

Editors' notes

This special issue demonstrates how “Decoding the Disciplines” not only provides a framework for inquiry into teaching and learning disciplinary concepts, but also holds much potential for bridging disciplinary thinking and teaching practice *across* disciplines, and serving as a tool for both teaching and curriculum development. In Chapter 1, together with our Faculty Learning Community (FLC) co-authors, we describe the “Decoding the Disciplines” FLC at Mount Royal University, including how it started as a faculty development initiative, and how it developed into various teaching, curriculum, and research projects which are presented in detail in subsequent chapters. We hope that others will use and extend this work to inform ways of thinking, practicing, and being for both teaching and learning in higher education.

Acknowledgements

The Academic Development Centre and the Institute for Scholarship of Teaching and Learning's TransCanada Collaborative Research Program, both at Mount Royal University, provided financial support for this work.

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David Pace, Joan Middendorf

Section One: Introduction to Decoding Across the Disciplines

1. Overview of Decoding Across the Disciplines

Jennifer Boman, Genevieve Currie, Ron MacDonald, Janice Miller-Young, Michelle Yeo, Stephanie Zettel

This chapter describes how Decoding the Disciplines work started as a faculty development initiative at Mount Royal University and how it developed into various teaching, curriculum, and research projects which are presented in this issue.

2. Uncovering Ways of Thinking, Practicing, and Being through Decoding Across Disciplines

Janice Miller-Young, Jennifer Boman

Common themes from Decoding interviews of seven diverse bottlenecks are described, with implications for both teaching and research.

Section Two: Theoretical Lenses

3. Conscious Connections: Phenomenology and Decoding the Disciplines

Genevieve Currie

Decoding interviews from seven diverse bottlenecks were analyzed from a phenomenological perspective, followed by a discussion of embodied knowing and implications for educators.

4. Decoding the Disciplines as a Hermeneutic Practice

Michelle Yeo

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5. Intuitions and Instincts: Considerations for Decoding Disciplinary Identities

Ron MacDonald

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This chapter describes how the Decoding process was used in a curriculum transformation process when changing to a competency-based model in Athletic Therapy.

Section Four: Synthesis

8. Learning from Decoding across Disciplines and within Communities of Practice

Jennifer Boman, Janice Miller-Young

The authors synthesize what has been learned from the theoretical and practical applications presented in this issue and make recommendations for future work.

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Foreword to *Using the Decoding the Disciplines Framework for Learning Across Disciplines*

David Pace and Joan Middendorf

You work on something for a long time and put it out for others to consider. You inevitably wonder: Will others grasp what you are trying to do? Will basic misunderstandings emerge that undermine the outcomes you are seeking, even when people believe that they are building on your work?

All of these concerns were on our minds when we began to publically present Decoding the Disciplines more than a decade ago. And that is why reading this volume has been such a joy. The truly impressive scholars of teaching and learning at Mount Royal University really got what we had been struggling to share. They got it and took this work in new directions that we had not explored.

Decoding the Disciplines emerged from the Indiana University Freshman Learning Project, a program designed to help instructors increase learning in their courses. Neither a method of instruction, per se, nor an abstract exploration of the nature of a discipline, Decoding provides a framework for identifying and remedying those elements of a course that are most problematic for students. From the FLP there emerged a seven step process in which instructors identify a bottleneck to learning, make explicit the mental operations required to overcome the obstacle, model the required steps for students, give them practice at these skills, deal with any emotional bottlenecks that interfere with learning, assess the success of their efforts, and share the results. What began as a program focused on learning issues on a particular campus was transformed into a vehicle for the scholarship of teaching and learning with the publication of

Decoding the Disciplines in an earlier issue of *New Directions for Teaching and Learning* and with the creation of the History Learning Project with Arlene Díaz and Leah Shopkow.

Decoding is now being explored by teams in at least ten countries, but none of these have done more to realize its potential than the instructors and educational developers who created this volume. In the early development of the Decoding paradigm we concentrated, of necessity, on relatively concrete and practical issues. Leah Shopkow added a greater theoretical dimension to this work with her explorations of the ways in which student misunderstandings of the epistemological orientations of particular disciplines could block learning. But we have not had the opportunity to fully explore the theoretical foundations of this work. Focusing on the second step in the process – making explicit the mental operations students must master – the group at Mount Royal has built on previous work and taken the model in entirely new directions. Their systematic, qualitative analysis of the Decoding interviews is a model for future work in this field, as is their application of phenomenology, hermeneutics, and identity theory to Decoding.

Secondly, they have made great contributions to our understanding of the mental operations that transcend disciplinary boundaries. In developing Decoding, we avoided too much discussion of shared patterns across fields, because of the danger that instructors would lose focus on the particular mental operations required in their courses in search for vague and generic patterns of critical thinking. But there are commonalities across disciplines that need to be explored systematically. This volume does just that, providing a model for the analysis of similar patterns of operating that must be mastered in multiple fields.

Next the Mount Royal group has focused on areas that had previously received less attention in Decoding – professional education and curriculum. They have realized that in these areas students need to master not only academic knowledge, but also the patterns of actions and

reactions that occur in a professional setting. They transformed their curriculum by using Decoding to unpack professional intuition and disrupt non-evidence based practices. Their efforts open up valuable areas for future work.

Finally, the work of this team provides a marvelous example of the collaborative nature of Decoding. From its beginning the paradigm has built upon interaction of faculty across disciplines, since encountering the basic operations in other fields is a crucial element in recognizing those in one's own. Using Decoding the Disciplines as the guiding process in Faculty Learning Communities motivates instructors to dig deeply into the nature of their disciplines and to find creative ways to share it with their students. That power is visible in every page of this volume. Whether they are exploring the dimensions of professional education or considering how best to help students build a bridge in Honduras, the authors are using to great advantage the emotional energy and insights generated by being part of a team. Thus, while this volume concentrates on the second step of Decoding, it is also a marvelous example of the seventh step – sharing.

This book is a wonderful place to begin an exploration of the rapidly expanding Decoding paradigm. The reader can move from here to discussions of the other steps of the process and to alternatives to the interview process through the works mentioned in the notes or in our forthcoming books (David Pace, *The Decoding the Disciplines Paradigm: Higher Education as if Students Really Mattered*, Indiana University Press and Joan Middendorf and Leah Shopkow, *Decoding the Disciplines: How to Help Students Learn Critical Thinking*.) But the work of the team at Mount Royal University represents a major contribution to the development of Decoding the Disciplines, and instructors from all fields will find this work enlightening.