



Engaging students in research

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Introduction

This resource is for academic staff who wish to develop a 'students as researchers' pedagogic approach. It focuses on the development of students' research skills, from the formulation of research questions through to the dissemination of findings. The resource is designed to introduce you to strategies for engaging your students in research and to promote reflection on how you can develop your own practice.

The development of research skills

Willison & O'Regan's (2007) Research Skill Development Framework includes six key steps in the research process: generating and framing questions; collecting information/data; evaluating information; organising information; analysing and synthesizing information; and communicating results. Although this sequence of research skills mirrors an idealised research process, the teaching of research skills need not follow the same sequence. For example, students do not need to generate questions in order to collect data. In fact Walkington, *et al* (2011) revealed that "asking and framing questions" is regarded as one of the most challenging skills to teach by academics. In addition, analysing secondary data may provide a good starting point for thinking about what would make a good research question or hypothesis. Because students can find their first experience of autonomous research very daunting, flagging skills as they are taught, practised and assessed within modules/courses, and mapping the development of research skills across a full degree programme can be very supportive for students.

Activity 1

How do you prepare your students for their first experience as an autonomous researcher?

Look at the programme that you teach on and think about the way in which research skills are introduced to students as they progress from Level 4 to Level 6. Which research stage is encountered at each level and in which modules are they taught, practised and assessed? You might find it helpful to complete the grid below as a course team by inserting all your modules into the grid. Now reflect on whether your students are as well prepared as they could be for their final year or 'capstone' research? Could Level 4 be utilised more effectively. Could engagement with research take place earlier or be more clearly articulated to students?

Task sheet: Mapping grid for programme-level research skills development

| Research stage | Level 4 | Level 5 | Level 6 |
|-------------------------------------------|---------|---------|---------|
| 1. Generating and framing questions | | | |
| 2. Collecting information/data | | | |
| 3. Evaluating information | | | |
| 4. Organising information | | | |
| 5. Analysing and synthesizing information | | | |
| 6. Communicating results | | | |

Strategies for student engagement with research

Ten strategies for engaging students with the research process can be found in Table 1 below. These can be used to engage students with research activities much earlier than the final year and help to prepare students for their final year or 'capstone' research project.

Activity 2

Which of these strategies are you already employing and which might help to engage your students further with the research process? Use Table 1 as a check list and decide on which of the options you are not already engaged in will be your starting point.

Table 1: Strategies for enhancing student engagement in research

| | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 1. Define 'research' broadly (research should be defined broadly so that all students feel they can engage as researchers from the start of their university experience) | |
| 2. Build research into course and programme requirements (you may have a 'research-led' or 'research-tutored' curriculum (Healey and Jenkins, 2009). Could you make the shift to research-based learning?) | |
| 3. Build research into Honours-level requirements (although most dissertations have to be research-based, some honours level work is taught and does not require independent work) | |
| 4. Embed the results of student research into the curriculum (use student research findings to inspire future cohorts to extend and improve on past projects) | |
| 5. Introduce students to the staff experience of research from year 1 (encourage students to interview staff about their research, this leads to greater dialogue between staff and students and more realistic student expectations about staff commitments) | |
| 6. Co-create a culture where students want to participate in research and expect to be involved (regular events to which students are invited could include lunchtime research seminars, student research conferences, student placements in research groups) | |
| 7. Highlight the employability benefits of research (make it explicit how research skills are integral to most employment options so students can market their skills and understand the importance of developing their thinking as researchers) | |
| 8. Link research opportunities to allow student progression from Level 4 to 5 to 6 (scaffold opportunities such as departmental conference participation by holding supportive conference sessions within modules. Scaffold writing development by asking students to write in journal article rather than essay formats) | |
| 9. Allow co-production of research with staff and/or peers (encourage student involvement in staff research projects and consider joint publishing) | |
| 10. Involve all members of the university community in celebrating undergraduate research (institutional journals, exhibitions, poster sessions and conferences, video clips of students sharing their research, blogs, etc) | |

References

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http://www.heacademy.ac.uk/assets/documents/resources/publications/DevelopingUndergraduate_Final.pdf
- Walkington, H., Griffin, A L., Keys-Mathews, L., Metoyer, S., Miller, W., Baker, R., and France, D. (2011). Embedding Research-Based Learning Early in the Undergraduate Geography Curriculum, *Journal of Geography in Higher Education* 35 pp. 1-16.
- Willison, J. & O'Regan, K. (2007). Commonly known, commonly not known, totally unknown: a framework for students becoming researchers, *Higher Education Research and Development*, 26(4), pp. 393-409.

Resources

HEA (2015). Framework for student engagement through research. York: HEA
<https://www.heacademy.ac.uk/enhancement/frameworks/framework-student-engagement-through-partnership>

The Engage in Research website has a wealth of student facing resources to support each step of the research process <http://www.engageinresearch.ac.uk/index.html>

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