

The City of Leicester College – BYOD Trial Project

First Interim Report – July 2013

Introduction

This is the first interim report for the City of Leicester College's Bring Your Own Device Trial project, funded from Leicester City Council's New Technology Innovation Fund.

The project is currently in its infancy, with the devices not yet purchased and the trial-proper not yet begun. However we have been very active in setting up the parameters of the trial, selecting our target group of students and both informing and involving key staff and parents in the project. Below is a summary of our progress in this to date.

Review of Milestones

As far as our original schedule is concerned, the pilot project is very much on track

Fully achieved

Some Progress Made

Not yet addressed

Date	Milestone
28/02/13	Bid Accepted
Apr 2013	Applications from tutor groups to be the group to run the pilot
May 2013	Selection of the group
Jun 2013	Identify and timetable key staff onto Pilot group lessons.
Jul 2013	Parental consultation
Jul 2013	Evaluate current device project, interview students, collate useful apps identified.
Jul 2013	Draft Acceptable Use Policy and e-Safety Guidelines

As can be seen, we have made progress in all areas and have fully achieved nearly all milestones. However, we still need to finalise our AUP and e-Safety guidelines.

Pre-Trial Preparations

Prior to the commencement of this trial, the College set up an e-Ambassadors student group of around 12 students who met each week to discuss technology, devices, apps and how these could be used to improve their teaching and learning. We also formed the New Technologies Champions Group, made up of one member from each faculty. We made use of these two group in our initial research into suitable devices on which to base a 1-to-1 scheme, and to help us explore some of the issues involved around giving a student their own personal device.

In October 2012, we bought a selection of different devices, ranging in make, operating system and size, and loaned these out first to our New Technologies Champions, and then to our e-Ambassadors. The devices we trialled were:

- Apple iPod touch
- Samsung Galaxy Note
- Sony Tablet P
- Google Nexus 7
- Apple iPad mini
- Apple iPad
- Asus Transformer Pad 300

We also wanted to trial the Windows Surface, but there were issues with availability at the time of the pre-trials and so we did not consider it.

During the first term of the 2012-13 academic year, the devices were first reviewed by our New Technology Champions. They were given out on loan for a month or so, and then swapped around so that each member had the opportunity to try a range of devices and operating systems.

During the second and third term, our e-Ambassadors were given the devices, and permission to use them in lessons in ways they felt would improve their learning. After receiving parental consent, they were also given permission to take the devices home. Students experience of using the devices at home and in school was extremely positive. They students liked having them and were finding ways to use them creatively in lessons to record and organise their learning, to research and extend subjects covered in lessons. This was done independently of what the class teacher had planned for the group. However, there were issues around connectivity, in particular with the Apple products, which limited their usefulness in lessons during the pre-trial.











We used Meraki's free Mobile Device Management solution on all our trial devices, so that all the devices were password protected, age restricted, and were location tracked. In terms of security, none of the e-Ambassadors experienced any issues around personal safety. There was one attempted theft of a device, when a student had not followed our guidance of handing the device over to staff during PE lessons, and it had been removed from his unattended bag. However, staff later recovered the device which had been hidden in a shower cubicle and it was returned to the student.





The only other issue with the pre-trial involved the ipod touch, which was "bricked" when a student attempted to install an operating system update. After some research, the device was eventually successfully reflashed by our technicians.

At the end of the pre-trial, we reviewed their experiences in terms of what they liked and disliked about each device. In terms of size, the 7-inch mini-tablet format was extremely popular with students, with the Google Nexus 7 and the iPad mini being the most favoured devices. These devices are roughly the same size as one of their exercise books, and so fitted nicely in their school bags. They were able to have it out on their desks without it taking up too much room, and they could hold it in one hand and type with the other making it very portable.

Opinion amongst both staff and students was very divided over the best operating system, with some favouring the flexibility of Android and others preferring the simplicity of Apple's iOS. When comparing App Markets, it was noticed by students that many apps are "free" in Google Play but are "paid" in the iOS AppStore. However, it seems that there are more apps available in the AppStore specifically aimed at education.

From the feedback generated by the pre-trial, we were very keen on the 7-inch mini tablet format, but were still undecided about which device. We analysed the benefits of Android vs iOS in terms of the device and how it fit into the wider BSF ICT solution, and the key points are indicated below. Whilst both offered clear benefits, it was decided on balance to go with Apple's iPad-Mini.

	 iOS 6	 ANDROID 4.2
Costs	iPad-mini - £222 Apple TV - £82 	Google Nexus 7 - £140 Netgear Neo TV - £50 
Mirroring	"Airplay mirroring" works well and supported on iPad, iPad-mini and macbook. 	"Miracast" in development, but not yet widely available or supported. Some doubts whether Nexus 7 will be miracast-compliant. 
Media Streaming	Apple TV can only stream .mp4 files from an itunes library using the same AppleID. An AppleID can be shared with a maximum of 5 devices. 	Netgear Neo TV Pro can stream pretty much any media file type from any network share, USB stick or hard drive, memory card, media server on the Internet. 
Compatibility and integration	Apple is notoriously proprietary, often ignoring well established standards and protocols. However, what it does do very well is to ensure all its own devices work flawlessly with each other. Integrating Apple devices with other systems like Windows and Android is a big headache. But if everything is Apple, it should all work very smoothly. 	The vast number of manufacturers and developers making android devices results in a rich variety of devices and functionality. However, compatibility between different android devices can be problematic, and needs to be tested to ensure it will work as expected. OS updates are not always available or rolled out to all android devices at the same time, or at all, so many will be running different iterations of the OS. 
Apps Store	There are 4 times as many developers working on apps for Apple devices than for	Despite Android devices having a larger market share of mobile devices, there are actually fewer

	<p>Android. Why? Apple users are locked in to their appstore, with credit card numbers on file. Studies have also shown that for some reason, Appstore users are far more willing to pay for apps than android users.</p> <p>The result is that there are currently many more educational apps available for iPads than for android tablets.</p>	<p>apps in Google Play than in the App store.</p> <p>However, where the same apps do exist in both stores, they are much more likely to be free (or ad supported) in the android version, thanks mainly to Google's AdSense.</p>
Device Management	<p>Northgate have experience of managing iPads, and there is free device management and app deployment software available for them . It is definitely their preferred solution.</p> 	<p>There is commercial Mobile Device Management (MDM) solutions available for Android devices, but Northgate have no experience of working with it.</p> 
Ease of use	<p>Apple's iOS has wide appeal, and is especially appreciated by people who like things to "just work". According to a survey conducted at the end of last term, two-thirds of our staff who own a smartphone have an iPhone, much higher than the national average. Its locked-down OS may frustrate some, but provides a very uniform look and feel.</p> 	<p>Android is a more open system and much more customisable. If something isn't to your liking, you can usually find something to replace it with. This can make it a little disorientating for some, as no two devices will look the same.</p> 

Applications to be the group to run the Pilot

It was decided to select the pilot group from amongst our current year 7 students. There were a number of reasons for this:

- It has a significantly smaller cohort than other year groups and tutor group sizes are also smaller. This meant it would be cheaper to run the pilot in this year group.
- We felt that younger students would find the organisational challenges presented by the pilot most difficult, and so getting the pilot running successfully within this group would give us some confidence that we would be able to run it in all year groups.
- In our engagements with students at assemblies and tutor times, year 7 consistently showed the most interest in the devices and the vision behind the pilot scheme.

The iPad-mini trial was announced in year 7 assembly, and tutor groups were given 2 weeks to develop and submit their bid. The format of their bids was left open, other than the specification that it needed to be in digital form.

Selection of the Tutor group

We received bids from all tutor groups. These varied widely in quality and form, and were judged by Steff Cook, Achievement Coordinator for Year 7, and John Andrews, Deputy Head.

The runner up bid was a very comical video scripted and performed by several members of the tutor group. It included a number of sketches where iPad-minis were used successfully (or not so successfully) in teaching and learning activities across various subjects. It was an extremely creative entry and the class were awarded a consolation pizza lunch from the school as a reward for the effort they had put into it.

The winning bid was less elaborate, and consisted of a short written piece by each member of the form where they gave their personal thoughts on why they thought their tutor group should be chosen. This appealed to the judges because every single member of the tutor group had contributed towards the bid, rather than just a creative few, and they felt this demonstrated both the collective spirit and the individual commitment of each of the members of 7ABT.

Identify and timetable key staff onto pilot group lessons

Whilst the tutor group was being identified, our New Technology Champions were identifying staff from their faculties whom they felt would personally enjoy the challenge and opportunity to work with 8ABT on this project. In subjects where students are taught in sets rather than in tutor groups, we looked for groups of teachers who could collaborate well and work together on the project. In many faculties, the staff member identified has been the New Technology Champions themselves.

A list was drawn up and this was forwarded to our senior teacher responsible for drafting the school timetable. Timetabling is always a battle of conflicting priorities, and it is not always possible to get what you want. However, scheduling our agreed list of teachers onto 8ABT was given a high priority and so we managed to get our first choice of teacher onto the group in nearly all cases.

Each faculty has been issued with an iPad or iPad-Mini purchased from the College's own funds to help the staff involved familiarise themselves with the devices and to start to plan lessons and resources.

Parental Consultation

On 2nd July, parents of 7ABT were invited to College for a briefing session, outlining the pilot. The format was as follows:

- Welcome, Big Picture/Vision –BYOD - *John Andrews, Deputy Head*
- 8ABT iPad mini trial details - *Tony Tompkins, College Leader-New Technology*
- T&L Demonstration - *Lucy Atkins, Leicester City Council*
- e-Ambassadors trial findings - *Hanesh & Dilraj, Students*
- AUP, progress, behaviour, consequences - *Steff Cook, Achievement Coordinator*
- Parents Q&A – *All*

We outlined the vision of achieving a 1-to-1 device student ratio by means of a leasing scheme and explained that 7ABT had bid for and won the privilege of being our first class to trial this new way of working. We showed a video “[Apple in Education – Essa Academy](#)” so that parents could get a view of what a 1-to-1 school could look like.

The timetable for the trial was outlined and it was explained that for the trial only, devices will be bought and given to the students, funded by a LCC New Technologies grant. We explained that to help instil a sense of shared ownership and responsibility, we are asking a deposit from our parents, fully refundable when the device was returned at the end of the trial.

When setting the deposit amount, we had wanted to set it high enough so that parents felt they held a significant investment in the device, but not so prohibitively high that some were unable to pay and therefore wouldn't want to be part of the trial. We compromised at £40, and parents indicated on the evening that this was fair and reasonable.

We laid out our expectations for students in terms of bringing the device each day fully charged, to take good care of it, and to use it responsibly around the school. We also explained our expectations of parents in supporting the project in terms of setting boundaries and monitoring use at home. To assist parents with this task, we explained we would be organising a training session for parents in November, to demonstrate how they can monitor their child's activity and ensure that the Mobile Device Management (MDM) restrictions remain in place. We asked parents that, where possible, the devices were added to their home insurance policy.

The Achievement Coordinator (head of year) for the year group explained how we would be monitoring the impact on student progress throughout the duration of the trial, and that our expectation was that it would produce a very positive effect. We would be encouraging creative and innovative uses of the devices by the students by offering regular rewards for good work using the device. However, there would be consequences around not bringing in the device just as with other essential school equipment, and also in terms of using the devices sensibly around school.

Finally two of our e-Ambassadors spoke about their experiences over the past year using a device in school and at home. Hanesh (yr11) spoke of how it had positively impacted on his learning, helping him organise himself and to research topics. Dilraj (yr7) told of how she had been nervous at first about security issues when carrying the device around school and to and from home, but in fact there had been no issues like this and she had really enjoyed the experience.

Parents and students were then given the opportunity to ask questions. For the students these mostly revolved around what they could and couldn't do with the device in terms of personal

use. Parents were more interested in security issues, what would happen after the trial finished, and how much time was appropriate for children to be using devices at home.

The general feeling from parents was extremely positive, and we were very pleased at how the meeting had gone.

7ABT New Technology Survey

During the parents consultation evening, parents were also asked to complete a short questionnaire on New Technology in their homes, their personal skills in this area, and their ability to offer support to their children.

All but one student has access to broadband and a wifi router in their home. The majority (61%) said their broadband was fast (20+ Mb/s).

Every household had either a laptop, a PC or a tablet already in the home, and 77% said they had both a laptop/pc and a tablet. 92% of students had a Windows based machine in their home, 15% a mac-based machine. Of the 92% of households who said they owned a tablet, half were android-based and half were iOS.

Parents estimated that their child currently spent on average of 3.5 hours a day on a device – either a PC, laptop, tablet, smartphone or games console. The profile of how this time was spread over various devices differed considerably from student to student.

Most parents felt that they had reasonable ICT skills and could offer some support to their child in this area. However, there was a noticeable lack of confidence in some parents around monitoring or blocking internet use.

Some issues to address following the survey will be:

- to consider how we can enable full participation in the project for the student who currently has no internet connection at home.
- to put some training in place for parents so that they feel confident in their ability to monitor the child's internet use in the home.
- to consider how the project affects the students overall "screen-time" at home.

Acceptable Use policy and e-safety guidelines

We have gathered exemplar policies and guidelines from various institutions and have been formulating our own version. However, this is still work in progress and is not yet finalised or ratified. We aim to have this in place by the end of September.

Useful Apps List

From our work with our student e-ambassadors, our New Technology Champions and other interested staff, we have formulated a list of apps that will be pre-installed on our school ipads. There are still some question-marks concerning some of the identified apps. However, I have appended the list in its current state, and this will be refined in the coming weeks. The final list will be included in the next interim report.

Next Steps

The next steps of this project are:

- To finalise the Acceptable Use Policy and e-safety guidelines documentation
- To purchase the devices
- To pre-install agreed apps
- Issue devices to students
- To train students in the basics of using the device, installing apps, etc
- To train parents in how to best monitor the devices in home use.
- To start encouraging staff and students to engage with the devices in the classroom.

Appendices

Related documents:

- [Devices: Comments & Feedback.pdf](#)
- [iPad mini bid – 7ABT.pdf](#)
- [iPad mini bid – 7AEF.wmv](#)
- [7ABT – Letter to parents.pdf](#)
- [iPad mini Trial – Presentation to parents.pdf](#)
- [7ABT New Technology Survey.pdf](#)
- [Apps list Master](#)