

P.21 How can I ensure that teachers and pupils understand how to use our new wireless laptops?

Matthew Goodyear

Warren Junior School

School Context

Warren Junior School is a large junior school in the London Borough of Barking & Dagenham. The school is four form entry with approximately 448 children on role.

Wireless Laptops: Background

The school has bought 60 Dell Latitude D505 laptops stored in 4 Lapsafe Smartline E trolleys (15x4). A 54Mb 80211.g wireless cloud covers the entire school using 7 Cisco 1100 Wireless Access Points connected to a Research Machines Community Connect 3 network.

Each trolley is to be shared by a Year Group (3-6) of four classes. Initially these are to be used for whole class cross curricular ICT work, 2 pupils to each laptop. Laptops will enable children to get more hands on time with computers and will give teachers a powerful way of integrating ICT across the curriculum where appropriate. Eventually, a range of activities for whole class, small groups and individuals will be devised to assist in the delivery of Personalised Learning Plans for SEN, Gifted and Talented and Mainstream ability groups.

The school has an existing hard wired IT suite of 16 desk top machines.

Previously children received 1 hr per week in the ICT suite. Now children could have up to 5 hours per week of access to laptops in addition to the existing 1 hour in the ICT suite.

Previous experience (from both NOF training and Test Bed) has taught us that three conditions must be met for the successful launch of new ICT equipment

- The ICT equipment should be fully tested in the classroom setting.
- Staff and children should be trained in its basic use and care.
- Staff should be closely supported until they feel confident to work 'alone'.

Plan

1. Test Bed Project Manager (TBPM) and Technician thoroughly 'road test' laptops in class.
2. TBPM teaches each class (1 hr lesson, see attached) on basic use & care of the laptops.
3. TBPM & Technician support teachers as required. This could be in class or on call depending on the teacher's preference.
4. When Year Groups decide they are ready, laptops are handed over and become the responsibility of the Year Group from 8:30am to 4:00pm. Technician is responsible for locking up at night and day to day maintenance, etc.

I gathered the data from various sources including observations carried out during lessons and interviews with staff and pupils after the lessons. The interviews with staff were semi-structured and took place within a month of the lesson. Two pupils from each year group were also interviewed. These interviews were recorded on an iPaq.

Lessons learnt and modifications made

1. Road testing took longer than expected but many issues were discovered and ironed out.

The pupils can all log at the same time (15 laptops) and the 54Mb wireless-network coped well. But one thing that was noted was that the children need to work on same laptop each

lesson wherever possible to minimise the number of locally cached profiles per system thus reducing log on times.

The software installation needs to be managed to avoid packages being installed during valuable lesson time thus delaying pupil usage of laptops. Despite the introductory lesson, staff and pupils need reminding to be alert at the beginning of the log on process to ensure that they follow on-screen instructions to avoid such a disruption.

Printing could have been a problem but the incorporation of a dedicated wireless printer into each trolley keeps everything in class and avoids pupil disruption. For Health and Safety reasons, extension cables are needed to make it easy to connect trolley to mains electricity in all classrooms irrespective of classroom layout, etc.

2. Class teachers and ICT co-ordinator commented that the one hour lesson worked well. A teacher commented that

"(The lesson) was really useful for me ... and the children really have stuck to everything you said about how to collect them and put them away and they are really good at sharing the responsibility." (Y4 teacher)

"It was nice for me from a confidence point of view to have someone there in case it all went wrong." (Y3 teacher)

"There were good routines for how to hand them out and set them up." (Y5 teacher)

The children were positive and demonstrated careful and knowledgeable use of the laptops. One teacher commented that "The kids are really sensible when they are using them and there is a really nice atmosphere in the classroom." (Y4 teacher) This is a positive outcome for the school and has benefited the pupils' social and personal development.

Teachers grew quickly in confidence and needed less follow up support than expected.

Motivation to use laptops was very high from both pupils and teachers. I think this is because the technology is new, staff see it as a way of bringing extra resources to the class. Pupils like the novelty value but they are keen to use 'their own laptop'. The children use the laptops, on average, once a week.

3. Technical support has been less than expected

Teachers need to know how to cope with wireless drop outs, i.e. computers that do not want to connect to the network. Up until now, this information has been passed on a need to know basis, however there are plans to run a formal session for all staff in the near future.

4. Year Groups have taken responsibility for laptops

Handing over laptops to the Year Groups within an agreed framework gives them a sense of ownership. It is important to communicate clearly via Year Group meetings in order to help them organise routines and deal with the issues involved which they might not at first be aware of such as battery charging, security and the logistics of moving trolleys around the school.

"It was a good way of (making sure) the whole school is using the laptops in the same way." (Y4 teacher)

One issue that has arisen is that Year 3 are split between floors. We needed to purchase an extra Lapsafe mini Mentor trolley to store and charge laptops upstairs. Children have been trained to carry laptops up and down stairs in bags once a week. The Year 3 timetable will be different from other Year Groups to accommodate this logistical issue.

Differences in the classroom

The laptops are in regular use across all year groups (estimated current usage is 1-2 hours per class per week). This is in addition to the one hour a week the pupils have in the ICT suite. The Teachers are incorporating laptops into a diverse range of subjects for example; literacy, science, French, music and history. Teachers have commented that "They have really enhanced our English teaching... enthusiasm has increased ... previously we had problems getting information, now we have access to the internet so we can match the information to the ability level more easily." (Y4 teacher) I believe this means that teaching and learning in the school has been enhanced.

One additional benefit is that School wide Internet usage has increased from approximately 775 page requests per week prior to the launch laptops (Smartcache report 27.09.04) up to approximately 16,000 page requests per week since the launch of laptops (Smartcache report 13.12.04).

Conclusions

Managing the launch of wireless laptops proactively has been a great success and I would definitely use this method again in the future with similar technology. Teachers and pupils both appear to appreciate a simple lesson in the basic use and care of the laptops with one teacher commenting "The instructions were simple and the children knew what to do and what order to do it in." and a pupils stated "The lesson with the catapult game (introductory lesson) was good to get people used to using the touch pad (mouse) and how to get used to using the wireless laptops." (Y5 teacher)

The need for technical support was reduced because a proactive approach not only avoided many problems in the first place but it also meant we were aware of the differences users may encounter between the laptops and familiar computers such as those in the ICT Base. For example the laptops require a slightly different (and slightly slower) logon procedure and must be regularly charged but one pupil stated that "(The laptops) are brilliant, even if another class is in the ICT Base we can take the laptops and work in our class."

Finally, systems have been put in place such as the wireless printers and use of the USB Pen Drives to make life simpler for the class teacher. This further reduces calls upon the technician's time.

Benefits

The use of mobile wireless laptops appears to have many benefits for many different stakeholders. However, these benefits can only be enjoyed if all users, both pupils and staff, are confident and familiar with the basic use and care of the laptops. Ensuring a trouble free, clear and consistent introduction to the laptops for all users develops confidence, increase usage and reduces workload for technical support staff.

Recommendations

Recommendations for the future include planning the roll out of ICT equipment such as wireless laptops. This includes thoroughly 'road test' the equipment on a large scale to discover issues and solutions before the staff and pupils come into contact with the technology.

The introductory lesson made sure that the first experience the users had with the technology was a positive one. This needs to happen with future introductions of new technology. All end users need to receive clear consistent induction training to provide a solid platform upon which good practice. But teachers need support until they feel confident to work independently. They need to be the judge of when they are ready for this!

Giving Year Groups responsibility for equipment encourages ownership and reduces the workload for technical support personnel.

Early on in the roll out issues such as storage, charging batteries, data transfer and storage, printing methods and troubleshooting need sorting. Empower the staff to solve minor issues themselves wherever possible.

Be prepared to add further training opportunities and follow up sessions based upon the new needs of staff after the changes have been implemented.

Reflect upon your procedures and feedback the positives into your practice for the next big roll out.

Be positive and praise example of good practice both to the individual concerned and their colleagues and line managers. Good news travels fast!