

HERE Seminar Report

“Research-based teaching and learning: from national and institutional policies to practice”

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University of Montenegro, Podgorica

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1. Introduction

1.1 The topic

Recent decades have seen ever stronger emphasis placed on the capacity of higher education systems to contribute to economic growth – by narrowing the gap between fundamental and applied research, by prioritising innovation and by encouraging close collaboration with business and industry. In many countries, the rise of the professional researcher has created an

institutional culture in which the teaching function has been relegated to second place, in terms of funding and esteem, to the detriment of the student experience.

In Europe, the stress placed by Bologna ministers on student-centred learning seeks to reverse this trend. Promoting critical inquiry, particularly at the level of the first cycle, requires learning and teaching to be re-integrated with research. This often has profound implications for funding, career structures, staff development, pedagogy, and course design.

The Montenegro HERE seminar set out to explore these implications in depth. It offered plenary and break-out sessions devoted to the following topics:

- Institutional missions
- The disparities between research and teaching career pathways
- Research-based learning
- Supporting academic staff in course design, with particular reference to internationalisation, ICT, and the specificities of the three Bologna cycles
- National policy approaches

The seminar was a follow-up to a study visit to the University of Milan in 2017, in which HEREs were able to see how a research-intensive institution approached the concept of research-based teaching. It also set the scene for the study visit to King's College London and the London School of Economics and Political Science (LSE) (scheduled for September 2018), which will be tightly focused on academic staff development practices.

This report summarises the results of a pre-survey of participants, as well as the seminar presentations and discussions. It also sets out a number of conclusions. Attached in Annex I are more detailed summaries of break-out group discussions.

1.2 Objectives / Learning Outcomes

1. Clarify terminology and approaches to different facets of research-based teaching, in order better to explore institutional strengths and weaknesses in HERE countries.
2. Explore good practices in institution-driven, strategic approaches on how to integrate research and education missions.
3. Generate ideas on how to build the capacity of faculty members to implement research-based teaching and to create a research-based learning environment. This includes both research-oriented didactics and teaching students to use investigative approaches.
4. Analyse national frameworks, policies and funding that may help or hinder the development of research-based teaching in diverse types of institutions.

1.3 Attendance

The seminar was attended by 62 participants, including seven from Montenegro. The group was made up of 15 NEOs, five guest speakers, three members of the SPHERE organising team, and HEREs (mainly academics) from 17 countries. For the first time, the seminar also welcomed seven Bologna Promoters from five EHEA countries; their contributions were much appreciated. (For the full list of participants, see Annex II).

2. Preparation for the seminar

In order to shape the event in accordance with participants' needs, the SPHERE team undertook a pre-survey and called on participants to share good practice on the integration of research with learning and teaching, via short case studies. During the seminar, participants from Armenia, Jordan, Russia and Ukraine gave presentations on various aspects of the topic.

2.1 Summary of pre-survey results¹

Participants were first asked to select the best definition(s) of research-based learning. The 46 respondents opted as follows:

- Learning which generates research outcomes – 10
- Learning about research methodology – 17
- Learning which applies research methodology – 23
- Learning from existing research – 26

This proved to be a good platform for probing the definitions and for investigating in what contexts they might reinforce each other. Other responses helped shape the debates:

- 65% reported the prevalence of rote-based learning in their secondary systems;
- 61% said that their HE systems required academics to possess teaching qualifications;
- 41% reported the linkage of institutional research policy to international staff and student mobility strategies;
- 59% said that their institutional practice went beyond national requirements.

¹ A PowerPoint summary is available at <http://supporthere.org/montenegro2018/page/documents-9>

These and other responses suggested that participants' systems and institutions were aware of the challenges and addressing them positively. However, the pre-survey also revealed that:

- Only 37% reported the existence of funding instruments targeted at the consolidation of research-based learning and teaching;
- Only 35% regarded their quality assurance systems as adequate for this purpose.

The relatively high response rate illustrates the usefulness of the pre-survey. It revealed the contours of the context, while at the same time stimulating discussion by inviting participants to reflect on the positions of their own systems and institutions.

3. Highlights from the seminar sessions

3.1 Thematic orientation

The scene was set by Professor Wyn Morgan, Professor of Economics and Vice-President for Education at the University of Sheffield (UK). Drawing on the outcomes of the EUA's Learning and Teaching Initiative² and his own experience as the initiator of Sheffield's Programme Level Approach to learning and teaching³, Professor Morgan laid down the basic parameters of subsequent discussions by participants⁴:

- Research-based learning involves the joint creation of knowledge by students and teachers; it is not a one-way transmission of knowledge from researcher to student, but a process allowing the classroom experience to feedback into the research activities.
- It encompasses a wide variety of practical approaches. Partly this is because the approaches are dependent on national, legislative, financial and disciplinary contexts, as well as by – critically – the extent of academic autonomy inscribed in institutional governance; partly it is because research-based learning is characterised by inquiry and by the scope it necessarily gives to improvisation.
- The teacher-researcher becomes a mentor and facilitator, fostering the development of students' skills through and of critical inquiry. This model of reflective practitioner

² Loukkola, T. and Dakovic, G. (2017) *EUA's Learning and Teaching Initiative: Report from the thematic peer groups 2017*, European University Association, Brussels <http://www.eua.eu/Libraries/publications-homepage-list/eua-s-learning-and-teaching-initiative---report-from-the-thematic-peer-groups-in-2017>

³ See <https://www.sheffield.ac.uk/staff/learning-teaching/our-approach/programme-level>

⁴ His presentation is available at <http://supporthere.org/montenegro2018/page/documents-9>

requires that the academic career pathways be re-thought and that staff development programmes be comprehensive and effective.

- Research-based learning and teaching maximises the need for a programme-level approach in which individual modules reinforce each other and operate cumulatively to achieve programme-level learning outcomes. Because it is holistic rather than atomistic, it requires an institutional commitment to staff development based on agreed objectives and values.

3.2 Changing institutional missions

The seminar heard presentations on the Armenian, Irish and Russian institutional contexts. These gave valuable insight into how the relationship of research with learning and teaching could be creatively managed, in the context of evolving institutional missions. The main points were the following:

- In the early 1990s some countries had transited abruptly from command economies into an entrepreneurial culture in which higher education was called upon to play an important role. The change of paradigm and the relentless speed of scientific progress meant that successful employability policies came to rely heavily on the critical and innovative aptitudes of graduates.
- Hence the need to promote a culture of collaborative research from the undergraduate level onwards, driving effective knowledge transfer and nourishing the development of university-business-industry clusters.
- Since then, employability has assumed high priority throughout the EHEA, particularly following the financial crisis of 2008 and the urgent need to re-boot economic growth. Strong links with business and industry are at a premium.
- Competence-based curricula designed in collaboration with employers, notably in the STEM disciplines, are now emerging in greater numbers. They should be conceived in a learning-outcomes-based approach and duly monitored by quality assurance.
- Effective and relevant staff development is a pre-requisite for such course development. The seminar heard examples of performance-based funding designed to support it.
- A more holistic view of research is now essential, bringing it into the mainstream of the universities' learning and teaching vocation and diffusing it throughout the qualification levels. It should also link constructively with community engagement, the third pillar of the higher education mission.
- It is widely acknowledged, however, that institutions benefit from a clear, over-arching and well-resourced national strategy. While guaranteeing scope for institutional autonomy to respond appropriately to regional needs, a national strategy can energise and can provide a framework in which good practice can be identified and shared.

3.3 Addressing the disparities between research and teaching career pathways

Despite the evident need to bring research and teaching closer together, in reality they continue to diverge in many higher education systems. There is still a gulf between researchers and teachers, in which enhanced access to resources has inflated the prestige of the former to the detriment of the latter. The seminar heard presentations from Italy and the Ukraine which indicated how the problem might be addressed.

- While the need for staff development is clear, many academics have overloaded timetables and have limited scope for research. Students inevitably suffer as a result. One solution – and the seminar heard the example of UNIROMA (Sapienza) – is to ‘de-privatise’ the teaching activity, opening it up to scrutiny and participation. In practice, this means a shift to student-centred learning in which researchers participate and in which research activities are prioritised. It implies an inter-disciplinary focus with scope for team teaching, as well as a higher intensity of critical inquiry; learning and teaching should be rooted in dialogue. It also implies greater synergies between the academics’ research and teaching duties, thus allowing more productive use of their time.
- Bottom-up initiatives should be fostered and encouraged by top-down facilitation. Staff development should feature as a priority at system level, either as a mandatory provision or as a well-incentivised voluntary activity. Research productivity and pedagogical skills must be enhanced in conjunction if, as the new Ukrainian law puts it, staff are required to develop the ‘autonomy, initiative and creative abilities of students’.

3.4 Implementing research-based learning

The seminar also addressed the complex topic of research-based learning, and how this could be better fostered. Participants heard two examples of top-down and bottom-up initiatives. The first, in the Sorbonne, showed how a modular undergraduate course structure can accommodate interdisciplinary provision featuring research-based learning. From the first year of the BSc programme, students work on problem-solving tasks with supervision by researchers from two disciplines. The curriculum is defined by learning outcomes, which are reinforced in the evaluation and assessment processes. Work placements play an important role in assuring the relevance of the provision and have led to the setting up of student start-ups.

The second, in the University of Jordan, involves a cohort of pharmacy students who set up a research club in reaction against the established teacher-centred approach. 150 undergraduate students were successfully integrated into 60 research projects and participated in the production of published papers. The initiative won the support of the Dean, who ensured that appropriate academic credit was given and brought national policy makers on board.

3.5 Supporting academic staff in course design, with particular reference to internationalisation, ICT, and the specificities of the three Bologna cycles

Implementing research-based learning requires academic staff support and professional development opportunities. The institutional framework for staff development will not work effectively if it fails to provide the necessary time and space (intellectual and physical) for teaching and research functions to be integrated. As one positive example, the Centre for the Integration of Research, Teaching and Learning (CIRTL) at University College Cork works alongside other internal agencies (adult education, continuing professional development, online course design) to provide a spectrum of development possibilities ranging from the structured and accredited to the informal and unaccredited. It maps the research content of the University's programmes, by counting keywords in the programme descriptions and intervening as appropriate. In-service postgraduate programmes are available on an optional basis for academic staff to enhance their teaching competence; importantly, these are relevant to promotion opportunities. The institutional centrality of the CIRTL has helped it raise substantial financial support from European and domestic funding bodies.

3.6 National policy approaches

The seminar heard an academic reflection on Croatian national higher education policy, coupled with a formal policy statement by the Montenegrin government spokesperson. In Croatia, research shows that the criteria on which academic promotions are based have evolved significantly between 2005 and 2017. Greater weight is now given to the integration of research and teaching. However, prejudice and resistance to change continue to pose problems, although less so in the humanities and social sciences and among women academics. Montenegro, for its part, endorses the need for learning and teaching to synergise effectively with research activities in higher education and is keen to share good practice with other national systems and with institutions.

4. Conclusions and recommendations for HERE, HE institutions and systems

Thanks to the good practices presented in detail by academics, researchers, policy makers and the student representative, the seminar was able to gain a clear view of the potential benefits of re-thinking the relationship of research to learning and teaching. The salient characteristics of the new paradigm are the following:

- It operates at the level of the programme, rather than in isolated modules, and offers a holistic experience; it requires coherent and developmental linkage between the learning outcomes defined at modular level and those defined at programme level.
- It generates ‘knowledge created with students’; it favours problem- or inquiry-based learning and requires specific pedagogical skills on the part of teacher-researchers, as well as infrastructural support including flexible physical and virtual space.
- It creates a virtuous circle, in which research informs learning and teaching and, reciprocally, may be reshaped by them; it implies the existence of a holistic institutional strategy which can clearly identify which synergies are permitted by the existing context and in what ways the context might be adapted.
- It is characterised by so many variables (legal and cultural framework, level, discipline, group size, availability of learning resources etc.) that no single prescribed model can exist. While good practice can and should be shared, the bringing together of research and teaching happens not in the abstract but in a sharply defined context.

The seminar noted the distinctions between learning which is research-based, research-led, research-tutored and research-oriented⁵. It was suggested that whatever mode was appropriate to the institutional context, a basic aspiration should be for all institutions to become ‘research-inclusive’. Clearly, a number of institutions would remain or become research-intensive. What was desirable that modes of research-based learning and teaching should be generalised across higher education systems, creating an embedded culture.

While the contexts are multiple, the seminar showed that good practice was identifiable. It could therefore be exchanged, adapted to context and sustained by broad consensus. It was possible to specify a number of pre-requisites. It is crucial to:

- *Engage students and all other stakeholders.* Institutional leadership needs to be familiar with good practice elsewhere, in order to formulate a strategy which is sufficiently evidence-based to identify and command the support and participation of the full range of stakeholders. Their task will be easier if they are backed and resourced by a national policy framework.
- *Base programme design firmly on learning outcomes.* It follows that course design should likewise involve an appropriate range of stakeholders: employers when relevant; students, on the basis of their perceptions of the quality of provision and their role in institutional governance; and research-active teachers.
- *Articulate research-based learning with quality assurance and enhancement.* The pre-survey indicated that institutions currently fall a long way short of ensuring that their quality assurance practices are able to accommodate and nurture the new paradigm.

⁵ Jenkins, A. & Healey, M. (2005) *Institutional Strategies to Link Teaching and Research* (York: The Higher Education Academy). http://www.heacademy.ac.uk/assets/York/documents/ourwork/research/Institutional_strategies.pdf

National agencies have an important part to play in disseminating the good practice available in other higher education systems.

- *Focus on undergraduate programmes as the platform on which Master and doctorate levels can build.* Here there are certain assumptions: that the productivity of Master and Doctoral levels will increase if the students who access them are already well versed in research methods; that the teachers at the higher levels should also operate at undergraduate level, both in the classroom and in the process of course design; that their success will be greater if inquiry-based learning is already present in the secondary system.
- *'De-privatise' teaching by strengthening its collaborative dimension.* A holistic strategy will flourish educationally if it can maximise the research and teaching strengths of all members of the academic community. This implies an ethos of teamwork which is itself dependent on enhanced transparency and accountability.

The seminar discussions generated a number of recommendations⁶. Managers, policy makers and social partners at system and institutional levels should be encouraged to:

- Use funding and budgetary instruments to secure parity of esteem for research and teaching activities;
- Structure career pathways and workload accordingly;
- Extend academic autonomy to the level at which programme design becomes the responsibility of the practitioners.

As for the academic community as a whole, it should strive to

- Develop a methodology to assess the incidence of gender sensitivity in research-based learning, since this is an issue relevant both to professional opportunity and to student performance;
- Develop over time ways of measuring and demonstrating the value-added of research-based learning, both as a basis for further raising standards and for constructing the evidence base needed to inform policy-makers;
- Use its leverage on policy-makers to influence the fostering of research-based learning in the secondary education sector, the importance of which cannot be over-estimated.

⁶ These are set out in more detail in Annex 1.