Part C (Project Descriptions)   2011-0093 (Revised)

School Background

Creative Secondary School opened in September 2006 and is operating under the Direct Subsidy Scheme of the Education Bureau. Its sponsoring body is Creative Education Foundation Limited, a non-profit making organization set up for the purpose of developing and operating the school.

Creative Secondary School is a modern, progressive and forward thinking school that offers a highly challenging, broad and balanced academic programme within an exceptionally caring school environment that is conducive to building students' self-confidence and development of their talent, potential, positive values and life-long learning skills.

With the purpose of promoting teaching effectiveness, our school has been using IT in enhancing teaching work and administration. Our school started to use a school intranet and an eLearning platform in 2007, and the purpose is to facilitate teaching and communication over the Internet.

Needs Analysis

In view of the fast growing 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 resolve 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. Every teacher spends 30mins on administration work every day.

For instance, the attendance taking and registering has some considerable amount of work within teacher's daily work. The managing of the non-teaching tasks, such as "Attendance Book", has taken up part of the teaching time in class. 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 the handling of the records of lateness, absence and the daily attendance data. Every Class teachers spent 15mins on student attendance. Therefore, it is necessary for our school to have a complete attendance administration system to reduce the workload burden of teachers.

In choosing administration system, we strongly avoid adopting different systems at the same time so as to avoid causing too much confusion and 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.

As the world is changing, working on student's discipline becomes more complicated. If the teachers of the Guidance and Discipline Team intend to establish a disciplinary system for rewards and penalties, it would be a heavy workload for them as they have to handle and manipulate a huge amount of data. Not only that, they will also need to handle a large number of statistical figures of individual students. Currently, our school is using a Excel spreadsheet to store students' guidance and discipline record. However, it has increased the workload of teachers. Therefore, we wish to lead in a discipline administrative and management system which can be integrated with SmartCard System while in the process of implementing the smartcard system. The purpose is not only to automate the handling process of student attendance records, but also to integrate with other disciplinary workflows, for reducing the teachers' workload.

Expected functions with New Technology system

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

- To use 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 for informing them of their children's attendance. Our system not only supports on school days, it will also support 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.

- To replace traditional student cards

  Student smartcard not only can replace traditional student cards and prove of students identity, but also highlights the school's image and to improve our students', teachers/staff's sense of belonging to the school.

- To replace traditional library cards

  There are two methods in handling library cards in the past: affixing bar code sticker on the back of student cards or direct printing another library card. Be it the former or the latter, the school will inevitably have to deal with some details and complicated process. The new smart identity card will avoid complicated steps. The card will contain barcode information, which can support the existing library system.

There are two purposes in the introduction of the discipline management system. One is to establish a complete conduct performance records of the students, so that teachers of disciplinary team and class teachers can get a comprehensive view of the students. Another purpose is to reduce the related teachers' workload by using the system. The functions of the system include the import automation of individual attendance record. It only requires the responsible teacher to input the reward or penalty of the student each time, and define the incentive value of each disciplinary item on the student's conduct results. In addition, the system can also pre-set letters to parents so that whenever there is any serious discipline issue about a student, the teacher can print the related letter instantly to notify the parents. In addition, if a student has committed some minor discipline issues and has reached the number limit of times set by teachers before, the system will alert the responsible teachers. This alert function can facilitate the teachers for the efficiency of follow-ups. The system also provides different reports to facilitate the principals and administrative staff to examine the behavior of students.

Implementation Solutions

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

Position	Role
Principal	Consultant
Vice Principal	Coordinator
ITC	Technical Advisor
School Secretary	Member
Head of School	Member
Deputy Head of School	Member
School Accountant	Member
Premise Administrator	Member
IT and Network Engineer	Technical Support

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:

Schedule	Description
2012 May	◐ Purchase a smart card solution and the related software and hardware from vendors; ◐ Vendor provides a server and system installation services; Vendor site visit the school and confirm the locations for installing the smartcard readers and other components ◐ Proceed to installation and construction work for smartcard readers and other components ◐ Vendor provide the implementation consultation services to the responsible staff ◐ Vendor provide the training of the systems to the responsible staff ◐ Test the smartcard system ◐ Vendor starts printing smart cards for new students ◐ Start trial runs of smart card tapping with the attendance system ◐ Import existing data into new Student Discipline and Inventory Management System
2012 June	◐ Start trial runs of smart card tapping with the attendance system with small group of students and staff ◐ Test and lead in Student Discipline and Inventory Management System
2012 July	◐ Review effectiveness and work on any necessary improvements
2013 Sept	◐ Full launch the smartcard attendance system to all teachers and students ◐ Review effectiveness and work on any necessary improvements
2013 June	◐ Review effectiveness and work on any necessary improvements

Budget Plan:

Expenditure on Equipment / Services	Unit Cost	Quantity	Amount (HK$)
1. Student Attendance System	22,800	1	22,800
2. Teacher and Staff Attendance System	22,800	1	22,800
3. School Email server system	8,000	1	8,000
4. PC for SmartCard Display system	3,500	1	3,500
5. School Inventory system	22,800	1	22,800
6. Student Discipline Management System	22,800	1	22,800
7. SmartCard Reader for Attendance Taking	3,000	4	12,000
8. SmartCard Server with Operating System	20,000	1	20,000
9. Cabling and Installation Work	5,000	1	5,000
10. Account Audit Fee	5,000	1	5,000
		Total :	144,700
Human Resources Expenditure : Position 1 Part-time technician			
HK$4,750 Salary x 8 months + MPF HK$1,900			39,900
		Total :	39,900

Sharing of Expenditure			QEF Grant
	School's Share		
	Amount	Source	
Facilities / Services Expenditure	HK$69,850	School Development Funding	HK$69,900
Staff Expenditure			HK$39,900
Account Audit Fee			HK$5,000
		TOTAL :	HK$114,800

Evaluation

1. Performance Targets

   i.   Teacher's time spent on handling attendance matters will become less than 2 minutes every day

   ii. Teacher's time spent on collecting and handling students' payments will become

      around 30 minutes in a month

  iii.   The time that teachers of School Admin Group spend on processing report cards, school records, ECA records, discipline record, will become 50% less

2. Quality Assurance

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

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

    iii.   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. Apart from the software, the vendor will provide 3-year warranty for the smartcard readers and smartcards. On the expiry of the warranty, our school will use our routine funding for paying the associated maintenance fees.

In order to ensure the smoothness of the system operation, we will train our technicians certified with SmartCard Management. He will be responsible for the management of IT facilities and the maintenance work of the software

Asset Usage Plan

Category (in alphabetical order)	Item / Description	No. of Units	Total Cost	Proposed Plan for Deployment (Note)
Computer hardware	PC for SmartCard Display system	1	$3,500	
	SmartCard Server with Operating System	1	$20,000	
Computer software	Student Attendance System	1	$22,800	
	Teacher and Staff Attendance System	1	$22,800	For use by school (IT Department)
	School Inventory System	1	$22,800	
	Student Discipline Management System	1	$22,800	
	School Email server system	1	$8,000	.
Others	Smart Card Reader	4	$12,000	

Note: for use by school / organization / in other projects (please provide details of the department / centre to which the asset will be deployed and the planned usage of the asset in activities upon project completion).

Report Submission Schedule

I / My school / My organization commit(s) to submit proper reports in strict accordance with the following schedule :

Project Management		Financial Management	
Type of Report and covering period	Report due day	Type of Report and covering period	Report due day
Progress Report 1/5/2012 - 30/4/2013	31/5/2013	Interim Financial Report 1/5/2012 - 30/4/2013	31/5/2013
Final Report 1/5/2012 - 30/6/2013	30/9/2013	Final Financial Report 1/5/2012 - 30/6/2013	30/9/2013