

Part I

Chapter 2. Merging skills and content

Authors: Catalina Goanta, Sascha Hardt & Emilie Sitzia

2.1 Introduction

Research skills courses are among the least popular courses from the viewpoint of teachers and students alike. Epstein (1987) illustrates students' reluctant reaction to research courses in this often-quoted passage: "No other part of the social work curriculum has been so consistently received by students with as much groaning, moaning, eye-rolling, hyperventilation, and waiver strategizing as the research course" (Epstein, 1987, p. 71). Similarly, teachers often appear to have endless ingenious plans to avoid teaching research courses.

One of the reasons for these courses' unpopularity is their perceived disjunction from the rest of the curriculum. Therefore, this chapter will address the challenge to integrate research skills training within the curriculum. The core question this chapter aims to answer is: how to best merge skills and content?

This chapter starts with a list of recommendations regarding the integration of research skills and content: general theoretical recommendations issued from a theoretical exploration of educational theories (see Annex II), as well as concrete recommendations extracted from three UM case studies (two Law faculty cases, one FASoS case). This is followed by the analysis of specific assignments that put forward how the theoretical recommendations can be applied in practice. The case studies present a variety of practices and were chosen for their creative approach to merging research skills and content. Annex III provides a detailed overview of the case studies, detailing the context of the course (discipline, type of research skills, learning goals, position in the curriculum) as well as more practical aspects (design process, implementation, evaluation, and revisions).

This chapter is particularly relevant to UM course coordinators, tutors and programme directors. It will provide theoretical and practical insights and both faculty-specific and general knowledge on how to best merge skills and content.

2.2 Recommendations

This recommendation sub chapter merges general theoretical recommendations based on an exploration of educational theories (see Annex II) with concrete recommendations extracted from an in-depth study of three UM case studies.

Facilitate mastery of learning

Developing research skills should be regarded through a constructivist perception of learning. Pay attention to differences in sequencing and elaboration per individual student in order to provide a 'mastery learning' process in research skills education.

Link diverse knowledge fields (skills & content) and diversify tasks

The complementary nature of different approaches needs to be highlighted; there is no one-size-fits all approach to merging content and research skills. A diversity of tasks, assignments and assessment

methods is desirable while keeping a strong focus on the transferability of skills to the work place and to different academic endeavours.

A mixture of classical skills and 21st-century skills is also desirable. Classical research skills training and applied research skills education are important to meet the demands of the students. Our case studies demonstrate how to merge traditional research skills with content, while additionally training soft skills such as communication skills, creativity and leadership.

Freedom of choice

Give students freedom to choose research topics and research methods. This is paramount to ensure a minimum amount of student directedness and motivation throughout the research process.

Contextualise and highlight transferability

Contextualise research skills to enhance concrete experience and meaningful learning.

The case studies demonstrate that raising awareness among students of the link between skills and employability (hard and soft skills) makes a big difference in terms of student engagement and perceived relevance of the courses. Creating videos such as skills at work (by alumni and professionals highlighting what kind of skills they use in their jobs) is an efficient way of giving prominence to the skills. Research skills do not work in isolation; they need to be connected to content and professional practice.

Active experimentation

Offering opportunities to students for active experimentation increases the learning experience on the level of motivation, transferability of research skills to the real world (i.e. employability) and anchoring learning. Formative assessment facilitates active experimentation.

Demystify research

Demystify research by creating a sense of a community (e.g. show the diversity of research practices within a field) and by putting forward the commonalities between research and teaching. Additionally, incorporating the staff's research into the course will further facilitate this process.

Tailor-made material

The case studies demonstrate that sometimes articles from educational books and manuals might not fully match the needs of each course. As a result, the prescribed course material might not be fully used. This problem can be avoided by creating a unique course manual in line with the particular content of the programme. To this end, cooperating with publishing houses could fill the gap identified above.

Consider assessment

Make use of formative assessment and assess different elements of research skills training through assignments focusing on acquired skills, applied methods, process and the final product.

2.3 Before you get started

There is always room for better integration between skills and content, this is, however, often difficult to achieve. This sub chapter presents tips for merging content and skills in both existing parallel courses and merged courses.

2.3.1 Parallel courses

Communication between coordinators

The key tip for merging skills and content in parallel courses is to work closely with other course coordinators (or co-coordinators) and to mind how the course is represented by other course coordinators.

Pay attention to the position of the course in the curriculum

Mind the position of the course in the curriculum when you are planning a research skills course. Consider existing prior knowledge, workload of other courses and relevance to other courses.

Student motivation

Assure that the course covers a variety of tasks, offers a satisfactory level of interactivity, links the tasks to the professional world to demonstrate the relevance of the assignments, use gamification (with measure), invest time in role plays, and make sure that you stay connected to your students' needs. Forging a community of students and staff will contribute to the demystification of research and contributes to the course's good reputation.

Assessment

Often a small number of ECTS is attributed to research skills courses. Keep the workload (assessed assignments) to a small number and keep the workload in line with the amount of ECTS. Use formative assessment.

Responsive course

Include element of responsiveness: keep track of issues students may encounter and create on-demand responses to content questions.

2.3.2 Merged courses

Work in teams

Work closely with thesis supervisors in designing the course to ensure constructive alignment of research skills education on curriculum level and communicate the relevance of research skills training to students.

Explicate links

Explicate the link between the content and the research methods in coursebooks, tutorials or workshops.

Transferability

Establish a link to the real world, e.g. create assignments that are transferable to the professional realm.

Place in the curriculum

Mind the connection with previous and follow-up courses where the skills are used and keep track of constructively aligned research skills education in the curriculum.

Example of educational activities related to the PBL core learning principles

Table 2.1 presents a variety of educational activities related to the previously defined key principles of PBL (Dolmans, 2005). The examples of educational activities are based on this chapter's case studies (see Annex III).

Table 2.1 PBL principles and educational activities

PBL Principle	Example of assignments/tasks merging content and research skills
Constructive (gradual knowledge creation)	Seminar Workshop Interactive lecture Expert meeting
Self-directed (student directs the learning process)	Choice of presentation topic Choice of written assignment topic Choice of thesis topic Skills casts Vlogs
Contextual (links to real-life cases)	Role play Moot court Site visit Field trip Expert meeting Internship Real-life task/project
Collaborative (students learn to work in groups)	Extracurricular peer-mentoring Group assignment Group presentation Group hands-on project Moot court

2.4 Overview of the cases

	Bachelor/ Master	Skills
LAW 1 (Annex 3)	<i>Bachelor European Law School</i>	<ul style="list-style-type: none"> • An introduction to PBL • Legal research <ul style="list-style-type: none"> ○ Working with legal information <ul style="list-style-type: none"> ▪ Finding legal sources ▪ Assessing the quality and use of various types of sources/information ▪ Using sources in papers/research projects ○ Introduction to legal academic writing <ul style="list-style-type: none"> ▪ Setting up a research project, developing a research question ▪ Structuring a research project/paper ▪ Writing in appropriate style • Legal reasoning <ul style="list-style-type: none"> ○ Introduction to (formal and informal) logic ○ (Legal) argumentation, assessing the quality of arguments ○ Oral argumentation and public speaking / debating ○ Working with legal rules <ul style="list-style-type: none"> ▪ Rule analysis ▪ Application of legal rules to fact patterns and cases ▪ Writing simple legal opinions
LAW 2 (Annex 3)	<i>Bachelor European Law</i>	<ul style="list-style-type: none"> • Legal translations - developing the necessary skills and knowledge to be able to understand legal documents properly and to translate them from

	<i>School</i>	<p>one language into another.</p> <ul style="list-style-type: none"> • Comparative legal research - writing a legal paper on a European private law topic as part of the moot court exercise. The acquired knowledge can be used for any other course with a research/legal writing component, as well as for the bachelor thesis. • Presentation skills: moot court - synthesising issues arising from a fictitious case and formulating legal arguments (public speaking and argumentation training).
FASoS (Annex 3)	Master Arts and Heritage	<ul style="list-style-type: none"> • Critical thinking • Creating a research design • Executing a research design • Information literacy • Data/source collection • Selection of information • Qualitative and/or quantitative analysis (the course is mainly focused on qualitative analysis) • Interpretation • Argumentation • Writing

References

- Brew, A., & Boud, D. (1995). Teaching and research: Establishing the vital link with learning. *Higher Education, 29*(3), 261-273.
- Brew, A. (2001). Conceptions of Research: A phenomenographic study. *Studies in Higher Education, 26*(3), 271-285.
- Brew, A. (2012). Teaching and research: new relationships and their implications for inquiry-based teaching and learning in higher education. *Higher Education Research and Development, 31*(1), 101-114.
- Castley, A. (2006). Professional development support to promote stronger teaching and research links, New directions for teaching and learning. In C. Kreber (Ed.), *Exploring research-based teaching* (pp. 23-31). San Francisco, CA: Jossey-Bass.
- Dede, C. (2010). Comparing Frameworks for “21st Century Skills”. *21st century skills: Rethinking how students learn, 20*, pp. 51–76. Retrieved from: [http://sttechnology.pbworks.com/f/Dede_\(2010\)_Comparing%20Frameworks%20for%2021st%20Century%20Skills.pdf](http://sttechnology.pbworks.com/f/Dede_(2010)_Comparing%20Frameworks%20for%2021st%20Century%20Skills.pdf)
- Dewey, J. (2008). *Democracy and education: An introduction to the philosophy of education*. New York: The Free Press. (Original work published in 1916)
- Dolmans, D. (2005). Problem-based learning: future challenges for educational practice and research. *Medical Education, 39*, 732–741.
- Dolmans, D., Loyens, S. M. M., Marcq, H., & Gijbels, D. (2016). Deep and surface learning in problem-based learning: a review of the literature. *Advances in Health Sciences Education, 21*(5), 1087–1112.
- Elsen, M., Visser-Wijnveen, G. J., & Driel, J. H. van (2009). How to strengthen the connection

between research and teaching in undergraduate University Education. *Higher Education Quarterly*, 63(1), 64-85.

Epstein, I. (1987). Pedagogy of the perturbed: Teaching research to the reluctant. *Journal of Teaching in Social Work*, 1(1), 71-89.

Griffiths, R. (2004) Knowledge production and the research-teaching nexus: the case of the built environment disciplines. *Studies in Higher Education* 29(6), 709-726.

Healey, M. (2005). Linking research and teaching to benefit student learning. *Journal of Geography in Higher education*, 29(2), 183-201.

Healey, M., Jordan, F., Pell, B., & Short, C. (2010). The research-teaching nexus: a case study of students' awareness, experiences and perceptions of research. *Innovations in Education and Teaching International*, 47(2), 235-246.

Hein, G. (1998). *Learning in the Museum*. London: Routledge.

Jenkins, A., Breen, R., Lindsay, R., & Brew, A. (2003). *Re-shaping Higher Education: Linking teaching and research*. London: Routledge.

Kolb, D. (1984). *Experiential Learning: Experience as the Source of Learning and Development*. Englewood Cliffs, NJ: Prentice-Hall.

Murtonen, M., & Lehtinen, E. (2005). Conceptions of Research and Methodology Learning. *Scandinavian Journal of Educational Research*, 49(3), 217-224.

Omidvar, O., & Kislov, R. (2013). The evolution of the communities of practice approach: Toward knowledgeability in a landscape of practice – An interview with Etienne Wenger-Trayner. *Journal of Management Inquiry*, 23(3), 266-275.

Savery, J. R. (2006). Overview of Problem-based Learning: Definitions and Distinctions. *Interdisciplinary Journal of Problem-Based Learning*, 1(1), 9-20.

Simons, M., & Elen, J. (2007). The 'research-teaching nexus' and 'education through research': An exploration of ambivalence. *Studies in Higher Education*, 32, 617-631.

Torre, D.M., Vleuten, C. van der, & Dolmans, D. (2016). Theoretical perspectives and applications of group learning in PBL. *Medical teacher*, 38(2), 189-195.

Wagner, C., Garner, M., & Kawulich, B. (2011). The state of the art of teaching research methods in the social sciences: towards a pedagogical culture. *Studies in Higher Education*, 36(1), 75-88.

World Economic Forum & The Boston Consulting Group (2016). *New Vision for Education: Fostering Social and Emotional Learning through Technology*. Cologny/Geneva: World Economic Forum.