Governance, Risk and Best Value Committee

10.00, Tuesday, 31 October 2017

ICT in schools - update

Item number	7.7
Report number	
Executive/routine	
Wards	
Council Commitments	

Executive Summary

This report provides Committee with an update to the questions raised at its meeting of the 29 August 2017 about ICT in schools.

Report

ICT in schools - update

1. Recommendations

1.1. To note the contents of this report.

1.2. To note that a further report on ICT in schools will be brought to Committee in January 2018.

2. Background

2.1. A report on the Status of the ICT programme was presented to Committee on the 29 August 2017 and provided details of the programme of works within ICT and the current service delivered by the Council's ICT partner, CGI, together with options available to the Council regarding contractual remedies.

2.2. Committee requested a report on:

a) How the decision was taken to enable pupils attending James Gillespie's High School to bring their own IT devices rather than Council devices.

b) What advice James Gillespie's High School were given by the directorate on the implications of their decision.

c) Further information of other schools within the City who were in the same situation and their experiences.

d) Possible solutions to the issue raised by the deputation on the lack of wi-fi at the High School and related timescales.

3. Main report

How the decision was taken to enable pupils attending James Gillespie's High School to bring their own IT devices rather than Council devices.

3.1. While this is the aim of James Gillespie's High School (JGHS) senior management team, no such decision has actually been taken.

What advice James Gillespie's High School were given by the directorate on the implications of their decision.

3.2 Please see attached position paper (appendix 1) written in February 2015 containing points and recommendations which are still relevant today. In addition to the points raised it should be noted that the national and local stance on 'poverty-proofing the school day' by ensuring there are no on-costs for pupils is

heightened. The Education Authority Improvement Plan contains this as a specific target (Section 1: Reducing Inequalities: 1.3). The position posited by JGHS, however, is that as most of their young people could access a personal device it would have been a waste of the education budget to buy school devices. Further, they feel that the guidance at the time did not preclude them from investigating this option.

Further information of other schools within the City who were in the same situation and their experiences.

3.3 There are presently 20,500 school iPads in use across the City of Edinburgh Council Schools.

3.4 Of the twenty two other High Schools, sixteen have invested in at least one pupil year group of 1 to 1 iPads and a further two are actively considering this. Seven of the High Schools' have at least 3 year groups that adopted 1 to 1 devices. In common with many other schools, JGHS have invested in iPads for staff after full consultation with the Council Digital Strategy Team and to support Learning and Teaching.

3.5 An opportunity was made in 2013 where schools were offered 50% funding on any year group launching 1 to 1 supplied centrally. Further funding has subsequently come from schools' devolved budgets, which is at the discretion of the headteacher to manage. The decisions that headteachers take in regard to their budgets must cover many aspects, such as staffing and the development of learning and teaching. IT may or may not figure depending on other school priorities though there is an expectation that digital skills are used to support learning and teaching.

Possible solutions to the issue raised by the deputation on the lack of wi-fi at the High School and related timescales.

3.6 The lack of Wi-Fi at the School is not the issue. JGHS have access to Wi-Fi throughout the school, with similar access point numbers to some of the High Schools who have a 1 to 1 policy in place. Currently pupils cannot access Wi-Fi, however permitting Public Internet Wi-Fi is technically possible, and was recently made available to enable visitors and pupils to take part in a 'Model United Nation' event. To enable this to be in place permanently the Council position needs to be reconsidered. A Short Life Working Group has been convened and remitted to review the Council position. The group will report within three months (by January 2018).

3.7 ICT Solutions are assisting taking forward ICT Strategy for the school and will help shape this as well as inform the potential increase of bandwidth and segregation requirements this would require.

3.8 Please note that currently within schools there is a single infrastructure which delivers Learning and Teaching Wi-Fi. This is a closed network and is used for those requiring access to secure/ approved council applications on council owned devices. This infrastructure is capable of delivering segregated access that could include Bring Your Own Device (BYOD) connections however this requires additional security and also each device would require to register to the Council's

Managed Device Network. Registration restricts the applications that can be downloaded to an individual's phone. Public Internet access is also technically possible and if switched on would be open to all: the user would need to register, however restriction to what users access would be difficult to monitor. Further, the implementation of the new EU legal framework: GDPR (General Data Protection Regulation) will require focused actions to ensure compliance with data sharing and data protection. In light of these new rules, public internet access may need to be even more carefully scrutinised to ensure there are no breaches of data protection.

3.9 Councils across Scotland are currently all facing similar issues and are making decisions based on local context. Scottish Borders have recently allowed all senior (S5-S6) pupils to use public WiFi in schools. Glasgow City, which is proactive in 'poverty-proofing the school day' has committed to providing devices for learners. The SLWG will try to gather as many examples nationally to inform its conclusions. These will be reported back in January.

4. Measures of success

4.1. Our learners will have the appropriate learning tools at their disposal; no child will be excluded from learning; and Headteachers will be supported to make the decisions in regard to IT that best suit the needs of their school population.

5. Financial impact

5.1. There are no financial impacts arising from this report.

6. Risk, policy, compliance and governance impact

6.1. EU legal framework: GDPR (General Data Protection Regulation) will require focused actions to ensure compliance with data sharing and data protection.

7. Equalities impact

7.1. The decisions outlined in the next report will specify any negative impact in relation to protected characteristics or vulnerable groups.

8. Sustainability impact

8.1. Decisions associated with the report will be 'future-proofed' to ensure sustainability is considered.

9. Consultation and engagement

9.1. The group will consult with wider groups of Headteachers while in draft form.

10. Background reading/external references

10.1. Status of the ICT programme 29 August 2017

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11. Appendices

1. BYOD Position Statement 2015

Bring Your Own Device (BYOD) discussion

General proposal

Allow secondary pupils to bring a personally-owned ICT device (which meets an agreed minimum specification) into school and allow this device to be connected to the school's wireless network so that it can be used in the classroom to support learning & teaching.

Background

While schools continue to provide some access to ICT for pupils using computer labs, the council's ongoing strategy for the development of ICT for learning is outlined in our 'Developing 1:1 Digital Learning' position paper, which states the following two key objectives:

- ICT is routinely and effectively embedded in all aspects of learning and teaching
- All learners have personal access to ICT whenever and wherever it benefits learning

Our approach to meeting these objectives so far has been to encourage schools to purchase a device (currently iPad) for pupils, on a 1:1 basis in secondary schools (implementing one year group at a time), and on a 1:N model for primary classrooms, but working towards 1:1 where appropriate (eg in P5-7), following the Digital Learning Team's 1:1 Toolkit.

By providing all pupils in a cohort with access to the same device and the same core set of immersive software tools, we can:

- **ensure inclusion and equality** for all learners.
- **support pedagogical transformation** by allowing teachers to fully embed ICT into learning and start to really redesign the learning & teaching process.

The effective implementation of 1:1 undoubtedly presents schools with new challenges to overcome, but the better each school has followed our 1:1 Toolkit to help overcome these challenges the more successful their 1;1 project has been. These include:

- Direct **senior leadership** of 1:1 and a strong ICT working group
- Significant in-house **professional development** for staff ahead of launch
- Robust **digital safety** curriculum in place
- Clear **policies and procedures** at the outset and for day to day issues
- Good **engagement with parents and pupils** prior to launch
- Appropriate levels of **technical support** for device setup, maintenance and monitoring
- Cost of buying and replacing devices

Considering BYOD

In principle, if BYOD is to be considered it must be delivered in as equitable and inclusive a manner as possible, so 1:1 (ie a device for every pupil in a cohort) must still be achieved. This would mean a school would need to be prepared to provide all pupils who do not have their own device (which meets a specified minimum standard) with a school-owned one.

Beyond that, in order to implement a genuinely effective approach to BYOD, all the above 1:1 challenges (other than cost) would still need to be addressed by the school, and some significant additional challenges also emerge.

Inclusion	
A wide range of ICT devices of varying types appearing in school further emphasises socioeconomic differences between pupils.	We either need to accept this or we specify single platform. ie you can only bring your own device if it is an iPad.
Pedagogy	
A wide range of devices will make L&T integration more difficult, and also present teachers with greater classroom management challenges. There is a danger that this actually weakens pedagogy and teacher confidence.	Again, we could specify single platform. Alternatively, there would need to be a significantly higher level of teacher professional development prior to launch.
Device safety	
Parents may be uncomfortable allowing expensive equipment into school that the school could not take responsibility for.	If we say this is at parents' own risk, then we cannot realistically achieve 1:1, so we have inequality and we weaken pedagogical impact significantly. One approach may be to only implement in senior school where we can rely on greater personal responsibility. We'd need a carefully worded Home School Agreement for parents and pupils to sign.
Inequality across schools	
While BYOD may be achievable for schools in our more affluent areas where personal device ownership is high, a policy that effectively discriminates against schools in areas of lower socio-economic status could be deemed unfair.	We either need to accept this, or we allocate additional funding to other schools to compensate.
Technical considerations	
Schools have no control over personally owned devices in terms of inappropriate software/malware, so they could have an unduly negative effect on the school's or city's network/bandwidth.	Limited bandwidth and lack of bandwidth segregation (between traffic from BT machines and traffic from wireless) means we'd need to restrict this to a few single year group pilots, at least until after ICT Procurement in March 2016.

Next Steps

Longer term, BYOD may well be our pragmatic solution for enabling 1:1 for some pupils, but it is difficult to do well and will take significant planning and preparation to get right at this time. (In many ways, the best way to prepare staff for BYOD is to run a school-provided 1:1 project first).

If we are to proceed with this now, next steps could be:

- Engage with council/SLT to determine political appetite for this approach
- SLWG decide on specifics of BYOD approach
- Decide on 1 or 2 focused pilots (single year groups only)
- Pilots begin working through 1:1 Toolkit (+ additional challenges above) to help plan and prepare for pilot launch
- Digital Learning Team audit pilots on state of readiness (as per all 1:1 implementations).

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