

## **The InCurriculum Project: using technology for assessment and feedback**

**Authors: Professor Neil Powell. Norwich University of the Arts**

**Katherine Hewlett. Norwich University of the Arts (PhD student)**

### **Abstract**

*This paper highlights professional practice developed from the National Teaching Fellowship project, InCurriculum. Evidence drawn from Higher Education Statistical Agency data continues to show that students with a learning difference tend to go into Creative Arts or vocational course of undergraduate study. This tendency means that students with particular learning styles or recognised specific learning differences effectively collect in HEI's that are perceived to provide a sympathetic, student-centred teaching experience that is conducive or empathetic to an individualistic/dialogical approach to learning. Visual approaches to learning in art and design have been recognised as having transferable value for students across disciplines (Steffert.B, 1999,pp.43). The InCurriculum project investigated such learning and assessment encounters with a view to testing and developing transferable practice to other subject areas within UK Higher Education.*

*The project institutions, Norwich University of the Arts (lead), De Montford University and the University of Westminster, sought to look at Art and Design curriculum where there was an emphasis on the studio seminars, aural and visual learning. The purpose was to develop a transferable student-centred approach to teaching, feedback and assessment that could be effectively applied to other subject areas supporting measurable improvement in levels of student achievement, retention and engagement. The project was set within an inclusive learning context to utilise technology for assessment and assessment feedback.*

### **Rationale**

The reason for the project being set up was to investigate how making informed, evidence-based interventions in teaching and assessment practice could better support different learning styles and individual learner needs. The contextual justification for this research project was to identify and disseminate effective practice to retain students within their higher level courses and to support their success and confidence as learners. The project was funded by the Higher Education Academy for a three year period however during that time the United Kingdom (UK) educational landscape changed rapidly from a widening access perspective to a more customer and fee driven model of academic exchange. With such changes to the sector it rapidly became apparent that more sophisticated mechanisms were needed to identify cost and time-effective teaching practice to inform institutional policy and to provide students with a value for money higher education experience. To support evidence-based teaching interventions the project explored how technology might function as a useful tool to aid the negotiation and digital archiving to support the learning exchange between the student and the teacher, both as individuals and in group settings.

From the outset of the project there was a growing realisation that technology would continue to develop as an important element of any negotiated learning and teaching relationship,

especially given the propensity for individual students to rely increasingly heavily on fixed and mobile devices as tools for personal organisation. The project evaluation confirmed this to be the case and confirmed that, if 'bought into' by key stakeholders, could provide an expanded range of learning interactions, as part of a consistent negotiated framework. The result was teaching and assessment practice that included a wide range of students at different learning levels.

The purpose of this discussion paper is to look at the notion of a student experience enhanced by technology if used in an interactive and negotiated portal as a means of additional 'safe' access for both the student and the tutor. Underpinning this negotiated learning exchange is the use of technology to understand better both tutor and student learning styles in practice. To "Teach less better" (Norden, J. 2011)

Each of the three partner institutions worked with three modules or units during the life of the project; Over a period of time and with considerable effort, the institutional project tutors came to the view that a learning strategy could only be developed in dialogue students - and whilst this now may appear as a conventional view enshrined within the UK Quality Code - at the time this was an unusual finding.

The professional practice of staff, enhanced by learning technologies, effectively bridged this gap and enabled students to develop strategies that allowed them to engage with a range of assessment tools making the link between learning style and assessment task. Visual and aural strategies were used to develop cognitive thinking alongside cumulative assessment records authored, published, disseminated, archived and accessed digitally (*i.e. Online Assessment Feedback tool (NUA 2012-)*). The outcomes were: increased learner confidence in their studies, the development of student managed support networks and clear data that proved that a wide range of learners visited digital feedback more effectively and more frequently than spoken or paper counterparts.

## **Methodology and evaluation**

The methodology underpinning InCurriculum comprised a mixed-method qualitative and quantitative approach; ten academic staff and over three hundred undergraduate students from a range of subject disciplines were part of the study and the evaluation process. This approach was set in place through questionnaires that provided a baseline for student experience on entry to the modules and tracked experience on exit from each module. One-to-one interviews were followed through for additional depth of understanding about the staff student experience. Focus groups provided a rich source of material around the effectiveness of the assessment practice that had developed. Open-ended questionnaires were conducted halfway through each module with scaled questionnaires conducted on student exit from the module.

Another key finding was that the project needed to ensure the format and careful composition of questionnaires for continuity of approach and stability of data. It was found that the scaled questionnaires elicited a more student-focused response whereas the open-ended questionnaires tended to a more tutor-directed bias. In some cases, students were delighted to understand their way of learning (Learning Style) if this had not been apparent to them, yet felt unable to take ownership of that knowledge after completion of the module within the research project.

In the final year of the project the institutional tutors started to produce talking head diaries which were then placed on a Vimeo site (<http://vimeo.com/user2956163>). The InCurriculum web site also profiled the methodology and a set of resources drawn from the project. [www.incurriculum.org.uk](http://www.incurriculum.org.uk)

There were a series of seminars for educationalists to feedback on the project's progress. The overriding theme was that effective student-centred teaching and learning was essential for student retention and more importantly, engagement.

The following points emerged from the research:

- Learners self-identified need to be strategic
- Use of learning spaces as an open metaphor for implicit and explicit learning.
- Student as the producer, content provider for learning and local expert
- The importance of student-based evidence in helping disengaged learners to reconnect with the student experience
- The importance of teaching practice as a determinant of curriculum design and institutional policy/strategy from the bottom up as well as top down.
- The importance of internal quality processes and the involvement of students in course development
- The use of 'Toolkits' to be available for different approval or review processes
- The importance of using a range of assessment methods over time and over the undergraduate student life-cycle given that students were often found to migrate across recognised learning styles.
- The importance of presenting 'alternative' assessment and feedback strategies and regimes effectively and credibly within organisations - preferably framed by QA and FHEQ.

#### **The use of technology to enhance student experience**

Some of the evaluation findings showed that 'good' teaching practice -such as setting learning goals and providing innovative formative and summative assessment on learning outcomes- was extremely effective. However, there needed to be more measurable ways of assessing these outcomes. In addition, for these measures to be put in place, tutors felt they needed more time to prepare materials and alternative methods of assessment due to heavy workloads elsewhere.

A consistent theme was the excellence of the student-tutor dialogue and the need for this to be maintained for a positive and successful student experience.

#### ***Technology***

Overwhelmingly, feedback from the project student sample showed that they did not see activities in a virtual environment, or via skype or a VLE forum as learning.

For many students learning was only achieved or recognised through personal contact with the tutor. A significant proportion of students felt disengaged by virtual learning environments and e-resources. This view changed substantially when students were inducted more thoroughly into VLE's by a tutor and close academic management and negotiation with the tutor, technology portals became a highly-valued and relatively safe way of interacting.

The negotiation involved tutors using online resources to free-up time to do more intensive tutorials with associated e-learning tasks used to accommodate different ways of learning. Different types of visual communication and feedback were identified such as: video and mobile technologies (iLearn, Jing, et al).

### ***Use of technology for assessment and feedback***

Tutors soon realised that differential delivery methods could be utilised concurrently to engage a wider range of learners in relation to the same content – this particularly in terms of online content which might be re-visited repeatedly both during and subsequent to face-to-face sessions. The use of technology also needed to be articulated clearly to students as part of the module handbook rather than appearing as an e-resource in a bibliography as was common practice in some of the partner HEI's.

One trend that emerged was that the use of VLE's, mobile devices and other learning technologies such as video or audio capture led to a greater emphasis on formative assessment with the use of peer student feedback proving increasingly popular and valued through discourse and visual presentation.

Formative assessment gained increasing momentum as the key tool for learner inclusion and engagement and much evidence was gathered about the value of genuinely interactive learning that also provided safe, metaphorical and asynchronous learning space to enable the student to reflect in their own time. This approach provided a flexible way for the student to gain knowledge of their learning and reconfirm the learning acquired. It was apparent that imaginative use of technology enabled different assessment approaches that could be presented in different formats, such as wiki or MP3.

### ***Feedback***

Evidence showed that summative feedback available online through the Online Assessment Feedback tool or for formative feedback as MP3, Camtasia etc. gave timely student feedback, which was often felt to be more personal or have more meaning and context through voice intonation, rather than purely written feedback.

However tutors realised that these methods had to be linked with a record of grades (grading matrix, assessment criteria or assessment schedule), as being essential for consistency between paperwork, video and audio files. Marking, instruction (use of Powerpoint etc) and assessing online happened through Camtasia by working on the document itself. With Camtasia the screen back facility enabled feedback comments visually. Tutors found that students became more engaged and gained a greater understanding about how to improve their work. The other area that emerged here also was the clear need for staff CPD in engaging with the range of emerging and ever-expanding technologies for learning and assessment on one hand, and for voice coaching and body language on the other. This presented major

concerns for the staff involved in the research project in terms of a diverse staff body and the training required to perform feedback for students rather than write-up.

Overall however, the research found that the combination of online and face-to-face teaching, learning and assessment methods were highly valued by students and staff. At the start of the project, student participants typically commented: 'why use digital media when you can just come and talk'. However this changed over the course of the research as interventions were made and changes explained; students began to value the possibility of being able to reflect in their own time, to have space for learning and not just teaching, and to have more flexible means of accessing feedback and having choices on formative assessment feedback methods.

## **Recommendations**

### ***Practice***

As this was a three-year project there were many varied suggestions and recommendations for future practice. For the purposes of this paper it is helpful to draw out some of main themes to emerge from the findings. These were:

The use of technology to support student learning by making a range of materials available and enabling independent study through flexible use of real and metaphysical learning spaces. Such as: television could be utilised for blackboard to enable students to take notes on their own lap top (laptop plug ins to the television) and utilising communication through the mobile devices and tablets.

It was recommended that tutorial systems be transferred to the Virtual Learning Environment (VLE) and the learning styles approach be reconfirmed on the VLE to assist reflection on learning.

MP3 feedback to be used for assessment purposes particularly within group discussion situations and to provide a more structured approach for the purposes of formative assessment. Criteria of assessment are to be made clear to the students with feedback that is constructive, specific, critical and easily accessible.

### ***Policy***

Evidence of student progression should be captured for institutional policy development on academic infrastructure and assessment frameworks.

It was recommended that cases of good practice for inclusive student-centred assessment be put forward to validation committees for the planning of different assessment strategies. That staff toolkits to be available for validation committees.

That institutional learning and teaching strategies and HR strategies and policies make provision for staff CPD in relation to the use of new technologies 'live' with students.

That equality of opportunity for all students in relation to assessment feedback remain a key concern in relation to timeliness and format of assessment and the typologies of language used with such.

Neil Powell 4/1/2016 13:06

**Comment [1]:** These both seem quite dated now...

**Professor Neil Powell. Norwich University of the Arts**

**Katherine Hewlett : MA RCA (PhD student at NUA)**

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