A blended approach to embedding employability skills and global societal responsibility:

an NTFS study through a Masters Unit in managing humanitarian aid projects

Bland Tomkinson

Visiting Lecturer, School of Mechanical, Aerospace and Civil Engineering, University of Manchester

Manchester background

- RAEng-sponsored project on embedding sustainable development in the undergraduate curriculum.

  - PBL based.
  - Widely reported.
  - Ideas to expand to a wider audience.

NTFS project

○ Embedding sustainability in the curriculum through blended learning:

- Universities of Keele, Manchester and Staffordshire;
- Different approaches at different sites;
- Manchester project largely on MSc module on managing humanitarian aid projects.

Project Managing Humanitarian Aid

- PBL (Social Constructivist) Approach
- No formal lectures
- Small, interdisciplinary groups (~8 students)
- Tackling "wicked problems" (scenarios)
- Facilitated discussions
- Group, individual and peer-assessed reports

Project Managing Humanitarian Aid

- Moving to a blended approach:
    - Why?
        - Part of Keele-led project;
        - Issues of scalability and logistics;
        - Feasible for Distance Learning?
    - How?
        - Tackle one scenario entirely online;
        - Add additional functionality to existing online support.
            - BlackBoard 9
            - Use of Wikis
            - Reflective journal
            - Online assessment
            - Screencasts

Online scenario

- Agro-forestry in Mali
- Evaluate BLF funding project proposal

- No face-to-face collaboration

Project evaluation – data collection

- ○ Submitted Reports
  - All groups and individuals successfully submitted
- ○ Nominal Group Process
  - Groups generate positive/negative comments and vote
- ○ Online Survey – 15 questions, 5 point Likert-type scale
  - 62.5% response rate (15/24)

Nominal Group results - positive

+ Interactivity;

+ Learning by doing;

+ Skills development;

+ Real-life problems;

+ Working with others (across cultures).

Nominal Group results - negative

- BlackBoard dysfunctionality;
- Unclear requirements;
- Wiki not user friendly;
- Group dynamics;
- Difficulty of managing diversity of opinion;
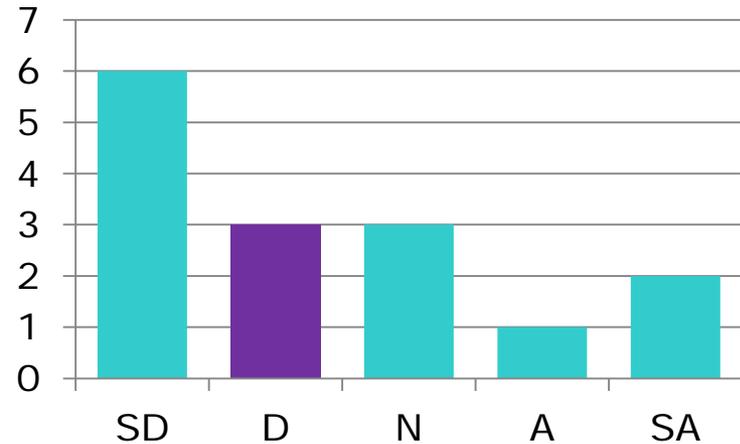- Time!

Examples of questionnaire feedback

○ Q7. My group used additional online tools (e.g. Facebook) to collaborate online. (14/15 agree)

- Facebook: 11
- Skype: 12
- Email: 12
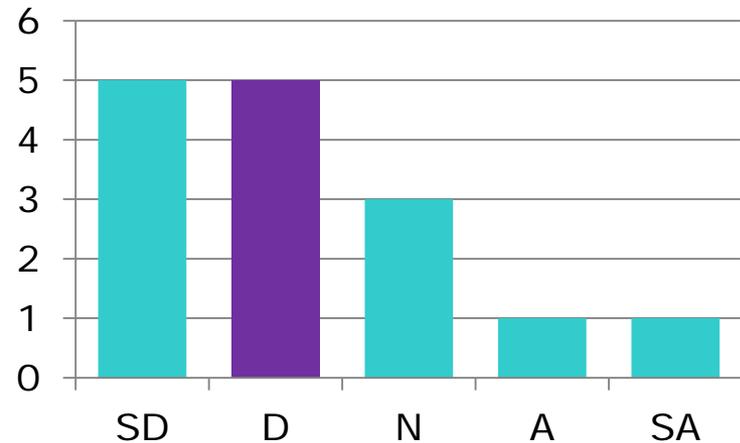- Mobile Phone: 5
- Google Docs: 1
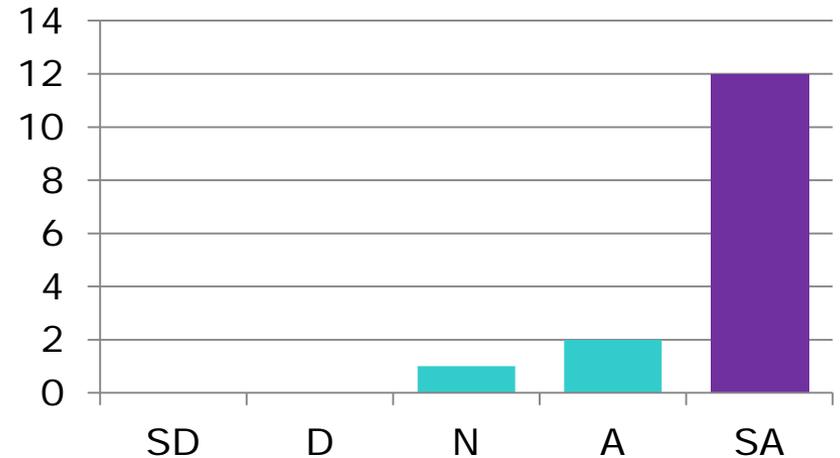
Examples of questionnaire feedback

○ Q9. I prefer meeting online to meeting face-to-face. (3/15 agree)

○ Q10. I contributed more to the online discussions than I would in a face-to-face meeting. (2/15 agree)

Student comments

○ "This module is more practical and so more useful than other modules. My view is that sitting in lectures is meaningless, because you forget the information but only a few points stick in your mind. You remember more from this module. In this course when you solve a problem you never forget how you solved the problem".

○ "I am more confident (than before taking the module) to work in a team, to co-operate, to try making compromises and negotiations in order to prevent conflicts. Overall, the scheme on working as a team in various projects is very helpful for my future career in the companies I pursue to work, so I am really happy and satisfied with this module which is totally different learning procedure than others."

Employability [NTFS questionnaire]

5. Employability Skills:

Q: Do you feel that you have gained any skills as a result of this module that will improve your chances of getting a job or enhance your performance at work, now or in the future?

A: Keele: Yes 24 (69%); No 4 (11%); not sure 7 (20%)
Manchester: Yes 28 (93%); No 1 (2%); not sure 2 (5%)
Staffordshire: Yes 13 (81%); No 0 (0%); not sure 3 (19%)

Q: Has this module made you think about your future career plans in any ways?

A: Keele: Yes 18 (51%); No 9 (26%); not sure 8 (23%)
Manchester: Yes 20 (67%); No 3 (10%); not sure 7 (23%)
Staffordshire: Yes 6 (38%); No 4 (24%); not sure 6 (38%)

Conclusions

○ Online aspects: limited success
- All groups collaborated and submitted.
- Effective group communication part of the challenge.
- Students probably would not agree…!
- Lessons learned
  ○ Synchronous communication tool needed
  ○ Greater familiarity required

○ PBL aspects: very supportive of employability
- Skills development
- Synthesize real life.

○ Students find it hard work, but enjoy it!

Thank you

Bland Tomkinson

Visiting Lecturer, School of Mechanical, Aerospace and Civil Engineering

http://www.youtube.com/watch?v=rWfyLvUojns