## Part C          Project Details

## School Background

St. Joseph's Primary School (PM) is a government subsidized primary school. Currently, we have 475 students and 31 staff members. The mission of our school is to educate students in areas of moral, intellectual, physical, social, aesthetic and emotional development. This process will take place in an environment conducive to learning and in the context of interaction between staff and students.

With the purpose of promoting teaching effectiveness, our school has been using IT in enhancing teaching work and administration. Since the first 5-year IT plan initiated by the Government in 1998, our school has been actively developing our IT equipment. Our school started to use the school intranet system and an eLearning platform in 2003, and the purpose is to facilitate teaching and communication over the Internet.

## Needs Analysis

In view of the rapid growth in the usage of IT and the increase of teacher's workload, our school has decided to make the best use of IT in daily administrative routines. The goal is to reduce the heavy workload on our teachers. Apart from WebSAMS, our school has been using an intranet system to operate our internal communication and resources sharing. Never still, the administration work within the school occupies a lot of teachers' and administrators' time.

For instance, attendance taking and registering take up a considerable amount of time within teacher's daily work. In addition, not only the clerks in the school general office, but also the teachers under disciplinary team will need to spend lots of time on handling the records of lateness, absence and the daily attendance data. Therefore, it is necessary for our school to have a complete attendance administration system to reduce the workload of teachers.

In addition, our school holds many different kinds of activities throughout the year. Collection of fees from students is often necessary. What is more, there are other expenses including catering, transportation and other miscellaneous items. All these have created some pressure on the teachers. It can turn out to be even more stressful especially when there is any late submission of fees from students or the payment is not balance. Therefore, if a payment system can be introduced, it will definitely reduce the workload of teachers and the pressure alongside.

*Total Solution Integration*

In choosing administration system, we strongly avoid adopting different systems at the same time so as to avoid confusion and additional workload to teachers. Therefore, we wish to have the Intranet and learning platform integrated together. In so doing, teachers, students and parents can use the same platform to teach and learn, and to deal with administrative work and communicate. Surely, this will help to promote and to fully use the system. Besides, the database on the system should be, to some extent, compatible with WebSAMS, or able to perform data import and export; otherwise, the administrators will have to repeat the steps of data entry.

Due to the large storage amount of equipment in our school's computer rooms, multimedia rooms and special rooms, we need to strengthen our security system and management. Currently, to access the different doors will need to have different keys. Keeping and managing keys has become a security issue. Therefore, we would like to use a smartcard door security system. With that system, teachers and other staff will not need to get somebody to open or lock the rooms for them or to manage the large number of keys.

*Workflow of Handling Activity Records*

Our school has been arranging many extra-curricular activities in the past years in order to develop the body and soul of our students. Due to the rapid increase of student enrolment in extra-curricular activities, the teacher's workload has been increased after school hours.

*Workflow of Handling Student and Administrative Documents*

To effectively reduce the teachers' workload, we will need to make all the data, such as current and graduated students' work, invoices and reports etc, in a system that is more accessible and organized. Therefore, we wish to enhance the document management system in the hope that less time will be spent on document searching and archiving.

## Expected Functions with New Technology System

If a complete smart card system can be used, the expected functions will include the following:

- **O** Used as attendance card

    Since the data of the student smartcard can be stored and processed, and with the right student attendance system, all the procedures of registry and roll call can be simplified, and the attendance status of students can be displayed instantly on screen. On tapping the student smartcard on the reader, the screen will show the time, the status and the photo of the student. Teachers can in advance input some messages as reminders to students. While the student taps their cards, they will see the messages of the day. This will greatly reduce the amount of work in handling the attendance and follow up. On the other hand, parents can also easily monitor their children's attendance and status online. What's more, when it comes to outdoor activities, messages will be sent to parents to inform them of their children's attendance. Our system not only supports regular school days, but also supports weekdays and special day settings to give maximum flexibility to schools.

The use of teacher/staff smartcard not only helps out the general office in monitoring teachers' attendance, it will also help staff members to arrange teacher/staff substitution arrangements. The Teacher/Staff Attendance System can support groups, individuals and special arrangement settings, and it also supports holidays and outdoor work settings to provide flexibility and convenience to staff members in handling teachers' in/out records. The system also provides different detailed reports on staff's attendance and overtime. This is useful for our school to understand the working status of each teacher/staff member and to allocate resources more effectively in order to release their pressure.

- **Used as campus electronic wallet**
  The use of student smartcard mostly applies within campus. Therefore, using smartcard for fees collection, such as tuition fees, book fees, school tour fees and other school activity fees, can save time and avoid large amount of cash handling. With all the possible money transactions with the use of this electronic wallet, we can still be assured of the security. Even if the card is lost or stolen, users other than the owner of the card cannot use the money stored on the card. That is, the owner of the card will not lose the stored value on the card. Teachers will no longer waste their precious teaching time on cash handling and calculations, and our school does not need to worry about handling large cash payments any more. Parents can also easily check the details of payment, debit and credit status of their children's smartcard.

- **To replace traditional keys**
  There are many special rooms within the school such as staff rooms, general offices, multimedia rooms, laboratories, server rooms, all of which require higher levels of security. Some rooms only allow those who have certain authority to have the access rights. Instead of using the keys, our school will make use of the student smartcard or teacher/staff smartcard to manage and monitor the access control of those rooms.

- **To replace traditional student cards**
  Student smartcard not only can replace traditional student cards and proof of students' identity, but also highlight the school's image and to improve students' sense of belonging to the school.

- **To replace traditional library cards**
  In handling library cards in the past: affixing bar code sticker on the back of student cards or direct printing another library card, the school will have to deal with some details and complicated process. The new smart identity card will avoid complicated steps and will contain barcode information, which can support the existing library system.

If a well-functioning administration system can be introduced at the same time of using the smart card system, students will be able to fill in applications online anytime. Responsible teachers only need to input relevant information such as requests and fees into the system, and the system will then invite students to enroll automatically. The enrolled name list will be automatically generated after application is completed. Meanwhile, teachers can use the smartcard system to collect associated fees. The SmartCard Attendance System can be used for taking attendance so as to provide us with the most accurate and complete attendance record. With all the work completed on a single system, we expect the workload of teachers will be substantially reduced. The system also provides different reports to facilitate the headmistress and administrative staff to examine the participations of the students in various activities.

*Student Activity Administration & Management System*

If a well-functioning student activity administration system can be introduced at the same time, students will be able to fill in applications online anytime. Responsible teachers only need to input relevant information such as requests and fees into the system, and the system will then invite students to enroll automatically. The enrolled name list will be automatically generated after application is completed. With all the work completed on a single system, we expect the workload of teachers will be substantially reduced. The system also provides different reports to facilitate the headmistress and administrative staff to examine the participations of the students in various activities.

*Student and Administrative Documents Management System*

It will be much easier for the future work of teachers if the complete Student and Administrative Documents Management System can be adopted. Teachers can scan directly or upload these documents to specific folders with user groups and right pre-set. With these entries, teachers and staff can easily find documents by keyword, date and file name search. The system can also generate different versions when teachers revise and upload the same document. The system enhances document searching process, reduces hardcopy storing space, and in the long run, archives documents of decades-old systematically, that saves a lot of teachers' time in the preparation of various reports, thus lessening their workload.

## Implementation Solutions

Our school will set up a task force to be responsible for implementing the administration system plan. The committee members are listed as follows:

| Position | Role |
| --- | --- |
| Headmistress | Consultant |
| School Improvement Team Coordinator | Coordinator |
| TSS | Technical Advisor |
| Computer Panel Head | Member |
| ECA Coordinator | Member |

To ensure the smoothness of the implementation, the task force will review the plan on a regular basis. Below is the draft of the implementation plan:

| Implementation Schedule | Description |
| --- | --- |
| 2012 June | Receive approval for QEF application |
| 2012 July | Install door access control system |
| 2012 Sept | Test and lead in staff and student attendance System |
| 2013 Jan | Review effectiveness and work on any necessary improvements |
| 2013 Mar | Test and lead in Student Payment System / ECA management and document management System |
| 2013 Aug | Review effectiveness and work on any necessary improvements |

## Budget Plan

| Expenditure on Equipment / Services | Unit Cost | Quantity | Amount (HK$) |
|---|---|---|---|
| a)  Student Attendance System | 22,000 | 1 | 22,000 |
| b)  Staff Attendance System | 17,000 | 1 | 17,000 |
| c)  Student Payment System | 22,000 | 1 | 22,000 |
| d)  SmartCard Reader for Payment and Attendance Taking | 3,000 | 5 | 15,000 |
| e)  ECA Management System | 22,800 | 1 | 22,800 |
| f)  Student and Administrative Document Management System | 25,000 | 1 | 25,000 |
| g)  Door Access Control | 7,000 | 6 | 42,000 |
| h)  Cabling | 7,000 | 1 | 7,000 |
| i)  Audit Fee | 5,000 | 1 | 5,000 |
| Total: | | | 177,800 |

| Human Resources Expenditure (Position: 1 Part-time Technician) | |
|---|---|
| HK$4,750 Salary x 8 months + MPF HK$1,900 | HK$39,900 |
| Total: | HK$39,900 |

| | School Contribution | | QEF Grant |
|---|---|---|---|
| | Amount | Source | |
| Facilities/Services Cost | HK$102,800 | School Improvement Fund | HK$70,000 |
| Staff Cost | | | HK$39,900 |
| General Expenses (Auditing) | | | HK$5,000 |
| Total grant requested from the QEF | | | HK$114,900 |

## Evaluation

(i)     Performance Targets

    (1)     The time that teachers of School Admin Group spent on processing attendance records, payment records, document archiving and ECA records will become 50% less

(ii)     Quality Assurance

    (1)     Conduct a survey before the implementation of the project, for collecting the data on the teachers' time proportion spent on each administrative item.

    (2)     During the implementation, conduct the survey the second time to find out whether the performance targets have been achieved or not.

    (3)     With the collected feedback, improve workflows if any. Conduct the survey again to check whether the performance targets have been achieved or not.

## Maintenance

The vendor tentatively selected by our school will provide software to integrate into our school intranet. Our school will not need to pay additional maintenance fee for the new system. In order to ensure the smoothness of the system operation, we will hire a technician certified with System Management. He will be responsible for the management of IT facilities and the maintenance work of the software.