

Cover Page

Title: Academic staff perspectives on delivering a shared undergraduate medical module on three transnational campuses; practical considerations and lessons learned

Running Title: Transnational undergraduate module sharing

Maria P. Morgan^{1*}, Warren Thomas² and Fiza Rashid-Doubell³

Keywords: transnational education; cross-border partnerships; module coordination; faculty

¹Maria Morgan, PhD*corresponding author

Molecular & Cellular Therapeutics (MCT), Royal College of Surgeons in Ireland, 123 St. Stephen's Green, Dublin 2, Ireland.

T: +353-1-402-2167 E: mmorgan@rcsi.ie <https://orcid.org/0000-0002-7041-3949>

Notes on contributor: Dr Maria Morgan is Senior Lecturer in Molecular & Cellular Therapeutics, RCSI Dublin Faculty of Health Sciences where she contributes to all aspects of medical education including curriculum development, accreditation, teaching and assessment. She teaches molecular medicine, pharmacology and biochemistry, on both the Direct and Graduate Entry-Medicine programmes.

²Warren Thomas, PhD

Perdana University, PU-RCSI School of Medicine, Block D1, MAEPS Building, MARDI Complex, Jalan MAEPS Perdana, 43400 Serdang, Selangor, Malaysia.

T: +60 (0)3 8941 9436 Ext.175 E: warren.thomas@perdanauniversity.edu.my
<https://orcid.org/0000-0003-2706-1770>

Notes on contributor: Dr Warren Thomas is Senior Lecturer in Molecular Medicine, Royal College of Surgeons in Ireland. Warren moved to Malaysia in 2015 and joined the Perdana University RCSI School of Medicine where he is Academic Lead in Physiology and Junior Cycle Teaching Director.

³Fiza Rashid-Doubell, PhD

School of Medicine, RCSI Bahrain, P.O. Box 15503, Adliya, Kingdom of Bahrain.

T: +973 16660124 E: frdoubell@rcsi-mub.com <http://orcid.org/0000-0002-2624-5888>

Notes on contributor: Professor Fiza Rashid-Doubell is the Lead in Health Professions Education at RCSI Bahrain. Her areas of expertise in medical education include: higher education transitions, student success and retention and the use of technology in teaching medicine.

Abstract

The Royal College of Surgeons in Ireland (RCSI) was among the first medical institutions to establish a global education community which now provides high-quality transnational health professions education aligned across three locations: Europe, the Middle East and South East Asia. The successful implementation of a shared **modularised curriculum** in this context can be complex and challenging. Here we describe our insights, gained from a decade of working together as shared module Academic Leads to deliver a system-based medical module to an international student cohort. The themes covered are some of the areas where we consider our joint deliberations have led to improved outcomes for the delivery and assessment of the module, which may be helpful to academic staff embarking on similar module sharing experiences.

Background

Transnational partnerships for the delivery of shared curriculums have seen increasing popularity in recent years (Kosmutzky and Putty 2016). The Royal College of Surgeons in Ireland (RCSI) was among the first medical institutions to establish a global education community providing high-quality health professions education, first in Ireland (**home**) and later transnationally aligned across two other locations in the Middle East and South East Asia (**hosts**). **The same medical degree is awarded on all sites as a result of multiple levels of internal and external quality assurance and accreditation processes across the sites, which ultimately ensures consistency of our graduates across the three campuses. The RCSI degree is recognised internationally and hence allows graduates to compete for places in a range of global career pathways.** Based on our experience as academic staff **delivering parts of this programme** we share some insights into the machinations of teaching and assessing a shared undergraduate module across three campuses. The transplantation of a curriculum, from the home campus to partnering host campuses is often considered an efficient way of establishing a new programme or school; however the successful implementation of a shared **modularised curriculum** can be complex and challenging. Many of the strategic institutional challenges associated with such initiatives have previously been described (Castelo-Branco, Finucane et al. 2016, Waterval, Driessen et al. 2018, Waterval, Frambach et al. 2018). **However, the practicalities for academic staff of successful implementation, at the modular level, have not been explored to the same extent. All modules within RCSI's medicine programme are similarly shared across sites but in this commentary we focus specifically on our learnings from one module where we have first-hand, student-facing experience.** Here we describe our insights, gained from a decade of working together as shared Module Leads to deliver a system-based medical module to an international student cohort, which may be helpful to academic staff embarking on similar module sharing experiences. The themes referred to below are some of the areas where we consider our joint deliberations have led to improved outcomes for the delivery and assessment of the module.

Determining Module Content

Our experience involves the sharing of responsibility for an integrated endocrine, renal and genitourinary module, **a single self-contained learning unit within a modularised medicine curriculum originally** developed at RCSI Dublin. **Creating suitable and unequivocal teaching material jointly was a task previously reported to be carried out exclusively by staff from the home institution (Waterval et al. 2018b).** The module was first shared in 2006 with RCSI Bahrain; a constituent university of RCSI, which functions as an international branch campus. Then later

included Perdana University (PU-RCSI) in Malaysia through a partnership established in 2011. The initial step towards sharing ownership of coordination and delivery of a module across multiple sites started with the host module leaders being invited to co-develop clear signposting of core module content with the home module leader. This led to the re-writing of existing learning outcomes (LOs) for each learning activity within the module such that there was consensus between home and host staff that each LO was appropriate and unambiguous. Students on all campuses benefit from this formalisation and explicit documentation of all learning activities, some of which may have previously formed part of the hidden curriculum on the originating home site in Dublin. The consequent revision of the module led to an improvement in the quality of modular content with elimination of content bias (e.g. personal interest topics), removal of repetition and gaps in content as well as a greater awareness of relevant international healthcare contexts. The module also benefits from the deliberations of academic staff across the sites each providing different educational lenses alongside their distinct academic expertise, as well as the sharing of educational resources.

Production of Joint Summative Assessments

One of the most challenging academic features of module sharing across campuses is the production of a summative exam paper with contributions and scrutiny from all the three sites. Developing a common summative assessment consisting of multiple choice questions and constructed response short answer questions, requires adherence to a strict set of deadlines agreed upon by academic staff on all sites. Initially, a blueprint of the exam is produced by the Dublin module lead using the LOs, which is shared across all sites. Exam questions are then written based on the LOs and posted to a secure online assessment forum. The questions undergo a robust review and critique until there is consensus on each assessment item and its model answer, if applicable. This process is facilitated through an assessment forum on our common virtual learning platform, Moodle and is supported by trilateral discussions. We have found this consensus process generates a significant workload however it results in superior final assessments which are both robust and rigorous in quality. Full staff engagement and commitment across all sites is imperative and clear module leadership and moderation of the forum on each site is critical for the resulting outputs. Staff training on item writing across all sites helped clarify standardised item quality and minimised discordance between sites. For our constructed response short answer questions all staff who deliver the teaching agree on a model answer. In addition, moderation of scripts between the sites ensures consistency of grades awarded. All of these activities require substantially more academic staff commitment and longer timelines than a single site module and should not be underestimated.

Maintaining Consistency and Managing Unintended Consequences

The goal of our transnational partnerships is to provide comparable content and learning experiences for students at all three institutions **since they will be assessed for the same internationally recognised RCSI medical degree**. This acts as a strong driver to develop and maintain consistency across all sites which can inadvertently lead to unintentional consequences. Initially this included the fear of loss of agency by staff on all sites; i.e. the fear of loss of freedom to teach or assess in ways that enhance the student experience locally. The drive for internal consistency also resulted in concerns by academic staff of being less in control of their teaching with any change being slower or more difficult to implement and as a consequence staff being less likely to try out

new ideas when multiple sites are involved. Now as a result of several years' experience of working together we have a greater awareness of these potential drawbacks and work proactively at a modular level to manage any perceived inflexibility. This has **evolved into** the organic establishment of a community of practice where the module leads at all three sites form a joint module committee where open discussion and compromise are central.

Coordinating Logistics

Having campuses located in three time zones and in countries with very different cultural backgrounds carries with it very specific challenges. Ireland **and Malaysia's** Monday to Friday working week can sometimes raise problems of synchronicity with the Sunday to Thursday usual working week in Bahrain. So, for example, meetings or simultaneous examinations cannot be held on Sundays or Fridays. Malaysia is perhaps culturally most diverse and in addition to the Islamic holidays there are also holidays linked to the Chinese culture, Hindu and Buddhist traditions. These holidays are often determined by the Lunar and Islamic calendar and so move throughout the year. This can pose significant problems with setting exam dates and deadlines and the loss of teaching days at critical times. Experienced professional services staff have been instrumental in proactively managing these challenges and establishing standardized protocols across sites.

In addition, each campus has differing resource limitations which influence timing, delivery and management of teaching and learning. Each site has differing physical facilities, IT and staff resources. Dublin has one of the largest international medical classes with typically 340 students in year 1. While the class size in Perdana is one-fifth of that at Dublin and just under half of that of Bahrain. These differences have impacts on space, resources and staff availability and must be considered vis-a-vis the feasibility of learning activity formats and student-staff engagement activities. **Often these types of technical and logistical challenges are difficult to overcome and require extensive advance planning (Waterval et al. 2018a).**

Challenges with Diverse Student Cohorts and Campus Specific Adaptations to Learner Needs

With campuses across the world it is inevitable that the cultural profile of the students at each site varies. Perhaps more significant is the difference in secondary education which the students experience before joining the RCSI medical programme. The admissions criteria across the three campuses are standardised. However, for example in Malaysia there is an increasing trend for students to be taught at the secondary school level on private foundation programmes of variable intrinsic quality; rather than completing internationally recognised qualifications such as 'A' Levels, International Baccalaureate or the Sijil Tinggi Persekolahan Malaysia (STPM) examination. Such foundation programmes are popular mainly due to cost and accessibility, but can result in students less well-prepared for the transition to tertiary education. In Bahrain the majority of the local students come from Arabic speaking and teaching **secondary** schools and medical school can be their first experience of being taught through English and writing their exams in English. This can pose problems for students especially with the **constructed response** short answer questions. These slight perturbations in student cohorts lead to tailored interventions to assist students to overcome any pre-university educational differences. For example faculty in Bahrain have developed constructed response writing interventions to improve student performance (Rashid-Doubell F 2018). Furthermore all sites provide a foundation programme to provide supplemental scientific knowledge, transferable academic and life skills and programmes to improve their English language.

In spite of being located across the world, students in all three campuses identify themselves to be RCSI students, **as they identify with the institution's strong international reputation and history of global alumni including those in Bahrain and Malaysia.** RCSI endeavours to foster interaction and student/staff exchange between Dublin, Bahrain and Perdana to achieve a truly global campus.

Final Summary

The establishment of a well-coordinated module across three international sites took several years to successfully develop and thrived once inter-campus staff relationships were well established. **Module level interaction across the three campuses is based upon cooperation and collegiality rather than a hierarchy where the home institution plays a predominant role, a situation that has been reported in the literature (Dobos 2011).** We understand that the bedrock for any partnership is communication and use video conferencing and an annual face-to-face international education forum at the Dublin campus to create a synchronised agenda. Establishing effective relationships and constructive staff engagement, both academic and professional services, is vital for building trust and confidence across sites. Timely and clear communication including clarity on roles and responsibilities is paramount (Dobos 2011). Like any good relationship both time and energy must be invested in order for rapport to develop. This aspect of cross campus partnering is often unseen and undervalued but must be explicitly developed for a successful outcome. Ultimately strong cross campus staff relationships allow the delivery of a dynamic module for all students, accomplished through genuine partnership, which is underpinned by hard work and commitment on all sites.

Acknowledgements:

The authors wish to thank the following colleagues for their helpful comments: Prof Hannah McGee, Prof Aidan Bradford and Prof Tracy Robson.

References

Castelo-Branco, L., P. Finucane, P. Marvao, P. McCrorie, J. Ponte and P. Worley (2016). "Global sharing, local innovation: Four schools, four countries, one curriculum." *Med Teach* **38**(12): 1204-1208.

Dobos, K. (2011) "Serving two masters" – academics' perspectives on working at an offshore campus in Malaysia, Educational Review, 63:1, 19-35, DOI: 10.1080/00131911003748035

Kosmutzky, A. and R. Putty (2016). "Transcending Borders and Traversing Boundaries: A Systematic Review of the Literature on Transnational, Offshore, Cross-Border, and Borderless Higher Education." *Journal of Studies in International Education* **20**(1): 8-33.

Rashid-Doubell F, O. F. P., Fredericks S. (2018). "The use of exemplars and student discussion to improve performance in constructed-response assessments." *Int J Med Educ.* **9**: 226-228.

Waterval, D. G. J., E. W. Driessen, A. Scherpbier and J. M. Frambach (2018a). "Twelve tips for crossborder curriculum partnerships in medical education." *Med Teach* **40**(5): 514-519.

200 Waterval, D. G. J., J. M. Frambach, E. W. Driessen, A. Muijtjens and A. Scherpbier (2018b).
201 "Connected, attracted, and concerned: A Q study on medical crossborder curriculum partnerships."
202 Med Teach: 1-7.

203

204 **Declaration of Interest:** The authors report no conflicts of interest.