Training Tomorrow's Scientists

IS-07

REFLECTING ON AND RECORDING EVIDENCE OF ACQUIRED TRANSFERABLE SKILLS

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Studying off-campus, placements enable students to develop a range of skills that demonstrate their independence and adaptability, and enhance their academic and employability prospects (Messelink et al., 2015). The value of a placement experience is enhanced when the experience is systematically assessed (Beard, 2007). In the postgraduate module described here, the off-campus students write a weekly reflective log describing their personal and academic experiences and link them to key employability skills. On their return they write a final report describing the socio-economic drivers of the research and the potential impact of the research on local communities. E-portfolio system supports this online reflective log. The e-portfolio forms contain specific elements for students to complete, which are then read and evaluated on-line by supervisors who provide timely feedback and suggestions for improvement. This log also includes a skills audit, highlighting both the scientific and personal skills that have been developed during the placement. Monitoring students' ongoing performance is important in order to encourage formative feedback and dialogue between students and University academic supervisors, as well as encouraging students to take responsibility for their learning. Here we describe the evaluation of the student experience during these placements within an international university or national partner organisation, and the module assessment system. Data were collected using a questionnaire and a focus group, and several themes emerged from the analysis. First, results showed that taking part in the placement and conducting their own independent research at the host site helped students to make connections between their scientific knowledge, otherwise constrained within the walls of the University lab, and the wider impact of their research on society and people. Another theme was about career choices and aspirations, and the placement experience either confirmed prior choices or opened new horizons. Students were able to appreciate a wider range of research settings (e.g. research-support or mix of clinical & research), of which they were previously not aware. In relation to the assessments, students stated that the online reflective log helped them to feel supported by the university academic, while weekly feedback on work challenged them to reflect on the scientific and personal skills gained. Students agreed that they had further developed their employability skills (as determined by a skills audit) during the placement. Students acknowledged it was challenging to have to acquire evidence of skills development and to discuss the socio-economic impact of their work in the final report. However, they appreciated the usefulness of this reflection in relation to their future careers. In addition, many students commented that writing the weekly logs helped with writing the final report.

References: Beard, D.F. (2007) Assessment of Internship Experiences and Accounting Core Competencies. *Accounting Education*, 16:2, 207-220, DOI: 10.1080/09639280701234625

IS-08

EXTERNAL EXAMINERS, SUPERVISORS AND ACADEMICIANS FOR THE INTERNATIONAL POSTGRADUATE (MSc and PhD) PROGRAMMES

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Several International Universities are appointing External Examiners and International Academicians as Lecturers and Supervisors for their Post-graduate (MSc and PhD) programmes. The General Academic Regulations of the University of Zimbabwe, College of Health Sciences provide appointment of External Examiners "to moderate all formal examinations" for MSc programmes. The University normally appoints External Examiners for a three year cycle during which the External Examiner will moderate examination papers every year, but will visit the institution every other year to participate in the examination process. Appointment of External Examiners is made by the Senate on the recommendations of the Departmental Boards based on the high academic standing and CV.

The main duties of an external examiner are:

- to evaluate all forms of assessment which contribute to students' degree results;
- to evaluate, and help ensure fairness and consistency in the assessment process;
- to moderate summatively assessed work at module and programme level;
- to comment on draft examination papers and assessment tasks as appropriate;
- to report on the structure, content, academic standards and teaching of programmes;
- to comment on any alleged cases of assessment irregularities.

Each External Examiner is requested to provide a confidential written report at the end of his examining duties to the Vice Chancellor on email and not to the Chairpersons of Departments or anyone else. External Examiners are encouraged to make any comments they wish, including observations on teaching, course structure and course content, as well as the examinations themselves. Postgraduate PhD programmes at the University of Modena and Reggio Emilia provide advanced research and professional skills to highly qualified students. International academicians for the programs are appointed annually based on an evaluation for a high academic standing. Many of the programmes are jointly coordinated with national and international partners and all doctoral programmes offer the opportunity to spend time abroad for research and internships. Admission is based on an examination. All doctoral programmes at University of Modena and Reggio Emilia begin on November 1 and last three years, and no fewer than 50% of the students enrolled in the programmes receive full scholarships.

IS-09

GENDER ISSUES ON SCIENCE AND EDUCATION: THEORY AND PRACTICE

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Gender: refers to the social attributes and opportunities associated with being male and female and the relationships between women and men and girls and boys, as well as the relations between women and those between men. These attributes, opportunities and relationships are socially constructed and are learned through socialization processes. They are context/ time-specific and changeable. Source: UN Women, available at Concepts and Definitions

There are intrinsic biological differences which contribute to diversity of points of view. Diversifying problem solving styles, and widening perspectives on possible solutions is always positive. The participation of women in science and technology needs to be promoted since it has shown to contribute to increasing innovation, plus quality and competitiveness of scientific and industrial research. Furthermore, there is the need to advance and benefit from gender-sensitive research in innovation and development.

Education is the basis of all socio-economical progress. Towards the inclusion of a gender perspective in education can lead to advances in any society and gender gaps have to be avoided so as man and women have the same opportunities.

IS-10

E-MED ACTIVITIES IN CHARLES UNIVERSITY

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Medical faculties in the Czech Republic and Slovakia have developed a strategy for the construction of a network in 2006 and Chaler University was a leading institution. Instead of a new centrally organized consortium they created the network from the bottom up. MEDical FACulties Educational NETwork - MEFANET represents a strategy for preparing and sharing electronic educational materials.

MEFANET offers a common gateway to educational objects created by any member of the network. There are sophisticated tools for classification of the content, sharing it and controlling access. All activities of MEFANET are coordinated by an advisory board of faculty deputies. MEFANET has proven to be cheaper, more viable, self-regulating and