MINIREVIEW – Professional Development

International mobility placements enable students and staff in Higher Education to enhance transversal and employability-related skills

Henrietta J. Standley*

Cardiff School of Biosciences, Cardiff University, The Sir Martin Evans Building, Museum Avenue, Cardiff CF10 3AX, UK

*Corresponding author: Cardiff School of Biosciences, Cardiff University, The Sir Martin Evans Building, Museum Avenue, Cardiff CF10 3AX, UK. Tel: +44 (0)29-2087-6735; E-mail: StandleyHJ@cardiff.ac.uk

One sentence summary: As Higher Education Institutions everywhere promote internationalization, students and staff can enhance their intercultural competencies, and thereby employability, through international research and teaching mobility placements.

Editor: Laura Bowater

ABSTRACT

Internationalization has commanded an ever-more prominent position in higher education over recent years, and is now firmly entrenched. While academia has long been outward looking—international research collaborations, conferences and student exchanges are well-established practices—it is relatively recently that internationalization has become a goal in its own right, rather than a consequence of normal academic activity. There are multiple interdependent drivers behind this: a focus on graduate employability and development of broad competencies and transferable skills in addition to subject-specific training, ‘international awareness’ being confirmed as a graduate attribute that is highly valued by employers, the availability of detailed information enabling prospective students to choose between Higher Education Institutions on the basis of their international opportunities and graduate employment rates, increasing competition between Institutions to attract the best students and to ascend national and international league tables, and (both driving and reflecting these trends) national policy frameworks. This minireview focuses on two aspects of internationalization of direct relevance to microbiology students and academic staff in a typical Higher Education Institution: student research placements overseas, and the impact of international mobility on teaching practice and the student experience. Practical strategies for developing intercultural awareness and enhancing employability are highlighted.

Keywords: internationalisation; higher education; employability; Erasmus; mobility

INTRODUCTION

Internationalization is firmly at the centre of Higher Education (HE), well established in institutions in the EU, North America and the Pacific Rim, and expanding to include those in South America, China, India and other regions, as Higher Education Institutions (HEIs) everywhere seek to demonstrate that they are truly global in profile and influence, and that their graduates are globally competitive. It is now commonplace for an HEI to publish an Internationalization Strategy, stating bold ambitions to strengthen that HEI’s international presence through student and staff mobility, overseas campuses, collaborative and transnational course provision and other means. Such Internationalization Strategies have become core to the HEI’s mission, influence investment priorities and set the agenda for future development. As such they have a considerable impact on all students and staff, whether or not they themselves travel abroad.
as part of their study or work. Indeed, the term for one component of internationalization, ‘internationalization at home’, is the concept that even non-mobile individuals will experience aspects of internationalization through their interactions with incoming students and with students and staff who have returned to their home institutions after a period abroad. As internationalization at home becomes mainstream, its proponents believe that a higher percentage of students and staff will choose to engage in mobility opportunities themselves (European Commission 2014). As well as mobility amongst HEIs, curricula within individual HEIs have become more international. Within the European Union (EU), there has been a drive to align the HE systems in different countries (e.g. the Bologna process) to facilitate students completing part of their degree abroad.

A commonly accepted definition of internationalization of HE, ‘the process of integrating an international, intercultural or global dimension into the purpose, functions or delivery of post-secondary education’ (Knight 2004), highlights the complexity of the topic. A distinction should be drawn between ‘internationality’ and ‘internationalization’, where ‘internationality’ describes an institution’s current status with respect to international activities, and ‘internationalization’ describes the directed process of moving towards a modified status of extended internationality (Brandenburg and Federkeil 2007). For any HEI, there will be a gap between current and desired internationality. Individual student and staff perceptions of internationalization, and their personal experiences of the process and its consequences, may differ widely even within a single HEI (Warwick and Moogan 2013). There is also a question of how internationality should be measured and effectively compared between institutions, and what parameters define a successfully internationalized HEI. Raw numbers of international agreements or incoming and outgoing students and staff provide an indication of internationality, but do not necessarily reflect the quality of the partnerships or the actual benefits (and costs) of international experience to individuals.

Microbiology has of course long been an international discipline, and researchers into its clinical, food, environmental and other applications, as well as into basic microbiology, can benefit from programmes such as Horizon 20-20, established with the specific goal of facilitating collaborative international research and innovation. Twenty countries featured in the recent US News Best Global Universities for Microbiology rankings (2014), an indicator of the wide distribution of research and teaching excellence in the field. Under the auspices of the European Lifelong Learning Programme, the Erasmus Mobility Programme was established to aid participants in developing those skills and competencies most relevant to employability, through facilitating international mobility. Erasmus has been succeeded by Erasmus+ from 2014, and is the most significant mobility programme in the EU, facilitating student and staff exchange between countries for study, research and teaching purposes. For students, international professional experience in the student’s academic discipline is particularly highly valued by employers. International experience develops an individual’s ‘intercultural competence’—essentially the ability to interact effectively and appropriately with others from diverse cultural backgrounds (reviewed in Perry and Southwell 2011)—an important component of employability.

This minireview will focus on just two aspects of internationalization, the first is how students can benefit from research experience abroad in terms of increased employability. This is timely, in the light of the recent publication of the Erasmus Impact Study (EIS) (European Commission 2014). Increased student mobility has resulted in more diverse student cohorts, raising challenges for teaching staff as well as for learners. The second area that will be discussed here is how staff can embrace this challenge and foster an international environment, so that even non-mobile students and colleagues develop a broader appreciation of international issues. Microbiology education is one area of the biosciences that has always had an international flavour to its curriculum, whether from interests in diseases in the developing world, emerging and reemerging diseases, or the spread of infectious agents between populations and around the world. By combining this field of inherently global scope with greater awareness of the schemes that exist to promote international mobility, students and staff in microbiology are well placed to benefit from the internationalization of HE.

Professional experience gained abroad is highly desirable in enhancing graduate employability

Employers view professional experience as one of the most important skills for graduate employability (European Commission 2014). As competition for employment intensifies, graduates who are additionally able to demonstrate broad competencies, such as international cultural awareness, find themselves at an added advantage. Studying abroad has also been shown to enhance employability, provided it is in a relevant subject area (Sweeney 2012). Thus, promoting international experience is seen by HEIs as an effective means of boosting their graduate employment statistics.

One of the objectives of the UK Strategy for Outward Mobility is to promote the benefits of study and work abroad to pre-university students (UK HE International Unit 2013), as part of the UK’s commitment to meeting the European Higher Education Area’s target that ‘by 2020, 20% of students across the EHEA have an international mobility experience as part of their studies’ (UK HE International Unit 2013). Coupled with increased awareness of the benefits of international experience, university applicants now have access to detailed data (e.g. Key Information Sets data in the UK) enabling them to compare the international opportunities offered by competitor HEIs. Students on a wide variety of degree courses are encouraged to spend a semester or year abroad as part of their degree, or to undertake a summer research or volunteering placement, and a plethora of schemes exist to provide funding for such mobility. In the EU, Erasmus was the most comprehensive such Mobility Programme, running until 2013, and succeeded by Erasmus+ from 2014 to 2020. As well as being the largest international mobility programme in Europe, it is also the one for which the richest source of information is available, thanks to the EIS (European Commission 2014). This is the most comprehensive study of student mobility to date, and is worth considering in some detail. A key aim of the EIS was to analyse the effect of mobility in relation to individual skills enhancement, employability and institutional enhancement, and it addressed this by combining qualitative and quantitative studies. Crucially, it used psychometric analysis to measure actual skills development, rather than relying on students’ perceptions of their own abilities.

The EIS assessed students who were about to embark on, and those who had just completed, an Erasmus mobility period, as well as a comparable group of non-mobile students. Erasmus alumni who had completed a mobility period in previous years were also assessed, to determine whether the effects of international mobility were enduring. The psychometric analysis measured six so-called memo© (‘monitoring exchange mobility outcomes’) factors, personality traits that are closely
related to employability, namely tolerance of ambiguity, curiosity, confidence, serenity, decisiveness and vigour (memo© tool developed by CHE Consult GmbH). Approximately 92% of 652 employers surveyed confirmed that these six competences were especially important when assessing employability, and 64% also stated that international experience was important, increased from 37% in 2006 (European Commission 2014).

The EIS analysis clearly demonstrated that students’ employability and competencies were enhanced during their period abroad, although the degree to which they were enhanced varied between memo© factors, being more than anticipated for some and less than anticipated for others. In some cases, perceived benefit (qualitative analysis) exceeded actual measureable benefit (quantitative memo© analysis), but nonetheless 99% of HEIs consulted confirmed improvement in their students’ confidence and adaptability in particular. Any significant change in the memo© factor values is notable given that these factors encapsulate personality, and although an individual’s personality traits do change in response to experiences as well as intrinsic maturation (Specht, Egloff and Schmikle 2011), it is remarkable that a relatively short period of international experience can have such a profound effect.

The survey showed that mobile students scored higher on the memo© factors than non-mobile students even before going abroad, indicating that students who are predisposed towards traits such as openness to new experiences are more likely to opt for an international placement. Students and employers alike valued work placements especially highly, because they combine international experience with development of relevant professional skills. The EIS alumni analysis showed that the unemployment rate of Erasmus students five years after graduation was 23% lower than for non-mobile students, indicating a long-term beneficial effect (European Commission 2014).

To achieve the European Higher Education Area’s 20% mobility target, a greater proportion of those students who are not inherently strongly predisposed to seek international experience need to be encouraged to do so. Facilitating long-term partnerships between institutions, increasing awareness of the benefits of international mobility and reducing barriers to mobility (e.g. financial constraints) are some of the ways in which the UK HE International Unit (2013) aims to increase outward mobility.

International experience brings undoubted benefits to the participants, accelerating their professional development as they combine subject-specific learning with adapting to a novel cultural milieu. While the individual experience may of course be challenging and not without problems—and students may encounter very different levels of support from both their home and host institutions—on the whole international experience results in better rounded, more adaptable graduates with enhanced employability prospects. As more students take advantage of schemes such as Erasmus, and as the employment marketplace becomes ever more crowded and global, graduates may find that being able to evidence intercultural competence becomes essential if they are to remain competitive, let alone at an advantage relative to their peers. Thus, a microbiology student aiming to maximize their employment prospects would be well advised to seek out an international research placement in a university or industrial setting. For undergraduates, this could be as part of their degree, such as a Professional Training or Sandwich Year, or through a summer vacation research placement scheme such as that of the International Association for the Exchange of Students for Technical Experience. Erasmus+ funding is also available to postgraduates, and a period abroad can be invaluable to students and their supervisors in maintain-
for example, how responses to disease outbreaks are managed in different countries, how geographical context influences how problems are addressed or the ethical issues regarding vaccine development and vaccination programmes. Reflection on one’s own value judgements and comparison with those of others aid a deeper approach to problem solving. Teamwork and communication skills are important graduate attributes, but, as noted by Leask (2009), students do need support and guidance in how to interact meaningfully in diverse groups. With appropriate guidance, interaction between home and international students in cooperative and collaborative learning aids development of the ability to interact with, and contribute to, a culturally diverse workforce.

To ensure that international students have the opportunity to thrive academically, it is good practice for staff to explain the rationale behind a particular learning activity or assessment format, to help international students to adapt to their host HEI’s modes of teaching and assessment. This is particularly important when considering exchange students, who may be slotting in to advanced modules and have not had the training in, for example, coursework submission methods, plagiarism avoidance and exam technique that home students have had since the first year of their course. Home and international students alike benefit from explicit assessment instructions and clear guidance on what is expected of them, with practice, examples and feedback being more valuable than simply longer and more detailed instructions (Carroll 2008).

Where institution-wide staff development programmes to support internationalization are not available as part of the HEI’s Strategy, the onus is on individual staff to seek out resources and examples of good practice in internationalized teaching and learning approaches. For UK-based staff, the Higher Education Academy’s Framework for Internationalising Higher Education (HEA 2015), their Internationalising the Curriculum (HEA 2014) and Engaging home and international students: A guide for new lecturers (HEA 2013) are useful resources for staff interested in internationally inclusive teaching. The works of Carroll and Ryan in particular explore the pedagogic challenges created by increased student diversity, and provide practical strategies for staff involved in teaching diverse cohorts (for example, Carroll and Ryan 2005; Ryan 2012). International awareness aids a more general appreciation of Equality and Diversity issues, and by incorporating international awareness into their design and implementation of learning activities, staff improve the learning experience for all their students.

A particularly effective way in which staff can develop international awareness is through a teaching placement in an overseas HEI, and the largest staff mobility programme is Erasmus. The EIS discussed above also assessed the impact of staff mobility. Approximately 81% of academic staff noted that their teaching had improved in quality as a result of their exposure to a different teaching system, which ‘forced them to reflect on, revise and further develop their teaching methods’ (European Commission 2014). As well as being stimulated to refine their pedagogic practice, staff who have engaged in mobility opportunities are better placed to value and promote student mobility, and indeed HEI management regard academic staff mobility as an effective means of promoting international experience to students and as an important component of ‘internationalisation at home’. In spite of this positive view from HEI management, the reality is that organizational framework for staff mobility lags behind that for student mobility in many HEIs, and academic staff consulted as part of the EIS voiced concerns that teaching mobility was not facilitated or recognized in their institutions. This gap needs to be addressed, and staff mobility should be an important component of an HEI’s internationalization strategy. Erasmus also provides funding for non-academic staff mobility, and this may enable managerial staff to observe best practice in facilitating staff mobility and then champion it at their own institutions. For academic staff interested in teaching placements, a logical place to start investigating possibilities is with existing Erasmus or other international partner HEIs. Teaching at international summer schools is another potential route to gain experience of teaching overseas and of interacting with diverse groups of learners, with less disruption to the standard academic year.

CONCLUSION

Internationalization of HE is a key way of enhancing graduate employability, which in turn is an indicator of the effectiveness of tertiary education in generating a highly skilled and interactive workforce. The substantial funding allocated to Erasmus (14.9 billion Euros overall budget for Erasmus+, 2014–20) is indicative of the intention for the programme to have an economic impact, as well as enhancing academic and personal development for participating individuals and HEIs. The EIS revealed that more than 85% of students who undertake an international mobility period are motivated to do so by the desire to enhance their employability (European Commission 2014). Satisfyingly, by comparing memo© (employability-related) factor scores pre- and post-mobility, the study confirmed that a period abroad does indeed enhance these students’ employability, albeit with the caveat that the magnitude of actual improvement does not equal perceived improvement for all memo© factors.

The memo analysis also showed that the mobile students score higher than non-mobile students even before going abroad, and thus it is the students who are already ‘more employable’ that are choosing to further their advantage with international experience. In order to meet the 20% mobility target by 2020, a greater proportion of students need to be incentivized to opt for mobility. In part this should be achieved by greater awareness of the proven benefits of a mobility period and publicity about funding schemes. Outreach from staff that have been abroad, stable partnerships with overseas universities and interaction with incoming exchange students may all contribute to persuading students to commit to a mobility period.

It must also be recognized that a proportion of students will have legitimate reasons for not wanting to go abroad. These students should note that employers are primarily looking for the transversal skills developed through international experience (e.g. openness to and curiosity about new challenges), rather than the international exposure per se (although this is also valued) and that employers’ main requirement is knowledge of the field and relevant work experience (Diamond et al. 2011)—both of which can be developed locally through research experience. For non-mobile students, intercultural awareness can also be developed from an internationally oriented atmosphere in their home HEI. Virtual mobility, which allows teaching or studying courses in an overseas HEI using information and communication technology instead of travel, is an alternative means of developing intercultural skills.

For an HEI to develop its internationality, multiple aspects of internationalization must be considered and properly supported, both financially and with appropriate teaching, learning and support infrastructure, and student and staff mobility...
should be equally valued. Key conclusions from the EIS were that ‘the internationalisation of HEIs benefits substantially from mobility, but services and recognition can still be improved’ and that ‘more attention should be paid to quality rather than quantity’ (European Commission 2014). Current deficiencies highlighted by the EIS included a lack of preparatory information and contact with their home institution while on placement (for students) and difficulties in being released from other commitments in order to travel and a lack of recognition of the value of their individual experience (for staff). Nonetheless, there is substantial evidence that international experience is valuable in enhancing the skillset of student and staff participants, and it should be a priority component of any HEI’s Internationalization Strategy, backed up with dedicated administrative and financial resources. The transversal and employability-related skills developed through international mobility, together with discipline-specific training and research networks, should enable those microbiologists who are open to the challenges of international experience to enhance their competitive edge in the increasingly internationalized HE environment.

Conflict of interest. None declared.

REFERENCES


