Enhancing employability in a final-year undergraduate module using groupwork and peer assessment

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In the current economic climate, there has never been a more important time for universities to produce graduates who can demonstrate their employability. A report carried out by the Sector Skills Council for Science, Engineering and Manufacturing Technologies in 2008 stated that skills shortages are higher in the bioscience sector than in any other sector, and there is a push to develop graduates who are "fit for purpose" (SEMTA, 2008). Interpretations of what is meant by employability vary, from the USEM approach (**U**nderstanding, **S**kills, **E**fficacy, and **M**etacognition) of Yorke and Knight (2004), to the more practical approach of Hillage and Pollard (1998), who state: "Employability is the ability to gain and retain fulfilling work". The DOTS model (Law and Watts, 1977) uses planned experiences designed to facilitate the development of employability skills such as: **D**ecision-making, **O**pportunity awareness (knowing what work opportunities exist and what their requirements are), **T**ransition learning (including job searching skills), and **S**elf-awareness (in terms of interests, abilities and values). This model has been further developed by Dacre Pool and Sewell (2007) to produce a straightforward, practical model of employability that can be used as a framework for working with students.

There is no doubt, however, that in recent times employers are looking for more than just subject-based skills and that transferable skills will become more important. The job market is becoming more competitive: a survey carried out by the Association of Graduate Recruiters in 2009 indicated that on average there were 48 applications per graduate vacancy (AGR, 2009). It is therefore important that graduates are able to demonstrate the skills that employers are looking for.

To try and give students the opportunity to demonstrate skills such as project management, group working and presentation, the module Integrative Studies was devised for final-year Biomedical Science undergraduates. This third-year module was the first in a series of modules planned to develop employability; a first level module was run for the first time this year, and a second level module will be introduced next year.

Design of the module

The students worked in small groups, and were responsible for the development of a novel biotechnology product, from the science behind it through to marketing and finance. Each person in the group had to have a specific role, e.g. research scientist, marketing manager etc. After eight weeks the group were required to present their product to a *Dragons' Den* type audience (the module tutor plus two other examiners). It was up to the group how they organised the presentation: some groups asked the 'Dragons' for money for further development, others to sell the product. Each person from the group presented their area of research. The overall presentation was worth 40% of the module mark. Although this was a group presentation, the group were allowed to peer assess each other's contributions, so that those students who were perceived to have made less of a contribution received a lower mark. The module tutor used the peer assessment plus group contribution input (see below) to adjust the marks. This prevented the group fixing marks by giving each other 100% or 'ganging up' on one member of the group.

After the presentation each student produced a report based on their own area of research, a general product overview (40% of the module mark), and a reflection on how the group worked together and their role (15%). The remaining 5% of the mark was for completing group tasks throughout the module (see below).

Formal teaching sessions took place for the first six weeks of the module: these sessions covered groupwork activities and analysis of roles, formal minute taking and report writing (facilitated by the module tutor), and a business planning session organised by the business start-up team. The session introduced the students to business planning, as well as further workshops run by the start-up team, but also made them think about their company ethos and aims. The start-up team also offered one-to-one sessions with the groups so they could either practise the presentation, or get specific information and advice. While not all the groups used this facility, some did, and reported that they found it very helpful. There were also 'drop-in' sessions in the weeks after the formal teaching sessions with the module tutor where the students could come in and discuss problems and ideas.

The students were required to show they were working as a group by completing group tasks such as posting the group meeting minutes onto the discussion facility of X-stream (the Leeds Met Virtual Learning Environment). The module tutor was able to view the discussion boards to get an idea of how the groups were working, but also to offer feedback and advice where necessary. The group tasks were worth 5% of the module mark and again were adjusted by the module tutor; for instance, if only one person took minutes at every meeting, they got a higher score than the others.

Evaluation of the module

The module was a core module for all Biomedical Sciences students, so 68 students worked in 19 groups overall. The standard of the work produced by the students was high: only one group failed the presentation, and the highest score was 90%. The products the groups presented were widespread, from new drugs and vaccines to child-friendly hearing aids and GPS systems embedded into walking canes for the partially sighted. Only two students failed the report and reflection element.

Staff appeared to view the module favourably as it can easily be adapted to other subject areas, and the model has been used in other courses within the Faculty of Health.

Feedback from the students was mixed: two students said they were unhappy about using groupwork and peer assessment in the final year to determine marks, but several students commented positively on the chance to improve their groupwork and presentation skills. One also commented that they thought this would help their interview skills, and several said they thought the assessment experience would help them to demonstrate their employability.

Overall, the module assessment appears to have achieved its purpose in engaging students in developing and demonstrating employability skills, especially groupwork and presentation skills. Most students appeared to enjoy the experience. The more mature students, either those who had worked full-time before becoming a student or were current part-time students, appeared to understand what the assessment was aiming to achieve. The less mature students, especially those who were not currently in employment, struggled with the concept from start to finish, and were uncomfortable with the task set, as it was different from anything they had come across before.

Conclusions

Overall the module appears to have done what it set out to do, providing a means for students to demonstrate groupwork and presentation skills, and even if the students felt it was different from anything they had done before, it does appear to have been successful in making them aware of the types of skills they will need to gain employment. The use of the business start-up team was invaluable in getting the students to think of the group they were in as a company, with values and aims. Perhaps the task for the next academic year is to persuade those students who are not happy with this type of module in the third year that it is a valid and useful activity, possibly by introducing them to some of the literature about employability. Once the planned first and second level employability modules are in place, the students may find this type of module easier to cope with.

References

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