Willowbrook School Case Study

L03: System Planning

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Preliminary Investigative Report

Introduction

This report aims investigate the prospective implementation of a new information system at the Willowbrook School. This report is produced on behalf of the school by an independent contractor. The school has identified a need for an information system that can effectively manage student tuition and billing and financial aspects of running a non-profit school, as the current manual system is proving to be time-consuming and vulnerable to human error. This report will review the scope, possible constraints, and feasibility of the proposed system.

Systems Request Evaluation

The Willowbrook School administrative staff asked for prioritization to be placed on a student information system to assist in the financials of running the non-profit school such as tracking student tuition and billing. This system is technically discretionary since it is possible for continued functioning of the school without it, however due to the recent increase in workload for the administrative staff coming from a large influx of new students it is barely feasible to continue to utilize products like Excel to track and manage student tuition and billing information and there is a high chance of billing errors in the existing manual system, especially with the increased workload. The need to remain compliant with laws and regulations as well as to run the school ethically requires accurate billing, so the school is reaching the point of it being a non-discretionary upgrade.

The school's strategy is to provide a high-quality education to its students and improve the administration processes to meet the needs of the rapidly growing student body. Their approach in seeking avenues for improvement is that of cost-effective technology that will lessen the workload for currently very cumbersome manual processes. This project aligns with their organizational strategy as it aims to streamline some administrative tasks and improve the accuracy of the billing and payment processes, leading to greater overall efficiency. This system will also semi-automate compliance with state and federal financial regulations when configured properly, leading to additional benefits.

This project is considered high priority by the school and its staff due to the likelihood of erroneous billing and the amount of administrative work placed on Susan Brown with the current manual system. This project is of the highest priority as to maintain a high quality of education and integrity at the school considering its recent rapid growth.

Preliminary Investigation Findings

Through speaking to the staff at the school a consensus was reached that the financial information system is to be prioritized. The staff expressed a desire to free the administrative staff to do more critical work, thus the system should be tailored towards easily managing the financial aspects of a non-profit school. The system and associated costs will include the purchase of software, software setup and tailoring to suit the schools needs, and training of employees.

Our initial investigation has defined the scope of the project as a financial information system for the school. This would include the following:

- Tuition and Billing Management: the ability to track and manage student enrollment, calculate tuition fees based on currently undefined factors, process payments, and generate invoices and receipts.
- After-Care Fees Management: tracking and managing fees for after-school care and ensuring that all fees are collected and accounted for accurately.
- Compliance Management: ensures the school's financial operations are in compliance with relevant laws, regulations, and guidelines, such as tax laws relevant to non-profits, accounting standards, and auditing requirements.
- Financial Management: manage financial operations of the school, including budgeting, forecasting, and reporting. The system should provide real-time visibility into the school's financial performance, enabling administrators to make informed decisions about resources and expenditures.

Feasibility Study

The intent of this section is the determine the overall feasibility of this project based on the information available, and whether more information is needed. Outlined are each aspect of feasibility including fiscal, technical, operational, and scheduling.

Fiscal Feasibility

The schools request for an information system cannot be ruled on whether that is fiscally feasible without additional information like budgetary constraints. Once a budget is determined we can proceed with a summation of the cost and evaluation of the fiscal feasibility of the project. This is reliant upon the cost of hardware (if necessary), the software fees, development and upkeep costs, the cost to train employees, and the cost consultancy. Additional costs may need to be factored in depending on which vendor the school picks, as there are many with varying fee structures.

Technical Feasibility

To evaluate the technical feasibility, we need to consider what equipment (hardware) currently exists within the school and whether it can effectively run the software required for the new system. Other than potential hardware constraints, there is the consideration of usability and technical prowess of employees interacting with the system, however there is no indication that the staff has any technological learning limitations preventing them from effectively learning the system. Once more information is gathered regarding the specific technical specifications of the school's hardware, technical feasibility can be revisited in greater detail.

Operational Feasibility

The operational feasibility of the information system implementation is positive no matter the potential setbacks. Since the manual system currently in place is both potentially inaccurate and time consuming, implementation would lead to greater operational efficiency. A deeper analysis of operational feasibility will require more information, for example what requirements and constraints the school has, what may be a hindrance to the new systems implementation and use to the staff, and whether the resources and staff are available to support the new systems operation. Another possible constraint is the accurate migration from the old system to the new, taking the information in its outdated format and entering it into the new system.

Scheduling Feasibility

The feasibility of scheduling the implementation of the system will greatly depend on the most significant staff's availability, namely the vice principal as well as the principle to a lesser extent, and the resources available. Both factors will impact the timeline of the project. Should resources be allocated to the project and staff made available as needed, then an estimated timeline can be developed.

Time and Cost Estimate

As it stands, we estimate the project to take months from start to finish, however no timeline or cost estimate can be completed at this time without additional information provided by the school, outlined below.

Expected Benefits

There are numerous potential benefits for the school, including:

- Improved overall financial management.
- Increased accuracy and efficiency.
- Better decision making based on real-time information allowing insight into the schools financial situation at a glance.
- Significantly better data security.
- Easier day-to-day maintenance.

- Automatic report generation.
- Simplifies compliance with state and federal laws.
- Reduces the workload of financial management.
- Simplifies billing for parents and staff.

Additional Information Required

The following information is required to proceed with a complete evaluation and ultimately to begin the process of implementation:

- Budgetary requirements and constraints are needed to determine economic feasibility and provide cost estimates.
- Complete inventory and evaluation of systems, hardware, and infrastructure currently available at the school.
- School and employee schedule information to determine a timeline.
- A detailed plan for migrating existing data from the excel spreadsheets to the new system, as this will require a lot of manpower and require accuracy.

Summary and Recommendations

This report investigated the scope of the proposed system, which would include tuition and billing management, after-care fees management, compliance management, and financial management. The economic, technical, operational, and scheduling feasibility of the project were evaluated based on the information available. It was determined that more information is needed to fully determine the feasibility of the project. It is our recommendation that the new financial information system be implemented as the benefits would be greatly beneficial to operations at Willowbrook and allow the school to scale more rapidly and seamlessly with growth.