

Evaluation of possible educational uses of tablets

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Use	Description	Advantages	Problems	Possible solutions
Drawing by hand (ArtRage, Paint, OneNote) <i>Tablet specific</i>	- One note drawing –students can draw images and colour using a basic palette. - Drawing of mind-maps and thinking through connection of ideas.	- Quick recording of ideas - Free form but simple shapes in toolbox available. - Students can quickly record a train of thought – similar speed to writing on paper - Excellent for peer critiquing in a group – rapid feedback - Excellent for in class collaboration visual communication. - Permanent record –not lost when on a piece of paper.	Limited tools within software (palette).	Load upgrade in software but this will than affect working capacity as processor too small in this tablet.
Interactive presentations (Classroom Presenter) <i>Tablet specific - students</i>	- Students and teacher run C.P. on their machines. Students can view teacher slides and annotate them. - Students can submit their annotations to the instructor. - Can poll students Class polling in real time to quiz class / promote discussion and debate - Students can print / export and save C.P. slides.	- Free program! - Promotes classroom interaction between teacher and students. - Showing student work on the big screen promotes interest. - Easy-to-use tool for writing and drawing which students easily mastered.	Difficulty getting all students connected to the teacher's CP session, or dropping out once connected.	Purchase tablet with increased processing power to reduce connection problems.
			- Student submissions are untagged with username so anonymous. - Live preview of student work not possible – only possible to view a static submission rather than a work in progress.	Use more advanced software such as DyKnow, or combine Classroom Presenter with another tool such as AB Tutor. However connection problems may still remain with other software.

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Teacher annotations on presentations (Classroom Presenter / Powerpoint with ink annotations through SMART tools / SMART Notebook) <i>Tablet specific - teacher</i>	• Easy annotations on slides. • Hand written notes / annotations can be easily saved to the file.	• Good for teacher to use when there is no Smartboard in the classroom and you want to save notes for access later or for students not present (especially for senior classes).	• Replicating a Smartboard, but without physical interaction with screen.	None.
			• SMART Notebook's licencing says you can't use it on non-SMART equipment including tablets.	• Use Classroom Presenter for annotations rather than Powerpoint with SMART tools, but C.P. is limited in functionality.
Note taking (OneNote) <i>All computers - some tablet specific features</i>	• Students can take notes in OneNote during class rather than on paper. • Notes can be hand written with the stylus and either converted to text or left as hand writing. • Notes can be broken into sections and pages within the sections. • Files (such as a .pdf of the textbook) can be embedded within the document – easily accessible.	• Never forget their books. • Good for drawing or brainstorming / sketching ideas using the stylus and the pens. • OneNote is excellent for embedding and collecting different data types so they are all together. • Excellent note-taking program. • No saving required.	• Student notes are saved at school and not accessible at home.	• Storing notes on SkyDrive. See next item for discussion of this.
			• Files quickly get quite large due to embedded images and objects, especially if used for 'hand-written' notes. This can be a problem for storage, access and retrieval and specifically for SkyDrive (see below).	• Minimise the size of individual notebooks. Break notebooks up into separate notebooks rather than having multiple sections in the one notebook. Loses some of the point of OneNote.

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Accessing student notes and work from both school and home (OneNote and SkyDrive) <i>All computers</i>	- Students can save their OneNote notebooks to the SkyDrive so they can access them from home. - Students could set up their home OneNote to sync automatically.	- If set up properly, the file will automatically sync to the cloud whenever it is changed. - Students will have access to their notes both at home and at school. - If a textbook extract is embedded in their notes, they don't need to take their textbook home everyday.	OneNote is not available for Macs, which many students have at home.	Students with Macs can access their OneNote file through the Web App (through SkyDrive), however this has limited functionality especially that embedded files cannot be opened.
			SkyDrive will not allow the students to save documents more than 100 MB and OneNote files can easily get that big.	- Break up notebooks into smaller sections (if possible) however this limits the usefulness of OneNote. - Use an alternate service, such as Dropbox which provides a drive on the student computers.
Accessing student work from both school and home (SkyDrive with any program) <i>All computers</i>	Students can upload any file type to their SkyDrive to work on at home.	Cloud storage ensures students always have access to their documents (no lost documents, forgotten USB sticks, etc.)	SkyDrive is not particularly user-friendly and students struggle to navigate it.	Need to specifically teach students how to use SkyDrive properly. However there is not time for this within individual subject area classes – possible need for dedicated computing classes?
			Requires internet access to upload and download, so connectivity issues limit access to document.	Purchase tablet with increased processing power to reduce connection problems.

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			SkyDrive will not allow the students to save documents more than 100 MB.	See comments above.
Electronic checking of student work and notes (SkyDrive) <i>All computers</i>	Student notes and work can be shared with the teacher for electronic feedback and checking by sharing the document through SkyDrive.	- Teacher can have constant access to student work (no need to collect books). - Checking of work can be conducted outside of the classroom. - Teacher feedback can be provided electronically, and due to the ease of checking, possibly more regularly. - Students can easily communicate (through their notes) with the teacher if they don't understand.	SkyDrive is not particularly user-friendly and students struggle to navigate it.	See comments above.
			Difficult to implement as the students have to actively share the work with the teachers.	Get students to create a folder shared with the teacher rather than a file. Then all shared files can be stored within it (only one 'share' needed). Student still need to be able to navigate and use SkyDrive effectively.
			Need for students to upload each document separately and manually, rather than being able to embed multiple files within a OneNote file or simply saving to a location on the computer.	Use an alternate service such as Dropbox and create a shared folder with the teacher. Teacher can create this folder. This can be a drive on the computer and students can save directly to it rather than having to upload manually.
Collaborative work between students (Sky drive) <i>All computers</i>	File sharing of documents and collaborative work	- Dynamic interaction and not dependent on location - Instantaneous discussion and feedback - Works across different platforms - Limits corruption of files and over-writing errors.	- Internet speed of individual computers - Individual firewall and pop-up settings - Server dropouts because of tablet hardware.	- Tutorials available on school website for students and parents - Hardware upgrade on tablets. - Recommended system requirements put on the website for parents

Use	Description	Advantages	Problems	Possible solutions
Interactive animations (online / specific applications) <i>All computers - some tablet specific features</i>	Using interactive animations or applications for specific learning outcomes. This can include interactive games, experiments, models, etc.	- Students can use interactive tools to model things not possible in the classroom. - Can provide an interactive visual stimulus for the students. - Tools with an interactive challenge or game-like element can promote engagement. - Can allow for differentiation of activities for different abilities.	- Limited applications available for Windows PCs. - Internet tools are designed for keyboard and mouse, therefore don't work optimally (ie may need arrow keys).	Investigate alternate platforms with increased numbers of specific touch-based applications designed for education.
Internet research (Firefox / IE) <i>All computers</i>	Students can individually use the internet to research.	- Student-centred learning with the students driving their independent research. - Allows differentiation for different abilities.	- Students have difficulty navigating and inputting text with the stylus. Text input panel does not always appear when a text box is clicked. - Connectivity issues mean some students cannot research.	- Allocate specific time for students to learn how to use the device and navigate when researching. - Resolve hardware issues to fix connectivity problems.
Creating presentations (Powerpoint / Prezi / DyKnow / CP) <i>All computers</i>	Students can create presentations.	- Students can annotate their presentations with ink, drawing images. - If a collaborative presentation tool like DyKnow or Classroom presenter is used, students can create presentations which are interactive for their peers.	- Connectivity issues mean some students cannot research effectively. - Text input is difficult with stylus. - Selecting / moving / resizing images and text difficult with the stylus.	- Resolve hardware issues to fix connectivity problems. - Connect keyboard. However this turns it into a netbook. - Turning on editing flicks and teaching students how to use them. However, they need students time to become familiar with this tool.
Creating documents	Students can create	Permanent record of their	Inputting significant amounts of	Connecting keyboard when large

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(Word / Excel / Publisher) <i>All computers</i>	traditional documents on their own machines.	documents which can be accessed from home if saved to the SkyDrive.	text is difficult with the stylus. • Editing shortcuts (copy / paste) are difficult to use without a keyboard.	amounts of text need to be inputted. • Turning on editing flicks and teaching students how to use them. However, they need students time to become familiar with this tool.