



The Teaching-Research Nexus

A guide for academics and policy-makers
in higher education

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Making Connections Between Research, Learning and Teaching: A Self-Review Framework for Academics and Policy-Makers

This self-review framework is in three parts, providing questions for

- academic staff members;
- Faculty/Departmental/School Heads; and
- Institutional Policy-Makers, including Deputy Vice Chancellors Academic and Research.

Its purpose is to:

- (i) raise awareness of the various dimensions of the teaching-research nexus (TRN) among key university staff groups.
- (ii) propose an initial framework for development of TRN initiatives within institutions.

We envisage that you will select the focus areas and questions appropriate for your intended purpose and audience. When addressing these questions we encourage you to **focus on the role of discipline-based research**. However, where appropriate you may also wish to consider the important role of the scholarship of learning and teaching and pedagogical research.

Self-Review Framework for Academic Staff Members

This self-review framework is for academic staff members. Academics with teaching roles are the target group for this set of questions, which include (a) what academics do at an individual level to link teaching and research and (b) how individual academics contribute to their Department's ethos and culture regarding the teaching-research nexus.

The purpose of the instrument is to raise awareness of the various dimensions of the teaching-research nexus (TRN) and to encourage academic staff to consider ways in which they might make effective links between discipline-based research, learning and teaching across year levels and disciplines.

You do not need to answer all questions. We suggest that you:

- a) start by skimming through the six dimensions below so that you are aware of the range of ways in which the TRN might have a role to play in learning and teaching;
- b) then focus on an area of particular interest and relevance to you, your teaching and your career.

1. Your University and the TRN

- Does your university have a stated view on how it conceives the teaching-research nexus?
- If no, would it be helpful to do so? What would be useful to include?
- If yes, could it be improved to be more comprehensive/ useful?

2. The TRN in Your Department/School/Faculty

- Thinking about your Department/School/Faculty/Group and your University, in what ways do you make connections between research and teaching in your day-to-day teaching activities?
- In what specific ways is the TRN useful for inducting students into your disciplines' values, practices and ethics?
- What does your Department/School/Faculty do to encourage you to link teaching with research? (e.g. senior staff acting as mentors/role models for linking these activities, peer-review of TRN linkages, professional development seminars)
- In what ways are academic staff supported to develop the TRN for a specific program of study? (e.g. resources to develop new teaching modes and materials, staff development, trialling periods, appropriate workload allowances)
- Is there a 'community of practice' around the TRN in your Department/School/ Faculty?

3. The TRN and Student Learning

- In what specific ways do you think your students benefit from the connections you make between research and teaching?
- How are students made aware of the research activity in their departments? (e.g. through guest lectures, site visits)
- What opportunities do undergraduates have to participate in departmental research projects (e.g. as research assistants) and to disseminate their research findings and activities?
- What opportunities are there for students to become involved in the TRN outside formal courses? (e.g. through research seminars, 'observer' roles in research teams, student journals)
- What strategies are used to make students made aware of postgraduate research opportunities?
- What deliberate efforts are made to help students feel part of the research community of the university?
- What strategies are used to encourage students to document and reflect on how research training/knowledge contributes to their employability?

4. The TRN in the Curriculum

- Can you clearly identify where research-based learning is integrated into your teaching program?
- In what specific ways is the TRN manifested in units and courses that you teach? (e.g. through outcomes, processes, assessment items, use of specific learning methods like enquiry-based learning)

- What efforts are made to ensure there is a developmental sequence of the TRN, from first year to final year and into postgraduate courses?
- At what point in the program do undergraduate students learn about research methods, skills and ethics?
- In what specific ways are research skills and the links between teaching and research embedded in systems for approval and review of courses/subjects?
- At what point(s) in the program do undergraduate students have opportunities to apply research methods, skills and ethics?

5. Rewarding and Recognising the TRN

- In what ways do you document the TRN in your own practice so as to enhance chances of reward and recognition?

6. Evaluating the Impact of the TRN

- In what ways are students' views on their perception of and engagement with the TRN collected?
- How is such evidence used to inform future developments of the TRN?
- How do you monitor and evaluate the TRN in our courses/units/programs?
- What strategies do you use to assure the quality of teaching-research linkages in your local context? (e.g., do you benchmark your practices with colleagues in other parts of the university or with equivalent courses/programs in other universities?)

Self-Review Framework for Faculty/Departmental/School Heads

This self-review framework is for academic staff members who have leadership and/or policy roles in their Faculty, Department or School are the target group for this set of questions. This may include Course/Program Coordinators, Associate Deans (Teaching and Learning), Associate Deans (Research) as well as School, Departmental and Faculty Heads.

The purpose of the instrument is to raise awareness of the various dimensions of the teaching-research nexus (TRN) and to encourage academic leaders to consider ways in which they might make effective links between discipline-based research, learning and teaching across year levels and disciplines.

You do not need to answer all questions. We suggest that you:

- a) start by skimming through the six dimensions below so that you are aware of the range of ways in which the TRN might have a role to play in learning, teaching and policy-making;
- b) then focus on an area(s) of particular interest and relevance to you, your teaching programs and your department.

1. The TRN and University Policy

- Does your university have a stated view on how it conceives the teaching-research nexus?
- If no, would it be helpful to do so? What would be useful to include?
- If yes, could it be improved to be more comprehensive/ useful?

2. Fostering the TRN Through Policy and Practice

- In what specific ways does the Faculty/Department/School's learning and teaching strategy articulate research and teaching links?
- In what specific ways does the Faculty/Department/School's research strategy articulate teaching and research links?
- In what specific ways does the Faculty/Department/School's community engagement strategy articulate research and teaching links?
- In what specific ways is the TRN visible in strategic documents and implementation plans for the Faculty, and for Schools and Departments? (e.g. Teaching and Learning Plans, performance review, promotions/reward/ recognition measures, course and curriculum documents, QA documents)
- Is there a specific job role or individual in the Faculty/Department/School with responsibility for advancing teaching-research linkages?
 - Are such positions formally mandated or informally assumed?
- What strategies do you use to develop a TRN culture that links research outputs and high quality teaching practice in the department?
- Are all researchers in your Faculty/Department/Schools involved in teaching?

- In what ways are 'non research-active' teaching staff mentored and encouraged to develop (a) a research/scholarly discipline-based approach to teaching e.g. by revising curricula and teaching materials to incorporate current research findings/controversies and (b) a research/scholarly approach to teaching and learning pedagogy?
- In what ways do research teams and course teaching teams link with each other? How specifically are these links facilitated?
- In what specific ways is research into teaching being supported in your Faculty/ Schools/Departments?

3. The TRN and the Curriculum

- In what specific ways is TRN manifested in units and courses? (e.g. through outcomes, processes, assessment items, use of specific learning methods like enquiry-based learning)
- Are there any Faculty/Departmental/School strategies for linking individual TRN activities at course level to ensure appropriate scaffolding/progression across the levels?

4. Supporting, Rewarding and Recognising Staff

- What staff development mechanisms exist to enhance the capacity of staff to (1) link discipline-based research and teaching and (2) engage in research about teaching and learning and to ensure that their knowledge, as it relates to undergraduate and postgraduate teaching, is current?
- In what ways are staff rewarded for engagement with the TRN? (e.g. part of performance appraisal, specific TRN awards, specific reference to the TRN in promotion criteria)

5. Engaging Students in the Departmental Research Culture

As you respond to these questions, you may wish to clarify whether you are referring to all students or a particular year level/cohort.

- In what specific ways is the Departmental/Faculty research culture and activity made visible to students?
- How are students made aware of the research activity in their departments? (e.g. through guest lectures, site visits)
- What opportunities do undergraduates have to participate in departmental research projects (e.g. as research assistants) and to disseminate their research findings and activities? Do you believe this is possible for first year students?
- What opportunities are there for students to become involved in the TRN outside formal courses? (e.g. through research seminars, 'observer' roles in research teams)
- In what specific ways is the TRN used to induct students into your disciplines' values, practices and ethics?

6. Monitoring and Evaluating the TRN

- In what specific ways is the TRN embedded in systems for approval and review of courses/subjects?
- In what ways is the TRN implementation monitored and evaluated within undergraduate and postgraduate teaching?

- How is the staff and student experience of the TRN monitored? How are results fed back into policies and practices?
- In what ways is work on the TRN in your Faculty/Department reported to the main university committees?
- What strategies do you use to assure the quality of teaching-research linkages in your local context? (e.g., do you benchmark your practices with other institutions?)

Self-Review Framework for Institutional Policy-Makers

This self-review framework is designed for institutional leaders and policy-makers. Ideally, we would suggest that both Deputy-Vice Chancellors (Vice-Presidents/Pro Vice Chancellors), Academic and Research respond to these questions collaboratively.

The purpose of the instrument is to raise awareness of the various dimensions of the teaching-research nexus (TRN) and to encourage academic leaders to consider ways in which they might make effective links between discipline-based research, learning and teaching across year levels and disciplines.

You do not need to answer all questions. We suggest that you:

- a) start by skimming through the six dimensions below so that you are aware of the range of ways in which the TRN might have a role to play in institutional policy-making in your university;
- b) then focus on an area(s) of particular interest and relevance to you and your university.

1. The TRN, Your Students and Staff

- In what specific ways do you think students at your university benefit from the connections between research and teaching?
- In what specific ways do you think staff at your university benefit from connecting research and teaching?

2. The TRN and University Policy

- In the context of your institutional mission statement, what importance does your university place on the TRN?
- Does your institution have a stated view on how it conceives the teaching-research nexus?
 - If no, would it be helpful to do so? What would be useful to include?
 - If yes, could it be improved to be more comprehensive/ useful?
- In what ways does the TRN feature in key policies at your university?
- What are the main reasons for promoting the TRN in your university? (e.g. developing synergies between teaching and research, enhancing the quality of teaching and learning, enhancing graduate attributes, developing a community of scholars)
- In what ways does the TRN interrelate with policy areas in the university? For example:
 - In what ways does research policy address linkages between teaching and research?
 - In what ways does teaching policy address linkages between teaching and research?
 - In what ways does community engagement policy articulate linkages between teaching and research?

3. The TRN in the Disciplines

- What are the structures that link institutional policy decisions with Faculty policy formulation? How have these been used in the dissemination of the TRN?
- In what specific ways is the TRN manifested in units and courses? (e.g. through outcomes, processes, assessment items, use of specific learning methods like enquiry-based learning)
- In what specific ways do Departments/Faculties at your university benefit from connecting research and teaching?

4. Resourcing the TRN

- What resources have been allocated for professional development activities concerning the TRN within the university community? (e.g. induction training, ongoing professional development)
- What specific resources are allocated to implementing policies that support the TRN at your university?

5. Recognising and Rewarding the TRN

- In what ways is the TRN reflected in HR policies relating to hiring, probation and promotion criteria and guidelines?
- What rewards are there for staff engagement with the TRN? (e.g. part of performance appraisal, specific TRN awards, specific reference to the TRN in promotion criteria)
- In what specific ways has research into teaching been supported in the last five years?
- Has a commitment among your staff to enhancing teaching-research linkages led to any positive benefits for the university e.g. external recognition through Carrick Awards, increased attractiveness to students, CEQ comments on the value of studying at your institution?

6. Monitoring and Evaluating the TRN

- What specific mechanisms are in place to monitor the development of the TRN at Faculty/Departmental level?
- In what specific ways is the TRN embedded in systems for approval and review of courses/subjects?
- How are the outcomes of professional development activities concerning the TRN evaluated?
- What indicators do you use to determine the impact of the TRN at your university?