

ARTICULATE E-ASSESSMENT PILOT CASE STUDY INFORMATION

Area	E-Testing
Programmes	Supported Key Stage 3 and 4
Awarding Body	N/A
Number of Learners	35
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BACKGROUND

Portadown Independent Christian School is situated just off the Gilford Road in Portadown. The school provides for pupils up to GCSE level.

In the past few years, we have piloted a number of e-learning initiatives for teachers including e-profiling, e-assessment and e-reporting.

Recently, we piloted an online reporting system created by Articulate. The objective of the project was to design an alternative to end of term, internal, paper-based examinations

This pilot operated in two phases and covered topics from two different subject areas:

- Key Stage 3 Geography; and
- Key Stage 4 ICT.

Software overview

The Articulate software allows the user to produce an off-line test and then upload it to a secure site. A variety of question types are available, including:

- true/false;
- multiple choice with single response;
- multiple choice with multiple response;
- fill in the blank;
- word bank;
- matching drop-down or drag and drop;
- sequence drop-down or drag and drop;
- numeric;
- hotspot image; and
- numerous other free response options.

Screen shot of some question options

When setting up each question, a variety of media can be added to help visualize the items. The distracters for each item can be automatically randomized to avoid accidentally introducing a pattern to the answers.

There is a wide range of options available for each test, enabling the administrator to:

- customise the test to meet their individual requirements;
- alter the layout and format to reflect a house style; and/or
- add a graphic to fully personalize each test.

Screen shot of individual item setup

The system provides the facility for online reporting. Once users are set up, they

can access extensive reports from a secure online site. Users can also generate reports to show all test scores, analyse individual items and analyse the performance of each pupil in all of the tests.

OUR EXPERIENCE – PILOT IN ACTION

From initial discussions about this e-assessment project, a number of issues were raised around the suitability of this type of assessment for particular subject areas. We concluded that the pilot should incorporate ICT and geography at two different levels. We felt that the ability to use full colour diagrams and coloured maps was particularly useful for the geography assessment. We wanted to make use of the image-mapping feature to allow the pupils to interact with the diagrams.

We were also concerned about the suitability of multiple choice type questions for assessment at Key Stage 4. With this issue in mind, we produced the ICT assessment in two parts. Part One of the assessment was electronic and based on Higher Level GCSE past papers. We deliberately chose distracters that would lead any pupil who did not know the solution to a question to select an incorrect response. Part Two was paper-based. We followed guidance from Higher Level GCSE past papers and included some sample questions. As we had limited workstations available, we had to consider how to facilitate the number of pupils doing the e-assessments. We set up three test sessions for each test group. We made at least one workstation available as a standby option for each test session.

Within each test session, we set up the e-assessments to deliver the items randomly. This meant that even where workstations were quite close together, the risk of two neighbouring pupils working on the same item at the same time was greatly minimised.

We set a suitable time limit for each e-test and included a timer icon to warn pupils of the amount of time left. Pupils were able to review their answers to simulate the experience of a paper-based examination.

We had to add each pupil as a user for the online reporting system. The system requires each user name to be set up as an email address. We didn't want to have access to any pupil's personal email address so we set up simulated email addresses in the format that the system accepted, for example joebloggs@pics. We then issued pupils with their individual user name and corresponding password.

FEEDBACK

Teacher experience

Even though we only piloted the Articulate software with two subject areas, we still encountered some administration and timetabling issues. We had to set up individual user groups for each of the e-tests, with user names and passwords. Ideally, internet access should be limited to only the domain on which the tests have been uploaded. Some initial teacher training was required but overall the software was user friendly.

Although it was time consuming to set up each e-test and decide on the

distracters, the overall benefits of the Articulate software easily outweighed the extra workload. From a reporting point of view, the ability to receive instant feedback from the majority of item responses was of great benefit.

Pupil experience

Our pupils seemed to be more motivated by the e-test than with more traditional paper-based tests. The use of full coloured images was of particular benefit to the Geography test, which included a number of maps and coloured photographs. The inclusion of coloured images and diagrams seemed to help pupils achieve a better quality of response. This was particularly noticeable amongst the less able pupils. One problem that did arise from the use of this feature was the limited screen size available for image-mapping. We had to reduce some of the images in size as when pupils zoomed in they covered the entire screen. This made it difficult for the pupils to make comparisons between the image and text, and difficult to see the detail of some diagrams. The ICT test was carried out in two parts using e-assessment and a paper-based test. When each part was scored we compared the results for each pupil. Although most pupils received a similar score for both tests (within 10%), the results for the computer-based assessment were lower than the paper-based assessment.

Pupils who were more competent in the use of the computer had more confidence doing the e-assessment and spent less time, especially with the initial items. In some cases, the e-tests were more assessable than paper-based tests especially for those pupils with literacy issues.

Reliability and functionality

We made at least one workstation available as a standby option for each test session. However, there were no reliability issues with the hardware or software throughout the duration of the pilot.

In the bigger sessions, with a greater number of candidates, there was a noticeable slow-down in the download speed.

MOVING FORWARD

Although Articulate provided a free trial period to pilot the software, there are costing issues if this system was to be introduced as a live e-assessment tool across the school. The software does, however, reduce the cost of printing and copying paper-based examinations and is therefore more environmentally friendly.

Instant online reporting is of great benefit to the administrator of each test. Depending on the number of pupils in each test group, the time spent setting up the test was offset by the time saved in achieving the results.