The Pocket Portfolio: Workplace based assessment and feedback in Medicine

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A case study from PebblePad's 2016 'Future Ready' conference on preparing and equipping learners for their journey.

The Context

The Liverpool Medical School introduced a new curriculum in 2014 and embedded an eportfolio approach into the programme with the expectation that this would help to prepare undergraduate medical students for the lifelong requirement to gather evidence of reflective practice. The School also sought to use the system to monitor student progress more effectively and enhance the quality and quantity of feedback.

The Problem

The decision to integrate an eportfolio approach into the medical Curriculum 2014 was taken for a number of reasons, including:

- Preparing undergraduate medical students for reflective practice and the requirement to collate a personal portfolio of evidence, a lifelong commitment which continues throughout postgraduate years and into a future career.
- Allowing staff and students to monitor progress over each year of the programme.
- Providing a secure institutional space to collect personal evidence and information.
- Aiming to enhance the quality and consistency of feedback captured during clinical placements, particularly from external staff observing and assessing medical students.
- Reducing the significant amount of paper previously used to record clinical activity.

The Approach

Over the past two years the School has moved from a restrictive paper logbook approach to an eportfolio model using PebblePad. Accessible offline and online through mobile devices, students can use the technology in their pocket to record their activities and experiences in any

environment. This activity incorporates both the clinical and non-clinical elements of the course over four year cohorts containing approximately 1200 students and is supported by hundreds of internal and external staff, all using the eportfolio system.

As a non-modular course we have created workspaces which reflect the year structure of the medical programme. Students need to satisfy identified requirements in each year in order to progress through to the end of year exams. The eportfolio system now offers the possibility of managing and monitoring these requirements throughout the entire School.

The first year use is designed around the curriculum themes and we use a combination of customised templates, assignments and workbooks. In the second year clinical placements commence which introduces the initial use of the PebblePocket app and customised clinical activity forms. We also ask the students to complete reflective templates and attach them to capability fields in clinical workbooks as evidence alongside a number of completed forms covering histories, examinations, clinical skills, attendance, etc. In the third and fourth year this clinical activity approach intensifies as the students continue to collect staff signatures and feedback against observed clinical activity using the customised forms on their own mobile devices. The structure of the Year 3/4 workbook is based around the timetabled clinical placements throughout the year, such as paediatrics, medicine, surgery and GP amongst others.

Students are encouraged to build up a comprehensive portfolio that exceeds baseline expectations. All of this activity is monitored remotely against minimum targets at different points of the year. Regular reports are distributed to year leads to keep an overall view of student progress. The quality assurance of this activity is then provided by academic advisors who meet their students several times throughout each year, to discuss progress and view the student's eportfolio content in detail.

All educational staff within the NHS Trusts also have access to the system as externals and offer annotated feedback attached to student workbooks. They also feed into progression review processes by viewing content through ATLAS within panels and sharing their findings with the School.

The Results

Full scale evaluation of the eportfolio and the new curriculum is currently underway but early indications show that the quality and quantity of student feedback has already improved across the programme. We have also seen an enhancement of many administrative processes and systems, such as academic advisor meetings and progression reviews.

For the first time ever the Liverpool Medical School can remotely monitor clinical placement activity and gain a realistic picture of student activity in real time. We also have the ability to bring

all assessment and feedback into one central location and inform student support processes with accurate data.

The regional NHS Trusts are fully engaged with our new approach and are playing an active role in developing and refining the staff and student involvement.

There has been a significant improvement in the student satisfaction compared to the initial pilot year. This reaction can been gauged from the decrease in the support necessary to field student complaints, answer queries and solve technical problems. We have even started to receive some positive comments from students! Further qualitative and quantitative evaluation data will be available at the end of the 2015/16 academic year.

Lessons Learnt

Our eportfolio project has proved to be a huge learning curve for the School of Medicine over the last three years. There were, of course, technical lessons learnt as we became more familiar with the tools and functionality of PebblePad. The use of mobile devices in clinical environments also presented significant challenges which we needed to work through. Additionally we had issues piloting the use of the customised offline forms within PebblePocket at a large scale. Account authentication, VLE integration and automatic large scale student enrolment were also crucial issues which all needed addressing.

However, equally important has been the experience gained in large scale project management of this kind, particularly in relation to the external healthcare environment. It has been necessary to create a cultural change amongst clinicians supporting medical students. This has taken some time but we are making progress and are now witnessing much greater engagement. We have also appreciated the potential of the system to improve existing administrative processes and this development has been accelerated.

Each medical school attempts to educate in different ways but sharing our experiences could benefit national and international medical education. Many barriers have been faced and most have been overcome which would be of interest to anyone engaged in healthcare and wider vocational courses.

The introduction of an eportfolio, as part of a wider Technology Enhanced Learning (TEL) strategy, into the undergraduate medical curriculum at Liverpool is significantly improving the student and staff experience. The effective use of an eportfolio can enhance medical education when the design and functionality of the system match the identified requirements.

In Brief – Showcasing 'Future Readiness' with PebblePad

- Preparing medical students for the lifelong requirement to collect and collate evidence.
- Helping to develop the reflective practice skills which medical students will continue to use as junior doctors.
- Improving the case presentation and discussion skills through the learning design of the technology system.
- Enabling the capture of real time assessment data in challenging offline clinical environments, in a robust and quality assured manner.