

# Mending the Gap

How Maastricht University researchers  
connect their teaching and research



Maastricht  
University



EDLAB

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**“It’s tough for me to draw a boundary between research and education. Because as a researcher, I’m very interested in creating something of value to education. So it all kind of mingles together.”**

## Do you perceive a gap?

**Ask an academic how they experience their work, and almost without exception, they will tell you about their teaching, their research, and how the two interact. At Maastricht University, teaching is a defining part of what academics do, parallel to their research. Often, this relationship is described in terms of a ‘gap’, and that gap tends to have a bad reputation.**

### **The EDLAB project *Mend the Gap***

Conversations across the UM teaching and learning community sparked a simple question: might the gap between research and teaching be perceived differently, or even bridged? Not surprisingly, what emerged was not a single answer, but a range of perspectives. Some UM staff members experience the gap as problematic and find it hard to bridge; others see it as a helpful distinction for themselves and their students. Still others do not experience a gap at all or have found ways to bridge it. How the gap is perceived appears to depend on factors such as discipline, personal values, and programme design.

At the same time, one shared observation stood out: approaching the perceived gap between research and teaching differently can help reclaim enthusiasm for both roles.

This booklet combines the insights from the *Mend the Gap* project with a set of questions that offer a simple, structured way to reflect on and act on the connection between research and teaching in your daily practice.

Follow the questions, read about colleagues’ experiences, and you too may discover ways to connect teaching and research.

### **The *Mend the Gap* project team**

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# Bridging the space between research and teaching?

At UM, conducting research usually goes hand in hand with tutoring in a course, supervising thesis students, or lecturing.

We spoke with UM staff who are involved in all these aspects of teaching. The general picture that emerged shows that a strong(er) connection between research and teaching has a positive effect on job satisfaction, academic credibility and motivation for both teaching and research. Another benefit is the more efficient use of time and effort, as well as the development of an academic identity in which a significant research role exists alongside and - or is closely linked to - teaching activities.

UM staff members shared many more, and more specific, outcomes of the interaction between teaching and research, from small but meaningful to big and impactful. Many interviewees seemed to attach particular value to the simple fact that teaching and talking with students about their research and discipline were powerful ways of staying excited about their own work.

Mapping the research-teaching continuum  
After reviewing the academic literature on the topic, the project team mapped the research-teaching continuum as perceived by 23 academics from six faculties, ranging from PhD candidates and full professors to full-time teachers with a research background.



The colleagues we interviewed each had a preferred method of connecting their teaching and research. We refer to these as 'bridging spaces': opportunities within or around the curriculum to make those connections. Across the interviews, several bridging spaces came up repeatedly:

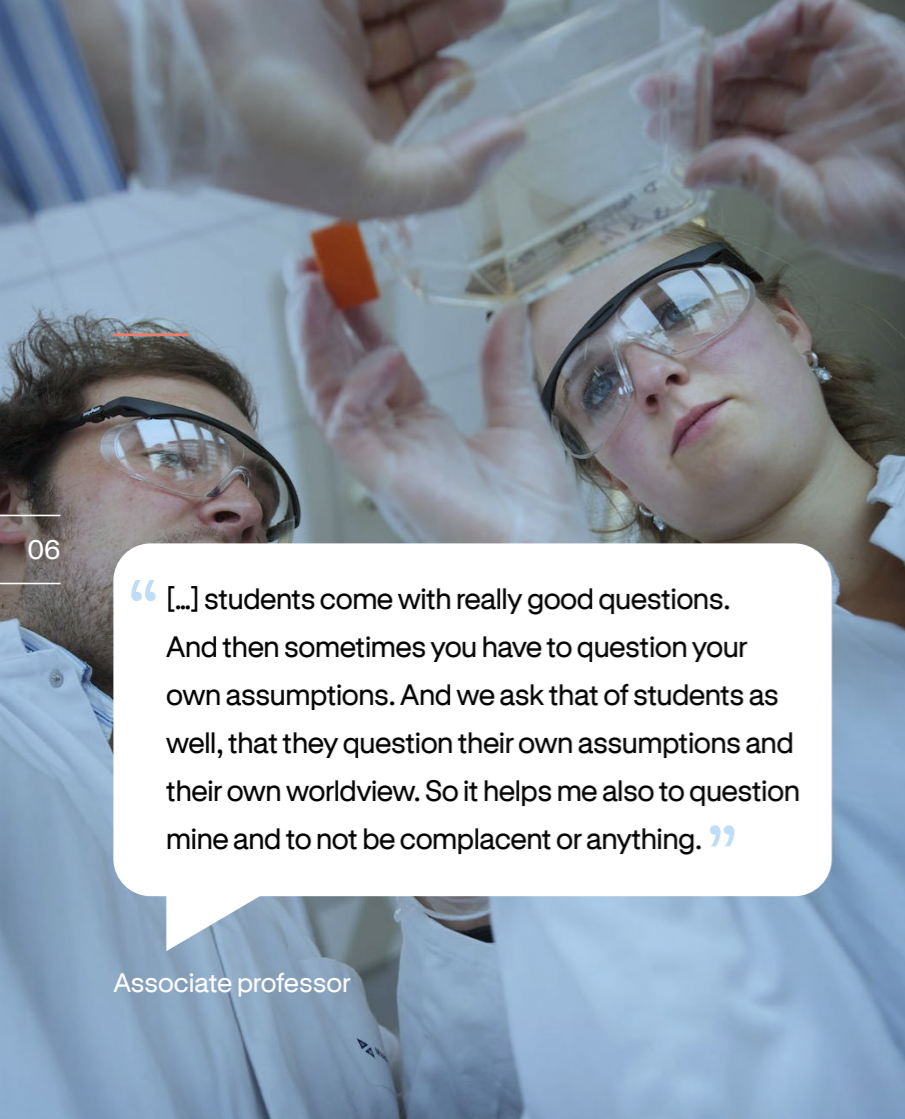
**Thesis supervision** at both bachelor's and master's level, was mentioned often. It can foster inspiration for research, sometimes leading to joint publications with students, future collaborations, or the development of new research lines, including PhD projects.

**Content courses** were another interesting bridging space for researchers. They designed tasks based on their own research, sparking conversations with students whose questions could inspire or challenge research questions or underlying assumptions.

**Skill courses** were a less common bridging space. However, they can provide a great environment for working with students on creating and analysing data.

“I've had undergraduate projects and bachelor theses where I thought that some collaboration between me and the students could turn this into a publishable product. And they might not have the tools and the knowledge of how you kind of need to reshape it a bit, maybe decrease the level of technical complexity a little bit to clear some hurdle. [...] those have also typically been projects or theses where I've had very close interactions with the students throughout the process.”

Associate professor



## Students contributing to research

MaRBL<sub>e</sub>, the Maastricht Research Based Learning modules that most faculties offer within their bachelor's curriculum stands out as an opportunity to work on research projects with students that may directly or indirectly contribute to one's own research.

**Projects** Not every curriculum offers space for projects that involve collaborative research between staff and students, but several interviewees mentioned them. Project periods and room for electives are particularly conducive to this type of educational modules as a bridging space.

From the interviews, we learned that there are many ways in which students can contribute to the research of staff. Sometimes, students act as research subjects, studying their own behaviour. Sometimes, in lab skills courses and practicals, students hone their skills while collecting data for ongoing research projects.

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“ [...] students come with really good questions. And then sometimes you have to question your own assumptions. And we ask that of students as well, that they question their own assumptions and their own worldview. So it helps me also to question mine and to not be complacent or anything. ”

Associate professor

“ [...] in the statistics class in international business students fill out a lot of surveys and personality factors and things like that. And then they get their own data to practise their SPSS or our different software skills so there's a very big data sheet with survey data that they actually filled out themselves that they then use as content to practise with, but in the end this also results in, over the years, a lot of data on student motivation personality factors across cohorts of students in this course. [...] I think that's a nice example of where students are both the subject of the research but also the researcher in the sense that they get to practise their research skills in this course. ”

Associate professor

“ What I've seen over the years is that there have been many examples of students actually bringing ideas to the department, to the research groups by kind of having really wild ideas or bridging different disciplines. And so, they in a way have brought fresh energy and new ideas to departments. ”

MaRBL<sub>e</sub> supervisor

In the context of thesis work, students can become collaborators when their work is of such quality that a thesis can be developed into a submission to a peer-reviewed journal.

Very often, students' contributions to research are more subtle but upon reflection just as important as tangible data and analyses. Sometimes, students alert staff to research or literature that had previously escaped their attention.

Many UM staff spoke about how students, simply by showing interest and asking questions, reminded them of how much they enjoyed their own research. More than once, an uninformed or 'silly' question gave pause for reflection, leading either to a slight shift in perspective on what is often taken for granted, or to confirmation that what seems to make sense, actually does make sense.

Working with students from another faculty or programme in multi- or interdisciplinary settings or projects (such as MaRBLe) opens new perspectives, and on several occasions, has led to cross-faculty research collaborations between staff.

“ Last summer, we started excavating in the ENCI quarry. [...] it's the first time we can actually do this, because it used to be an active quarry and then became like a nature reserve [...]. And now we finally got permission to dig there 10 to 14 days a year and look for not just fossils, but also sort of changes in environmental statistics in the past [...]. And of course, we do that with students, because I can't do that on my own. [...] they come to the field in their own free time. This is not mandatory, they don't get credits for it, and they start digging for 10 days. ”

Assistant professor

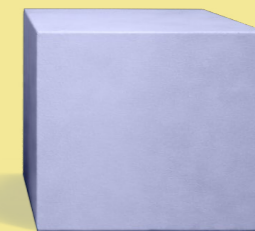
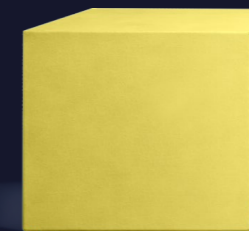
## The costs and benefits of bridging the gap

To scaffold thinking about the gap and ways of bridging it, it is helpful to create a structure. Inspired by Boyer's work on scholarship in academia, we created a diagram depicting both the impact of bridging activities and how difficult they are to initiate. This resulted in two axes representing two critical questions: how difficult will it be to do this and how much impact will it have on my research?

We called the vertical axis 'effort'. It relates to the question of how much needs to be done or overcome to introduce teaching and learning activities that have a positive impact on one's own research. Low effort activities tend to cluster around the leeway available within tutorials or common forms of supervision: adopting a new perspective, conducting group discussions in a particular way, or recognising research potential in students' thesis work. Redesigning courses, or even entire programmes, comes with the need for more effort, but may also yield more substantial outcomes from a research perspective.



Ernest Boyer's (1928-1995) book **Scholarship Reconsidered: Priorities of the Professoriate** made quite an impact when it was published in 1990. In it, he reviewed the history of scholarship. Seeing how it had narrowed its focus and meaning merely to the discovery of new knowledge, he argued for a reinterpretation of scholarship. Scholarship according to Boyer was as much about discovering new knowledge, as about disseminating (teaching) and applying it. He argued that every scholar has a responsibility towards society beyond the research community.



# How can you make that work in practice?

## This is how UM colleagues bridge the gap

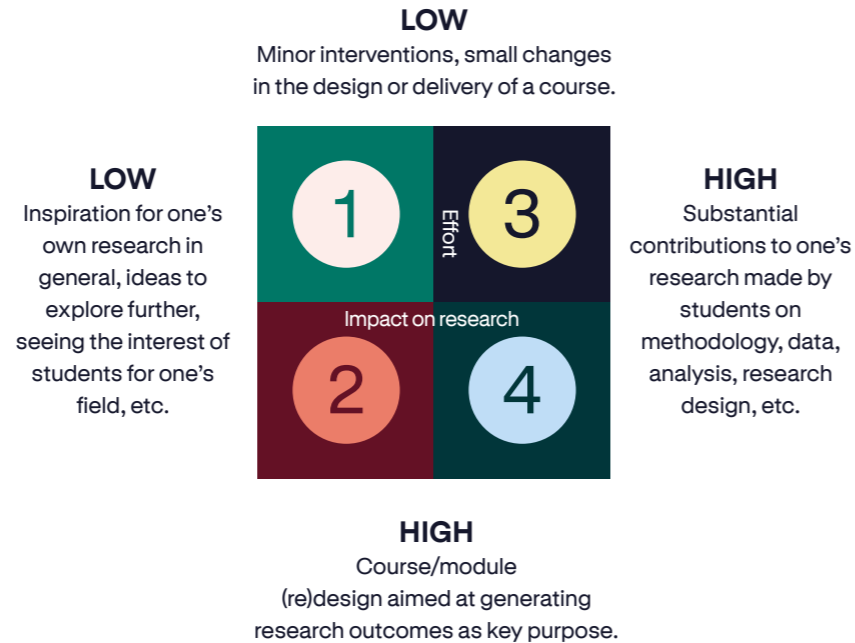
The horizontal 'impact on research' axis is somewhat less straightforward than it may appear. Acknowledging the importance of presenting and publishing one's research, we attributed higher impact to these kinds of outcomes than to 'inspiration' and 'being reinvigorated'. Yet, these latter outcomes may be at least as important.

### Two critical questions

**How difficult will it be to do this?**

**How much impact will it have on my research?**

For each of the four quadrants in the diagram we identified many real-life examples from the interviews with UM colleagues. We share a few examples for each quadrant. You may well recognise one or more from your own practice and experience.



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## Quadrant 1: low effort, low impact - quick wins

### Bridging space

Supporting students as they identify academic problems and set goals for learning.

Tutoring often means facilitating discussions in an international classroom.

Tutoring or coordinating a first-year or intro-level course.

Tutoring or coordinating courses related to your own research.

Thesis supervision.

### Impact on research

Talking about complex problems and research in relatively simple terms can prompt new perspectives.

Being confronted with different backgrounds and worldviews enables you to question your own assumptions.

It can be a way of revisiting your own disciplinary and research roots.

It can inspire the next generation of researchers, and form the basis for extending your own (future) research network.

Looking at one's own assumptions with fresh eyes, and being challenged in the process.

### Consider

Have there been moments when simplifying complex ideas for students helped me clarify my own thinking? If so, when did they occur? What assumptions do I make about my research that become visible when I explain it to students?

What perspectives have I encountered in the classroom that challenged my research assumptions? How do cultural or disciplinary differences among students enrich my understanding of my research field?

How does teaching introductory material reconnect me with the origins of my research interests? Are there basic questions students ask that I haven't considered in a long time?

How do I present my research in ways that spark curiosity in students? What aspects of my research are most engaging to learners - and why?

What student questions or approaches have made me rethink/add to my research? How do I balance guiding students with being open to learning from them?

2

## Quadrant 2: high effort, low impact - positive side effects of bigger changes

### Bridging space

Didactics and course design - using argumentation and disputation as learning formats.

Setting up an experiment as part of your teaching.

Organising an extra-curricular reading group with students.

Designing and/or teaching in courses that are not your primary expertise.

MaRBLLe supervision and collaboration.

### Impact on research

Not only engages students but offers a space to explore new ideas that may lead to further research.

Yields new data for your research.

Offers opportunities for more engagement for interested students, but may also point the way to new resources and the articulation of new ideas.

May lead to new research lines and interdisciplinary collaborations.

Several former MaRBLLe students found their way to next levels of post-graduate research work, and became research colleagues.

### Consider

What kind of alternative teaching formats could challenge or enrich my own thinking? Have student arguments ever revealed gaps or tensions in my research?

How can I design teaching experiments that align with my research interests? What ethical or methodological considerations arise when using student-generated data?

Can themes or texts that resonate most with students also inspire me? Can I design or participate in informal learning spaces that could be a seedbed for collaborative inquiry?

What have I learned from teaching outside my comfort zone? Could such an experience open doors to interdisciplinary partnerships?

Could I develop/collaborate on a research topic that adds to my research in the MaRBLLe programmes? How do I identify and nurture student potential during MaRBLLe projects? Have any student collaborations led to lasting research relationships?

3

## Quadrant 3: low effort, high impact - the golden nuggets

### Bridging space

Interfaculty MaRBLLe supervision and collaboration.

Lab skills course, students learning about research by reproducing results/checking results from previous years.

Tutoring, creating space for students to ask 'silly questions'.

MaRBLLe supervision and collaboration with students.

Thesis supervision with a strong research component.

### Impact on research

Provides an exchange of best practices, in supervision as well as research.

The annual engagement of fresh eyes and minds in ongoing research leads to new insights and data.

Leads to a (re)appreciation for uninformed questions and serves as a reminder of own start as researcher; also helps staying sharp by being challenged.

Leads to the publication of a paper, or a presentation at a conference.

Creates the need and space to temporarily shift the focus of research and leads to a shared publication.

### Consider

What have I learned from collaborating across faculties that I could apply to my own research? What kind of differences in supervision styles or disciplinary norms have challenged or enriched my approach?

Have students ever uncovered patterns or anomalies that I hadn't noticed? How can I engage students with my ongoing research?

What 'simple' student questions have made me rethink complex ideas? What can I learn from revisiting the beginner's mindset in my own research?

What has made collaborations with students successful from a research perspective? What support do students need to become co-authors or conference presenters?

How flexible am I in adapting my research focus to student interests? What conditions make thesis supervision interesting for my research?

# 4

## Quadrant 4: high effort, high impact - new initiatives that pay off

### Bridging space

Projects in project periods.

Involvement in programme design.

Extra-curricular projects.

Course design: developing a research practical, collaborating with students.

Developing and running a project with various stakeholders/partners within and outside UM, related to research.

### Impact on research

Creates the space to explore which topics and methods might work in a more rigorous setting.

Leads to a virtuous cycle between research geared towards the programme, and then feeding back into it and helping it evolve.

Generating new ideas and data for research.

Working with (advanced) students on research provides new inspiration, new angles and creative ideas, as well as data.

Expands the research and outreach networks via the students as well as the stakeholders/partners.

### Consider

What teaching formats allow me to experiment with emerging research ideas? How can I use bespoke projects to test methods or concepts before formalising them in research (while keeping them meaningful for students as well)?

How does my research shape the curriculum - and vice versa? What opportunities exist to embed my research themes into programme design?

What motivates me to initiate extra-curricular projects? How can I capture and integrate the insights or data they generate?

What structures best support meaningful student collaboration in research? What have I learned from co-creating research activities with students?

What role does teaching play in expanding my research network? How do collaborative projects enhance both research impact and educational value?

# Mend the gap!

It may be easier than it seems.

**How wide or deep the gap between research and teaching is depends on many factors. The reality of research, which often feels market-driven and focused on output, cannot be simply wished away.**

And yet, the stories by UM academics offer inspiration. Maybe the gap is not as deep as it seems, or perhaps it is not much of a problem at all. Weighing the effort and thresholds to overcome against impact and benefits, there may be large gains following major effort, but also small yet valuable moments of inspiration and confirmation that arise simply from listening to and working with students. If you are looking for ways to bridge the gap, to move back and forth along the research-teaching continuum with more ideas and enthusiasm, we encourage you to let these stories sink in, and to connect with colleagues who have found ways to integrate research into their teaching and vice versa.

And if you recognise yourself in these stories and feel that you have examples to share too: do not hold back. Tell your colleagues and take them along. **Mend the Gap.**



### Are you interested in the literature on Mending the Gap?

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- Weenink, K., Aarts, N., & Jacobs, S. (2024). 'I need a grant but spend time on teaching': how academics in different positions play out the teaching–research nexus in interdependence with their contexts. *European Journal of Higher Education*, 14(3), 489–507. <https://doi.org/10.1080/21568235.2023.2221839>

### Comments, questions or suggestions?

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