Inverclyde council

Report To:	**Education & Communities Committee**	**Date:**	**05 May 2015**
Report By:	**Patricia Cassidy, Corporate Director Education, Communities & Organisational Development**	**Report No:**	**EDUCOM/45/15/GM**
Contact Officer:	**Gordon Manson, Quality Improvement Officer**	**Contact No:**	**(01475) 712803**
Subject:	**Use of Hand Held and Mobile Devices in Schools**		

1.0 PURPOSE

1.1 The purpose of this report is to advise Committee of the findings of the pilot programme for the use of personal mobile and hand held ICT devices in Clydeview Academy.

2.0 SUMMARY

2.1 Society's use of ICT equipment has changed, with mobile devices rapidly taking the place of desktop and laptop computers. Whilst there are no specific statistics available to demonstrate the level of ownership of hand held devices by Inverclyde pupils, data gathered as part of the Inverclyde Child and Youth Health and Wellbeing Survey 2013, suggests that the majority of our secondary school pupils have access to a Smartphone. 63.8% of secondary pupils in Inverclyde, who completed the survey, indicated that they make use of Snapchat, a Smartphone app for social networking. Considering that not every pupil with a Smartphone will use Snapchat, the level of ownership or access to a Smartphone for secondary age pupils in Inverclyde is estimated to be in excess of 64 %. This would be close to the UK figure for the ownership of Smartphones for the same age group, which is 81%.

2.2 Both the private and public sectors have responded to the increased ownership and use of Smartphones by tailoring some of their services to meet the demands of those who wish to access them from their mobile devices. An increasing number of businesses and local authorities are also providing free Wi-Fi access for their customers. Whilst these developments are taking place in the wider community, our own Standard Circular 9.5 takes a contrary approach by directing that mobile devices must not be used in school and must remain switched off throughout the school day.

2.3 Curriculum for Excellence (CfE) has brought a change to teaching and learning in our schools. Personalisation and choice is a cornerstone of CfE, where pupils are encouraged to lead their own learning and to tackle activities in ways that suit their interests and needs. The use of personal hand held devices, which are now ubiquitous in the lives of teenagers, helps to support personalisation and choice, as well as promoting creativity, with pupils making use of their own familiar software and equipment to work in a way that meets their needs. Access to personal devices also encourages pupils to build links between school and everyday life, bridging formal and informal learning contexts.

2.4 It is felt that our current service for accessing the Internet in our education establishments does not support this change in culture, both in terms of ICT and pedagogy. To provide pupils with a similar access to the Internet as they experience outwith school, and to provide greater opportunity for pupils to enhance their creativity, it was felt that we should explore the practicality of providing teachers and pupils with access to the Internet, via the education network, using their own devices. It was decided to run a Bring Your Own Device (BYOD) pilot at Clydeview Academy. The aim of this pilot is to explore the effectiveness of personal devices in supporting teaching and learning, as well as to

examine whether our existing IT network could cope with the demand from an increased number of devices.

2.5   The pilot ran from September 2013 until the end of February 2014. Access to the BYOD pilot was limited to staff and pupils in S5 and S6. During the course of the trial an increasing number of pupils and staff signed up for a BYOD account. The number of teachers making use of the facility with their classes also increased, as more staff developed a greater appreciation of the value that hand held devices have to offer in promoting personalisation and choice. The network infrastructure was able to cope with the increased use.

2.6   Concerns raised by staff about the potential misuse of mobile devices were unrealised. In the view of the SMT of Clydeview Academy, the pilot has proved to be a success and they would welcome the opportunity to retain this facility and to offer access to the other pupils in the school. The pilot has demonstrated the potential for this facility to enhance the quality of education for our young people in Inverclyde. The initiative has provided staff and pupils with quicker and more convenient access to the Internet and enhanced the personal study experience for senior pupils.

3.0   RECOMMENDATIONS

3.1   That the Committee note the results of the Clydeview BYOD pilot.

3.2   That the Committee agree
    i.   in principle to the roll out of the BYOD facility to all schools in Inverclyde and instruct that this is made available to secondary schools in the first instance and
    ii.   to request officers to report back to a future Committee on the financial implications of rolling out to primary, schools..

3.3   That Standard Circular 9.5 be rescinded, with the issue of the misuse of mobile devices being addressed within each establishment's behaviour policy and BYOD agreement.

Patricia Cassidy
Corporate Director
Education, Communities & Organisational Development

4.0 BACKGROUND

4.1 The Clydeview BYOD pilot began in September 2013. In preparation for the trial IT created a map of the existing Wi-Fi network which identified the reach of the wireless network within the school. The installation of a few additional access devices ensured complete Wi-Fi coverage throughout the school.

4.2 Before the trial commenced, the school community had to revisit its policy on the use of mobile telephones within the school. During consultations, staff and pupils expressed concern that incidences of "cyberbullying" may increase if pupils were permitted to use their mobile telephones in school. Staff were also concerned that pupils would make inappropriate use of mobile devices in class, if they were allowed to bring their devices into school. Following these discussions the school produced its own BYOD agreement which pupils had to sign before they could gain access to the education network using their own devices.

4.3 BYOD access to the Internet was provided for all 78 teaching staff and was offered to all 349 pupils in S5 (197) and S6 (152). Initial interest in the scheme from senior students was slightly mixed. S6 pupils, who have more class non-contact time, were keen to sign up to access the Internet, with 87 (57%) of them applying for an account. The S5 pupils were slower to sign up for accounts as they had a limited amount of class non-contact time and, initially, their teachers were not providing them with the opportunity to use their devices in class. However, as the pilot progressed, teachers began making more use of the mobile devices during their lessons which caused more pupils to apply for a BYOD account. By the end of the trial period 42 (21%) S5 pupils had signed up for BYOD accounts. Whilst this is considered lower than what would be expected, it is envisaged that this number will continue to rise as staff make more use of the devices in their lessons.

4.4 The main use of the mobile devices during the trial has been the completion of personal coursework projects and Internet research. In some subject areas, where access to technology has been more limited, the use of mobile technology has been most helpful. Examples of uses are: History research for Higher course assignment; seeking designs for the Creative Cake course tasks; identifying examples of the work of particular Artists for the Higher Art portfolio; researching information for the planning of an Advanced Higher French trip to Paris. These are just a few of the ways that mobile devices have been used in class where desktop devices have not been available. Even in departments where students have access to computers, personal devices are still found to be of value. For example, in a Business Studies class the lesson was paper based and pupils had not switched on the computers. The class found that they needed some additional information but instead of taking time to switch on the computers to access the Internet they accessed the information via their own devices, taking a fraction of the time compared to using the desktops.

4.5 As the pilot progressed, S6 pupils were observed to be making greater use of their own mobile devices to write up major pieces of work as they moved closer to SQA deadlines. Throughout the Easter holidays senior students were observed working with their own devices in school, attending supported study classes and, in some cases, just seeking a quiet area to study whilst connected to the Internet.

4.6 At the end of the trial period the school issued a questionnaire to staff and senior pupils to ask them about their experience of the BYOD trial. 18 teachers and 20 pupils completed the survey. 92% of the staff who responded indicated that they had allowed senior pupils to make use of their mobile devices in class. 14% stated that they permitted access during all of their lessons and 57% indicated that they had permitted their use once or twice. A number of staff indicated that the design of the new National 4 and National 5 courses involves much more project and assignment tasks and they felt that the access to online resources and research will become even more important in the future. Some teachers felt that there could be a need to extend the access to the Wi-Fi network to S3 – S6 students. Of the senior pupils who completed the survey, 50% of them reported that they used their own devices to access the Internet in school on a daily basis.

4.7 Pupils in S1 to S4 (674) were also invited to complete a survey about the BYOD trial. 50 (7%)

pupils took part in the survey, with 98% of them saying that they would like to have access to the BYOD facility.

4.8 Although the take up of the BYOD accounts is lower than initially expected, it is envisaged that more pupils will sign up for the programme as teachers become more comfortable with having pupils using their own devices in their classrooms and as they experience the benefits, both in terms of quicker access to information and increased creativity.

4.9 A common concern expressed whenever the BYOD facility is discussed within an education context is cyberbullying. As part of the Clydeview BYOD agreement that pupils signed before they were provided with access, the issue of cyberbullying is specifically mentioned and it is made clear that the BYOD facility could be withdrawn from any pupil who makes use of the facility to bully others. Cyberbullying also forms part of the Health and Wellbeing programme in school, with pupils learning about the harm that such behaviour causes and the implications for anyone who takes part in such activities. Like any form of bullying, cyberbullying will be dealt with under the schools own anti-bullying and behaviour policies. Should the BYOD programme be extended, this approach will be mirrored in the other schools.

4.10 During the life of the pilot there has been no reported incident of the misuse of mobile devices in the school. The SMT report that, following the relaxing of the rules regarding the use of mobile devices, intervals and lunchtimes have become more relaxed as pupils make use of their various digital devices to read, listen to music and communicate with family and friends: basically mirroring their activities outwith school.

4.11 The education network has been able to cope with the additional devices connected to it, with no adverse impact in service being linked to the increased demand. IT is of the opinion that the system can support the expected additional demand from mobile devices, within the secondary sector, without any additional investment.

5.0 PROPOSALS

5.1 To get agreement in principle to the roll out of the BYOD facility to all education establishments in Inverclyde,

To extend this to secondary schools in the first instance and to identify the costs of further roll out and report back to a future committee.

6.0 IMPLICATIONS

Finance

6.1 In order to expand the BYOD initiative in its current form into other secondary schools, no additional expenditure would be required, as the wireless infrastructure has been extensively upgraded in the relevant learning areas.

Financial Implications – One off Costs

Cost Centre	Budget Heading	Budget Year	Proposed Spend this Report	Virement From	Other Comments

Financial Implications – Annually Recurring Costs/ (Savings)

Cost Centre	Budget Heading	Budget Year	Proposed Spend this Report	Virement From	Other Comments

6.2 Whilst the current focus of the BYOD initiative is on secondary schools it is expected that there will be limited interest, initially, from primary schools. The demand from the primary sector will be met from existing resources over the next three to five years.

6.3 As an indication of possible future costs for the primary sector; to upgrade all primary schools to provide wireless coverage throughout would require an investment of £104,806, with an annual maintenance cost of £3335. Four primary schools have no wireless access at present and the other 16 establishments have varying degrees of coverage. (Further details can be found at Annexure A) However, as indicated in the preceding paragraph, it is not envisaged that complete wireless coverage will be required within the primary estate during the foreseeable future, with demand, initially, being confined to the upper school. A report will be brought back to for Committee to consider the financial implications of making this available to primary schools in future.

7.0 Legal

7.1 There are no legal implications.

8.0 Human Resources

8.1 There are no human resources implications.

9.0 Equalities

9.1 An Equality Impact Analysis has been produced.

9.2 When BYOD programmes are discussed the issue of digital exclusion is often raised, with concerns expressed that pupils from less affluent households may not own such equipment and thereby feel excluded from some activities. Figures presented by Ofcom[1], looking at the situation in the United Kingdom, put the ownership of Smartphones in the 12-15 age bracket at 62%, with the ownership of tablet devices at 26% and increasing for the same age range.

9.3 In another study, also conducted in 2013 but covering a wider age group, it was found that 81% of 12 to 17 year olds in the United Kingdom owned a Smartphone.[2] This study estimated that this figure would reach 96% by 2017.

9.4 As mentioned at paragraph 2.1, it is estimated that in excess of 64% of our secondary age pupils have access to a Smartphone, providing sufficient numbers to support effective shared working.

9.5 Within the class setting no pupil will miss out on any activity should they not own, or have access to, a personal Smartphone or tablet. The collaborative nature of Curriculum for Excellence promotes pair or group working, where one Smartphone/Tablet per group will

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[1] "Children and Parents: Media Use and Attitudes Report" Ofcom October 2013
[2] "UK Mobile Users: 2013 Forecast and Comparative estimates" eMarketer June 2013

suffice. On the occasions where a 1:1 ratio is required, pupils who do not own a Smartphone or tablet will be able to call on the resources of the school; as happens at present with calculators.

10.0 Repopulation

10.1 The introduction of a BYOD facility in our schools will demonstrate that Inverclyde is a progressive local authority that can respond quickly to advances in technology. Whilst other local authorities are still exploring the introduction of BYOD, being the first to implement it would be a positive message to present to prospective residents, reinforcing the view that Inverclyde is the best place to raise their family.

11.0 BACKGROUND PAPERS

11.1 None.

Extension of Wireless LAN in Inverclyde Primary Schools

Number of access points required to provide complete wireless coverage in each primary school.

Site Name	Existing Access Points	Additional Access Points Required
Aileymill	13	6
All Saints	10	9
Ardgowan	11	3
Gourock	10	3
Inverkip	2	18
Kilmacolm	2	7
Kings Oak	0	20
Lady Alice	0	20
Moorfoot	6	13
Newark	18	3
St Andrews	5	11
St Francis	0	20
St Johns	0	20
St Josephs	7	6
St Marys	1	15
St Michaels	8	10
St Ninian's	10	9
St Patricks	10	5
Wemyss Bay	5	8
Whinhill	9	9

Indicative License and Hardware Pricing

Core Infrastructure	PPU	Qty	Total	Annual Maintenance
Prime Infrastructure upgrade to version 2.1.1	£9434	1	£9434	£2303
Prime Infrastructure additional 100 Device Licence	£6792	1	£6792	£1132
Wireless LAN Controller Upgrade	FOC		FOC	
Hardware				
CISCO CAP 3602 Access Point	£412	215	£88580	
Total			**£104806**	**£3335**

Inverclyde Council Equality Analysis Toolkit

This toolkit aims to assist the process of carrying out analysis of the effects on equality of the policies, plans, strategies and programmes of Inverclyde Council. It sets out what services require to do in order to embed equality analysis into processes, and to ensure the Council meets it's legislative requirements in regard to the Equality Act 2010.

This toolkit should be completed using the Equality Analysis Toolkit Guidance which provides further detail and information to assist in the process.

Policy Profile

1	**Name of the policy, plan, strategy or programme**	Use of Hand Held Mobile Devices
2	**Responsible organisations/Lead Service**	Education, Communities and Organisational Development
3	**Lead Officer**	Gordon Manson
4	**Partners/other services involved in the development of this policy**	None
5	**Is this policy:**	New √ Reviewed/Revised □
6	**What is the purpose of the policy? (include any new legislation which prompted the policy or changes to the policy)**	To provide pupils and staff with access to the Internet via the Education Network when using their own handheld digital devices.
7	**What are the intended outcomes of the policy?**	To promote personalisation and choice in the delivery of the curriculum.
8	**What is the period covered by the policy?**	Ongoing.
9	**Target geographical area**	Inverclyde
10	**Which parts of the Equality Duty is the policy relevant to?**	□ Eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Equality Act 2010 √ Advance equality of opportunity between people from different groups √ Foster good relations between people from different groups

Which of the protected characteristics will the policy have an impact upon? (see guidance for examples of key considerations under each characteristic)				
Protected Characteristic	Positive Impact +	Neutral Impact =	Negative Impact -	Cross cutting theme
Age	+			
Disability	+			
Gender Reassignment		=		
Pregnancy and maternity		=		
Race		=		
Religion or Belief	+			
Sex	+			
Sexual Orientation		=		
Other groups to consider		=		

What evidence do you have to help identify any potential impacts of the policy? (Evidence could include: consultations, surveys, focus groups, interviews, projects, user feedback, complaints, officer knowledge and experience, equalities monitoring data, publications, research, reports, local, national groups.)	
Evidence	**Details**
Consultation/Engagement (including any carried out while developing the policy)	A pupil and staff consultation exercise was carried out at Clydeview Academy before the pilot started and at the end of the trial period. Before the trial commenced, pupils and staff expressed concern that the devices would be used to bully others. There was also a concern expressed that pupils without such digital devices will be at a disadvantage. The feedback received during the course of the pilot demonstrated that these concerns were not realised. There were no reports of devices being used for bullying during the course of the trial. There were no issues arising from inequality of access to devices. Laptops were available for pupils who did not have personal devices. The nature of the activities that took place was mainly partner/group work where shared devices were sufficient.
Research	- UNESCO Working Paper: Turning On Mobile Learning. - Bring Your Own Devices: A Guide for Schools (Alberta Government) - Guidance on Developing Policies to Promote the Safe and Responsible Use of Mobile Technology in Schools (Scottish Government) - Children and Parents: Media Use and Attitudes Report (Ofcom) - iPad Scotland Final Evaluation Report (University of Hull)
Officer's knowledge and experience (inc feedback from frontline staff).	The lead officer has undertaken extensive research into BYOD trials that have taken place in Scotland and beyond. From this research it is noted that any issue of equality has centred on economic factors, with concern being raised about the effect that the initiative will have on pupils who do not have access to

	personal digital devices. Schools will be able to address this issue by having their own stock of devices that they can hand out as required.
Equalities monitoring data.	To date, no specific equalities monitoring has been undertaken.
User feedback(inc complaints)	Comments from pupils and parents prior to the start of the Clydeview pilot were positive. Comments from some members of staff were not so positive, in parts, as they were concerned about the possible negative impact on behaviour. Feedback from pupils and staff at Clydeview Academy, at the end of the trial, was unanimously positive. Parents from a neighbouring secondary school have heard about the pilot and are keen to have the facility introduced to their school.
Stakeholders Other	See above for consultation with stakeholders.
What information gaps are there?	

What are the actual or likely effects of the policy, in relation to the three aims of the equality duty and the protected groups? (list both positive and negative)

This initiative will have a positive impact on the promotion of the three aims of the equality duty. It will enhance positive communication between all groups, through the modelling of good Internet practice by schools and by the efficient sharing of information.

The initiative will have a positive impact on teenage pupils who will be provided with the opportunity to use digital equipment and software that they are familiar with, allowing them to lead their learning rather than be led by teachers.

It is also believed that the initiative will have a positive impact on male pupils who are more likely to become fully engaged in activities.

Disabled pupils and staff will no longer stand out as being different when they have to use digital equipment in school. The use of personal hand held devices will now be seen as the norm rather than being seen as a tool for those who are experiencing difficulty accessing learning or work.

What steps will you take in response to the findings of your analysis?

Schools who wish to take advantage of this initiative will be required to demonstrate how they plan to support pupils who do not have access to a personal digital device. Schools will also be required to consult pupils, parents and staff prior to making a decision about implementation.

How will you review the actual effect of the policy after it is implemented? (e.g. monitoring)

Each establishment that takes advantage of the initiative will be required to undertake a review of the uptake of the facility six months and one year after implementation. The review will identify how well the facility is being used to promote teaching and learning as well as to identify any groups that are underrepresented.

What is the timescale for implementation?

This facility will be offered to all secondary schools as soon as the initiative has been approved. It will be up to each secondary school to decide if they wish to become involved and the timescale for implementation, subject to the availability of ICT staff.

Primary schools will be offered the facility once all interested secondary schools have been set up.

How will you put the policy into practice and who will be responsible for delivering it? (e.g. other Council departments, partner agencies, communities of interest, equality target groups.)

The QIO ICT will identify schools that wish to take advantage of the facility and then liaise with Corporate IT to arrange installation.

What resources are available for the implementation of this policy? Have these resources changed?
Corporate IT has the staff to support a phased introduction of this facility. There is no additional expenditure required to support the introduction to secondary schools. For primary schools, all have the infrastructure required to support a limited introduction of the programme, with additional expenditure required as the uptake is increased.

Name of Person (s) who completed the Assessment
Name: Gordon Manson
Position: Quality improvement Officer
Date: 3rd March 2015

Authorised by:
Name: Wilma Bain
Position: Head of Education
Date: 3 March 2015