The MoRSE Project – Enhancing Placement Learning by Science Students

Peter Taylor & Malcolm Andrew
(Leicester School of Pharmacy)
Richard Hall
(University TEL Coordinator)

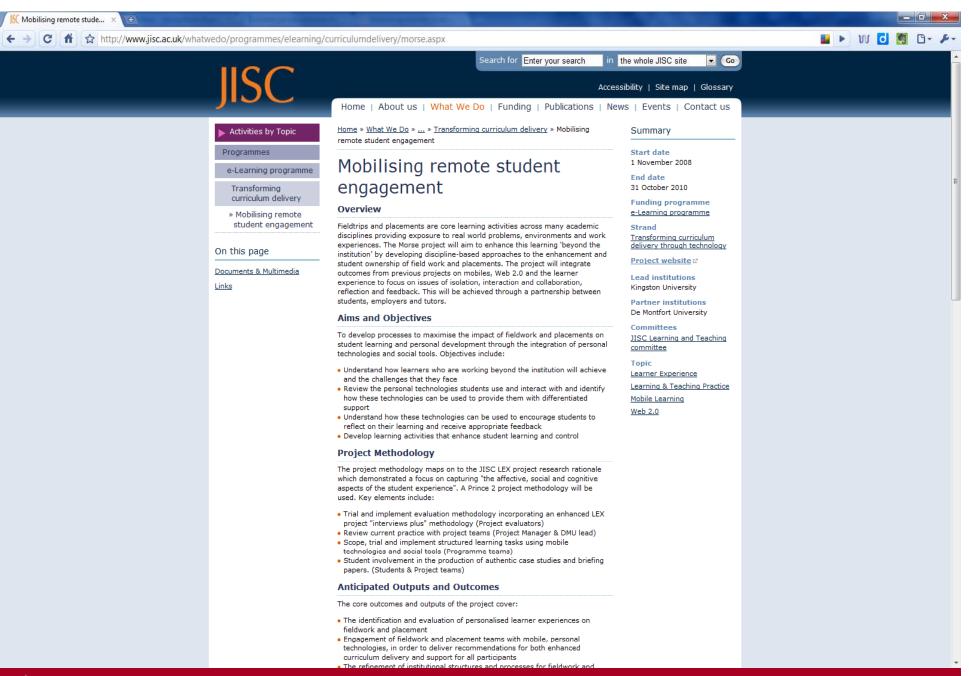
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MoRSE

- JISC funded project (Nov. 2008 Oct. 2010),
 with Kingston University
- Investigating ways of supporting student learning when remote from the university
- Focus on mobile & web2.0 technologies
- KU geography field trips
- DMU PCS placements



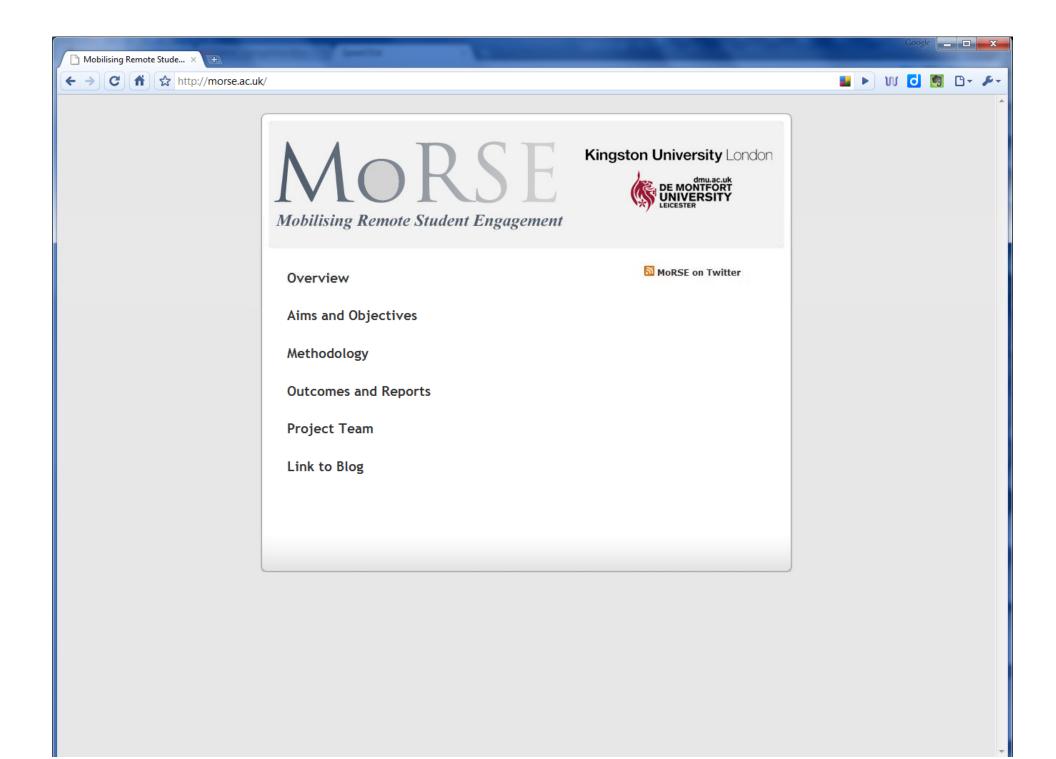




Project Aims

- Understand how learners working beyond institution will achieve & challenges they face
- Review students' personal technologies & identify how they can be used to provide differentiated support
- Understand how these technologies can be used to encourage students to reflect on learning & receive appropriate feedback
- Develop learning activities that enhance student learning and control





PCS Placements

- BSc (Hons) Pharmaceutical & Cosmetic Science
- Optional 12 month industrial placement in 3rd year
- Usually in development or manufacturing in pharmaceutical or cosmetic company
- Was assessed by 5000 word technical report and evaluations by industrial supervisor and visiting academic tutor



Benefits of MoRSE

- Increase students' contact with university; putting placement in context of curriculum; increase learning opportunities
- Enhance student/student & student/tutor dialogue; lessen any feelings of isolation
- Provide more opportunity for reflection
- Provide more tangible record of the year, with possibility of separate award (e.g. University Cert. of Professional Development)



Project Timeline

- December 2008: focus groups with Yr2 & Yr4 students & dialogue with employers & academic tutors
- February 2009: Survey of student IT equipment & their views about use of IT during placement
- March 2009: begin training for students & tutors on using the technologies
- July Sept 2009: industrial placements begin
- July Sept 2010: industrial placements end
- July-October 2010: main reporting phase.



Year 4 Student Focus Group Comments

- More contact with university welcomed
- Addition of portfolio to final report, linked to specific, regular tasks would facilitate reflection
- Would like to develop enhanced IT skills (e.g. making podcasts)
- Would even-out the variation in experience gained by students caused by differences in size and nature of the companies.



A Year 4 Student Says...





Year 2 Student Focus Group Comments

- Welcomed idea of more frequent contact to support their learning
- Liked the sound of the proposed staged elearning activities
- A few were daunted by the prospect of some of the e-learning activities (e.g. podcasting)
- Enthusiastic about using MoRSE to engage with Yr3 students on placement to help them to decide whether to do one themselves.



Tutor / Employer Comments

- Could provide earlier opportunity to intervene if student was experiencing problems
- Would increase tutor/student dialogue & supplement tutor visits to company
- Employers have concerns about confidentiality when students write about their placements
- Some tutors flagged the assessment of the e-learning activities as a potential issue



Student IT Equipment Survey

What portable electronic equipment do they possess?

	Yr 4 (n=18)	Yr 2 (n=32)
Mobile phone	18	30
Laptop [Netbook]	13 [0]	29 [2]
PDA	0	1
MP3 player [with recording facility]	3 [5]	7 [13]
Video iPod (or equivalent)	9	18
Stills camera (other than mobile phone)	13	19
Video camera (other than mobile phone)	3	9
Combined video/stills camera	7	10



Student IT Equipment Survey

What features did they have & use on their mobile

	% with feature	% using feature
1. Making phone calls	100	98
2. SMS texting	100	98
3. Taking pictures	96	98
4. MMS texting	92	68
5. Accessing the Internet	90	44
6. Listening to music	88	95
7. Listening to radio	83	38
8. Recording lectures	65	29
9. Social networking (e.g. Facebook)	52	32
10. Listening to/watching podcasts	29	36



Student IT Equipment Survey

 What technologies did they feel could support learning during placement?

	All Yr 4 (n=18)	Yr 4 who did Placement (n=11)	All Yr 2 (n=32)	Yr 2 wanting Placement (n=17)
1. Mobile phone	14	8	25	12
2. Podcasts	6	2	19	9
3. Social networking	13	9	16	7
4. Blogs	8	6	13	10
5. An e-portfolio	9	7	12	9
6. Wikis	4	2	7	4
Other				Email Blackboard



Final Approach to MoRSE

- Use Blackboard tools
 - confidentiality issues with other technologies
 - students already familiar with system
- Public wiki
 - common, set tasks
- Personal blog
 - reflective writing
 - not accessible to other students



Structured Tasks

- Approximately monthly intervals
- Examples of wiki tasks:
 - what are your expectations of the placement?
 - describe your role in the department
 - tell us about the area you live in
 - what advice would you give to students considering a placement?
- Personal blog has general task of reflective writing



Experience to date

- Students are generally very positive
 - from discussions with visiting tutor
 - feedback session at DMU, January 2010
- Helping students think more deeply about how they are developing on placement
- Improving links between students and university



Student Comments (Jan. 2010) 1





Student Comments (Jan. 2010) 2





From the Wiki

- "In uni you're working most of the time on your own to complete any work that has to be done. Whereas in work you can work on your own but you know your part of a small team most of the time."
- "One of the most annoying aspects of working in the pharmaceutical industry I have found is always signing and dating mistakes" (in lab. books)
- "Another good part here in ... is that you have to plan your own experiments/testing dates, booking of equipment etc"
- "The thing I like about working here is that it's very organised and you can plan ahead and get everything arranged. It's make life so much easier when you actual come to doing experiments."



Lessons Learnt (so far...) 1

- Increased contact with students by conventional means (telephone, email)
- This approach overlays existing networks between students (text, email, Facebook etc.)
 - what are implications for issues of student isolation?
- Students need more introduction to reflection before they go on placement



Lessons Learnt (so far...) 2

- Difficult to maintain schedule of monthly tasks
- Commitment of staff time
- Scalability
 - how can this approach work for larger numbers of students?
- Reluctance of some companies to allow full participation



UCPD

- University Cert. of Professional Development
 - Industrial Studies (Pharmaceutical / Cosmetic)
- Two x 30 credit modules
- Supplements existing degree title ("...with Sandwich Placement")
- Expected to be validated by end June 2010



UCPD Modules

- "Placement Reports" module
 - 5000 word technical report
 - Satisfactory evaluations from industrial supervisor and academic tutor
 - Effectively the existing placement assessment
- "Reflection on Practice" module
 - Portfolio of evidence for reflective learning
 - Uses blog and wiki tools on Blackboard



Development of MoRSE

- One outcome from project is to establish model of placement support that can be adapted to other programmes / subject areas
- Is this model feasible?
- What adaptations might be needed?

