

## **St. Anonymous School**

### **ICT Review Summary Report**

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## 1. Executive Summary

St. Anonymous School is a highly successful school. The school has some 540 pupils. It is also a boarding school with a variety of boarding patterns in use. Day pupils also have the opportunity to remain at school after the end of the school day to take part in a variety of activities as well as timetabled prep periods. At 'A' and 'GCSE' levels the results achieved are outstanding and well above average.

The school has invested heavily in ICT equipment since xxxx when it attempted to introduce a wireless system with the classroom use of laptop computers. This proved troublesome and the use of a wired network was introduced in an attempt to alleviate the problems. More recently the data network has been updated. A number of longstanding and unsolved problems with ICT use in teaching and learning in the school remain and the school has decided that it must act to address the situation and has commissioned an independent in depth review of all aspects of ICT in the school. The study was completed over a three week period in June yyy and involved interviews with a number of teaching and administrative staff, the school's IT Systems Manager and the current ICT supplier. This document is a summary of the findings of the full report.

### Conclusions

St. Anonymous School has made considerable investments in ICT equipment since xxxx. Unfortunately it has not seen the expected benefit from the investments and a number of problem areas have combined together to provide a poor and unreliable ICT environment for staff and pupils. Indeed in some instances, because of bad experiences, the use of ICT in teaching is being reduced. In others, teaching staff have to prepare two lesson plans in case the ICT system is not available. The confidence of staff in the ICT systems and the ICT Systems Manager is very low and this must be raised as a matter of priority. The problems can be tackled, some immediately, but others will take some time to have an effect.

The findings suggest that there are 6 key issues that must be addressed in building a more robust, reliable and effective ICT environment at St. Anonymous School.

- Strategy
- Planning and management
- ICT Resources
- IT Service
- Financial
- ICT users

These are summarised in sections 3-8 together with recommendations for action, but there are some immediate steps that the school should undertake.

## 2. Recommendations for immediate action.

### a. Technical.

Appoint a specialist educational ICT service supplier (BECTA<sup>1</sup> Approved) with a remit to:

- i. Design, implement and document the user and workstation structures (Active Directory and policies) necessary to provide the level of control required.
- ii. Design, correctly implement and document the Microsoft Windows Roaming Profile feature. This should remove the random long logon times experienced with the current system.
- iii. Redesign and reconfigure the wireless network system to provide the correct ratio of workstations to access points (8-10 to 1) in selected locations. This will improve the speed of access for pupil laptop use.
- iv. Implement the security features of the wireless network.

### b. Supplier.

Insist that the current ICT supplier finishes the installation work on the new data network system by providing the documentation, training and security facilities that the school expected at the time of order.

### c. Staffing.

Restructure the IT section.

- i. Recruit a qualified ICT manager to head the new section. It is vital that they have experience of high quality IT service management in an educational environment.
- ii. Retrain the existing manager to act as second line ICT support together with responsibility for day to day running of the network and the central services.
- iii. Recruit one additional technician with experience in an educational environment to improve the support available for the teaching staff.
- iv. Ensure that the two IT technicians report directly to the new ICT manager.
- v. Provide proper office space for the restructured section.

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<sup>1</sup> BECTA is the government funded agency responsible for leading the national drive to improve learning through technology.

d. Computer facilities.

- i. Install two fixed computer-equipped classrooms (28 seats each) using convertible desks to provide maximum flexibility in use. Remove an equivalent number of laptops from service.
- ii. For the new science block provide ruggedized laptops with associated mobile charging/storage units. Laptops to provide tri band wireless links.

e. Management.

- i. Establish a group to produce an ICT strategy for the next two years.
- ii. Establish an ICT Service group to oversee the planning, procurement and implementation of the ICT strategy. The new ICT manager should be a member of this group.

### 3. **Strategy.**

Although the senior staff of the school have a vision for the use of ICT as a tool in learning and teaching, this is largely expressed orally and there is no explicit documented ICT strategy. There is no group or committee charged with developing and keeping under review an ICT strategy for the school.

#### Recommendations

- a. Adopt the BECTA Self Review Framework.
- b. Establish a group to produce a comprehensive ICT strategy (including all uses of ICT in the school) for the next two years, with input from all stakeholders (Governors, LEA, Parents, Staff and pupils).
- c. The group should produce a strategy by the end of 2007.
- d. Review the strategy after 12 months, amending it as needed for the next 2 years.
- e. As part of the strategy, consider aiming for BECTA ICT Mark status for the school.

### 4. **Planning and Management.**

There is no ICT steering committee or group charged with overseeing the procurement and implementation of ICT in the school.

#### Recommendations

- a. Establish an ICT Service group to oversee the planning, procurement and implementation of the ICT strategy.
- b. The group should include representation from the main user groups in the school and be chaired by a senior member of staff.
- c. The group should control all expenditure against the agreed recurrent and capital budgets.
- d. The group should produce a regular report to the strategy group outlining progress on the implementation of the strategy.
- e. The group should produce regular reports on progress for the school.

### 5. **ICT resources**

The ICT staff resources available are inadequate for the size of the school, the volume of ICT systems and the expectations of support by the teaching and administrative staff.

The technical ability of the IT Systems Manager is insufficient for the complexity of the tasks required to support the installed systems. His management and planning abilities are inadequate

for the tasks required for an installation of this size to function effectively. His appreciation of current developments in the use of ICT in education is limited.

The school has sufficient investment in workstations, data wiring, networking equipment, software and servers for the size of the school (although new equipment will be needed for the new science block). The laptops purchased are not rugged enough for the school environment. The servers in use are over specified for the functions they provide.

The customer service skills and abilities of the technician are rated as very good.

### Recommendations

- a. Restructure the IT section.
- b. Recruit a qualified ICT manager to head the new section. It is vital that they have experience of high quality IT service management in an educational environment. They should report to the Chairman of the ICT Service group.
- c. Retrain the existing manager to act as second line ICT support together with responsibility for day to day running of the network and the central services.
- d. Recruit one additional technician with experience in an educational environment to improve the support available for teaching staff.
- e. Ensure that the two IT technicians report directly to the new ICT manager.
- f. Ensure that the IT staff take part in professional development activities including training on new systems and attendance at relevant conferences and exhibitions.
- g. Consider using the IT staff to provide extended hours of cover.
- h. Consider training senior pupils in boarding houses to provide low level IT support during evenings and weekends.

## **6. IT Service**

There is a 'Service desk' for ICT users in the school, but little use seems to be made of the statistical information available to improve reliability or to track long term problems. A good stock of ICT consumables is kept.

The problem, change and release management procedures are either non-existent or inadequate for the size and complexity of the systems in use. Documentation of the ICT systems, network and procedures is almost non-existent and totally inadequate. There is no proactive monitoring carried out to avoid potential problems affecting the core systems.

The existing backup procedures are adequate, but the storage arrangements for the backup copies are potentially high risk. Whilst there has been some thought given to planning for disasters, there is no documentation or evidence of implementation or testing.

The current IT office has to combine the functions of a data centre with desks for staff and

workshop facilities. This is unsatisfactory for a variety of reasons. The backup data centre and IT consumable and equipment store are unsatisfactory.

There are a number of outstanding problems related to network security.

### Recommendations

- a. Adopt the BECTA FITS framework. This is designed to raise the level of performance of a school IT Service by focussing on professional standards and operating in a proactive rather than reactive fashion. Most of the identified problems can be dealt with under this framework.
- b. Review the backup strategy and consider storage of backup media in a more secure and distributed environment.
- c. Provide proper office space for the restructured IT section.
- d. Ensure that the current ICT supplier finishes the installation work on the new data network system by providing the documentation, training and facilities that the school expected at the time of order.
- e. Enable the security features of the wireless network.
- f. Ensure that the logging and monitoring features of the internet access control systems (Firewall and Cache) are used and regularly reviewed.
- g. Procure and install a centralised monitoring and management system for the core network and systems.

## 7. **Financial.**

Major purchasing is dealt with an ad-hoc basis. There seems to be a division of responsibility between the operational management of ICT and the financial management of the capital and recurrent budgets.

The procurement procedures need revision. Those used at present seem to have resulted in systems being specified by the supplier rather than the school.

The major supplier of ICT systems to the school does not have a good understanding of the differing requirements of the educational environment and is primarily focussed on the business sector.

There does not seem to be any form of stock control system for computer consumables.

There is no asset register for ICT equipment, although some data is held in a rudimentary way in the IT section.

Recommendations

- a. Adopt the BECTA procurement procedures for major expenditure.
- b. Use only suppliers with a proven track record in the school ICT sector.
- c. Introduce a comprehensive asset register.

8. **ICT users.**

The teaching staff are very keen to use ICT in their teaching, where there is a clear advantage in learning outcomes by doing so, but have become disillusioned because of the problems they have encountered in using the available systems. They have little confidence in the reliability of the curriculum network or the level of ICT support they have available. An exception to this seems to be the facilities available in the School Resource Centre

Some use is made by teaching staff of the IT facilities to process administrative data about pupils, but this is isolated from the administrative systems database and transferred (in either direction) by re-keying. There seems to be little awareness of the administrative system amongst the teaching staff.

Administrative staff seem to be generally satisfied with the systems to support their functions, but are less happy with the level of IT support they receive. In particular, planning and implementation of updates to the administrative system seems to be a problem area.

The School Resource Centre staff have concerns with the heavy use made of the fixed workstations in their area for teaching sessions. This seems to be because of the perceived better reliability experienced in the Resource Centre. They carry out a certain amount of low level ICT support for the workstations and pupils.

The school is taking effective steps to improve the ICT skills of the pupils.

Recommendations

- a. Install two fixed computer equipped classrooms (28 seats) using dual function desks to provide maximum flexibility in use. Remove an equivalent amount of laptops from service.
- b. For the new science block, upgrade the wireless specification as outlined in 2.a.iii and provide rugged laptops with associated mobile charging/storage units.
- c. Through the ICT Service group, consider ways in which administrative system facilities and data can be shared between teaching and administrative staff in order to improve efficiency and reduce duplication of data and effort.