh et. al (2019). School websites collect information from students, parents, and staff, making security a significant concern. Developers must implement security measures such as SSL certificates, firewalls, and regular backups to ensure data is secure. Having a safe website makes the user feel confident because the personal data is secured.

Because nowadays everyone has a lot of knowledge to how to get or hack someone's information. For both user experience, and search engine optimization, website performance is crucial. High bounce rates and worse search engine rankings can be caused by slow-loading websites. Website performance may be increased by adhering to best practices for optimization, such as optimizing pictures and reducing JavaScript and CSS. It may be challenging to make sure that a website is accessible to people with disabilities since doing so necessitates following accessibility guidelines and using accessible design and content techniques. (Hah and Kim, 2018).

The developing of a school website is crucial for showcasing academic programs, student activities, staff accomplishments, and school successes while also giving students access to resources. A website for a school that is attractive and educational may improve the school's reputation, draw in more students, and foster a feeling of community among all parties involved.( Morris, 2015)

### **Related System**

**The New Orleans Charter Science and Mathematics High School**.

Sometimes known as "Sci High," is a public charter school with open enrollment that prepares all students for entry to colleges and prosperous professions. They are experts in science, math, and technology, as implied by their name. To augment state and local financing for students, donations are a top priority for this institution

**The children centre of Austn**.

This website has a beautiful features and colorful layout that will also add to the entertainment of the users. There are also quotations and motivations. Additionally, large and strong images are also displayed as a slideshow in the site. The website was not complicated and easy to use. When an individual access, the website, it will show first its homepage with all the crucial detail regarding the institution.

The website gives a homelike vibe that is appropriate for any preschool website. The said website have color scheme that made it more appealing. Additionally, individual could access different links within the website such as "Take a Tour" or any other connection. Other main pages are also available for further details on events and activities.

## Synthesis

The core focus of this discussion pertains to the evaluation and comparison of various systems, both local and international, that have been gathered for the purpose of informing the development of a specific website. These systems provided valuable insights that laid the foundation for the advancement of the proposed solution, tailored for Rio Chico National High School.

Upon close examination, the researchers noted that there were shared attributes between the related systems and the one under consideration. However, a notable distinction emerged: the absence of a "lost and found" feature in the related systems. This observation prompted the researchers to seize upon this opportunity, using this previously unaddressed aspect as a driving force for enhancing the proposed system's capabilities.

By capitalizing on the insights gleaned from the evaluation of these related systems, the researchers were able to pinpoint areas where the proposed system could be refined and differentiated. This strategic analysis of existing systems to extract valuable lessons and identify avenues for innovation is a customary and integral approach within the realm of software development.

## Conceptual Framework

This is the procedure for designing and developing the proposed system, Rio Chico National High School website. The researchers utilized the input-process-output (IPO) model of conceptual framework for this study.

Figure 1 shows the input-process-output (IPO) model for Rio Chico National High School Website.

**INPUT**

**Project Vision and Requirements**

**Stakeholder Feedback**

**Content and Information**

**PROCESS**

**Content Management**

**Testing**

**Maintenance**

**Deployment**

**Evaluation using**

**ISO 25010 Criteria**

* **FUNCTIONAL SUITABILITY**
* **PERFORMANCE EFFICIENCY**
* **COMPABILITY**
* **USABILITY**
* **REALIBILITY**
* **SECURITY**
* **MAINTAINABILITY**
* **PORTABILIITY**

**OUTPUT**

**Rio Chico National High School Website**

**FEEDBACK**

**Figure 1: Conceptual Framework**

Figure 1 shown consist of Project Vision and Requirements, Stakeholder Feedback and Content and Information. First is Project Vision and Requirements: Initial project vision and goals for the school website and List of features, functionalities, and content requirements, second is Stakeholder Feedback: Feedback and input from school administration, faculty, students, parents, and other stakeholders and any existing branding guidelines or design preferences.

Lastly, Content and Information: refers to the words, pictures, and videos that show visitors what the school is all about. This stuff helps get people interested, shows off the school's personality, and makes it easy for everyone to communicate.

The process was contains Content Management, Testing, Review and Feedback, Maintenance and Deployment. And after all the process or the procedure the output be the Rio Chico National High School Website that can use to see announcement some information or about to the school.

## STATEMENT OF THE PROBLEM

The absence of an official website for Rio Chico National High School, a prominent public secondary institution located in General Tinio, Nueva Ecija, presents a significant challenge that warrants attention. Established in 1973 with a mission to provide high-quality and affordable education to the local community, the school currently operates without a dedicated online platform to disseminate crucial information, news, and events.

This deficiency underscores a pressing need for a comprehensive digital solution. The proposed research endeavor seeks to address this gap by advocating for the creation of a user-friendly school website. Such a platform holds immense potential to transform the school's communication landscape, fostering efficient information dissemination and promoting engagement among students, parents, and staff members.

At the heart of this issue lies the fact that Rio Chico National High School remains disconnected from the digital age, hindering its ability to effectively share vital updates and resources. The absence of a website denies stakeholders the convenience of readily accessing school-related information, including historical context, event announcements, and contact details. Furthermore, the school's offerings in senior high school education remain hidden from prospective students due to the lack of an online presence.

The envisioned website intends to bridge this gap by acting as an accessible repository of essential data. This includes historical narratives that ground the school's legacy, updates about impending events, and contact information for teachers and staff members. Notably, the platform aims to empower students by elucidating the array of academic strands and grade levels available, thereby facilitating informed decisions about their educational paths.

In essence, the dearth of a school website poses a multifaceted challenge, impeding effective communication, engagement, and the dissemination of key information. The proposed research seeks to catalyze a digital transformation that aligns with Rio Chico National High School's commitment to offering quality education and embracing innovation. This endeavor holds the potential to amplify the school's impact by fostering a more informed, connected, and engaged community.

## SCOPE AND DELIMITATION

The scope of the website is to reach other people or students for the upcoming events of the school, and make an easily way to reach the facilities or staff of school that they want to talk.

One potential limitation of school websites is that they may rely on visitors actively seeking out and visiting the site in order to learn about upcoming events and school achievements. This may require a level of proactivity or engagement from visitors that not all individuals possess. Additionally, there may be other factors that hinder the effectiveness of school websites in disseminating this information, such as outdated or incomplete content, poor website design or organization, or language or accessibility barriers. Ultimately, it is important for schools to consider these limitations and work to address them in order to ensure that their websites effectively communicate key information to all stakeholders.

## SIGNIFICANCE OF THE STUDY

The Rio Chico National High School and its broader educational community. As a distinguished public secondary school with a legacy dating back to 1973, Rio Chico has been a steadfast provider of curriculum-based, quality education in General Tinio, Nueva Ecija. However, the absence of a dedicated school website presents a critical gap in modern communication and information dissemination. This study's proposal to develop a comprehensive website holds several compelling implications:

**Enhanced Communication:** A well-designed school website will facilitate streamlined communication between students, parents, teachers, and administrative staff. By providing a centralized platform for announcements, news updates, and event notifications, the website will ensure that important information reaches all stakeholders promptly and efficiently.

**Engagement and Collaboration:** The proposed website will serve as a digital nexus for the school community, fostering a sense of engagement and collaboration. With features like event calendars, discussion forums, and interactive content, the website can cultivate a more vibrant and participatory school ecosystem.

**Information Accessibility:** The digital repository of school-related content, including historical insights and educational resources, will empower students, parents, and staff with readily accessible information. This not only supports informed decision-making but also enriches the learning experience beyond the confines of the physical classroom.

**Modernization and Innovation:** The creation of a school website aligns Rio Chico National High School with contemporary educational practices. In an increasingly digital world, this step demonstrates the school's commitment to embracing technological advancements that enhance learning, communication, and overall efficiency.

**Community Outreach:** By showcasing the school's achievements, offerings, and values on a public platform, the website can extend its reach to prospective students, parents, and the broader community. This visibility can positively influence enrollment rates and community engagement.

**Empowerment of Stakeholders:** Through features like senior high school program details and teacher contact information, the website empowers students to make informed academic choices and facilitates open lines of communication between parents and educators.

In summary, this study's significance lies in its potential to bridge the gap between traditional educational practices and the digital era. By creating a purposeful school website, Rio Chico National High School has the opportunity to revolutionize communication, engagement, and access to information within its community. This endeavor speaks to the school's commitment to progress, connectivity, and the continual enhancement of the educational journey for all stakeholders involved.

## DEFINITION OF TERMS

In the context of this study, the following terms are presented with their respective definitions to ensure clarity and comprehension:

**Digital Nexus:** refers to a central and interconnected digital hub that brings together various elements, resources, and stakeholders in a cohesive and accessible manner.

**Virtual Hub**: serves as a centralized and online gathering place where diverse information, resources, and interactions converge for a specific purpose**.**

**JavaScript:** is a widely-used programming language that is primarily used for adding interactivity and dynamic behavior to websites. It's a versatile scripting language that runs in web browsers, allowing developers to create features that respond to user actions without requiring the entire page to be reloaded.

**CSS:** short for Cascading Style Sheets, is a fundamental technology used in web development to control the presentation and layout of HTML documents. It enables web designers and developers to define how web content should look, from fonts and colors to positioning and spacing.

**Digital Age:** refers to the contemporary era characterized by the widespread integration and influence of digital technology in various aspects of human life. This era has been marked by rapid advancements in computing, communication, and information technologies, which have transformed how people interact, work, learn, and communicate.

**Digital Hub:** refers to a central online platform or location that serves as a focal point for accessing various digital resources, services, and information. It's a unified digital space that aggregates and organizes content from different sources, providing users with a convenient and efficient way to interact with a range of digital elements. Digital hubs can be created for specific purposes or contexts, such as within organizations, communities, or industries.

# CHAPTER II

# METHODOLOGY

This chapter presents the research design, study location, study respondents, sampling procedure, research instrument, data gathering procedure, and data analysis technique.

## Research Design

Developmental research is a type of research that was used to build Rio Chico National High School. It is the systematic study of designing, developing, and evaluating instructional programs, processes, and products that must meet criteria of internal consistency and effectiveness. This is different from simple instructional development, which is just the process of making sure that what is being taught works. Research on developmental processes was appropriate for the system's design and development. The researchers also conducted a quantitative research survey to gather feedback and make changes that made the generated program implementable. A survey is a research tool that is used to collect information from a predetermined group of respondents in order to learn more and gain new perspectives on a variety of interesting topics.

## Locale of the Study

The researchers conducted the study at Barangay Rio Chico, General Tinio, Nueva, wherein the researchers were the residents.

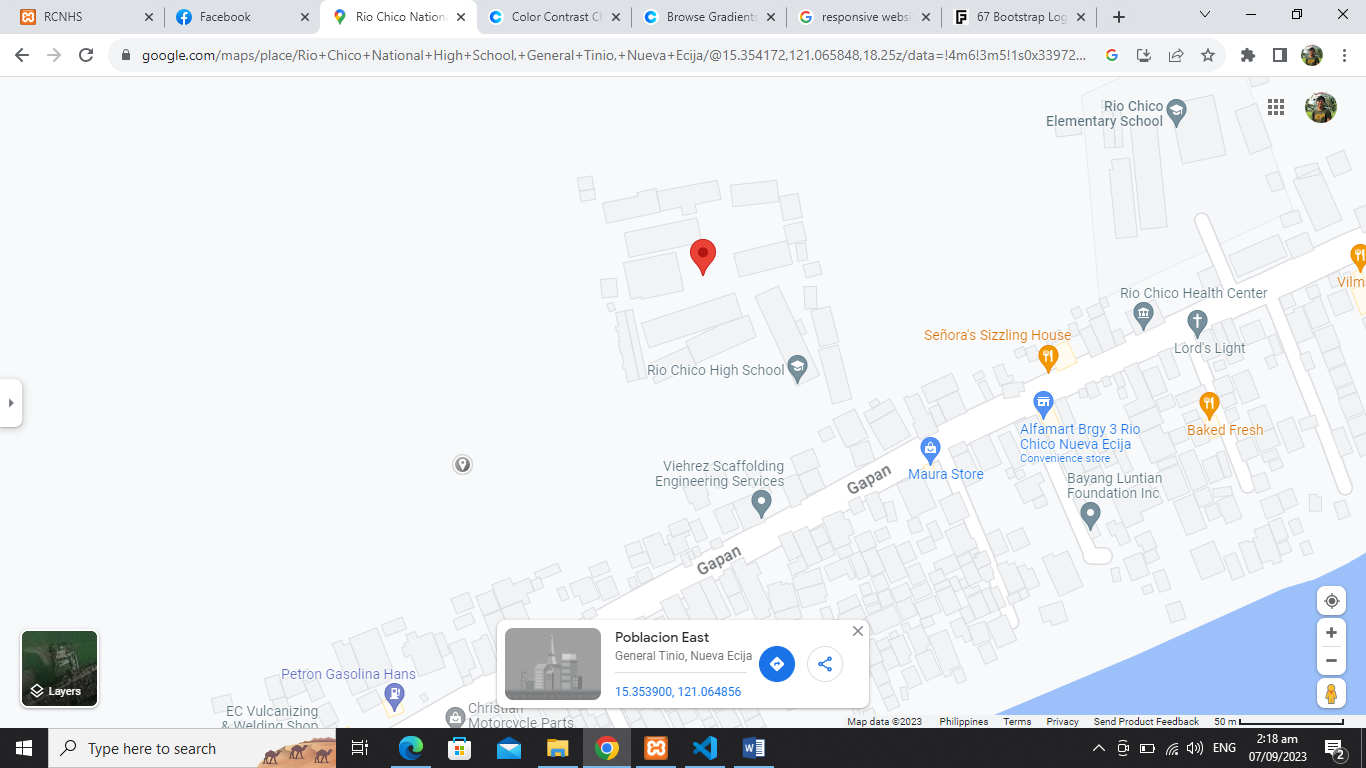
Figure 2 shows the map Barangay Rio Chico, General Tinio, Nueva

Figure 2 Location Map

## Respondents of the study

The people who participated in this research were the ones who were going to evaluate the system being studied.

On the other hand, the respondents are staff of the school, student’s parents and residence of Barangay Rio Chico, General Tinio, Nueva Ecija.

## Sample and Sampling Procedure

Purposive sampling will be used by the researchers in this study to choose the respondents. Purposive sampling is a non-probability sample system where researchers use their own discretion to select people from the public to participate in their surveys. In addition to targeted sampling, there are also standards for carefully choosing the right responder.

## Research Instrument

Use of an online survey questionnaire was made for this research. A organized questionnaire that the target audience completes online is known as an online survey. For their electronic survey, the researchers employed Google Forms as a tool.

Moreover, a questionnaire was used as the research tool in this study. A questionnaire is a set of 20 questions used in research or surveys that are given to participants with the goal of extracting particular information that will help gather the right data and make the data suitable for analysis.

The online survey questionnaire employed ordinal as a scale of variables on the Likert items to gauge the response of the respondents.

## Data Gathering Procedure

The researchers' first action was to ask their research adviser for approval before beginning such a survey for the study.

The second was that they made an effort to get the respondent's permission before distributing the website and the survey. Then, after clicking the link to the online survey, the respondents tested the system by responding to it. The researchers were prepared to react to any further queries or worries expressed by the respondents.

## Data Analysis

Using the respondents' responses, the researchers employed verbal interpretation, mean, and percentage to further assess the study's findings.

# CHAPTER III

# RESULTS AND DISCUSSION

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