

ALPS Mobile Technology Pilots

Mobile Technology Pilots

During 2006, each ALPS HEI partner ran a mobile technology pilot to identify how mobile devices could be used by students on practice. Each ALPS University partner designed their own pilot based on a cohort of students in practice. The objective of these pilots was to place mobile devices in to the hands of the students, assessors and professionals to understand the acceptability of these devices when used in practice.

The five pilots were:

Pilot Descriptions

Bradford Aim

The aim of the pilot was: "To explore the feasibility and identify the issues of using mobile technologies in the assessment of health and social care students in practice settings"

Objectives

- Identify the readiness of ALPS partner institutions to adopt mobile technologies for assessment in clinical settings

- Identify the infrastructure available and required for support in using mobile technologies

- Explore the impact of using mobile technologies on current assessment processes and outcomes

Profession

Midwives

Pilot Scenario

First year of an undergraduate midwifery programme. Established system of assessment in clinical practice using a paper based clinical portfolio supported by a tripartite interview system. A staff and student group with positive approach to IT innovation was selected. Formal assessment using tools were developed for an HP iPAQ 6500 PDA using Windows mobile 2003 and PocketPCforms™ software to replicate existing paper provision.

Student Numbers

29

Outcomes

Findings

Positive Aspects - Students

- "I like that it's neat, that it's not your normal scruffy hand writing, I like that it's all contained there, in that one little thing, and it is all neat and tidy and readable"

- "I ... quite like it for doing my interviews rather than that big horrible book that gets mucky and bent and I don't like mucky things you see - and mine got marked and screwed up ..."

Removing barriers to writing

- "I preferred it because I just found it easier for me rather than having to sit and look at this white piece of paper and think 'right well I need to be absolutely certain of

what I am writing', whereas it was a case of I could right short notes, I could adapt it, I could add to it, I could change things, I could put my references in, I didn't have to cram it all in, it expanded and erm it was just kind of there. I could put it in my bag and take it along and it was just so much easier"

Positive aspects- staff

Overall consensus that 'going mobile' was a good thing!

Like the electronic diary that synchronised with the University system

Improved IT skills

4/5 would now buy one if these were taken from them

Negative Aspects - students

Anxiety about the reliability of the PDA and the possibility of losing assessment data.

Length of time of entering data

The project was seen by students as time limited, therefore

they did not want to become too reliant or too attached to the tool

did they necessarily want to invest valuable time in learning how to use a device

Too big to use as mobile phone

The impact of the PDA on the assessment process

"I didn't have any problems with it,

my link lecturer and my mentor were quite OK with it"

Potential for increased student centeredness

Conclusions

Staff (both practice and HEI based) and student training will be a key issue in the introduction of mobile technologies for the assessment of learning in practice settings.

When mobile devices are used care should be taken to maintain the pedagogical principles of assessment, such as increasing the student centeredness of the process and increasing student empowerment and control.

Mobile devices should be introduced to students early in their undergraduate programmes on a long term basis.

Instructions for use should stress that the device be always with the student in practice placement. Students should be encouraged to view the mobile device as any other clinical tool.

Huddersfield Aim

Development of the tripartite relationship between student, lecturer and practice assessor

Objectives

The objectives of pilot were first to support the tripartite relationship between student, mentor and lecturer by identifying the advantages and disadvantages of using mobile technologies as experienced by the participants and second to investigate security and synchronisation of data generated by the project.

Profession

Physiotherapy and Nursing

Pilot Scenario

Devices were deployed to Physiotherapy students 5 days prior to start of placement and to Nursing students as soon as possible while on placement. Clinical educators/mentors

received devices as soon as possible after start of placement. They were deployed with an information sheet / consent form, brief instructions and a loan agreement.

General advice was given on the sensible use of the device and students were encouraged to:

- contact each other by phone/email/text
- contact educators /mentors, tutors by phone/email/text
- use the internet to support the placement

Educators and mentors were encouraged to use them as they saw fit to support the placement.

Student Numbers

Physiotherapy (11) and Nursing (5)

Mentors 16

Lecturers 2

Outcomes

Encouraged the students to:

- contact each other by phone/email/text
- contact educators /mentors, tutors by phone/email/text
- use the internet to support the placement

Encouraged the educators/mentors

to use as they saw fit to support the placement.

University of Leeds

to give Lecturers experience in using a mobile device
to enable a core team of staff to gain expertise in:

- developing,
- implementing
- and supporting mobile devices.

to produce an evaluation report

Objectives

Formal assessment using tools developed for a mobile device for use by lecturers and practitioners. Radiography used existing assessment tools and Medicine used MiniCex.

Profession

Radiography and Medicine

Pilot Scenario

There were two project scenarios covered. The first was the assessment of Radiography students by practice assessors. The assessors used the devices to record the assessment data. The second was a MiniCEX (Clinical Examination) assessment for 5th year medical students. This was used during the 5th year shadowing process.

Student Numbers

Radiography - 5 Lecturers and practitioners - 40 Year 2 BSc (Hons) students

Medicine - 20 Year 5 students shadowing

Outcomes

The Assessors' Perspective

Positive points:

- Pilot has fueled a lot of discussion
- Most staff would like to continue with mobile technology
- Good for CPD purposes

Areas for attention:

- Some technical & usability issues to overcome
- Would have liked more training time

Strengths of Approaches Adopted

- Staffs' feedback shaped the assessment form
- All assessment data transferred successfully
- Spreadsheet of data produced
- Dissemination to clinical assessors
- Strong links forged between Schools of Healthcare & Medicine
- Contact established with UK phone providers

Institutional Readiness

- Lecturer-practitioners have experience with the technology
- Awareness of the possibilities and limitations
- Infrastructure in place
- IT staff have acquired skills in developing and supporting the technology

Embedding the Technology

- Sustainability of the technology
- Autonomy of the mobile device user

Evaluation of the Technology

- IT Infrastructure straightforward to set up
- Forms application can be designed quickly
- Some reliability and performance issues

Leeds Metropolitan University

Aim

The Aims of the pilot were to:

- Integrate mobile technologies into placement activities to include both dietetics and physiotherapy pre-registration students.
- Evaluate the usability of mobile technology with both staff and students.
- Deliver an enhanced student experience whilst on practice placement.
- Evaluate the effectiveness of the mobile technology in supporting assessment, learning and teaching activities.
- Define the ethical and data protection issues associated with the use of mobile devices in practice settings to support Assessment, Learning and Teaching.



Objectives

Address the following three key questions:

What is the experience of learners and practitioners?

- Did it improve the student experience?
- Did it improve their knowledge and skills?

What use was made of it to enrich ALT?

Was it integrated into the assessment?
How well learners understood the intended aims?
Did they benefit in expected and unexpected ways?
Were there enhancements to teaching and learning?
How easy is it to use and implement?

What problems were encountered?

Professions

Physiotherapy and Dietetics

Pilot Scenario

The learning activities were:

log of pivotal incidents that support critical analysis + higher level thinking
opportunity for inter-professional interaction to enhance inter-professional and collaborative working
support reflective and reflexive learning experiences
Reflective learning established using Media Board from Tribal CTAD®

Student Numbers

Physiotherapy 20 MSc

Dietetics 26 BSc (pre-registration)

Outcomes

Feedback

Student comments were:

...a bit bulky to carry around whilst in uniform

...it's fuffy writing with little pens...& the slideout keyboard is so small ... you typed slowly

..the media Board didn't work to start with...so no-one kept doing it

...I don't know if we were supposed to ...I used it to ring ethics boards and R&D boards. I didn't have to worry about the cost...it takes the stress away

...it got stolen – so I'd say that was a problem ...it was a kind of responsibility

...although difficult to come to terms with using the PDA...I used it extensively...will miss it on later placements –a godsend

Lessons Learned

Introduce the technology early in the course to encourage familiarity and develop cultural acceptance
Tasks need to be more directive and embedded in the assessment strategy
Encourage acceptance by the clinical educators and tutors.

Recommendations

Build up “resource boards” prior to and during placement.
Collection of multimedia objects and reflections to link with e-portfolios.
Enhanced use of the communication functions which would include more use of the “text

alert" function.

York St
John
University



Aim

Reflection on practice experience using blogging.

Objectives

The objectives of the MoBlogging pilot were evaluate the utility of systems and mobile devices and to identify ways in which the technology can contribute to enhanced assessment of student performance on professional practice placements.

Professions

Occupational Therapy and Physiotherapy

Pilot Scenario

First Year Occupational Therapy and Physiotherapy Students used a mobile phone that supported e-mail to create reflective accounts of their learning whilst on their placement. These accounts were posted to a blog site for college based tutors to review and comment.

The University supported students by

- running pre-placement sessions that included Classroom workshops and Problem solving with technology.

- Developing a Website that gave an overview of the project and access to video guides for usage

- Developing a WebCT site (the Universities Virtual Learning Environment) with a discussion forum, some Interactive content and all documentation.

Whilst on placement the students used their phones to send reflective text and pictures of their experience to the blog site. Students provided with a Bluetooth keyboard as well as the phone were able to record more comprehensive content to their blogs. Others enhanced their content by editing them using a PC outside the practice setting.

The Positive outcomes of MoBlogging were that students enjoyed keeping a reflective journal of their learning, enjoyed sharing this with peers and enjoyed using the device to make contact with peers whilst on placement

The feedback on the technology was that the phones were not user friendly for task; there were frequent problems with email from phone and some placement settings not able to use phones. They found minimal problems with Bluetooth® keyboards but many students found the time to compose and send emails discouraged future use. Other issues raised were technical problems with phones, students preferred to blog via PC, mixed response from educators and students were not allowed to use mobiles in hospitals.

MoBlogging used FLICKR® and BLOGGER®.

Student Numbers

18 Occupational Therapy and 19 Physiotherapy

Outcomes

Positives of MoBlogging

Students enjoyed keeping a reflective journal of their learning

Enjoyed sharing this with peers
Some excellent practice
Some practice minimal (even with tutor prompting)

Feedback on Technology

Phones not user friendly for task
Frequent problems with email from phone
Some placement settings not able to use phones
Minimal problems with blue tooth keyboards
Frequent technical problems with set up
Many students unable to successfully email
Time to compose and send emails discouraged future use
Technical problems with phones
Students preferred to blog via PC
Mixed response from educators
Not allowed to use mobiles in hospitals

Recommendations

A wireless solution
Any time/any place interaction
Options for different methods of updating
Tap into students' own devices in future
Web-based solution
Assessment material is not stored on device, meaning loss or theft won't cause problems
Can be backed up
Can be accessed in a variety of ways