

# How realistic is 'realistic project work'?

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# Realistic projects

- Design projects
- Feasibility studies
- Major group project in year 3
- Big integrating project in year 4 of MEng
- Any other type of project work:
  - Realism in technical terms: brief, challenge
  - ‘Professional’ expectations
  - Teamwork

# Opportunity

- Civil engineering at Coventry: 30% of u/g cohort **part-time**
- Day release: 1 day with us; 4 days at work
- Knowledge and experience of the industry
- Apply 'professional skills', in (e.g.) time management, to studying

# Case study

- National HE STEM Programme
- Probing the response of part-time students
  - How successful are we in our attempts to create realistic project work for students?
  - Is there value for students who have already developed professional attributes at work?

# Approach

- Semi-structured group interviews with students
- 4 members of teaching staff
- None interviewed students they were currently supervising
- Also ... students who completed a year-out industrial placement

# Interviews

- 42 part-time students in 12 groups
- 10 sandwich students in 3 groups
- Perception of the realism of projects
  - technical
  - team-working

# Analysis

- Thematic analysis by interviewer
- Discussion by team
- Further thematic analysis of full data set

# Realism?

- Yes, technical aspects
- Basing projects on a real site, with real data, and using a realistic brief, input from practising engineers



- Less realistic?
  - Scale and scope

*'It's real in the fact that it's a real building and it's real information that we were given, but you know in the back of your head that it is not going to work like this – there's not going to be 9 people designing the whole building in the space of 3 months.'*

- Some felt that some briefs offered too much freedom to be considered realistic

*‘They [full-time students] will come out of the project thinking oh yes I’m competent I can do a drainage design, they’ll get this idea that real project work is like you start with a clean piece of paper ... it’s not usually like that ...’*

- Others saw this taking them beyond workplace experience especially in technical areas

*'The bit I'm doing is helping tremendously ... I'll be designing the structure - that's all going to come from university not from the workplace'*

# Group work experience

- Realistic?
- There may be problems, but isn't that what it's like in the real world?
  - Some agreement with this view

*'At work we don't get to choose who we work with. Some of the guys we work with are absolutely the worst people on earth – we'd never choose to work with them ... they're the cheapest, or they're the client, and that's who you have to work with, whether they pull their weight or not'*

- However, pointed out by virtually all the groups - management structure in the workplace: boss could intervene
- Interestingly most admitted that this rarely happened

- Some students described potential sanctions in which a colleague might be reported to the boss, but others indicated that they could sort it out themselves

*‘Group dynamics are hard no matter where you are, if you’re at university or at work’.*

- So is there much difference between the two environments? All groups felt strongly that there was.

*‘... in industry ... you’re all working on the same project, with a manager, getting paid’*

*‘... you have to act professionally at work’*



# Conclusions

- University projects based on real scenarios and real data considered by those with good knowledge of industry to provide realism

- To make projects practicable in university setting ... some loss of realism in terms of scope and scale
- Some part-time students feel that freedom and open-endedness diminish realism, but others relish this because it contrasts with daily work

- Problems in working with other group members may reflect the real world, but the circumstances are not realistic
- Management structure in the workplace
- Professional behaviour expected by all

# Discussion points?

- Realism (technical): real site, real data, realistic brief, input from practising engineers
- ‘Realistic’ v. ‘open-ended’
- Educational benefit is more important than realism *per se*, so what is the importance of realism?

- Realism (team working): don't say 'that's what it's like in the real world' because that's only half true
- Moderating role for staff (as client?)