



## Stockton Riverside College launches electronic diagnostic assessment (eDA) programme for new students

### Introduction

Stockton Riverside College has introduced a new online diagnostic assessment programme that enables it to gauge the 'on entry' ability of students, primarily in the areas of literacy and numeracy.

Despite many previous attempts to find the right solution, Stockton had been dissatisfied with the 'tools' it had seen and tried. It had been unimpressed with packages that relied on student response time as an indicator of ability, placed time constraints on assessment completion and did not match 'score' to content. Others offered grades and scores that were not adaptive and placed high demands on tutor time.

In search of a solution, Stockton also explored a range of 'in-house' quiz type programmes, available through the Internet and typically resident on other FE (Further Education) college websites. While the content and format varied widely all were subject to one or more of the concerns already identified. Similarly, the technical and administrative issues associated with this form of deployment raised further concerns.

Steve Errington, Curriculum Development Manager for Stockton Riverside College, comments, "We were uncomfortable with the tools we looked at on many levels. Most worrying was the time dependency of the scoring. We believe that students should not be penalised on individual questions for taking time to think and work through their answers. So, we had to look to bringing the system in-house."

### The Solution

The solution lay in the development of its own electronic diagnostic assessment instrument. After lengthy research for suitable 'authoring' software, the commercially available 'Questionmark Perception' was identified as the most appropriate for this purpose.

Steve adds, "Questionmark Perception outshone everything else that we looked at and fulfilled our needs exactly. It also gave us the development potential that we were looking for, making sure that we have space to grow the system for use in many other areas of the college. And, to top it all, it proved to be very intuitive so that we could pick it up easily."

The new system had to be available on demand via an accessible user interface. It had to reflect the 'National test' format (Basic & Key Skills - levels 1 & 2) in a flexible design structure that would enable easy and quick modifications and updates to be made by the college staff. Finally, it had to provide the all-important feedback to students and relevant staff members. The development was to function as a 'screen' at each level, providing a 'spiky profile' of the participant, rather than a means of attributing a single arbitrary value to indicate overall ability.

### Assessment Structure

The content of the question database was derived from standard tests (available in the public domain) or modified and newly constructed content based upon the standards identified by QCA. Although, the primary driver for the development was to satisfy the needs of the full time learners and the to meet the requirements of the key skill and induction programmes, the assessment content was not mapped directly against the key skills specifications. The framework adopted within the development was that of the Adult Core Curriculum for literacy and numeracy. This was considered to be a more comprehensive and robust framework and more likely to stand the test of time.

Each question that was added to the database was mapped to the new basic skills curriculum in relation to both the 'topic' and 'learning outcome'. Consequently feedback upon completion would identify performance against the 'core curriculum' topics and not just literacy and numeracy per se. The key skills specifications are inevitably embedded within the Adult Core Curriculum, which allowed both areas to be addressed within a single development.

### The Pilot Phase

The questions were written and 'published' for web-based delivery via the Internet Explorer interface on the Perception server. The assessment consisted of multiple choice questions, divided equally in content between literacy and numeracy. An equal number of questions were selected at random from the database topics and presented singly in a non-sequential manner (i.e. literacy & numeracy questions were interspersed).

The overall score is reported back to the student at the end of the assessment along with a topic based breakdown of individual performance. The data is then retained in a master database file on the intranet server, access to which is 'security' protected and only available to appropriate staff.

Steve Errington comments, "We are still very much in the development phase of the programme with the implementation limited to literacy and numeracy. It is incredibly useful for us to be able to clearly demonstrate performance improvements of students while they are at the college. It will also help us to better gauge the individual needs of students and to develop learning plans for each one."

### The Way Forward

The development for the pilot phase targeted levels 1 and 2 for both numeracy and literacy. The aim is to develop the programme further to include IT at levels 1 and 2 in the coming months.

Steve Errington adds, "An ICT module will extend our assessment ability and then we will look into other college subjects to bring on board. Also, to date, we have focused on full-time student assessments and we intend to extend the scope to assess part-time students very soon. We will also be working on the availability of the system to deliver assessments externally via the college VLE (virtual learning environment) which will enable us to enter the realms of the distance learner. This too will be addressed in the near future."

Stockton Riverside College's state of the art facilities lend themselves to a range of innovative curriculum opportunities. Not least of which includes the modularisation of the core curriculum (literacy, numeracy and IT) and the provision of a unique diagnostic system that could be adapted for implementation within any curriculum area. In addition, by fulfilling the potential of eDA then the different needs of learners can be identified at an early stage and action plans generated to address the needs of the individual. Furthermore, an 'on-demand' availability has the potential to improve access, and widen participation which should ultimately lead to better student retention and achievement.

### More information

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