

# An Essential Guide to using Ed Tech for Assessment for Learning



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All pupils should reach their full potential

A Naace Publication by Dr Carol Porter  
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## **Foreword from the Sponsor**

We are delighted to be sponsoring the Naace eguide for using Edtech to support assessment for learning because it is a topic that we feel passionately about here at InfoMentor. Indeed, formative assessment underpins our drive to support schools in building a strong, pedagogic approach to teaching that leads to mastery learning.

We know schools are busy places and that the job of keeping up with the wealth of supporting tools available can be daunting and time consuming. In this guide, NAACE have drawn together a range of resources available that support assessment for learning, enabling schools to get an independent overview of what is on offer whilst saving hours of research.

Schools using this guide will have the information they need to strike a balance between making better use of technology in the classroom, and not overloading teachers with systems that don't deliver concrete benefits, because what is right for one school may not be right for another.

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## **About the Author**

**Dr Carol Porter** has been the Technology Curriculum Support Centre Manager in Bury LA, offering training and consultancy advice on the computing curriculum, schemes of work, progression and assessment to teachers in Bury. She developed training courses based around the 2014 computing curriculum and in effective uses of technology across the entire primary curriculum.

Carol is a Naace Fellow, a Naace Lead for Professional Development and Standards in Computing, and she serves on the Naace Board of Management.

## Summary

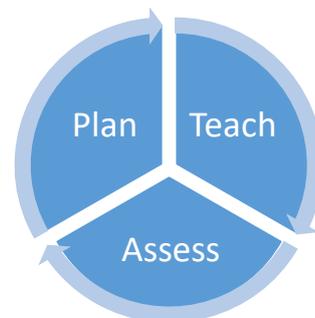
This eGuide is intended to give primary teachers an understanding of

- What's all the fuss about? Why are tablets the "next best thing" to hit education?
- How to judge the 'value added' of the use of technologies on assessment and learning;
- Which technologies could be used in class to accelerate learning; and
- Effective management of resources.

## Pedagogical Underpinning

All teachers know that summative assessment is an essential part of the teaching process, often considered to be of cyclic nature.

Good teachers know that formative assessment is an ongoing process, alongside teaching, and is used to modify teaching, sometimes 'on the hoof', as well as to inform the next phase of planning.



## Analogue Afl

Chances are, your current methods of assessing for learning are analogue. That is, a combination of using mini-whiteboards, thumbs up/down, red, amber or green cards, or relying on "hands up". The problem with these tried and trusted methods is that, at best, they:

- give a snapshot of the whole class, not the individual child;
- are public – children may exaggerate (or play down) their understanding of a concept; and
- there is no record for evidence

Fortunately, there are many digital alternatives available, which address all of these issues. Read on...

## Pupil Response Systems (PRS)

These have been around for a while now, and they continue to develop.

**ActiVotes**, **ActivExpressions** and **ActivEngage** are all from the Promethean stable. The first two are hand-held devices with which pupils answer questions, and the last is software that transforms other mobile technology (tablets or smartphones) into a hand-held PRS.

Teachers can ask questions 'on the fly' and gather responses from all pupils. Answers to these questions are usually numeric or free text, but could also be





multiple choice, multiple response, ranking or a lickert scale. Answers are anonymously 'seeded' to the interactive whiteboard for discussion. 'Correct' answers can also be designated, so pupils get instant feedback, and teachers can access a spreadsheet of how each child responded later.

Questions can be prepared in advance to be asked at the interactive whiteboard, using a flipchart. 'Correct' answers can be designated, and bar charts or pie charts can be displayed at the time so the teacher and pupils know the proportion that got it right (or wrong). Misconceptions can be dealt with immediately. Teachers can access spreadsheets of how the children answers each question later.

Questions can also be prepared in advance to be asked directly via the handsets. This is 'self-paced' questioning. The order of the questions can be randomised, and the questions can be grouped into collections of similar difficulty. Ideal for tables testing, instant feedback is given, and the teacher can access a detailed spreadsheet of how the children answered.

**Socrative** is a free app that does much the same job. Questions can be asked 'on the hoof', and responses collated in a variety of styles – numeric, text, multiple choice or true/false. Pupils do not necessarily know how their peers answered, but the teacher can see the answers arrive in real time and download a report later.

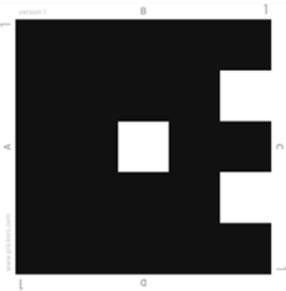
Teams of children can answer questions competitively in the Space Race, and the Exit Ticket gives pupils feedback on their understanding – good for use during a plenary (and no question preparation is required by the teacher!)

Of course, the teacher can also prepare questions in advance for the children to answer using Socrative, and there is an online community of teachers who upload their 'quizzes' to be accessed by other teachers. Socrative runs on just about any device. There are apps for iOS and android, and a URL for everything else. This means that Socrative can be used outside the classroom too, anywhere there is internet access.

**NearPod** works best if your usual teaching tool is PowerPoint. Take the PowerPoint that you plan to use in a lesson, save it as a pdf and upload it to your NearPod account. The PowerPoint will lose all of its animations, transitions and the hyperlinks will no longer work, but you can insert interactive slides. For example, you can ask questions that require text, numbers, multiple choice, a drawing, cloze, or a poll. Content can be added in the form of video, audio, a slideshow, a pdf viewer or an embedded (but live) web page. Your pupils cannot race through your slides; the teacher controls the speed at which the slides move on – the teacher swiping her screen makes all the pupils' pages move on.

The NearPod presentation can be left at any stage (by clicking the Home button) and resumed later. The teacher can see how pupils answer the questions in real time at her own iPad, and she can download reports of their answers at a later time.

**Padlet** is an online collaboration tool, which can be used for informal assessment of learning in the classroom. The teacher creates a 'wall', which is accessed from a unique URL, and pupils going to the URL can leave sticky notes on the wall for all to see. By this means, answers to questions can be shared at once by displaying the wall on the classroom screen. Walls can be prepared in advance and kept for future reference. In its free version, there are no record keeping or management tools. There is now an app for iPad. There is a paid for version, Padlet Backpack, specifically designed for schools, which gives you privacy and control.



**Plickers** is a new kid on the block. It is a pupil response system that does not require each child to have 1-2-1 access to a mobile device. Instead they are each given a card printed with a unique QR code, which are used to answer multiple choice questions; which way up the card is held determines whether answer A, B, C or D has been chosen. The teacher simply scans the room with a tablet, and the software detects all the cards. A summary of answers chosen is matched to the class list for the teacher's assessment information.

All of these PRS type systems ensure full participation in a way that analogue systems simply do not. They can be private, give the teacher feedback on every child, and generate hard evidence for the assessment file. They are a must for formative assessment in the lesson.

### "IWB" Apps

**Explain Everything** is not a free app (£2.29 per copy at time of writing), but does an excellent job of creating 'screencasts' of children working through problem solving activities. At its simplest, the screen cast video could be a child working through 36 x 25 using the grid method of long multiplication. The child simply uses a finger or stylus on the screen, whilst recording their narration of solving the problem. Much young children could use it for demonstrating they can form letters correctly, and record themselves making the appropriate letter sound and name. Videos and still images can be imported for annotation, text can be typed in, and multiple pages can be generated. Narration can be recorded at all times. Clearly, this could develop into quite a lengthy and detailed project about any topic. The finished screencast can be exported to the tablet camera roll for upload to the class web page or blog.

**Educreations** is a free alternative to Explain Everything. It does everything that Explain Everything does, with the exception that finished screen casts are uploaded to the Educreations online community for sharing with peers. Alternatively, they can be downloaded to Dropbox or Google Drive. The Educreations online community also has a wealth of previously uploaded screencasted lessons for viewing.

**ShowMe** is a free IWB app that works in a very similar way to Educreations. It has a very uncluttered user interface, and many lessons recorded as screencasts in the ShowMe online community for sharing.

You have probably already realised that, as well as being excellent AfL tools, screencasts generated with apps such as these can be used to facilitate “flipped learning”. This is where pupils are given access to screencasts of the teacher’s exposition materials in advance of the face-to-face lesson to view as homework. Afterwards, in class, the teacher sets tasks to challenge the children’s understanding of their learning, and to use it creatively to solve problems. The teacher is on hand to support children in this.

### **OneNote and EverNote**

These are personal productivity applications, which have found effective use as tools for recording assessment. They are free (OneNote is part of the Microsoft Office 365 suite). They can be thought of as online notebooks. Their principal use for recording assessment stems from the idea that, on a tablet, they can record evidence which can be difficult if not impossible to record and manage by other means. A tablet will have a camera, and a microphone, which will allow a teacher to take a still image, or record a child talking, or even make a video. A typical way to manage assessment recording is to set up a page for every child, and then, when evidence is gathered, it is stored on that page and dated. Evernote also allows you to create checklists with tick boxes, so for example you can create class lists. Evernote automatically detects text within snapshots and digitises it to make it searchable, so that if a child’s name is in the snapshot, the snapshot can be searchable with that name.

### **Google Forms and SurveyMonkey**

Both these tools allow you to set questionnaires and surveys which can be completed online. Google forms is free for anyone with a google email. These are really good tools for end of topic or periodic assessment, and so supplement formative classroom based assessment. They can be thought of as online tests or exams. A full range of different question types are available, and as usual, tests can be stored for reuse, and exported into management and recording tools, typically spreadsheets.

### **Learning Platforms/VLEs**

“VLEs” are Virtual Learning Environments. They usually comprise of a virtual classroom, with the facility to set and mark work; discussion boards, calendars and notifications; cloud-based storage; some also include a ‘walled garden’ social media facility and possibly also email.

Learning Platforms – released to schools ahead of their time – comprise a VLE, an integrated Management Information System and a parent portal for online reporting. The term “Learning Platform” is often viewed as toxic these days, which is a shame, as they’ve significantly improved since their earliest incarnations. Very few contemporary products are true learning platforms. Most are VLEs:

**Showbie** is a free app-based VLE linked to an online classroom management system.

Promethean (the makers of the ActivInspire family of products) has produced **ClassFlow**. This is a cloud-based VLE that links your IWB with devices (possibly running ActivEngage) to facilitate flipped learning.

**Make Wav.es** is a safe social learning platform for schools. It offers schools a safe environment in which to publish blogs, videos, pictures, and audio online, where they can be shared with a like-minded network of schools around the world. From the assessment point of view, Make Wav.es provides teachers and students with the means to award and achieve Open Badges, a very flexible form of accreditation, which allows teachers to accredit achievements not normally capable of accreditation.

**Frog** is a fully integrated collection of online tools, which includes a learning platform fully integrated into the school management information system, and two new tools, Frog Progress and Frog Play. The former, currently under development, is a major new approach to assessment without using the levels of the old National Curriculum.

**Google Classroom** is part of the Google Apps for Education suite, free to schools. It is really just an assignment manager, in that it allows teachers to set tasks, and students to hand in work electronically. Reminders can be sent out, and comments can be made on work. Google classroom can also be used in real time in lessons, allowing the progress of individual pupils to be monitored and commented on while the work is in progress.

Which primary schools haven't heard of **Purple Mash**? Delightfully engaging for primary-aged children, it has hundreds of ready-made writing frames for almost any imaginable topic, maths activities, a programming platform, access to quite a variety of 2Simple software, online storage space and teacher-review facilities. Pupils' work can be commented on via Teacher Tools, and "2Do" allows work to be set.

**Just2easy**, or **j2e**, is a powerful online publishing environment to which a range of tools have been added. Just like Purple Mash, whatever tools the child has been using, the work created goes into an electronic portfolio. Teacher can comment on the work in these portfolios.

### **AfL in EYFS**

**2Build a Profile** from 2Simple combines an app with an online web management suite to capture EYFS children's evidence of learning and tag it against statements from the 2012 EYFS Development Matters document, the equivalent Welsh and Scottish frameworks, or the Australian system. Observations can be tagged for parent share, and teachers can access grids that show which children have been observed in which areas of learning. Data can be exported to other Primary tracking systems. This system has recently been extended to **2BAP Primary**, which covers years 1-6, in all subjects with statements from the 2014 Primary National Curriculum for England, the Scottish and Welsh primary curricula, P Scales, SMSC (from the Ofsted framework), Golden Rules, and the Rising Stars Frameworks.

**Fingertips** from Focus Education is very similar to 2BAP, and has now been integrated with it.

### Visualisers

Simply a camera on a stick, a visualiser is a powerful tool for AfL. Also available in app form is **iVisualiser** from Alan Peat for £2.29.

### Summary of Advantages and Disadvantages

	Advantages	Disadvantages	Wifi?
PRS	No internet or wifi required	Will do one function only	No
Socrative	Little preparation necessary		Yes
NearPod	Fully interactive; AfL built into lesson presentation	Begins life as a PowerPoint	Yes
IWB apps	No internet or wifi required at time of use; could enable “flipped learning”	Internet, wifi and logins required is work is to be saved	Yes and No
Visualiser	Easy to use		No
EverNote/OneNote	Teacher controls evidence capture	Managing quantity of data generated	Yes
Padlet	No preparation required; it’s a URL, not an app	Need individual email addresses; so statistical analysis	Yes
Google Forms	Can be integrated with existing MIS	Can be hard to set up	Yes
Learning Platforms/VLEs	Can be integrated with existing MIS	Can be hard to set up. Costs	Yes
J2E	Save time	Costs	Yes
2BAP/Fingertips	Saves 4-5 hours per teacher per week	Costs	Not at time of use
Plickers	Individual feedback without the need for a pupil device		No

## **Some Teaching Resources**

2Build a Profile <https://www.2simple.com/2buildaprofile>

ActivEngage

<http://www.prometheanworld.com/gb/english/education/products/assessment-and-student-response/activengage/>

ActivExpression

<http://www.prometheanworld.com/gb/english/education/products/assessment-and-student-response/activexpression/>

ActiVote <http://www.prometheanworld.com/gb/english/education/products/assessment-and-student-response/activote/>

Class Flow <https://classflow.com/gb/>

Educreations <https://www.educreations.com/>

Evernote <https://evernote.com/>

Explain Everything <http://explaineverything.com/>

Fingertips <http://www.focus-education.co.uk/index.php/products/fingertips-family>

Frog <http://www.frogeducation.com/>

Google for Education, including Classroom and Forms <https://www.google.com/edu/>

iVisualiser <https://itunes.apple.com/gb/app/ivisualiser/id916468668?mt=8>

Just2easy <http://www.just2easy.com/>

Makewav.es <https://www.makewav.es/>

My Big Campus <http://www.mybigcampus.co.uk/>

NearPod <http://www.nearpod.com/home.php>

OneNote <https://www.onenote.com/>

Padlet <https://padlet.com/>

Plickers <https://plickers.com/>

Purple Mash <https://www.2simple.com/purple-mash>

Showbie <http://www.showbie.com/>

ShowMe <http://www.showme.com/>

Socrative <http://www.socrative.com/>

Visualiser

VLE – Virtual Learning Environments. There are many of these commercially available, and all are generally easier and faster to use than the early incarnations that schools were obliged to use a few years ago. They contain areas to set and mark pupils' work, discussion boards and calendars, and some may also include protected email and social networking facilities.

**Bury Primary Computing Solution** – a comprehensive computing SoW, that includes progression grids for each strand, assessment grids for each year group, medium term plans for each year group for each strand, cross-curricular links, suggested resources (hardware, software, peripherals and apps), a glossary of Computing terms, and separate sections for EYFS and SEN practitioners. Clear links are given for embedding technology and computing skills into all other curriculum areas, including English and Mathematics:

<http://tcsc.primaryblogger.co.uk/2014/12/12/bury-primary-computing-solution/>

Naace has produced this series of Essential Guides, or “eGuides” in response to an identified gap in teachers’ CPD. That is, how to use technology creatively and effectively to make significant impacts on learning and standards in other curriculum areas.

Naace believes that technology has a major role to play in raising standards in learning across the curriculum, provided teachers know how to adapt their pedagogies in order to maximise the potential gains offered by learning technologies.

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Having read this “eGuide”, you may wish to register with The Naace Open Badge Academy for Open Badge CPD accreditation

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