“Activity Led Learning: Changing cultures and building the teaching environment to achieve industry ready engineering graduates”

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- Faculty covering broad range of Engineering, Computing and Mathematics subjects
- 5000 students: 3700 undergraduate, 1100 taught postgraduate and 200 research
- 500 staff of whom 400 are academic
- League table performance, especially teaching, was not good enough
Presentation plan

– Why change?
  • Local drivers
  • Industry and employer drivers
  • Government drivers
– Defining a Faculty view for a new pedagogy
– The change process
  • What went well and why? What went wrong?
– Activity Led Learning in practice
  • Broadly defined activity led process
  • Developing supporters
– Learning spaces for ALL
Drivers for change (1)

– Government
  • Student course completion rates
  • Good honours and employment rates
  • Student satisfaction rates
  • League tables
  • Tuition fees

– Industry and employers
  • Developing an industry ready culture
  • ‘Soft’ skills (project management, team working, communication)
  • Current knowledge
Drivers for change (2)

– Local drivers
  • Students and satisfaction with learning
  • Possibility of a new building
  • History of technical education

– Pedagogy
  • Desire to develop a coherent learning approach
  • Reputation for learning and teaching
Faculty vision for teaching, learning and assessment

– Learning should be led by activity
  • Projects, industry posed problems, case studies, practical challenges, design exercises should be cross cutting, demonstrating integration
– Learning should be linked to the laboratory or workshop
– Learning should be in an industrial or commercial context
– Learning in close partnership with practice
Putting the vision into practice

– Activity Led Learning: moving from vision and strategy to real examples.
– A strong and often repeated message
– Find a willing pilot
– Make sure that the study is academic – these are academics after all
– Bring the students into the team
– Refine the message and repeat it again and again and again and again and .....
Managing change – with an academic community!

– Involve the community in developing a strategy
– Create a group of supporters
– Fund activity that underpins and supports the project
– Communicate, more than you can imagine
– Publish the results
– Gain some international support
– Develop staff to become facilitators
– Be persistent
What worked? And what was more difficult?

- Pilot project, funded projects, group of supporters
- Mass communication events, international support
- Subject related difficulties, need examples from practice
- Staff buy-in
- Workload planning, staff profile needed change (TA’s)
Designing learning spaces for ALL – external view
Designing learning spaces for ALL – Campus approach
Designing learning spaces for ALL - Courtyard
Designing learning spaces for ALL – Collaborative space
Designing learning spaces for ALL – Student space
Designing learning spaces for ALL – Student space
Designing learning spaces for ALL – Lecture spaces
Designing learning spaces for ALL - Laboratories
And what is next?

- So far we have
  - A 10-15% improvement in completion
  - A 10% improvement in grades
  - Enhanced employment of graduates
  - Some staff turnover, unfortunately

- Next steps
  - More projects across year groups and with more interdisciplinarity
  - More investigation into learning styles and matching approaches to teaching to students