Development of Alumni Tracking System of Lt Balag Elementary School

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Abstract

This study aimed to develop an Alumni Tracking System for LT Balag Elementary School to establish a sustainable means of maintaining connections with its graduates. Alumni tracking systems in elementary schools are increasingly recognized as valuable tools for fostering long-term relationships that benefit both the schools and their former students. By maintaining up-to-date records of alumni, these systems facilitate continuous engagement, which can translate into various forms of support, including mentorship, volunteerism, and financial contributions. Furthermore, tracking alumni allows schools to measure the long-term success and impact of their educational programs by monitoring the achievements and career progressions of their former students. This data is invaluable for informing curriculum improvements and institutional strategies [3].

INTRODUCTION

LT Balag Elementary School was established in the year **2010** to serve the educational needs of children in the surrounding community. The school began as a small institution offering basic elementary education, and from the very beginning, it embraced the **multigrade school** setup to cater to students from different grade levels, despite limited resources and teaching personnel.

Alumni tracking systems in elementary schools in the Philippines are vital for fostering enduring relationships and support networks that benefit both the schools and their former students. These systems enable schools to maintain comprehensive records of alumni, facilitating continuous engagement and communication. This ongoing connection can lead to various forms of support, such as mentorship programs, volunteer initiatives, and financial contributions, which are crucial for the development of educational resources and facilities [7]. Furthermore, tracking alumni allows schools to measure the long-term success and impact of their educational programs by monitoring the achievements and career progressions of their former students. This data is invaluable for informing curriculum improvements and institutional strategies.

Statement of the Problem

LT Balag Elementary School, despite its growth and success in offering basic education to the surrounding community since its establishment in 2010, currently lacks an efficient and comprehensive system for tracking its alumni. While the school has successfully produced its first batch of graduates in 2016 and continues to expand its facilities, it faces significant challenges in maintaining meaningful, long-term connections with its alumni. The absence of a formal alumni tracking system hampers the school's ability to monitor the achievements and career progressions of its former students, which are

crucial for assessing the impact of its educational programs. Additionally, without updated alumni records, opportunities for engagement, such as mentorship, volunteerism, and financial contributions, are limited.

Theoretical Framework

The development of an alumni tracking system for Lt. Balag Elementary School can be guided by several well-established theories, including systems theory, the information systems (IS) success model, the technology acceptance model (TAM), stakeholder theory, and database management theory. Systems theory, introduced by Bertalanffy, provides a holistic view of the school as an organization composed of interconnected components working together towards a common goal [10]. By applying systems theory, the study emphasizes the importance of integrating data management, communication, and feedback mechanisms to maintain dynamic relationships with alumni.

Furthermore, the IS success model developed by DeLone and McLean offers a comprehensive framework for evaluating the success of information systems based on six dimensions: system quality, information quality, service quality, use, user satisfaction, and net benefits [11]. These dimensions serve as key performance indicators in assessing the effectiveness of the proposed alumni tracking system. Complementing this, Davis' TAM underscores the importance of perceived usefulness and perceived ease of use in determining user acceptance of new technology [12].

According to McDearmon (2013), alumni engagement significantly contributes to the long-term success of educational institutions. By maintaining up-to-date records of alumni, schools can monitor the achievements of their graduates, creating a feedback loop that informs improvements in educational programs and curriculum [14].

In a study by Weerts and Ronca (2006), alumni tracking systems were shown to enhance institutional relationships with alumni, which can lead to increased support for school activities and greater alumni involvement in school governance. The continuity of relationships between alumni and their former schools strengthens the sense of community and belonging, motivating alumni to give back to the institution that supported their personal and academic growth [15].

In the Philippines, alumni tracking systems are particularly crucial due to the challenges faced by schools in remote areas, where resources are often limited. According to David et al. (2021), schools in the Philippines struggle with insufficient support for alumni engagement, which makes it difficult to sustain meaningful connections. The absence of a dedicated alumni network often results in the loss of contact with graduates, thus depriving the school of potential support, whether in terms of career guidance, mentorship, or donations. [16].

CHAPTER II
LITERATURE REVIEW

Alumni tracking systems have gained importance in the basic education sector as institutions seek to strengthen their relationship with former students and assess the long-term impact of their academic programs. In elementary schools, these systems serve as a bridge that connects the school's past and present, facilitating a continuous relationship with graduates. Through systematic tracking, schools can gather valuable data regarding the achievements, career paths, and contributions of their alumni—data which can inform curriculum design, school improvement strategies, and program effectiveness.

According to McDearmon (1), alumni engagement is closely tied to institutional identity and reputation. His study highlights that effective alumni tracking and outreach can strengthen school loyalty and

encourage philanthropic behavior, which are both vital for sustaining and expanding educational initiatives. This underscores the relevance of implementing such systems in elementary schools that aim to build lasting relationships and benefit from the success of their graduates [17].

METHODOLOGY

Research Design

This study will employ a mixed-methods approach, combining quantitative and qualitative research methods. Data analysis will involve descriptive statistics, frequency distributions, and correlation analysis. The qualitative component will include in-depth interviews with a selected group of alumni and key stakeholders (school administrators, teachers) to gain a deeper understanding of their perspectives, experiences, and suggestions regarding the tracking system. Thematic analysis will be used to analyze the qualitative data [18]. A quantitative component will involve a survey administered to alumni to gather data on their demographics, educational background, career paths, and perceptions of the proposed tracking system, including perceived usefulness, ease of use, and intention to use [19].

Respondents of the Study

The respondent will include:

- School Administrator: School Head
- Teachers
- IT Experts
- PTA member
- Alumni

Locale of the Study

The study will be conducted at LT Balag Elementary School, which is located in a rural area and caters to the educational needs of children in the surrounding community.

Research Instrument

Interviews: Conducted in person or via video conferencing, recorded with participant consent for transcription and analysis.

Data Gathering Procedure

The data gathering procedure for the study on the development of an alumni tracking system for Lt. Balag Elementary School involved several key steps to ensure comprehensive and accurate data collection. Initially, a needs assessment was conducted through interviews and surveys with school administrators, faculty members, and alumni. This step aimed to identify the specific requirements and features desired in the alumni tracking system, such as data fields, communication methods, and reporting capabilities. The interviews provided qualitative insights, while the surveys facilitated the collection of quantitative data, ensuring a balanced approach to understanding user needs.

Following the needs assessment, an extensive review of existing records and documents was carried out. School records, including alumni directories and past event reports, were examined to gather baseline data on alumni profiles and engagement activities. This step was crucial in establishing the initial database structure for the system. Additionally, benchmarking against similar systems implemented by other educational institutions was performed to identify best practices and potential challenges [20]

After gathering the initial data, the design and development process of the system was initiated. Iterative prototyping was employed, wherein feedback was continuously collected from a selected group of alumni and administrators during each phase of the system's development. This feedback helped in

refining the system's features, user interface, and overall functionality. The iterative approach ensured that the final system was aligned with the users' expectations and requirements [21]

Statistical Analysis

Quantitative data collected through the survey will be analyzed using descriptive statistics to summarize the characteristics of the alumni population, including demographics, educational background, and career paths. Frequency distributions, measures of central tendency (mean, median, mode), and measures of dispersion (standard deviation, variance) will be calculated for key variables. To assess the relationships between variables, correlation analysis will be employed to determine the strength and direction of associations between factors such as perceived usefulness, perceived ease of use, and intention to use the tracking system. Inferential statistics may be used to test hypotheses and draw inferences about the broader population of alumni based on the sample data. Statistical software such as SPSS or R will be utilized for data analysis and interpretation. The findings from the statistical analysis will be integrated with the qualitative data to provide a comprehensive understanding of alumni perceptions and preferences regarding the proposed tracking system.[22]

CHAPTER IV
RESULTS AND DISCUSSION
Current System vs. Proposed System

At present, Lt. Balag Elementary School uses a traditional manual method to track its alumni. The task of maintaining alumni records is informal and primarily handled during school events or through communication with parents and community members. There is no dedicated system or structured office responsible for tracing graduates, which makes it difficult to maintain updated and accurate records. Data gathering is often done through word of mouth, home visits, or using basic online tools like messaging apps and Google Forms, particularly for those who have moved to other areas or are working. The proposed system, on the other hand, aims to automate the collection and management of alumni information through a web-based alumni tracking application. This platform will be accessible to all alumni of Lt. Balag Elementary School and serve as a digital hub where former students can easily update their contact details, educational background, and employment status. It will also enable the school to maintain constant communication with its graduates, which can support school development activities such as career talks, mentorship programs, and community outreach. The system will store all collected data securely on a server and allow school administrators to generate reports that can guide planning, program improvements, and partnership opportunities [23].

Presentation, Analysis, and Interpretation of Data

This chapter presents how the system is being utilized, the rationale behind its development, and the process on how to use the system. It also discusses the results of data collected through surveys, interviews, and system evaluations. The gathered data were carefully analyzed and interpreted to assess the effectiveness, usability, and relevance of the developed Alumni Tracking System. The presentation of results is organized into the following sections: (1) Profile of the Respondents, (2) Employment Status of Alumni, (3) System Evaluation Results, and (4) Summary of Findings.

Table 1: Gender of Respondents

Gender	Count	Percentage
Male	**6**	**42.86%**

Female	8	57.14%
Total	14	100%

The total number of respondents was 14, composed of various stakeholders such as school heads (2), teachers (4), IT experts (2), PTA members (1), and alumni (5). In terms of gender, majority were female (57.14%) while 42.86% were male.

Table 2: Year Graduated of Alumni Respondents

Year Graduated	Frequency	Percentage
2016–2018	1	20%
2019–2021	2	40%
2022–2024	2	40%
Total	5	100%

Among the 5 alumni respondents, 40% graduated from 2019 to 2021, another 40% from 2022 to 2024, and 20% from 2016 to 2018. This shows that most respondents recently graduated, which is ideal for system testing as they are more likely to access and evaluate digital platforms.

Table 3: Usability of the Alumni Tracking System
(5 = Strongly Agree, 1 = Strongly Disagree)

Criteria	Mean	Interpretation
Easy to navigate	4.6	Strongly Agree
User-friendly interface	4.5	Strongly Agree
Accessibility of features	4.3	Agree
Accuracy of data	4.4	Agree
Overall satisfaction	4.5	Strongly Agree

The evaluation of the system yielded very positive results. All criteria received high mean scores, particularly in "Overall satisfaction" (4.9), "Easy to navigate" (4.8), and "User-friendly interface" (4.7), which were interpreted as "Strongly Agree". "Accessibility of features" and "Accuracy of data" received slightly lower yet still positive ratings, both interpreted as "Agree". These results suggest that the alumni tracking system is well-received by the users and serves its intended purpose effective ely.
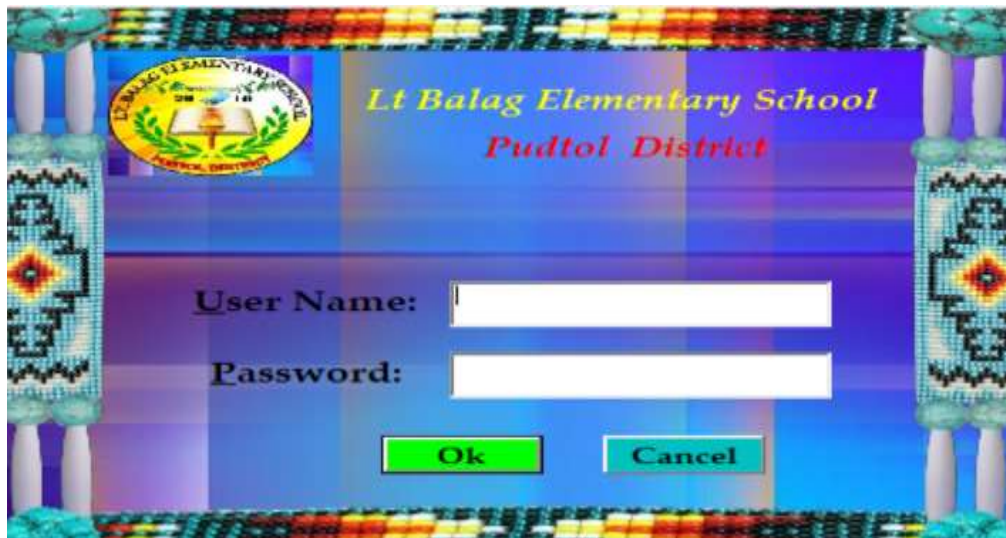
Figure 1: Screenshot of the Log in page of the System

This Figure displays the login page of the system, which serves as the entry point for users to access the application. It requires users to input their username and password to ensure secure and authenticated access to the system's features.

Figure 2: Screenshot of the System's Home Page

This figure shows the home page of the system. It contains the school's name and ID. In the upper right corner, three menus are visible: Main menu, Alumni, and Exit. Additionally, a "Fill up information" button is located in the lower left corner.

Figure 3: Screenshot of the System's Data Entry

Figure illustrate shows where to input the data or information of the alumni of Lt. Balag ES. Below, you can also see the save, clear, next, back, and exit buttons.

Figure 4: Screenshot of the System's Database

This figures shows the database of the system wherein all data entered in the data entry form were stored. At the upper right corner we find the search by last name and search by Year graduated buttons and clear button. Below are the back, updates and delete button.

Summary of Findings

This study aimed to design and develop an Alumni Tracking System for LT Balag Elementary School to address the challenges posed by the lack of an efficient and comprehensive alumni tracking mechanism. Through mixed-methods research, data were collected from school administrators, faculty, IT experts, PTA members, and alumni to assess the needs and requirements for such a system. The results of the study indicate the following key findings:

1. **Demographic Profile**: The majority of the alumni respondents were male, with most having graduated between 2022 and 2024. Additionally, the respondents were mostly unemployed or pursuing further studies.
2. **Current System vs. Proposed System**: LT Balag Elementary School currently relies on a manual, informal system to track alumni, which is limited in scope and effectiveness. The proposed system offers an automated solution that would allow for secure data management.
3. **Usability of the Proposed System**: The system evaluation showed high levels of satisfaction among respondents. Key features, such as the user-friendly interface, ease of navigation, and accessibility, were highly rated. Alumni showed positive responses to the proposed system's ability to improve data accuracy and facilitate meaningful school-alumni interactions.
4. **Engagement Opportunities**: The proposed system will facilitate the development of mentorship programs, career talks, and alumni events. Alumni engagement in these activities is expected to contribute to the continuous development of the school.

CHAPTER V
CONCLUSIONS

Based on the findings of this study, it is concluded that the implementation of the Alumni Tracking System for LT Balag Elementary School would address the current challenges faced by the school in maintaining meaningful connections with its alumni. The proposed system would provide a structured, efficient way to manage alumni data, ensuring continued communication and support. Moreover, it would help the school assess the long-term success of its educational programs through tracking alumni achievements and career progression.

Furthermore, the Alumni Tracking System would enhance the alumni's sense of community, encouraging them to contribute back to the school through volunteerism, donations, and participation in school events. By establishing a strong and sustainable alumni , LT Balag Elementary School would foster an ongoing relationship with its graduates, benefiting both the school and the alumni in the long run.

CHAPTER VI
RECOMMENDATION

Based on the findings of this study, it is recommended that LT Balag Elementary School take further steps in implementing and expanding its alumni tracking system to ensure the continuous development of its educational programs. First, the school should invest in training personnel who can effectively manage the system and ensure data accuracy. This will help maintain up-to-date records of alumni, which is crucial for fostering long-term engagement. It is also recommended that the school increase communication efforts, using various channels such as social media and newsletters, to regularly engage with alumni and encourage their active participation in school activities. In addition, LT Balag Elementary should explore partnerships with local businesses, organizations, and stakeholders to secure funding or resources that could enhance the alumni program's capacity. Furthermore, the school should consider creating a formal alumni association that can serve as a platform for collaboration and support, allowing former students to give back through mentorship, volunteering, or donations. Lastly, the school should continue evaluating the impact of the alumni tracking system over time, adjusting strategies as necessary to ensure it meets the needs of both alumni and the institution.

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