Chapter 4
Life at the Research–Teaching Nexus:
The Role of Design

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EXECUTIVE SUMMARY

In this chapter, the authors show how research in design methods can be integrated with research in learning to teach students to cope with challenging, ill-defined problems. They provide examples of courses in which students are encouraged to see problems from different perspectives and reflect on the process of problem solving itself. This type of reflection has been woven into the authors' own teaching of Management in four ways: by engaging in reflective problem solving, by approaching problems as researchers would, by confronting theory with practice and building new theories, and by turning process into subject matter. The authors describe these approaches and provide examples of their application in practice.

BACKGROUND

Faculty in research-based universities often decry the impact of teaching on their research. In many minds, teaching and research productivity are negatively correlated: it stands to reason, in this worldview, that the more one teaches the less time one has to publish. Others, however, contend that research benefits teaching, on the

basis that those who generate research are more knowledgeable and therefore best positioned to impart its results. However, Hattie and Marsh (1996), in a meta-analysis of 58 studies, find that the relationship is zero. They comment that:

… institutions need to reward creativity, commitment, investigativeness, and critical analysis in teaching and research and particularly value these attributes when they occur in both teaching and research. Only when these attributes are recognized is it likely that the relationship between teaching and research will be increased. We advocate that a desirable aim of a university would be to devise strategies to enhance the relationship between teaching and research, and all should be pleased when they increase the relationship positively beyond zero.

Hattie and Marsh argue for *integration* of teaching and research by promoting essential qualities that are common to both. In this, they echo Boyer's (1990) landmark study for the Carnegie Foundation for the advancement of teaching, in which he advocated a broader definition of scholarship to encompass the scholarship of discovery, the scholarship of integration, the scholarship of application and the scholarship of teaching. O'Meara and Rice (2005) conducted a further study to assess the degree to which universities had implemented Boyer's recommendations, and found that there still remained much scope to recognize alternative forms of scholarship.

While institutions move slowly, some individual faculty members have taken the initiative and have shown how research and teaching can be integrated. Christensen and Carlile (2009), for example, argue that, when properly applied, case studies can turn teaching into research and provide a model of theory development in which students and faculty can learn together:

We have come to believe that instead of compartmentalizing research and teaching into separate realms, it might be more productive to think of teachers and students as partners in a collective enterprise of building, improving and using management theory (p. 250).

Research and teaching thus can be seen as related activities that complement each other, not just by deepening of the teacher's subject-matter knowledge, but through engaging students themselves in various aspects of research.

By working on a real-world project, students can learn to abstract from the specific problem they are faced with, to develop an understanding of themselves and how they can learn through their future lives. To accomplish this, teachers can work with them to address a specific problem, a process in which students are involved in the following activities:

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